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**УПРАВЛІННЯ ПРОЄКТАМИ ТА ФІНАНСОВО-ЕКОНОМІЧНА БЕЗПЕКА
В УМОВАХ ГЛОБАЛІЗАЦІЇ****Олейнікова Л.Г., Нурліхіна Г.Б., Лєп'єхін О.В.**

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Key words:

flexibility, adaptability, enterprise, uncertainty, viability, survival, market, business environment, competitiveness

In today's unstable economic conditions, many domestic enterprises are on the verge of survival. Therefore, the issue of creating conditions to ensure their flexible behavior is relevant in order to quickly adapt financial and economic activities to an unstable market environment which has become the main factor in the viability of the enterprise in the market competition. It is substantiated that the flexibility of the enterprise is to create conditions to ensure its maneuverability, efficiency and adaptability as an appropriate response to changes in external and internal environment in order to prevent problems that may arise. It is established that the practical interest in the formation of flexible behavior of the enterprise has its delimitation into external and internal, which will allow to adapt to changes in market conditions and financial capabilities of the enterprise. It is proved that the formation of flexible behavior of the enterprise should be carried out on an innovative basis through the interconnection of its components: production flexibility; marketing flexibility; assortment flexibility; financial flexibility; innovative flexibility. It is substantiated that it is impossible to ensure flexibility of enterprise's behavior in an unstable business environment without its evaluation. The level of flexibility of the enterprise should be evaluated on the basis of an integrated indicator. However, the existing methods of its calculation are usually complex and not enough to reflect the factors that determine its level. Therefore, such approaches of calculating the level of flexibility of the enterprise are often problematic to effectively apply in practice. It is established that restructuring is the tool of flexibility formation for financially insolvent enterprises; for financially stable enterprises – reforming the system of commodity flows, the formation of the optimal flow process; for economically strong enterprises – increase the investment potential on an innovative basis.

ГНУЧКІСТЬ ПОВЕДІНКИ ПІДПРИЄМСТВА ЯК НЕОБХІДНА УМОВА ЖИТТЄЗДАТНОСТІ В НЕСТАБІЛЬНОМУ СЕРЕДОВИЩІ

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гнучкість, адаптивність, підприємство, невизначеність, життєздатність, виживання, ринок, бізнес-середовище, конкурентоздатність

В сучасних нестабільних умовах господарювання багато вітчизняних підприємств перебувають на межі виживання. Тому актуальним є питання формування умов для забезпечення їх гнучкої поведінки з метою швидкої адаптації фінансово-господарської діяльності до нестабільного ринкового середовища, що стало головним фактором життєздатності підприємства в конкурентній боротьбі. Обґрунтовано, що гнучкість підприємства полягає в створенні умов для забезпечення його маневреності, оперативності та адаптивності як відповідної реакції на зміни зовнішнього і внутрішнього середовища з метою попередження проблем, що можуть виникнути. Встановлено, що практичний інтерес стосовно формування гнучкої поведінки підприємства має розмежування її на зовнішню і внутрішню, що дозволить адаптуватися відповідно до зміни ринкових умов господарювання

і фінансових можливостей підприємства. Доведено, що формування гнучкої поведінки підприємства слід здійснювати на інноваційній основі через взаємозв'язок її складових: виробничої гнучкості; маркетингової гнучкості; асортиментної гнучкості; фінансової гнучкості; інноваційної гнучкості. Обґрунтовано, що забезпечити гнучкість поведінки підприємства в нестабільному бізнес-середовищі неможливо без її оцінювання. Рівень гнучкості підприємства слід оцінювати на основі інтегрального показника. Проте існуючі методики його розрахунку як правило складні і недостатньо комплексно відображають фактори, що визначають її рівень. Тому такі підходи до оцінки рівня гнучкості підприємства часто проблематично ефективно застосувати на практиці. Встановлено, що для фінансово неспроможних підприємств інструментом формування гнучкості є реструктуризація; для фінансово стійких підприємств – реформування системи товарних потоків, формування оптимального потокового процесу; для економічно сильних підприємств – збільшення інвестиційного потенціалу на інноваційній основі.

Statement of the problem

Market transformation of Ukraine's economy system has put enterprises as economic entities in fundamentally new conditions for functioning in a competitive market environment, characterized by dynamism, variability and risk. It puts forward the new requirements for the nature and mechanisms of enterprise's management in terms of their adaptability, ability to actively respond to changes in external and internal environment in order to ensure competitiveness and sustainable dynamic development. It is about the flexibility of the enterprise, the inner essence of which is the appropriate response to the challenges of the business environment.

The problem of enterprise flexibility is actualized by the complication of economic relations and the intensification of competition, which is associated with the inclusion of the national economy in international economic processes.

The enterprise as a socio-economic system has the highest level of unpredictability of decision results. Managers often have to develop management decisions in conditions of insufficient or unreliable information, and the results of their implementation do not always coincide with the planned ones. The main reasons for the uncertainty of the external environment are: uncertainty and randomness of many economic processes; high cost of obtaining relevant information. Uncertainty of the external environment leads to increased risks and losses in the course of management decisions, which threatens the company with a financial crisis. In such conditions, the key factor in the successful viability of the enterprise is the speed and adequacy of its management's response to changes in the enterprise environment, ie flexibility.

Analysis of recent studies and publications

Such scientists as I. Ansoff [1], G. Minzberg [2], O.V. Grachev [3], L.A. Machkur [4], N.M. Shmatko [5] and others have paid in-depth attention to the study of the problem of economic flexibility of enterprises.

The scientists note that economic flexibility is the basis for the adaptation of the enterprise in an unstable environment, which helps to create conditions for its effective operation and development. In their research, they focus on the components of economic, in particular financial flexibility, and the factors that influence the

formation of flexibility of the production system. Most scientists believe that the determining of the level of economic flexibility of the enterprise should be based on the following algorithm: analysis of partial indicators of economic flexibility; calculating of economic flexibility based on an integrated indicator. All researchers point out that there is a direct correlation between the economic flexibility of the enterprise with the provision of financial resources, their structure.

Objectives of the article

The main aim of the article is to study approaches of interpreting the essence of enterprise's flexibility and calculating the level of economic flexibility of industrial enterprises, identifying their advantages and disadvantages and making conclusions about the feasibility of their use in the practice of functioning and development of corporate structures.

The main material of the research

One of the main shortcomings of the entire previous stage of development of the domestic industrial complex is the low ability of most enterprises to respond quickly to market needs, and therefore they were unprepared for the conditions of fierce competition.

Studies show that in this situation, one of the most effective directions for further development of domestic industry is to increase the degree of adaptation and flexibility of enterprises to market needs, which has become a major factor in the viability of the enterprise in competition.

The concept of flexibility is interpreted differently, and today there is no definition that would fully reveal the essence of this concept. There is no accordance among scientists on the interpretation of differences and the relationship between the definitions of flexibility, adaptability and resilience of enterprises, which complicates the search for prospects for creating an effective system for managing their flexibility as a means of strategic and tactical competitiveness.

The proposals of scientists to define the essence of the term «flexibility» are presented in table 1.

In our opinion, the flexibility of the enterprise is to create conditions to ensure its maneuverability, efficiency and adaptability as an appropriate response to changes

Table 1 – The proposals of scientists to define the essence of the term “flexibility”

Author, the source	Definition
Large explanatory dictionary [7]	Flexibility – the ability to skillfully and quickly adapt to various circumstances associated with the automatic readjustment of equipment to the changing needs of production.
Economic encyclopedia [9]	Flexible production systems – a set of means of production that have the ability to quickly re-equip for the production of other products.
Economic encyclopedia-electronic [8]	Flexibility – the choice of the most rational and effective forms of market activity, entrepreneurship, their changes in accordance with market conditions in order to ensure the profitability of business entities.
Grachov O.V. [3]	Flexibility of the enterprise – the ability of the business entity to update the range of products through organizational and technological changes in production and management of the enterprise, to ensure profitability and competitiveness of its activities.
Ansoff I. [1]	Flexibility – the organization of the company's funds, which allows you to quickly and efficiently move to new products.
Sethi A.K., Sethi S.P. [10]	Flexibility is the ease with which an organization can increase its capacity and capabilities when needed.

in external and internal environment in order to prevent problems that may arise.

Thus, the vast majority of scientists define flexibility in general as the ability to easily change, skillfully and quickly adapt to conditions and circumstances.

We consider that the practical interest in managing the formation of enterprise flexibility is the proposal [1] to distinguish two types: external and internal (Fig. 1).

External flexibility is achieved through the use of a diversified model of market investment, and internal flexibility is expressed in the liquidity of resources.

Offensive flexibility is much less pronounced, it is harder to achieve. Here, the company must strive to increase the efficiency of innovation.

The main task of internal flexibility is to create a mechanism for responding to sudden complications. This is especially true for small businesses, which should have higher internal capabilities to counter the sudden deterioration of the economic situation.

I. Ansoff prefers external flexibility of the enterprise in comparison with internal flexibility.

Researches show that to ensure the flexibility of the company it is required, first of all, to monitor the external environment, to model possible relationships of the internal environment of the enterprise with market factors, which gives reason to understand the patterns of opportunities to achieve their own goals with strategic and tactical actions of competitors, industry attractiveness, changing consumer preferences, etc.

According to the need to focus on managerial innovation to ensure flexibility as a priority in the formation of strategic and tactical advantages of the enterprise as an open economic system operating in a global environment, efficiency in managing the flexibility of the enterprise should be achieved through the relationship of such components as:

- production flexibility – is associated with the capabilities of the internal environment of the enterprise and is characterized by the length of time spent and additional costs in the transition to the production of a new range of parts, as well as the diversity of this range. In this context, all indicators of production flexibility relate

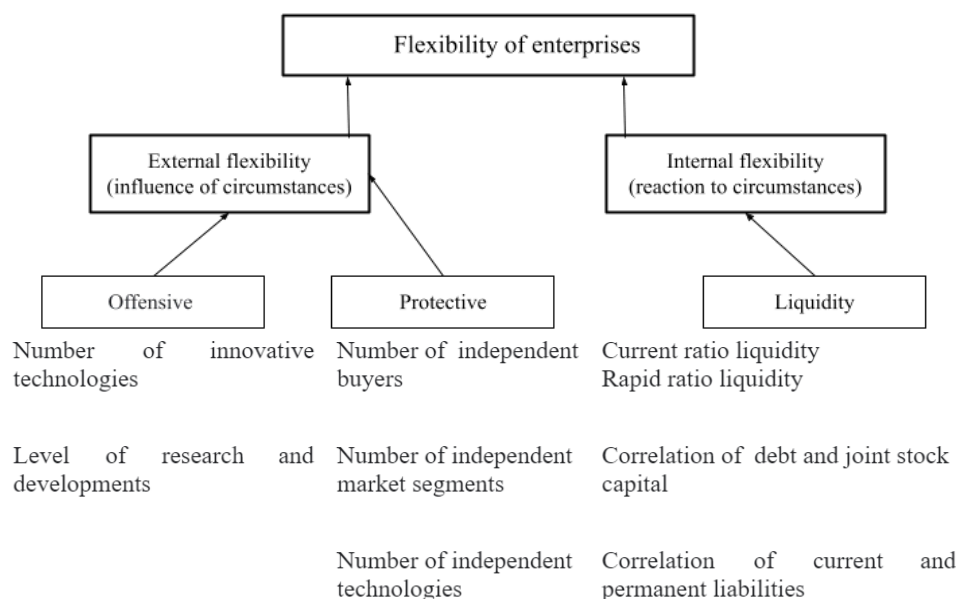


Fig. 1. Types of enterprise’s flexibility [1]

mainly to technological production systems such as flexible automated production, it certainly affects the mobility of the enterprise, but can not characterize it as a whole. In this case, flexibility indicators are usually measured in relative terms, so they are convenient for comparing systems and forecasting trends, but can not guarantee the successful operation of the enterprise in a market environment without taking into account the factors of flexibility associated with the enterprise as a subsystem higher order – competitive environment;

- marketing flexibility – the company's ability to make timely decisions in the field of marketing taking into account changes in consumer needs, company requirements, long-term consumer interests and long-term interests of society based on innovation and constant updating of products to meet the needs of different market segments;

- assortment flexibility – is associated with the need to develop the product range based on market environment monitoring and the use of the latest marketing research technologies to anticipate possible changes in consumer demand and the emergence of new needs in the market environment. In addition, important factors in the development of the product range are: the feasibility of using spare capacity; the desire of intermediaries to purchase a wide range of goods; expediency of using by-products of production;

- financial flexibility – allows you to effectively manage the processes of formation, distribution and use of financial resources and funds in an uncertain environment and lack of time for decision-making. Current theory and practice of management offers a wide range of financial instruments, the situational use of which allows to increase the flexibility of the enterprise, especially in times of crisis (problems with obtaining loans, delaying the approval and implementation of projects, etc.);

- innovative flexibility – the ability of an entity to use new ways and areas of realizing the potential of the enterprise in a changing environment, within the chosen mission and accepted motivation, and which is associated with the modification of existing and new markets.

Today, the problem of strategic flexibility as the main way of survival of enterprises in a complex and changing environment is acute for domestic enterprises. The goal of strategic flexibility management is associated with achieving the optimal level of efficiency and competitiveness of goods and the enterprise as a whole [10].

Renowned American manager of management G. Minzberg outlines a debatable question: what exactly is provided by the strategy: flexibility or stability? In this regard, he points out that the basis of any strategy is a fundamental dilemma – the need to reconcile two disparate principles: stability and variability. On the one hand, achieving the maximum effect involves the concentration of efforts, and on the other – the necessary adaptation to changing conditions [2].

The tactical flexibility of the enterprise involves the development of measures to achieve strategic goals and covers the issue of adaptation to the «payment crisis», short-term fluctuations in demand, shortages of labor and raw materials and more.

Operational flexibility refers to the organizational capacity to solve problems of current debt, eliminate deviations of the technological process from the planned schedule, resolve conflicts with partners.

Within the management of enterprise flexibility, the key role is played by the problem of its evaluation, without which it is impossible to make informed decisions in this area. Attempts to solve this problem were made in the works of scientists such as O.V. Grachev, L.A. Machkur, S.O. Komarinets, N.M. Shmatko, etc., but a common, generally accepted approach to assessing the flexibility of the enterprise in modern management science has not yet been formed.

The scientist O.V. Grachev [3] to measure the flexibility of the enterprise proposes to use a comprehensive indicator containing two components: the first takes into account the financial capabilities of the enterprise to develop its flexibility and is formed by indicators that are factors in profitability; the second is an assessment of the organizational and technological prerequisites for the creation of flexible production and is expressed by the coefficient of consolidation of operations.

The scientist L.A. Machkur [4] applies a more comprehensive approach, proposing to calculate the integrated indicator of flexibility of the enterprise on the basis of three groups of partial indicators: internal flexibility, external defense flexibility and external offensive flexibility.

The set of indicators proposed by the author to determine the integrated flexibility index of the enterprise mainly contains indicators that characterize the flexibility of certain functional areas of its activities (marketing, supply, production, innovation, financial management, information resource management), and therefore does not allow us to calculate the real flexibility of the enterprise and make informed management decisions.

According to N.M. Shmatko, among the components that determine the level of flexibility of the enterprise, it is advisable to highlight the number of states of the system, the flexibility of which is assessed, and the duration of the transition from one state to another. To do this, he proposes to identify the main functions in each business process, and for each function to form a list of functional states, ie states of the business process, characterized by alternative options for implementing a particular function [5].

The procedure for calculating the level of flexibility of the enterprise, according to the author, should include the following stages:

1. Determining the process structure of the enterprise.
2. Selection of subprocesses within each individual business process, which are relatively homogeneous in terms of functionality.
3. Determining the speed of transition from one method (procedure, technology) to implement the process to another.
4. Calculation of values of indices of flexibility of separate business processes.
5. Calculation of the value of the integrated flexibility index of the enterprise.
6. Interpretation of the value of the integrated flexibility index of the enterprise.

In our opinion, the considered approaches to the assessment of enterprise flexibility do not comprehensively reflect the factors that determine its level. Most of them are aimed at determining the level of flexibility of the enterprise due to factors, some of which are not directly related to the flexibility of the enterprise. In addition, to implement such complex proposed approaches in practice is quite problematic.

Conclusions

One of the main mechanisms for ensuring the efficiency of the enterprise in an unstable environment is the flexibility of its economic behavior. The main element of this complex concept is the ability of the enterprise to effectively implement alternative development options. Clarification of the concept of flexibility of economic behavior of the firm allows to more accurately determine the mechanism of its increase.

We consider that the flexibility of the enterprise is to create conditions to ensure its maneuverability, efficiency

and adaptability as an appropriate response to changes in external and internal environment in order to prevent problems that may arise.

Determining the flexibility of enterprise behavior should take into account external flexibility (offensive and defensive) and internal flexibility. The first is leading, which provides strategic flexibility through the introduction of innovations in business processes. The second – should provide operational flexibility based on the formation of the required level of liquidity of assets.

In order to effectively manage the flexibility of the enterprise, a key role should be given to the problem of its evaluation, as a generally accepted approach to assessing the flexibility of the enterprise in modern management science has not yet been developed.

The basic tools of the algorithmic process of ensuring the flexible development of the enterprise, interconnected, are restructuring, logistics and capitalization, which provides a dynamic, sustainable development of the enterprise.

References

1. Ansoff I. (1999). *New corporate strategy* / transl. from English. St. Petersburg : «Piter». [in Ukrainian]
2. Minzberg G., Quinn J.B., Goshal S. (2001). *Strategic Process* / Yu.N. Kapturevsky (Ed.). St. Petersburg : «Piter». [in Ukrainian]
3. Grachov, O.V. (2006). *Management of enterprise flexibility development : extended abstract of candidate's thesis*, Kharkiv. [in Ukrainian]
4. Machkur, L.A. (2003). *Information and analytical support of strategic control of enterprises in the conditions of economic transformation : extended abstract of candidate's thesis*. Lviv. [in Ukrainian]
5. Shmatko, N.M. *Methodical approach to assessing the flexibility of the enterprise*. Retrieved from: http://www.kpi.kharkov.ua/archive/наукова_періодика/вестник
6. Vasilenko, V.O. (2005). *Anti-crisis management of the enterprise* (2d ed.). Kyiv : Center for Educational Literature. [in Ukrainian]
7. Busel, V.T. (Ed.). (2004). *Large explanatory dictionary of the modern Ukrainian language*. Kyiv, Irpin : VTF Perun. [in Ukrainian]
8. *Economic encyclopedia*. Retrieved from: <http://www.enbv.narod.ru/text/Econom/encyclo/s tr/E-257.html>
9. Mochernyy, S.V. (Ed.). (2000). *Economic encyclopedia* (Vol. 1). Kyiv : Academy. [in Ukrainian]
10. Sethi, A.K. & Sethi, S.P. (1990). Flexibility in Manufacturing: A Survey. *The International Journal of Flexible Manufacturing Systems*. No. 2. P. 289–328. [in Ukrainian]

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A JUSTIFICATION OF THE IMPORTANCE OF STRATEGIC AND INNOVATIVE DEVELOPMENT OF INDUSTRIAL ENTERPRISES

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Key words:

innovation,
innovation management,
innovation strategy,
innovation activity

The article studies theoretical and methodological foundations of the formation of innovation strategies for managing the economic activity of industrial enterprises. It has been established that innovations and innovative processes are the main source of increasing the competitiveness of enterprises. It has been also noted that the level of state intervention greatly affects the development of new technologies. The main criteria, which the strategy of the enterprise must meet, have been determined. Creating a strategy for innovative development of enterprises is a set of actions and methods for managing innovation activities of the subjects of enterprise. This ensures their competitive advantage. The scheme of formation of strategic innovative development of the enterprise in the interplay of goals of the enterprise and resource components has been given. The main components of the strategy of innovative development of enterprises have been determined. The recommendations on how to improve innovation activities of industrial enterprises have been developed. It is noted that due to the events of the current year, the war may hinder the already existing direction of science and innovation in the industrial environment. It should be noted that the process of development and production potential of the enterprise for achieving certain strategic goals is a series of systematic interconnected actions, but not a one-time process. It has been noted that the share of implemented innovative products in the volume of industry in 2019 was 1.3%. It is confirmed that an indicator of the efficiency of the innovation strategy implementation is the innovation activity of the enterprise. It was found that the competitiveness of products is a multifaceted concept, which includes: the conformity of the goods to market conditions; necessary needs of consumers not only for their quality, technical, economical, environmental, commercial; and other conditions of their implementation. Therefore, each level of planning at the enterprise must be aligned to innovative development. Thus implementation of innovation strategy within any enterprise lies in the management of innovation transformations, which combines the methods of strategy, innovation management and project management.

ОБҐРУНТУВАННЯ ВАЖЛИВОСТІ СТРАТЕГІЙ ІННОВАЦІЙНОГО РОЗВИТКУ ПРОМИСЛОВИХ ПІДПРИЄМСТВ

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Ключові слова:

інновації,
інноваційна активність,
інноваційна діяльність

У статті розглянуто теоретико-методичні засади формування інноваційних стратегій управління економічною активністю промислових підприємств. Встановлено, що інновації та інноваційні процеси є основним джерелом підвищення конкурентоспроможності підприємств. Також зазначено, що ступінь втручання держави в великій мірі впливає на процес розвитку інноваційних технологій. Визначено основні критерії, яким має відповідати стратегія підприємства. Створення стратегії інноваційного розвитку підприємств - це комплекс дій і методів управління інноваційною діяльністю суб'єктів підприємництва, що забезпечують їх конкурентні переваги на інноваційній основі. Наведена схема формування стратегічного інноваційного розвитку підприємства у взаємодії цілей підприємства та ресурсної складової. Виділено основні складові стратегії інноваційного розвитку підприємств. Розроблено рекомендації щодо покращення

інноваційної діяльності промислових підприємств. Зазначено, що події сьогодення, війна може остаточно поховати вже існуючі напрацювання науки та інновацій в промисловому середовищі. Слід зазначити, що управління розвитком і використання виробничого потенціалу підприємства задля досягнення певних стратегічних цілей є серією систематичних взаємопов'язаних дій, а не одноразовим процесом. Визначено, що частка реалізованої інноваційної продукції в обсязі промисловості у 2019 році становила 1,3 %. Підкреслено, що показником ефективності застосування інноваційної стратегії є інноваційна активність підприємства. Визначено, що конкурентність продукції багатогранне поняття, що включає відповідність товару умовам ринку, необхідним потребам споживачів не тільки за своїми якісними, технічними, економічними, естетичними, комерційними та іншими умовами їх реалізації. Отже, кожен рівень планування на підприємстві повинен спрямовуватися на інноваційний розвиток. При цьому реалізація інноваційної стратегії на підприємстві полягає в організації управління інноваційними перетвореннями, що за своїм змістом поєднує в собі методи стратегічного, інноваційного управління та менеджменту проектів.

Problem statement

Sustainable development of businesses in the modern economy depends on the innovative component of enterprises. Modern science does not have any dogma. Current theory and practice approaches to managing innovation activities of enterprises and assessment of the level of its development do not contain clear, unambiguous interpretations of the criteria for choosing the strategy of innovative development as well as the tools and methods of stimulating the implementation of innovations in specific situations.

Analysis of recent studies and publications

Significant attention to the formation of innovation strategies in industry is given in the works of such scientists Shmatko N.M., Pantelieiev M.S., Karminska-Belobrova M. V., Yepifanova I.Y., Kriukova I.O., Nepochatenko V.O., Karpov A.L., Nekrasova L.A., Monich O.V.

Analyzing the research of the above-mentioned scientists, we can conclude that innovation and innovation processes are the main source of increasing the competitiveness of enterprises and the state.

Formulation of goals

The main purpose of this work is to analyze the innovation activity of industrial enterprises in Ukraine. In particular, identifying disadvantages under the current conditions of economic management.

Laying out the main material of the research

One of the ways to ensure dynamic development of innovation potential of industrial enterprises is not only a way to success, but also a way to ensure the safety and sovereignty of the enterprise and its competitiveness in today's world.

Globalization and modern communication technologies provide opportunities for the development and creation of successful innovative enterprises and clusters, despite the general technological backwardness, low purchasing power of consumers and territorial remoteness, through the inclusion in the international lanes of value creation [1].

Reluctance of private investors to invest money in innovative development, leads to the limiting of the process

of development of innovative technologies. The level of intervention of the state greatly affects the process of development of innovative technologies. It must not only carry out the financing of innovation activities, but also to conduct policies aimed at creating a favorable economic climate for the implementation of innovation processes. When we formulate a strategy of innovation development of an individual business, two indicators must be taken into account: innovation activity of the enterprise and general innovation potential of the region [2].

The enterprise strategy must meet the following criteria:

- the most important direction of development of business activities;
- originality of the enterprise;
- resources (financial, labor, material) required for exploitation;
- possible profits obtained as a result of the development [3].

Creating the enterprise's innovative development strategy is a complex of actions and methods of management of innovative activity of the subjects of the enterprises. This will provide them a competitive advantage due to their innovation.

The choice of innovative development strategy is made on the basis of the impact of the totality of factors of the external and internal environment of the functioning of the subject of management, priority directions of innovation policy of the state, the actual state of development of scientific and technological and human resource potential in the economy of the country, etc. At the same time such strategies allow to solve social and economic problems due to the use of modern achievements of science and technology, which are determined by the set and structure of functional elements of strategies (Fig. 1). The analysis of scientific research of theoretical and methodological aspects of innovation development strategies in domestic and foreign practice allows us to identify the main components:

- 1) goals and main objectives of the innovative development strategy;
- 2) innovation policy of development of a particular branch of production and its elements;

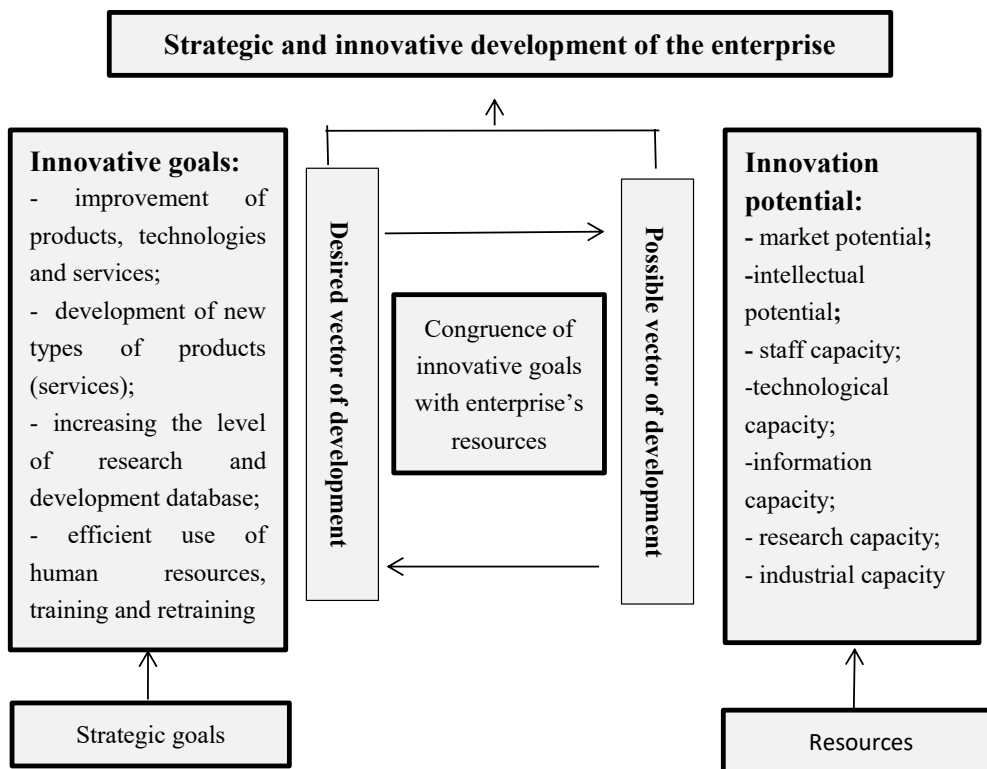


Fig. 1. Formation of innovative development strategy of the enterprise in the interaction of the objectives of the enterprise and the resource constituent

- 3) Priority areas of ensuring the implementation of innovation policy;
- 4) structural changes in the sphere of institutional management;
- 5) available resource and production potential of the company;
- 6) implementation of innovation potential [4].

During the last few years Ukraine has not had an effective innovation strategy that would be taken into account and supported by all categories of domestic innovators and experts. The situation in the industrial sector is very difficult – all the governments of the previous years could not introduce substantial changes in this area, and the trend of general deindustrialization of the economy of the country became dominant in the last few years. Due to the events of the current year, the war may hinder the already existing trends of science and innovation in the industrial environment. On the other hand, it provides new opportunities. Will we be able to use them fully and properly utilize the innovative ecosystems of recent years? Or, maybe, it is necessary to change such relations radically? [5].

Efficient innovation strategy of an enterprise must combine different approaches and take into account both internal and external factors. Also innovation strategies of large, medium and small enterprises will differ significantly, taking into account their resources and capabilities.

It should be noted that the management of development and use of production potential of the enterprise to achieve certain strategic goals is a series of systematic interconnected activities, rather than a one-time process. At

the same time, the organizational and economic mechanism of management of productive potential must act both in the short and long terms. The diversity of factors of the external and internal environment and methods of influence on them necessitates adherence to the principles of consistency and complexity when selecting the management mechanism, which will allow to obtain the optimal result from the impact on the object of management.

An integrated approach to the examination of the production potential of an industrial enterprise requires:

- the identification of the technological element as a profiling one;
- determination of criteria that allow the current state of this component to be evaluated;
- determination of the level of influence (dependence) of the criteria of the profiling component on other components;
- development of methods of calculation of specific indicators and determination of their standard values;
- determination of sources of financing of modernization projects as an external, internal or complex factor.

In 2019 782 enterprises carried out innovative activities in industry. At the same time, the share of the number of industrial enterprises that implemented innovations (products and/or technological processes) in the total number of industrial enterprises was 13.8%.

From the total number of innovatively active enterprises the following was performed: internal and external RD (research and development) – 24.4%; purchase of machinery, equipment and software – 64.7%, purchase of external knowledge – 4.5%, other works – 20.6% of

enterprises. In terms of economic activity, the largest share of innovatively active enterprises is in the production of food products – 16.8%, production of machinery and equipment, N.I.O.U. (not included in other units) – 10.2%.

In 2019 enterprises spent UAH 14220.90 million on innovations, including procurement of machines, equipment and software – 10185.11 million, for internal and external research and development – 2918.85 million, 37.49 million for acquisition of other external knowledge (acquisition of new technologies) and 1079.45 million for other work related to creation and implementation of innovations (other costs). The share of costs for the purchase of machines, equipment and software compared to 2018 increased from 68.1% to 71.6%. At the same time, the share of spending on research and development (RD) decreased from 26.3% in 2018 to 20.5% in 2019, for the procurement of other external knowledge – from 0.4% to 0.3%. At the same time the share of spending on other costs has increased, including marketing and advertising from 5.2% to 7.6%.

The share of expenses for scientific and scientific-technological works in GDP (gross domestic product) in 2019 was 0.43%.

The share of implemented innovative products in the volume of industry in 2019 was 1.3% [6].

The steady industrial development of technologically developed countries is impossible without the development of the Ukrainian aviation industry, which continues to take one of the leading roles in the field of aviation development and belongs to the group of nine countries that have a closed technological cycle of creation and production of aviation technology [7].

An example is Motor Sich, one of the largest companies in the world, which develops aircraft engines and industrial gas turbine units. The company implemented a full cycle of production of aviation engines, ranging from design, manufacturing and validation and ending with the supervision of the operation and repair. Competitiveness of products is a multifaceted concept, which includes the compliance of goods with market conditions, the necessary requirements of consumers not only for their quality, technical, economic, environmental, commercial and other conditions of their implementation (price, delivery dates, distribution channels, service, advertising).

Motor Sich, being a leader in the Ukrainian aircraft industry, produces a wide range of aviation engines for airplanes and gynecycles of various purposes.

During the 4th quarter of 2021 the company «Motor Sich» faced the following risks:

Spreading of the pandemic virus COVID-19 in Ukraine and worldwide led to the introduction of strict quarantine measures, which caused a maximum limitation of functioning of public and private institutions. Due to the sharp decrease in the volume of export-import activities the pace of production was reduced, which led to significant financial losses.

Risks in the sector are caused by the specifics of the company's products, which are not of great demand on the Ukrainian market until the beginning of the events in 2022 (the order from the State Concern Ukroboronprom, which

is the strategic producer of armor and military equipment in Ukraine). At the same time, the work on foreign markets requires constant competition with foreign manufacturers. That is why an active and consistent marketing policy, focused on finding new counterparties and expanding markets is the main task of the company to ensure a stable pace of production.

Financial (currency) risks. JSC (Joint Stock Company) «Motor Sich» became the most vulnerable at the time of the introduction of military operations on the territory of Ukraine. As the company remains export-oriented with a very long cycle of production, it has to face currency risks, caused by adverse changes in foreign currencies. It can be counteracted by choosing currencies with stable exchange rate indicators, such as the U.S. dollar and the euro, as the currency of the contract.

Legal Risks. The war on the territory of Ukraine, incomplete and excessive legislative and regulatory framework, as well as the introduction of legislative restrictions and sanctions from the side of other countries, lead to legal risks, such conditions have a negative impact on the external economic activities of the company.

In the fourth quarter of 2021 while performing export operations, Motor Sich had problems with receiving approvals from the State Service for Export Control of Ukraine (SSECU): the procedure of obtaining permits for international transfers of military and dual-use goods was lengthy and time-consuming; difficulties with prompt fulfillment of warranty obligations for exported products due to the need to obtain permits for export of both the service under the warranty and the goods for its implementation (spare parts, tools and others).

To reduce legal risks, Motor Sich regularly monitors changes in legislation and, if it is necessary, initiates amendments to existing regulations in the field of export control and customs clearance of goods [8].

Conclusion

Enterprise management is the basis of enterprise efficiency. Opportune and correct management decisions ensure full achievement of strategic goals and further development of the enterprise.

Today it is necessary to take additional measures to enliven the production, scientific and innovative potential. It is essential to use positive foreign experience of creating innovation ecosystems in the domestic practice in order to accelerate the activation of innovative activities of industrial production in modern conditions. The most widespread practice is to create an ecosystem of innovations for the medium and small innovative business to satisfy its own needs and productive export. The widest practice in this field is industrial parks as an effective tool to influence the social and economic development of the country and to increase the level of competitiveness of a particular region.

Therefore, each level of planning at an enterprise must target the innovative development. In this case, implementation of innovation strategy at the enterprise means organization of management of innovation transformations which combines methods of strategy, innovation and project management.

References

1. Drucker, P. (1994). *Yak zabezpechyty uspikh u biznesi* – [How to ensure business success]. Kyiv. 314 p. [in Ukrainian]
2. Petrova, I.L., Shpilova, T.I. & Sisolya, N.P. (2010). *Innovatsiyna diyal'nist': stymuly ta pereshkody* – [Innovation: incentives and barriers]. Kyiv. 320 p. [in Ukrainian]
3. Salikhova, O.B. & Sheludko, N.M. (2020) *Instytutsiyni ta finansovi mekhanizmy stymulyuvannya tekhnolohichnykh innovatsiy u promyslovosti: dosvid Frantsiyi, uroky dlya Ukrayiny* – [Institutional and financial mechanisms for stimulating technological innovation in industry: the experience of France, lessons for Ukraine]. *Ekonomika promyslovosti – Industrial Economics*. No. 2(90). P. 5–27. [in Ukrainian]
4. Shkarlet, S.M. (2007). *Ekonomichna bezpeka pidpryyemstva: innovatsiynyy aspekt* – [Economic security of the enterprise: innovative aspect]. Kyiv. 435 p. [in Ukrainian]
5. Petrova, I.L., Borysenko, Z.M. & Dyshlyuk H.I. (2012). *Innovatsiyni zasady ta vymiry stratehichnoho rozvytku pidpryyemstv Ukrayiny* – [Innovative principles and dimensions of strategic development of enterprises of Ukraine]. Kyiv. 355 p. [in Ukrainian]
6. *Naukova ta innovatsiyna diyalnist v Ukrayini* – [Scientific and innovative activity in Ukraine]. URL: <http://www.ukrstat.gov.ua> [in Ukrainian]
7. Golovatyuk, V. *Innovatsionnoye razvitiye ukrainskoy ekonomiki – mirovoy kontekst* – [Innovative development of the Ukrainian economy – world context]. URL: <http://gazeta.zn.ua/science/innovacionnoe-razvitie-ukrainskoy-ekonomiki-mirovoy-kontekst> [in Ukrainian]
8. *Kontseptsiya podalshoho rozvytku innovatsiynoyi diyalnosti v Ukrayini. Proekt* – [The concept of further development of innovation in Ukraine. Project]. URL: www.minindustry.crimea-portal.gov.ua/rus/downloads/koncept.doc [in Ukrainian]
9. Lobunska, S.V. (2012). *Podkhody shchodo formuvannya pokaznyka innovatsiynoyi spromozhnosti v zahalnyi systemi ekonomichnoyi bezpeky pidpryyemstva* – [Approaches to the formation of the indicator of innovation capacity in the general system of economic security of the enterprise]. *Visnyk ekonomiky transportu i promyslovosti – Bulletin of Transport Economics and Industry*. No. 39. P. 55–59. [in Ukrainian]

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UKRAINIAN BEEKEEPING AS A COUNTRY BRAND AND AN ELEMENT OF NATIONAL IDENTITY

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honey, beekeeping,
bee colony, industry, export,
quota, agricultural producers,
apiary register, beehive therapy,
brand

The article is devoted to the study of the beekeeping industry in Ukraine. It defined the concept of «beekeeping», as well as considered the main functions of the industry. The number of existing beekeepers in Ukraine and the total number of bee colonies are analyzed. The peculiarities of honey production and volumes of honey exports in thousand tons as of 2020 in Ukraine are compared with countries such as America, Turkey, Argentina, China, Uzbekistan and Mexico and Ukraine's place in world honey exports, its volumes and dynamics are determined. growth, analyzed the main importers of Ukrainian honey, including the EU, America, Turkey, Israel and others. The need to increase quotas on honey exports to Europe has been determined, based on data on Ukrainian honey exports in early 2022. Alternative honey products were analyzed, and the importance of bee pollination of plants was determined. The main problems of the industry as a whole, as well as problems that arose during the war, including the disunity of beekeepers, mass mortality of bee colonies, imperfect legal framework and lack of harmonization with world directives, outdated technology, lack of education, high money and physical losses due to hostilities. It was concluded that it is necessary to create a brand of Ukrainian honey, as well as increase profits through value added.

УКРАЇНСЬКЕ БДЖІЛЬНИЦТВО ЯК БРЕНД КРАЇНИ ТА ЕЛЕМЕНТ НАЦІОНАЛЬНОЇ ІДЕНТИЧНОСТІ

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Ключові слова:

мед, бджільництво,
бджолосім'я, галузь, експорт,
квота, агровиробники,
реєстр пасік, вуликотерапія,
бренд

Стаття присвячена дослідженню галузі бджільництва в Україні. В ній було визначено поняття «бджільництво», а також розглянуті основні функції галузі. Проаналізовано кількість існуючих пасічників в Україні та загальну кількість бджолосім'ей. Порівняно особливості виробництва меду та обсяги експорту меду в тис. тон станом на 2020 р. в Україні в порівнянні з такими країнами, як Америка, Туреччина, Аргентина, Китай, Узбекистан та Мексика та визначено місце України в світовому експорті меду, його обсяги та динаміку зростання, проаналізовано основних країн імпортерів українського меду, серед яких країни ЄС, Америка, Туреччина, Ізраїль та інші. Визначено необхідність збільшення квот на експорт меду до Європи, на основі даних про експорт українського меду на початку 2022 року. Проаналізовано альтернативну продукцію із меду, а також визначено важливість запилення бджолами рослин. Розглянуто основні проблеми галузі в цілому, а також проблеми, які виникли під час війни, серед них роз'єднаність пасічників, масова смертність бджолосім'ей, недосконалість нормативно-правової бази та відсутність її гармонізації із світовими директивами, застарілість технологій, недостатній рівень освіти, великі грошові та фізичні втрати через воєнні дії. Зроблено висновок, щодо необхідності створення бренду українського меду, а також збільшення прибутку, за рахунок доданої вартості.

Problem statement

On average, one Ukrainian consumes about 0.8–1.2 kg of honey per year, an American – 0.76 kg, residents of EU countries – 0.65 kg, residents of China – 0.25 kg. Ukraine is a supplier of large volumes of honey worldwide and has a wide potential. But it should be noted that the industry is not given the necessary attention, outdated methods are used, most beekeepers are amateurs with a small number of bee colonies. The industry needs to reform, identify and address weaknesses and develop a development plan. In addition, the industry is losing its potential due to the Russian-Ukrainian war in the country.

Recent research and publication analysis

The issues of beekeeping development in Ukraine were studied by such scientists as Fedoruk R.S., Kovalchuk I.I., Kovalska L.M. [8], Gavranyak A.R. [9], Adamchuk L.O. [11].

The purpose of the article

To consider the state of the beekeeping industry in Ukraine, to compare with other countries exporting honey, to determine the problems that the country has, to outline ways of development.

The main material representation

Beekeeping – a branch of agricultural production, the basis of which is the breeding, keeping and use of bees for pollination of entomophytic plants for agricultural purposes and increase their yields, production of food and raw materials for industry [1]. The main functions of the beekeeping industry are:

- 1) breeding, keeping and use of bees for pollination of entomophytic plants for agricultural purposes in order to increase their productivity;
- 2) breeding, keeping and use of bees for wild pollination in order to preserve ecosystems and biodiversity;
- 3) preservation, reproduction and increase of forage lands for bees;
- 4) production, processing and sale of beekeeping products;
- 5) the use of beekeeping products, including live bees, for the health of the population;
- 6) the use of bees as bioindicators of the environment;
- 7) provision of raw materials for food, cosmetics, pharmaceuticals, defense and other industries;
- 8) ensuring self-employment and development of rural areas; preservation of national traditions of beekeeping [2].

According to estimates, beekeeping in Ukraine employs about 400,000 people, the volume of honey produced ranges from 75 to 100 thousand tons of honey per year, the number of bee families – 2.6 million.

Ukraine produces several types of monofloral honey – from sunflower, buckwheat, canola, linden, white acacia. Mostly sunflower honey is exported, which is mostly obtained by beekeepers in the south of Ukraine.

In 2021, the Order of the Ministry of Economy «On some issues in the field of beekeeping» from. 19.02.2021 № 338., which introduced an electronic register of apiary

passports, this order was created to determine the number of beekeepers employed in this field, as well as the registration of bee colonies.

Prior to the adoption of this document, 851 passports and 42,054 bee colonies were registered in the Register of Veterinary and Sanitary Passports of apiaries. As of today, almost 43,500 passports and 2,236,144 bee families have been registered in the Register of apiaries.

Currently, the beekeeping industry is developing quite rapidly in Ukraine, but Ukrainian honey, although very popular, is still considered a raw material base, not a full-fledged product, its price on the foreign market is quite low. Most Ukrainian honey is supplied to the EU for processing (packaging) and not directly to supermarkets under Ukrainian brands. This is a loss of value added, as well as opportunities to promote quality Ukrainian products (Table 1).

Volumes of Ukrainian honey grew quite rapidly during 2012–2017, which was facilitated by stable demand for it on the world market, the devaluation of the hryvnia, low purchasing power of the population, trade preferences of the European Union and other factors (Fig. 1).

In 2018, there was a sharp decline in honey exports due to increased world honey yields. In 2019, exports began to grow again, and in 2020 reached a record 80.8 thousand tons, most of which were sent to EU countries. This was largely due to a 40% reduction in honey production in the EU in 2020 due to weather conditions and other adverse factors, as well as the desire of Europeans to create honey reserves in the context of the coronavirus pandemic.

In 2021, exports fell again, with the main factors influencing the decline in exports being an increase in demand in Ukraine in the pandemic and rising retail prices for honey, which encouraged many beekeepers to sell their products in the domestic market.

As of January 18, 2022, Ukrainian companies have closed the annual quota for duty-free honey exports to the European Union.

Ukraine is among the six leaders of honey-exporting countries in the world ranking, taking 5th place. In general, the honey market in Ukraine has an export orientation.

As shown in Figure 2, Ukraine exports most to EU countries, the United States, Switzerland, Japan, Turkey, Morocco, Israel, Iraq, Libya and Saudi Arabia.

The main share of Ukrainian honey exports goes to EU countries, mostly to Germany, Poland, and after them honey goes to the United States, Turkey and other countries. Significant increase in honey exports to the EU was facilitated by the signing of the Association Agreement between Ukraine and the EU, according to which the quota for duty-free export of Ukrainian honey initially amounted to 5 thousand tons, and from 2020 increased to 6 thousand tons. However, Ukrainian exporters use them fairly quickly.

In addition to honey, beekeepers can also produce and sell products such as flower pollen, which bees bring to the hive, propolis, honey wax, as well as barberry and royal jelly.

In addition, bees are an important source of pollination for crop production. Due to the pollination work of bees, the yield of entomophilous crops increases by 30–60%,

Table 1 – Features of honey production in different countries

Country	Features of honey production	Volumes of honey exports in thousands of tons as of 2020
America	Beekeeping is concentrated and specialized – some beekeepers breed bees but do not receive honey, others – consume honey and bees do not reproduce, others – pollinate crops, do not multiply bees and do not produce honey. In 2021, almost half of the bee families lost due to the killer bee.	196,6
Turkey	Holds the second place in the world after China in terms of honey production. In terms of average per capita consumption of honey (1.3 – 1.4 kg per year) is one of the world leaders. In 2020, 82,000 beekeepers and 8.2 million bee families were registered. The honey base allows to increase honey production, but climate change and the use of pesticides to treat crops from pests and diseases are causing increasing damage to beekeeping.	114
Argentina	One of the largest producers of honey and its exporters, has a third of bee families in South America. Production of commercial honey by one bee family exceeds 50 kg, but in industrial apiaries – at least 70 kg. Argentina supplies between 15,000 and 25,000 tons of honey a year to the international market, mainly from Japan, Germany, England, Italy and other European countries.	71,5
China	200-250 thousand tons of honey, 1500 tons of royal jelly, 3000-3500 tons of pollen, 2500 tons of wax and 300 tons of propolis are produced annually. 50% of honey produced enters the domestic market. One of the major problems of Chinese beekeeping is the reluctance of young people to go into this industry, which can earn at best 8.2-16.4 thousand dollars. for a year. It is estimated that half of the 400,000 tons of honey supplied to the Chinese market is counterfeit, with a significant portion being one hundred percent counterfeit.	53
Mexico	There are more than 2 million bee families. More than half of the bees are concentrated in the hands of rural beekeepers, who produce half of the total honey, and 300 industrial farms. Subtropical climate and rich fodder base contribute to the development of beekeeping. Mexicans have domesticated the African killer bee by crossing it with local bees, and it now produces a lot of honey.	22,6
Uzbekistan	Beekeeping receives significant support from the state. At the end of each month, the Prime Minister or his deputy holds a national conference call on beekeeping. Heads of regional and district administrations, beekeepers and specialists take part in such meetings. The honey market in Uzbekistan is protected by a high import tariff of 100%. The needs of beekeeping in wax are fully met by the country’s seven wax shops. However, there is a shortage of wax due to the fact that more than 60 tons of wax are exported annually with bee packages.	21,4

Source: Compiled by the author based on [4–6]

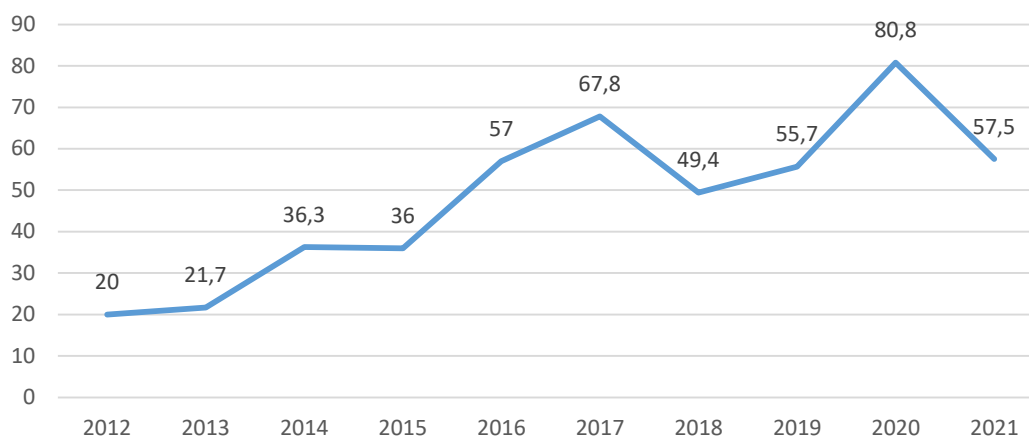


Fig. 1 – Exports of Ukrainian honey in 2012–2021, thousand tons

Source: Compiled by the author based on [4]

the quality of fruits improves. Bees, collecting nectar and pollen from flowers, involuntarily make cross-pollination, transferring pollen from one plant to another, which significantly increases the yield of these plants. The benefits of pollination of bees and the increase in yield of the crops they visit are estimated at 10–15 times more than the profit from honey and wax. For example, when buckwheat is pollinated, the yield increases by 40–60%, or by 5–7 c / ha [8].

The analysis of indicators of efficiency of work of branch of beekeeping in Ukraine has shown the following problems:

1. Separation of beekeepers. In Ukraine, there are many unions and associations of beekeepers that operate separately, and there should be a single main organization that could coordinate the actions of beekeepers, provide protection against the ill health of unscrupulous farmers, and so on. This problem arises mainly due to the fact that

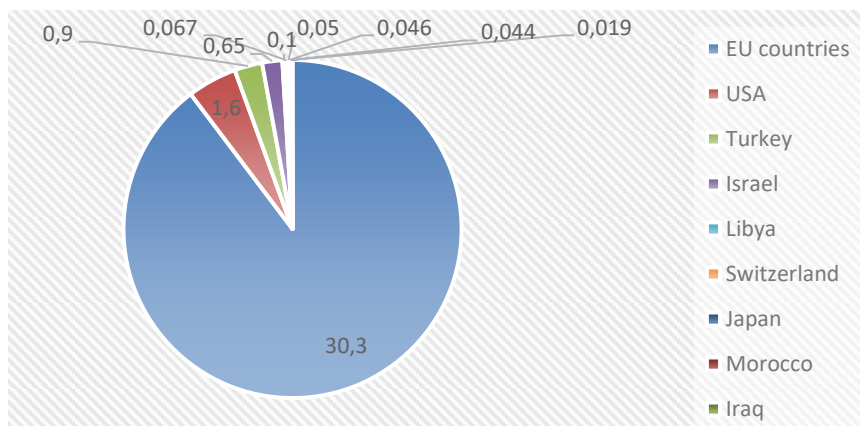


Fig. 2 – Exports of Ukrainian honey, UAH million

Source: Compiled by the author based on [7]

most apiaries are amateur and such beekeepers are not motivated to join unions.

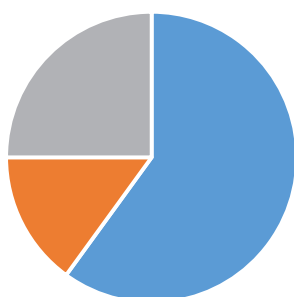
According to Fig. 3. about 60% of honey is produced in amateur apiaries, where the number of bee colonies does not exceed 50, the share of professional producers serving more than 200 bee colonies accounts for 15% of all honey, 25% provide medium beekeepers.

Given this structure, in the medium term, Ukraine, which has rapidly increased its exports, risks losing production just as quickly.

2. Mass mortality of bee colonies. Due to the pesticides that farmers use to treat their plants, many bees begin to get sick and die en masse.

According to the Law of Ukraine «On Beekeeping» of 22.02.2000 № 1492-III. agricultural producers should use only drugs entered in the state register of pesticides and follow the recommendations for their use so as not to harm beekeeping. But quite often these requirements are not met because there is no effective control.

Collecting nectar, the beekeeper receives from 50–200 UAH / 1 hectare. However, in case of bee poisoning, it is possible to prove one’s rightness and receive compensation from the farmer only with the prior registration and availability of a veterinary passport. Of course, after the death of the bee colony, the beekeeper will be forced to buy a new one and this can also be a problem.



■ Amateur apiaries ■ Professional apiaries ■ Medium apiaries

Fig. 3 – Sales of honey in terms of producers

Source: Compiled by the author based on [9]

As can be seen from Fig. 4 during 2018–2020, the average cost of bee packages in the western and eastern parts of Ukraine decreased, but due to the coronavirus pandemic and increased demand over the past year, prices have increased. The difference in the cost of bee packages in the western and eastern parts of Ukraine differs due to the volume of demand and the number of bee colonies located on them.

3. Imperfection of the regulatory framework and lack of its harmonization with global directives. Regulatory activity in the field is largely provided by the Law of Ukraine «On Beekeeping» and other regulations, including «Rules of import and export of bees and beekeeping products to Ukraine», approved from 02.08.2013 № 478/88, Registration Procedure apiary «, approved from 19.02.2021 № 0281–21,» Procedure for issuing the veterinary-sanitary passport of the apiary «, approved from 19.02.2021 № 0282–21, etc. However, the package of normative documentation concerning product quality and its control needs to be finalized, there are no norms of modern production technologies approved at the state level [11].

Therefore, the Order of the Ministry of Economy № 338 «On some issues in the field of beekeeping» of February 19, 2021, greatly simplifies the registration of apiaries and issuance of veterinary passports, introduces an official register of apiary passports, creates opportunities for supervision of honey producers, introduces effective and modern instructions for the prevention and establishment of the fact of bee poisoning by plant protection products, regulates the issue of nomadic apiaries in order to reduce the risk of bee poisoning [12].

4. Obsolescence of technologies. Currently, Ukrainian beekeepers are quite conservative and do not use the latest technologies that would greatly simplify their activities. But today there are unique innovative technologies, such as ApisProtect, which helps beekeepers increase the productivity of hives. The startup uses IoT technology to monitor hives. Through machine learning, the platform collects data from various sources on bee colonies, tests for diseases, provides reports, aggregate and anonymous

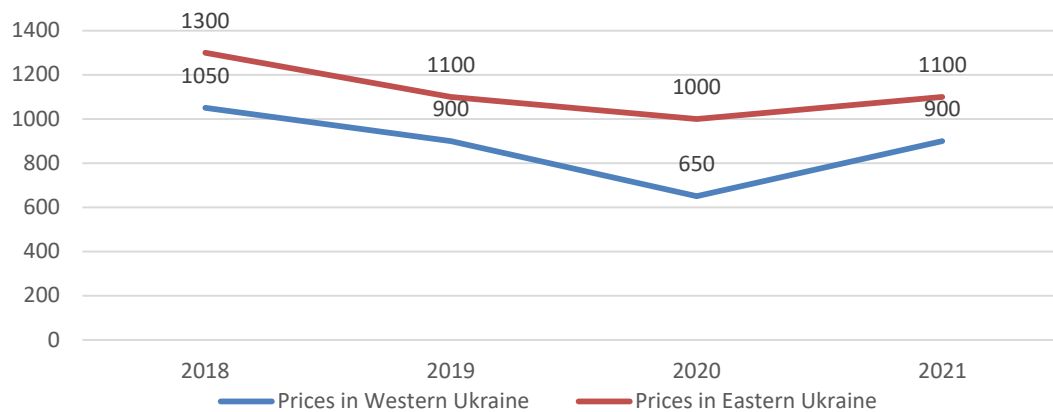


Fig. 4 – The cost of bee packages in 2018–2021, UAH

Source: Compiled by the author based on [10]

data collected from hives around the world, and sends suggestions to beekeepers to improve the health of bee colonies.

5. Insufficient level of education. In modern Ukraine, training of beekeeping specialists is carried out in several higher and vocational schools. However, the interest in education in the field is growing significantly, so there is a need to develop and implement appropriate educational and methodological complexes and implement them on the basis of modern educational and scientific organizations.

6. The main problem of today for Ukrainian beekeepers is the war with Russia. According to preliminary estimates, the losses of bee colonies in the North (Kyiv, Chernihiv), East (Slobozhanshchyna) and South (Kherson, Mykolaiv regions) of Ukraine may be up to 30%. In addition to bees, hives, equipment and production lines were lost. Due to the war, some beekeepers were forced to leave their homes – so even if the apiaries survive, bee colonies will be left without the necessary spring measures (feeding, expansion), which, in turn, will negatively affect their further development.

With the start of the war and the arrival of Russian troops, Ukraine lost access to some territories. Therefore, due to active hostilities, shelling, occupation pressure and problems with logistics, beekeepers from Kherson and Luhansk regions, as well as most of Zaporizhia, Donetsk and Kharkiv regions will not be able to work yet. If we consider only these regions, Ukraine will minimally lose the honey harvest from 20% of officially registered apiaries.

In addition, even in areas where there is no fighting, the work process will also be complicated, so methods of maintaining and developing the industry, as well as increasing profitability, should be considered.

One of them is the transformation of Ukrainian honey into a national brand, and the other is the manufacture and sale of value-added products.

Currently, there is a trend in Ukraine for everything Ukrainian, beekeepers could take advantage of this and start selling, for example, honey not just as raw material, but as a finished product, packaged in banks. For example, sunflower honey has high marks, China considers it the most valuable of all types of honey, so the demand for it is quite high.

As for value-added products, it is worth involving the tourism industry and developing rural tourism to develop such an area as beehive therapy, which helps to relax and heal the nerves, which in this situation is quite relevant for Ukrainians and interesting for foreigners. Also, products made of honey and related products, including drinking and whipped honey, cosmetics and medicines, can become business cards of Ukraine today, given the growing interest of the population in eco-products.

Conclusions

Thus, beekeeping is a very important industry for Ukraine. Currently, it employs about 400 thousand people, although the vast majority of beekeepers do their job as amateurs. Due to the difficult political and military situation in the country, beekeepers are forced to work in new conditions, many beekeepers have lost their apiaries, sowing is reduced, ie bees have less access to flowering plants, and high mortality due to shells or debris, disease, etc. Beekeepers themselves cannot solve the problem completely, although they continue to work in modern conditions. As the Ukrainian nation is historically associated with beekeeping, Ukraine must focus its efforts on the revival and sustainable development of this industry, increase the value of Ukrainian honey and create a so-called brand of our honey and derived products.

References

1. Zakon Ukrayiny «Pro bdzhil'nytstvo» vid 22.02.2000 № 1492-III – [Law of Ukraine «On Beekeeping» of 22.02.2000 № 1492-III]. Retrieved from: <https://zakon.rada.gov.ua/laws/show/1492-14#Text> [in Ukrainian]
2. Proekt Zakonu Ukrayiny «Pro rozvytok haluzi bdzhil'nytstva, okhoronu, zakhyst ta zberezhennya bdzhil'» vid 19.03.2021 № 5274 – [Draft Law of Ukraine «On the development of beekeeping, protection, protection and preservation of bees» from 19.03.2021 № 5274]. Retrieved from: <https://zakon.rada.gov.ua/laws/show/1492-14#Text> <https://www.kmu.gov.ua/bills/proekt-zakonu-pro-rozvytok-galuzi-bdzhilnitstva-okhoronu-zakhist-ta-zberezhennya-bdzhil> [in Ukrainian]

3. Ukrayins'ki pasichnyky vykhodyat' iz tyni – zrosla kil'kist' zareyestrovanykh pasik i bdzholosimey – [Ukrainian beekeepers are coming out of the shadows – the number of registered apiaries and bee families has increased]. *BRDO*. Retrieved from: <https://brdo.com.ua> [in Ukrainian]
4. Svit bdzhil'nytstva – [The world of beekeeping]. Retrieved from: <https://www.apeworld.ru/1642506629.html> [in Ukrainian]
5. Bdzhil'nytstvo Kazakhstana – [Beekeeping of Kazakhstan]. *Hive*. Retrieved from: <https://ylejbees.com/pchelovodstvo-v-mire/318-pchelovodstvo-uzbekistana> [in Ukrainian]
6. Bdzhil'nytstvo u SSHA, Meksytsi, Arhentyini, Avstraliyi ta Noviy Zelandiyi – [Beekeeping in the USA, Mexico, Argentina, Australia and New Zealand]. *Honey gate*. Retrieved from: <http://medovabrama.com.ua/page/pchelovodstvo-v-ssha-meksike-argentine-avstralii-i-novoi-zelandii> [in Ukrainian]
7. Ofitsiynnyy sayt «Kurkul'. Onlayn-asystent fermeru» – [Official site «Fist. An online farmer's assistant»]. Retrieved from: <https://kurkul.com/news/27921-eksport-ukrayinskogo-medu-do-yes-v-9-raziv-perevischiv-vstanovleni-kvoti> [in Ukrainian]
8. Fedoruk R.S., Koval'chuk I.I., Koval's'ka L.M., Havranyak A.R. (2011) Problemy, stan ta perspektyvy bdzhil'nytstva v Ukrayini – [Problems, state and prospects of beekeeping in Ukraine]. *Bulletin of the Institute of Animal Biology*.
9. Kolyubakin V.S. Yak vryatuvaty bdzhil' – [How to save bees.] *Government courier*. Retrieved from: <https://ukurier.gov.ua/uk/articles/yak-vryatuvati-bdzhil/> [in Ukrainian]
10. Bdzholopaketu-2022 – [Bee packages-2022]. *Apiary from A to Z*. Retrieved from: <https://pasika.news/bdzholopakety-2022/?fbclid=IwAR3OXGG1W83Qg4aSZSoQyo1Cp4715edBgNcC515WmgufPwVShpXDftxpung> [in Ukrainian]
11. Adamchuk L.O. Aktual'ni problemy haluzi bdzhil'nytstva – [Current problems of the beekeeping industry] : zb. mater. dop. uchasn. 71. nauk.-prakt. konf. – Coll. mater. ext. participant 71. scientific-practical. conf. Kiev. P. 29–30 [in Ukrainian]
12. Nakaz Minekonomiky «Pro deyaki pytannya u sferi bdzhil'nytstva» vid. 19.02.2021 № 338 – [Order of the Ministry of Economy «On some issues in the field of beekeeping» from. 19.02.2021 № 338]. Retrieved from: <https://zakon.rada.gov.ua/laws/show/z0280-21#Text> [in Ukrainian]

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DIGITALIZATION OF THE ECONOMY AS A PLATFORM FOR CREATING NEW VALUES IN A TRANSFORMATIONAL ENVIRONMENT

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COVID-19, bitcoin, asymmetry,
encryption, Russia-Ukraine war

The problematic issues of using the digital economy in the real sector are investigated. Trends in the development of the digital economy in Ukraine and countries of the world are determined. Possible scenarios for the development of the digital economy in Ukraine and countries of the world are indicated. The need to use new information technologies is justified to optimize processes and production, reduce transaction costs and modernize their supply chains, which will ensure a high level of competitiveness of countries with developed and developing economy. It has been proven that it is not the ability to use the digital economy to create, store, process and transmit data that will hinder progress if they cannot overcome the structural challenges associated with the implementation of digitalization of the real sector. It is proposed to use asymmetric encryption algorithms – mostly, cryptography simultaneously encrypts and decrypts Blockchain messages, which use public keys as addresses for transactions that can be implemented in the presence of private keys. The modern credit card system is based on secrecy and centralization, which uses closed Internet networks, data centers protected by firewalls, where personal information of the parties is stored.

ЦИФРОВІЗАЦІЯ ЕКОНОМІКИ ЯК ПЛАТФОРМА СТВОРЕННЯ НОВИХ ЦІННОСТЕЙ В ТРАНСФОРМАЦІЙНОМУ СЕРЕДОВИЩІ

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Ключові слова:

діджиталізація,
цифрова економіка,
хмарні технології,
блокчейн-економіка,
інвестиції, криптовалюта,
ефекти, COVID-19, біткоїн,
асиметрія, шифрування,
російсько-українська війна

Досліджено проблемні питання використання цифрової економіки в реальному секторі. Визначено тенденції розвитку цифрової економіки в Україні та країнах світу. Зазначено можливі сценарії розвитку цифрової економіки в Україні та країнах світу. Обґрунтовано необхідність використання нових інформаційних технологій для оптимізації процесів і виробництва, зниження транзакційних витрат і модернізації своїх ланцюжків поставок, що забезпечить високий рівень конкурентоспроможності країн з розвиненою економікою та економікою, що розвивається. Доведено, що неможливість використання цифрової економіки зі створення, зберігання, обробкою та передачею даних буде перешкоджати прогресу, якщо вони не зможуть подолати структурні проблеми, пов'язані із впровадженням діджиталізації реального сектора. Розвинуто теорію про прискорення цифровізації економіки з урахуванням пандемії COVID-19, російсько-української війни. Запропоновано використовувати асиметричні алгоритми шифрування – здебільшого криптографія водночас шифрує і дешифрує повідомлення Блокчейн, що послугоується відкритими ключами як адресами для транзакцій, які можна реалізувати при наявності закритих ключів. Сучасна система кредитних карток базується на таємності й централізації, який використовують закриті мережі Інтернет, захищені брандмаузерами центри даних, де зберігається особиста інформація сторін.

Problem statement

The digital economy may accelerate the recovery from the pandemic, but governments must ensure its inclusivity starting today. In the mid-1990s, technology enthusiasts predicted that the rapid spread of the Internet and supercomputers would create new efficiency, innovation, and economies of scale. However, the digital footprint in the world has grown exponentially since then. Global IP traffic today IP-traffic is almost 150,000 GB per second compared to 100 GB per day three decades ago. Ubiquitous data and connectivity is expected to reach close to 60 zettabytes in 2020 and nearly triple by 2025, powering the new economy.

The purpose of the article is to justify the expediency of using the digital economy in the real sector in the context of COVID-19 and the Russia-Ukraine war.

Analysis of recent research and publications

The study of the problem of forming a strategy for digitalization of economy as a platform for creating new values in a transformational environment is extremely relevant. It is the relevance of the investigation of this problem that determines the great interest of scientists in further research. Foreign and domestic scientists paid attention to this issue in their scientific works, namely: Satoshi Nakamoto [1], Alex Tapscott [2], Don Tapscott [2], Kibets D.V. [3], Kohut Yu.I. [4], Prykhodko I.V. [5], Savchuk S.S. [6]. The concept of blockchain economy as an economy of a new type in the conditions of digitalization is of great importance, since the emergence of a new currency and payment network requires its research as an innovative problem. The concept of blockchain economy is still quite unexplored, as it is only born and discussed in the scientific works of scientists, on Internet forums, governments of the world and on the pages of the media. Problematic issues of blockchain economics are devoted to publications on sites [7] and [8]. Therefore, we believe that our research is relevant and timely.

Results

The digital economy generates serious negative external effects, in particular accelerating climate change. Despite attempts by some technology firms to adjust their actions, they are still considered one of the most unstable and environmentally harmful in the world. To meet the demand for equipment, they are increasing the production of rare earth minerals and other precious metals such as cobalt. Technological redundancy and planned obsolescence contribute to the emergence of waste. Most alarmingly, the expansion of Internet services consumes about one-tenth of the world's electricity production.

The transition to cloud technologies contributes to increased energy consumption and carbon dioxide emissions, in particular in coal-fired power plants. The servers, cooling systems, storage, and networking devices of some of the world's largest data centers consume more than 100 MW of electricity, equivalent to 80,000 households in the U.S. Today, more than 7 GW is used for bitcoin mining alone, which is equivalent to seven nuclear power plants. It

is established that the annual carbon emissions during the creation of cryptocurrencies range from 22 to 29 million tons of CO₂, which is equivalent to a small country like Jordan [9].

In addition to social and environmental problems, the digital economy is developing faster than the real economy. Depending on how it is defined, its total value may be 11.5 trillion US dollars, or 15% of world GDP. Researchers believe that by 2040 this figure could rise to 37 trillion US dollars, or 26% of GDP. Countries whose share of the economy depends on information and communication technologies – from Finland and Ireland to Singapore and South Korea – are particularly well positioned. Countries with developed economies and developing economies will benefit if they can use new technologies to optimize processes and production, reduce transaction costs, and modernize their supply chains. But it will hinder progress if they fail to overcome the structural challenges associated with creating, storing, processing and transmitting data. And the boom in the digital economy could collapse if it doesn't become more sustainable [10].

The COVID-19 pandemic is accelerating the digitalization of economies almost everywhere. The unprecedented shift to remote work and the explosive growth of online content and consumption are contributing to a surge in data. As more and more people replace video conferencing with business trips, communication platforms and data providers thrive. But the pandemic is also exacerbating inequalities within less connected and hyper-digitized societies in the context of the development of the digital city model as a factor in creative development [11].

Countries that lack digital resilience and market power are lagging behind. Ensuring a more equitable global digital economy requires development of flexible government regulations, mandatory general broadband, professional development of employees, and introducing social protections to more equitably distribute profits and minimize losses. Global and regional agreements on better management of cross-border flows of information, regulation of competition and taxation and assuring privacy demand the development of concepts of the information (digital) economy [12].

Thus, governments and companies will need to invest in sustainable digital transformation not only to thrive, but also to survive the twenty-first century which is accompanied by the COVID-19 pandemic, the Russian-Ukrainian war. With the right combination of incentives, oversight, and investment, the blockchain economy can play a key role in the recovery of the post-COVID-19 economy and the Russian-Ukrainian war, as well as the potential growth of small and medium-sized businesses in low-income countries. This will require large expenditures and a greater reallocation of the critical infrastructure that enables the services and applications that drive the digital economy. Most importantly, public and private actors will also need to develop mindsets to adapt to, benefit from, and minimize risks from digitization [13].

There are the remaining barriers to the creation of the Digital Single Market. The Digital Single Market (DSM) is included in the initiative of the Single Market Act adopted

by the European Commission (EC). This issue had already emerged in 1990 and was raised again in 2010, emerging after the 2008 crisis, which acted as a catalyst for action. The crisis created an opportunity to put the single market first on the agenda and was aimed at addressing two issues: financial oversight and economic coordination. This gave a new dimension to the market. The proposal for the DSM was created in accordance with the Commission's strategy called «Digital Agenda for Europe» in the context of the policy guidelines of the second Barroso Commission, which pointed to the need to remove obstacles to the introduction of the European market as an attempt to restart the digital single market. This strategy was similar to that used for the domestic market in 1985 and focused on one of the weaknesses of the latter, namely the fragmentation of the national digital market.

Building on Monty's report, the «On the Way to the Single Market Act» report details 50 proposals to reform the CU by the end of 2012. First, an interesting approach is to focus on analyzing the short-term and long-term relationships between Bitcoin and cryptocurrencies and stock indices. Secondly, they can be reproduced by improving statistical methods and using other cryptocurrencies and stock exchange indices to demonstrate the reliability of the results achieved. Thirdly, different time series methods can be applied to predict the behavior of cryptocurrencies. COVID-19 accelerates the transition to digitalization, but also increases the foresight gap between countries [14].

The potential impact of blockchain technology – distributed ledgers – on society and the global economy is extremely important because they promise to always have an optimistic impact [15].

Conclusions

Thus, the digital economy platform and new value creation helps companies use blockchain economy technologies to be versatile in the face of the challenges of disruptions and create new digital business models for a new post-COVID normal that expedites the need for flexibility, adaptability and transformation. Industry structures and business models are crumbling, and the digitalization of the economy is accelerating. Bitcoin

is a method of undisputed transactions that is based on a widespread accounting system on the Internet. Asymmetric encryption algorithms – for the most part, cryptography simultaneously encrypts and decrypts messages Blockchain uses public keys as addresses for transactions that can be implemented with private keys. The modern credit card system is based on secrecy and centralization, which is used by closed Internets, firewall-protected data centers where personal information of the parties is stored. Bitcoin's public ledger of transactions is collected in blocks approximately every ten minutes, from the current block to the creation block laid down by the anonymous bitcoin inventor Satoshi Nakamoto. Bitcoins are not a real currency [16], but they serve as a measure for transactions permanently registered on the blockchain. This currency can become a global alternative to fiat money when the monetary system suffers from the actions of national governments and states. Distributed ledgers called blockchain have the ability to safely digitize many current operations in the economy and finance, as well as in legal and public services. Blockchain can be defined as a decentralized public ledger that records transactions between users continuously, securely, and verifiably. Without a doubt, the financial sector is a leader in the implementation of blockchain technology. Blockchain is rapidly revolutionizing the global economy. The potential impact of blockchain technology – distributed ledgers – on society and the global economy is extremely important, as they promise to always have an optimistic impact. In fact, the potential benefits of blockchain are not only economic, but the technological capabilities of blockchain are being used by specific groups to solve real-world problems. Blockchain technology and all its forms continue to develop rapidly. It is widely recognized that the future of blockchain technology looks bright and attractive in part because governments, developers, firms and investors are investing heavily in an effort to spur innovation and applications. The opportunities that blockchain offers need to be developed and intelligently managed, controlling unintended consequences and risks. So, blockchain is a technological breakthrough that has the potential for global digital change and the formation of a blockchain economy.

References

1. Satoshi Nakamoto. Bitcoin: A Peer-to-Peer Electronic Cash System. URL: <https://bitcoin.org/bitcoin.pdf>
2. Alex Tapscott, Don Tapscott. Blockchain Revolution. Portfolio Penguin. 2018. 432 p.
3. Kibets D.V. Regulation of currency restrictions: international legal doctrine and national practice : monograph. K. : Phoenix, 2019. 186 p.
4. Kohut Y.I. Blockchain Technologies and Cryptocurrency: Risks and Cyber Security : monograph. K. : Sidcon. International Cyber Security League, 2022. 316 p.
5. Prykhodko I.V. Institute of tax amnesty and its place in tax law : monograph. Helvetica Publishing House, 2018. 220 p.
6. Savchuk S.S. International legal standards of banking activity. K. : Phoenix, 2019. 258 p.
7. The first executive academic blockchain program. URL: <https://www.reply.com/en/blockchain>
8. NFTs – enablers of digital ownership. URL: <https://www.reply.com/en/topics/digital-branding/nfts-enablers-of-digital-ownership>
9. Ernst Ulrich von Weizsäcker, Anders Wijkman. Come On! Capitalism, shortsightedness, population and destruction of the planet. Report to the Club of Rome / translated from English by J. Sirosh ; ed. V. Wolf, V. Booth. Kyiv : Summit-Book, 2019. 276 p.

10. Collomb A., Sok K. Blockchain / Distributed Ledger Technology (DLT) What Impact On Financial Sector? *Digiworld Economic Journal*. No. 103. third quarter 2016. P. 93.
11. Nikitenko V.O., Vasylichuk G.M. The model of the digital city as a factor of creative development. *Humanities Studies : a collection of scientific papers* / Head ed. A.G. Funnel. Zaporizhzhia : Publishing House «Helvetika», 2022. Issue 11(88). P. 48–58.
12. Buhaichuk Oksana. Foreign concepts of information (digital) economy (Foreign concepts of information (digital) economy. *Management and Entrepreneurship: Trends of Development*. 2022. Issue 2(20). P. 8–19.
13. Oksana Buhaychuk, Vitalina Nikitenko, Valentyna Voronkova, Regina Andriukaitiene, Myroslava Malysh. Interaction of the digital person and society in the context of the philosophy of politics. *Cuestiones Políticas*. Vol. 40 No. 72. 2022. P. 558–572.
14. Voronkova Valentyna, Kaganov, Yuriy, & Metelenko, Natalia. Conceptual basis of «the digital economy forsight model»: european experience (Conceptual foundations of the «foresight digital economy» model: European experience). *Humanities Studies : Collection of Scientific Papers* / ed. V. Voronkova. Zaporizhzhia : Publishing house «Helvetika», 2022. No. 10(87). P. 9–19.
15. Gidler George. The decline of big data and the formation of the blockchain economy / per. from English. T. Mykytiuk, P. Donchenko. Kyiv : Force Ukraine, 2021. P. 15.
16. Cherep A.V., Voronkova V.G., Cherep O.H., Vengerska N.S., Beskorovaina L.V. Impact of creative innovative technologies on the sustainable development of the tourism industry in Europe after the COVID-19 pandemic. *Humanities studies : Collection of Scientific works*. Zaporizhzhia : Zaporizhzhia National University, 2021. No. 8(85). P. 134–146.

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MODEL OF DISTRIBUTED CARGO DELIVERY UNDER THE CONDITIONS OF A STATE OF WAR

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Key words:transport logistics,
transport problem, uncertainty,
reliability of transport routes,
minimax criterion

The article is devoted to the problem of cargo delivery in conditions of unreliable transport connections. The problem considered in the work belongs to the field of transport logistics. In particular, this problem often arises when planning the rear support of troops in the context of military operations. The peculiarity of cargo delivery under such conditions is that some transport routes may become impossible, and therefore it is necessary to distribute cargo flows in such a way as to minimize losses during delivery. Similar tasks arise in the civil sphere, when the reliability of transport communications is not guaranteed and can change quite quickly. Mathematical formulations of problems of this type are quite complex, the mathematical model is multi-criteria with a large number of limitations. But even after simplification and transition to one integrated criterion, the tasks remain difficult. The article considers the simplest mathematical model for this type of problem with the criterion of minimizing the risk of losses during cargo delivery with minimal information. As a rule, when solving transport problems by linear programming methods are limited to finding a basic acceptable plan with the minimum possible number of transportation routes. However, when implementing such plans, the reliability of cargo delivery is sharply reduced, and the risks of losses during transportation increase. In the presence of possible losses during cargo transportation, it is much more reasonable to diversify delivery routes. In addition, even in peacetime, diversification allows more efficient use of existing ways of delivering goods. For example, the load on the road surface is reduced, the intensity of traffic on individual routes is reduced, and the risks of traffic accidents are reduced. All of the above shows the relevance of the study of mathematical models of transport problems, in which in addition to the known criteria (transportation costs) there are also criteria related to the minimization of possible losses. One of these mathematical models is the subject of research in this work.

МОДЕЛЬ РОЗПОДІЛЕННІЙ ДОСТАВКИ ВАНТАЖІВ В УМОВАХ ВОЄННОГО СТАНУ

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транспортна задача,
невизначеність,
надійність транспортних
маршрутів,
мінімаксний критерій

Стаття присвячена проблемі доставки вантажів за умови ненадійності транспортних сполучень. Проблема, що розглядається у роботі, належить до галузі транспортної логістики. Зокрема, ця проблема часто виникає при плануванні тилового забезпечення військ в умовах воєнних дій. Особливістю доставки вантажів за таких умов є те, що деякі транспортні маршрути можуть стати неможливими і тому необхідно розподіляти вантажопотоки таким чином, щоб мінімізувати втрати під час доставки. Аналогічні завдання виникають і у цивільній сфері, коли надійність транспортних комунікацій не є гарантованою та може досить швидко змінюватись. Математичні формулювання задач даного типу виявляються досить складними, математична модель є багатокритеріальною з великою кількістю обмежень. Але навіть після спрощення

та переходу до одного інтегрованого критерію задачі залишаються важкими. У статті розглядається найпростіша математична модель для такого типу задач із критерієм мінімізації ризику втрат при доставці вантажу за наявності мінімальної інформації. Як правило, при розв'язанні транспортних задач методами лінійного програмування обмежуються пошуком базового припустимого плану з мінімально можливим числом маршрутів перевезення. Однак при реалізації таких планів різко знижується надійність доставки вантажів, збільшуються ризики втрат при перевезеннях. За наявності можливих втрат при транспортуванні вантажу набагато розумніше диверсифікувати маршрути доставки. Крім того, навіть за умов мирного часу, диверсифікація дозволяє більш ефективно використовувати існуючі шляхи доставки вантажів. Наприклад, знижується навантаження на покриття доріг, зменшується інтенсивність руху окремими маршрутами, зменшуються ризики дорожньо-транспортних пригод. Усе сказане вище показує актуальність дослідження математичних моделей транспортних задач, у яких поруч із відомими критеріями (витрати на перевезення) присутні й критерії, пов'язані з мінімізацією можливих втрат. Одна з таких математичних моделей є предметом дослідження цієї роботи.

Statement of the problem

The problem considered in the work belongs to the field of transport logistics. This problem arises if there are risks of loss of goods or parts of goods during transportation along a certain route. In particular, this problem often arises when planning the rear support of troops in the conditions of military operations. The peculiarity of cargo delivery under such conditions is that some transport routes may become impossible and therefore it is necessary to distribute cargo flows in such a way as to minimize losses during delivery.

Consider the problem in the following formulation: there are n points where the same type of product is stored and m points of consumption of this product. From any point of storage the goods can be delivered to any point of consumption along the appropriate route. At the same time, any of the nm routes connecting the points of storage and consumption may turn out to be unreliable. The task is to find such a plan for the delivery of goods, according to which possible losses will be minimal.

Analysis of latest research and publications

The problem considered in the article refers to a wide class of transport problems studied and analyzed in transport logistics.

The theory of logistics began to develop actively in the 20th century [1–4], the concept of «logistics» entered economic terminology only from the mid-1950s. The view of transport logistics in its modern form was formed in the USA, but it is being improved and actively developed in the works of domestic and foreign scientists [1; 5–8].

In particular, work [8] summarizes various approaches to the definition of the concept of «transport logistics», it is substantiated that transport is the source of the main costs in the logistics system. The article also reveals the essence of the general function, purpose and tasks of transport logistics, which includes, in particular, the determination of a rational delivery route.

According to [6], transport logistics is an integral part of the logistics system, which ensures the technical, technological and economic consistency of all its

subsystems, plays a decisive role in optimizing the management of material flows.

The allocation of transport into an independent field of logistics was facilitated by the following factors [5; 7; 8]:

1) impossibility of managing material flows without transportation;

2) the ability of transport to implement the basic idea of logistics – to create a system that is reliable, stable and optimally functioning: «supply – production – distribution – consumption»;

3) the need to solve a number of transport problems regarding the choice of distribution channels for raw materials, semi-finished products and finished products within the logistics system;

4) the presence of a large number of transport and forwarding enterprises, which play a significant role in the organization of optimal delivery of goods, both in domestic transportation and in international communication;

5) a high share of transport costs in the total amount of logistics costs. Their value can reach 50% or more of the total logistics costs for the promotion of goods from the primary source of raw materials to the final consumer of finished products [9; 10];

6) significant specific weight of the transport component in the foreign trade price of goods (especially for countries with long transportation distances).

Transport logistics, as an integral part of the overall logistics system, helps to solve the three main tasks of this system [7], which are related to:

1) formation of market service areas;

2) development of a transport process organization system (transportation plan, activity distribution plan, cargo flow formation plan, vehicle movement schedule, etc.);

3) management of stocks and their maintenance by vehicles, information systems.

In work [8] nine groups of global problems of transport logistics of Ukraine (financial, technical-technological, informational, economic, international, customs, environmental, labor) are highlighted and the main ways of overcoming them are considered. Among them, one of the important problems identified is the revision of the

system for evaluating the efficiency of transport logistics activity [7]. This is caused, in particular, by rapid changes in the conditions of social development, the emergence of new types of risks that accompany them. For example, the definition of logistics risk is given in [11] and logistics risks are also classified depending on the stages of logistics activity. It is important that for each of the stages of logistics activity, the types of logistics risks, their sources, as well as methods of unconditional and conditional optimization, which allow them to be avoided or significantly reduced, are given. In particular, at the supply stage, it is recommended to use linear and dynamic programming methods, as well as unconditional optimization methods to minimize and prevent transportation risks and risks of inventory formation.

It is necessary to emphasize the fact that today it is already impossible to imagine solving the problems of managing traffic flows without the use of mathematical methods, models and information systems. Mathematical methods of modern transport logistics began to develop from the beginning of the 20th century. In addition to models and methods that have already become classical, models based on new ideas and paradigms have acquired active development and improvement [12–16].

The analysis of the works of scientists makes it possible to assert that new approaches are needed for problems arising in the field of transport logistics [17–21].

In [17] was investigated the influence of the introduction of Industry 4.0 technologies in companies with the aim of optimizing their production processes and organizational structures. The result of this research was a maturity model for logistics 4.0, which is able to determine the level of maturity of companies in the implementation of Industry 4.0 technologies in their logistics processes, as well as a roadmap for strengthening the digitalization of logistics processes, according to the principles of the fourth industrial revolution.

The work [18] is devoted to the issue of estimating the cost function from losses after natural disasters, the work [19] is devoted to the problems of logistics management in emergency situations.

Modern mathematical tools (fuzzy mathematics, genetic algorithms, etc.) are applied in articles [20–22] to develop decision-making models supporting the analysis and selection of sustainable supplier development programs (SSDP) and logistics management of perishable products with a limited and random shelf life.

The need to use new approaches is due to the fact that the mathematical formulations of problems of this type are quite complex, the mathematical model contains a large number of restrictions and several criteria for the quality of the solution. Moreover, even after simplification and transition to one integrated criterion, the tasks remain difficult. The work [23] is devoted to the problems of solving the classical transport problem. In particular, this article analyzes the impact of external factors on the planning and implementation of transport processes.

A feature of the cargo delivery process under martial law is the lack of information about the state of transport routes, and especially their reliability. Therefore, the research of mathematical models of transport problems

is relevant, in which, in addition to the known criteria (transportation costs), there are also criteria related to the minimization of possible losses.

Goals formulation

In the conditions of martial law, new risks appear in the process of transportation of products, which are caused by military actions (aircraft, artillery strikes, attacks, etc.) and lead to certain (possibly complete) losses of the cargo. To minimize these losses, taking into account the enemy's ability to choose only some of the possible routes to cause losses, it is necessary to distribute (parallelize) the process of cargo transportation as much as possible. At the same time, considering that the actions of the enemy are unknown, it is advisable to develop such a transportation plan, which ensures minimal losses in the worst case, in order to assess possible losses. This leads to the need to build appropriate mathematical models and methods for finding optimal solutions to logistical problems within these models.

The purpose of this article is to develop a mathematical model of distributed cargo delivery under martial law conditions, taking into account the uncertainty of information about the reliability of transport routes.

Presentation of the main research material

The basis for the development of a new mathematical model will be the classical formulation of the transport problem with n ($i = 1, 2, \dots, n$) production points and m ($j = 1, 2, \dots, m$) points of cargo (goods) consumption. It is known that cargo is stored in bulk at storage points a_i , $i = 1, 2, \dots, n$ and the volume of consumption in the corresponding points of consumption is b_j , $j = 1, 2, \dots, m$.

For each of the acceptable transportation (delivery) routes (i, j) a value is determined p_{ij} – share of possible losses on this route. It is assumed that $0 \leq p_{ij} \leq 1$ or everyone (\forall) (i, j) Extreme values p_{ij} from the specified interval mean: $p_{ij} = 0$ – transportation route (i, j) is absolutely reliable (loss of cargo is impossible), $p_{ij} = 1$ – transportation route (i, j) is completely unreliable (in the event of a blow or attack, the entire load is completely lost).

The task is to develop such a plan for the transportation of all cargo from storage points to points of consumption, which provides minimal possible cargo losses.

All possible routes (i, j) deliveries will be considered acceptable. But we will consider only such a case when $0 < p_{ij} < 1$ or $\forall (i, j)$ Thus, the situation for which an appropriate mathematical model will be built is characterized by the following conditions:

1. About the probability of the appearance of threats losses (for example, as a result of a blow) nothing is known.
2. It is necessary to calculate the appearance of threats of various losses.
3. The solution is implemented only once, so there is no statistical information.
4. Losses are expected on only one of the routes.

In the accepted assumptions, it is reasonable to use the minimax criterion as a criterion for evaluating the efficiency of traffic flow distribution. This criterion is often called the guaranteed result criterion (the «pessimism»

criterion) or the «bottleneck» criterion. This is due to the fact that it makes it possible to find the best of the worst possible admissible solutions.

Consider a closed (balanced) transport problem, that is, a problem for which the condition holds $\sum_{i=1}^n a_i = \sum_{j=1}^m b_j$.

The admissible solution of the problem is determined by the matrix $(x_{ij})_{i=1,2,\dots,n}^{j=1,2,\dots,m}$, where each element of the matrix x_{ij} is equal to the volume of transportation of goods from point i to point j . Taking into account the balance condition, we obtain the following standard constraints of the transport problem:

$$\begin{aligned} \sum_{j=1}^m x_{ij} &= a_i, \quad i = 1, 2, \dots, n, \\ \sum_{i=1}^n x_{ij} &= b_j, \quad j = 1, 2, \dots, m, \\ x_{ij} &\geq 0, \quad \forall(i, j). \end{aligned} \tag{1}$$

The criterion of the problem with taking into account of the above assumptions is the minimax criterion:

$$\max_{\substack{i=1,2,\dots,n \\ j=1,2,\dots,m}} p_{ij} x_{ij} \rightarrow \min. \tag{2}$$

Taking into account the limitation and closedness of the domain of admissible solutions, which is determined by relations (1), it can be stated that the problem always has an optimal solution. We denote the value of the criterion at the optimal solution by V . It is obvious that V is a strictly positive value.

It follows from (2) that for the optimal solution of the problem $\forall(i, j), i = 1, 2, \dots, n, j = 1, 2, \dots, m$ there is inequality:

$$p_{ij} x_{ij} \leq V. \tag{3}$$

Let's introduce new variables by putting:

$$z = \frac{1}{V}, \quad y_{ij} = z p_{ij} x_{ij} \tag{4}$$

Then mathematical model of the problem of distribution of traffic flows (or models distributed cargo delivery) takes the form of a linear programming problem (LPP) with $(nm+1)$ variables:

$$z \rightarrow \max \tag{5}$$

subject to restrictions:

$$\begin{aligned} z a_i - \sum_{j=1}^m \frac{y_{ij}}{p_{ij}} &= 0, \quad i = 1, 2, \dots, n, \\ z b_j - \sum_{i=1}^n \frac{y_{ij}}{p_{ij}} &= 0, \quad j = 1, 2, \dots, m, \\ 0 \leq y_{ij} &\leq 1, \quad \forall(i, j). \end{aligned} \tag{6}$$

This problem, in turn, can be solved by the usual methods of finding optimal solutions of the LPP (simplex method, interior point method, ellipsoid method and others [12; 13]). Note that the problem can be solved under the condition that not all routes are admissible. In this case, in (6) it is necessary to limit yourself to only admissible routes and move from equations to inequalities.

Inequalities follow from relations (6):

$$\begin{aligned} z a_i &\leq \sum_{j=1}^m \frac{1}{p_{ij}}, \quad i = 1, 2, \dots, n, \\ z b_j &\leq \sum_{i=1}^n \frac{1}{p_{ij}}, \quad j = 1, 2, \dots, m. \end{aligned}$$

In accordance with an upper estimate for the value of the objective function:

$$z \leq \min \left\{ \min_{\substack{i=1,2,\dots,n \\ a_i > 0}} \sum_{j=1}^m \frac{1}{a_i p_{ij}}, \min_{\substack{j=1,2,\dots,m \\ b_j > 0}} \sum_{i=1}^n \frac{1}{b_j p_{ij}} \right\}.$$

Let's consider the simplest (partial) case, when the volumes of storage at all points are the same and the volumes of product needs are also the same at all points of consumption:

$$a_1 = a_2 = \dots = a_n = a, \quad b_1 = b_2 = \dots = b_m = b.$$

It follows $an = bm$ from the condition of balance of the problem, and from relations (6) we have:

$$z = \frac{1}{na} \sum_{i=1}^n \sum_{j=1}^m \frac{y_{ij}}{p_{ij}} = \frac{1}{mb} \sum_{i=1}^n \sum_{j=1}^m \frac{y_{ij}}{p_{ij}} \leq \frac{1}{na} \sum_{i=1}^n \sum_{j=1}^m \frac{1}{p_{ij}}.$$

Thus, the maximum of the objective function z is reached at:

$$y_{ij} = 1, \quad i = 1, 2, \dots, n, \quad j = 1, 2, \dots, m$$

and this maximum is equal to the magnitude

$$z^* = \frac{1}{na} \sum_{i=1}^n \sum_{j=1}^m \frac{1}{p_{ij}}.$$

Let's enter the notation:

$$Q = \sum_{i=1}^n \sum_{j=1}^m \frac{1}{p_{ij}}.$$

From (4) follows that the optimal product delivery plan in this simplest case is determined by formulas:

$$x_{ij} = \frac{a}{p_{ij} Q} \quad i = 1, 2, \dots, n, \quad j = 1, 2, \dots, m.$$

Let's consider the case now when among the routes there are absolutely reliable routes, i. e. such routes (i, j) , for which $p_{ij} = 0$. In this case, the task is divided into two stages. The first of them solves the transport problem of the following type:

$$\begin{aligned} \sum_{p_{ij}=0} x_{ij} &\rightarrow \max \\ \sum_{j=1, p_{ij}=0}^m x_{ij} &\leq a_i, \quad i = 1, 2, \dots, n, \\ \sum_{i=1, p_{ij}=0}^n x_{ij} &\leq b_j, \quad j = 1, 2, \dots, m, \\ x_{ij} &\geq 0 \quad \forall(i, j). \end{aligned}$$

If it was possible to deliver all the goods to their destinations, the problem is solved. Otherwise, we add to the obtained solution the solution of a new transport problem of the form (5)-(6), in which there are only unreliable routes ($p_{ij} > 0$) and we are limited to the remaining goods in storage points and delivery points.

Conclusions

The article is devoted to the problem of cargo delivery under the condition of unreliability of transport connections, which belongs to the field of transport logistics.

Such a problem arises in the conditions of martial law, as well as in the civilian sphere, when the reliability of transport communications is not guaranteed and can change quite quickly.

As a rule, when solving transport problems by linear programming methods are limited to finding a basic acceptable plan with the minimum possible number of transportation routes. However, when implementing such plans, the reliability of cargo delivery is sharply reduced, and the risks of losses during transportation increase. In the presence of possible losses during cargo transportation, it is much more reasonable to diversify delivery routes. In addition, even in peacetime, diversification allows more efficient use of existing ways of delivering goods. For example, the load on the road surface is reduced, the

intensity of traffic on individual routes is reduced, and the risks of traffic accidents are reduced. All of the above shows the relevance of researching mathematical models of transport problems, in which, in addition to the known criteria (total transportation costs), there are also criteria related to the minimization of possible losses.

In the work, a mathematical model of cargo delivery under conditions of risk of losing a part of the goods on one of the routes was built. A method of finding the optimal solution of the considered version of the transport problem by reducing it to a linear programming problem is proposed. The simplest case of the problem is considered, for which it is possible to obtain an optimal solution in an explicit analytical form.

The mathematical model can be generalized to more complex cases of distributed delivery of goods under conditions of uncertainty and risk.

The results of the work can be used in the development and improvement of automated management systems in the field of transport logistics.

References

1. Ballou, R.H. (1987). Basic business logistics. New York.
2. Oklander, M.A. (2000). Kontury ekonomicheskoy logistiki – [Contours of economic logistics]. Kyiv : Naukova dumka. [in Russian]
3. Banko, V.H. (2007). Lohistyka – [Logistics]. 2nd ed., rev. Kyiv : KNT. [in Ukrainian]
4. Krykavskiy, Ye.V., Pokhylchenko, O.A., Chornopyska, N.V., Kostiuk, O.S., & Savina, N.B. (2014). Ekonomika lohistyky – [Economics of logistics] / Ye.V. Krykavskiy, O.A. Pokhylchenko (Eds.). Lviv : Nats. un-t “Lviv. Politehnika”. [in Ukrainian]
5. Perebyinis, V.I., & Perebyinis, O.V. (2005). Transportno-lohistrychni systemy pidprijemstv: formuvannia ta funktsionuvannia – [Transport and logistics systems of enterprises: formation and functioning]. Poltava : RVV PUSKU. [in Ukrainian]
6. Achkasova, L.M. (2017). Mistse i rol transportnoi lohistyky v zahalnyi lohistrychnii systemi – [The place and role of transport logistics in the general logistics system]. *Ekonomika transportnoho kompleksu – Economy of the transport complex*. No. 30. 3. 76–85. [in Ukrainian]
7. Stokolias, V.S. (2014). Efektyvnist transportnoi lohistyky yak skladovoi lohistrychnoi systemy – [The effectiveness of transport logistics as a component of the logistics system]. *Efektivna ekonomika – Effective economy*. No. 7. Retrieved from <http://www.economy.nayka.com.ua/?op=1&z=3216> [in Ukrainian]
8. Boldyrieva, L., Zelinska, H., Khrapkina, V., & Komelina, A. (2019). Problems and Solutions of Transport Logistics. Proceedings of the 2019 7th International Conference on Modeling, Development and Strategic Management of Economic System (MDSMES2019). *Advances in Economics, Business and Management Research*. Vol. 99. P. 317–320. Retrieved from DOI: 10.2991/mdsmes-19.2019.59
9. Ofitsiinyi sait Derzhavnoi sluzhby statystyky – [Official website of the State Statistics Service]. www.ukrstat.gov.ua. Retrieved from <http://www.ukrstat.gov.ua> [in Ukrainian]
10. Transport and information server International freight transportation online Lardi-Trans. lardi-trans.com/en/. Retrieved from <https://lardi-trans.com/en/>
11. Yashkin, D.S. (2016). Metody optymizatsii v upravlinni lohistrychnymi ryzykamy promyslovykh pidprijemstv – [Optimization methods in the management of logistics risks of industrial enterprises]. *Ekonomika: realii chasu – Economics: time realities*. No. 5(27). P. 52–58. Retrieved from <https://economics.net.ua/527-2> [in Ukrainian]
12. Maksyshko, N.K., & Nehrei, M.V. (2015). Optymizatsiini metody ta modeli – [Optimization methods and models]. Kyiv : KOMPRYNТ. [in Ukrainian]
13. Mihalevich, V.S., Trubin, V.A., & Shor, N.Z. (1986). Optimizacionnye zadachi proizvodstvenno-transportnogo planirovaniya: Modeli, metody, algoritmy – [Optimization problems of production and transport planning: Models, methods, algorithms]. Moskva : Nauka. [in Russian]
14. Cordeau, J.F., Pasin, F., & Solomon, M.M. (2006). An integrated model for logistics network design. *Annals of Operations Research*. No. 144. P. 59–82. Retrieved from <https://doi.org/10.1007/s10479-006-0001-3>
15. Bokor, Z. (2012). Cost Calculation Model for Logistics Service Providers. *Promet – Traffic&Transportation*. No. 24(6). P. 515–524. Retrieved from <https://doi.org/10.7307/ptt.v24i6.1198>
16. Shramenko, N.Y., & Shramenko, V.O. (2018). Mathematical model of the logistics chain for the delivery of bulk cargo by rail transport. *Naukovyi Visnyk NHU*. No. 5. P. 136–141. Retrieved from <https://doi.org/10.29202/nvngu/2018-5/15>

17. Facchini, F, Oleśków-Szłapka, J, Ranieri, L, & Urbinati, A. (2020). Maturity Model for Logistics 4.0: An Empirical Analysis and a Roadmap for Future Research. *Sustainability*. No. 12(1). P. 86. Retrieved from <https://doi.org/10.3390/su12010086>
18. Fernandez Pernet, S., Amaya, J., Arellana, J., & Cantillo, V. (2022). Questioning the implication of the utility-maximization assumption for the estimation of deprivation cost functions after disasters. *International Journal of Production Economics*. No. 247. May. P. 108435. Retrieved from <https://doi.org/10.1016/j.ijpe.2022.108435>
19. Kundu, T., Sheu, J.-B., & Kuo, H.-T. (2022). Emergency logistics management – Review and propositions for future research. *Transportation Research Part E: Logistics and Transportation Review*. No. 164. P. 102789, August. Retrieved from <https://doi.org/10.1016/j.tre.2022.102789>
20. Finger, G.S.W., & Lima-Junior, F.R. (2022). A hesitant fuzzy linguistic QFD approach for formulating sustainable supplier development programs. *International Journal of Production Economics*. No. 247. P. 108428. Retrieved from <https://doi.org/10.1016/j.ijpe.2022.108428>
21. Gharbi, A., Kenné, J.-P., & Kaddachi, R. (2022). Dynamic optimal control and simulation for unreliable manufacturing systems under perishable product and shelf life variability. *International Journal of Production Economics*. No. 247. May. P. 108417. Retrieved from <https://doi.org/10.1016/j.ijpe.2022.108417>
22. Takeyasu, K., & Kainosho, M. (2014). Optimization technique by genetic algorithms for international logistics. *J. Intell Manuf.* No. 25. P. 1043–1049. Retrieved from <https://doi.org/10.1007/s10845-013-0823-1>
23. Podvalna, H.V. (2012). Optyimizatsiia perevezen: problemy vykorystannia «transportnoi zadachi» – [Optimization of transportations: problems of the use «transport task»]. *Visnyk Natsionalnoho universytetu «Lvivska politehnika» – Bulletin of the National University «Lviv Polytechnic»*. No. 735. P. 176–180. [in Ukrainian].

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RECURRENCE ANALYSIS OF THE BEHAVIOR OF EDTECH SECTOR AGENTS IN THE CONDITIONS OF COVID-19

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Key words:

recurrent analysis, EdTech sector,
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time series, COVID-19

This article is devoted to the problem of uncertainty in the behavior of EdTech market agents in the context of COVID-19. The relevance of the work is explained by digital transformation, which affects the conditions for the existence and development of EdTech sector agents (corporations and holding companies), as well as the growing need for new knowledge, skills and abilities to study the behavior of such agents during a pandemic. The aim of the work is to study the behavior of educational corporations and holding companies for the provision of educational services, which is described using an indicator of the value of the shares of these EdTech market agents in the context of COVID-19. To achieve this goal, a database was formed, the behavior of the dynamics of the selected time series was analyzed, and its type, the presence of a trend or randomness in the behavior of the time series, was determined. This process is implemented in the software environment for processing, mathematical modeling and graphical visualization of data R. The practical value of the study lies in determining the nature of the behavior of the time series during the pandemic, which will allow using these results when forecasting on the stock market of educational technologies to improve the accuracy of the forecast.

РЕКУРЕНТНИЙ АНАЛІЗ ПОВЕДІНКИ АГЕНТІВ ЕДТЕХ СЕКТОРУ В УМОВАХ COVID-19

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Ключові слова:

рекурентний аналіз,
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цифрова трансформація, акції,
часові ряди, COVID-19

Дана стаття присвячена проблемі невизначеності в поведінці агентів EdTech ринку в умовах COVID-19. Актуальність роботи пояснюється цифровою трансформацією, яка впливає на умови існування та розвитку агентів EdTech сектору (корпорацій та холдингових компаній), а також у зростанні потреби в нових знаннях, уміннях та навичках для дослідження поведінки таких агентів в період пандемії. Мета роботи полягає у дослідженні поведінки освітніх корпорацій та холдингових компаній з надання освітніх послуг, яка описується на основі вартості акцій цих агентів EdTech ринку в умовах COVID-19. Для реалізації поставленої мети сформовано базу даних, проаналізовано поведінку динаміки обраного часового ряду та визначено її тип, наявність тренду чи випадковості в поведінці часового ряду. Цей процес реалізовано в програмному середовищі для обробки, математичного моделювання та графічної візуалізації даних R. Практична цінність дослідження полягає у визначенні характеру поведінки часового ряду в період пандемії, що дозволить використовувати ці результати при прогнозуванні на фондовому ринку освітніх технологій для підвищення точності прогнозу.

Statement of the problem

Digital transformation affects the processes of social life, provides new opportunities and ways of communication, changes the conditions of work, training, and everyday activities. The consequence of this is the

growing need for new knowledge, skills and abilities and the increasing integration of education with various sectors of the economy.

In the context of the COVID-19 pandemic, new living conditions draw attention directly to the model of our behavior, determine that the issues of adhering to the rules

of safe interaction and the possibility of developing within the new established boundaries are priority basic goals for each of us. All over the world, offices and educational institutions have been forced to close and go online. New challenges and updated values have actualized the demand for specific goods and services that provide a solution to complex issues of the socio-economic security of everyone in a pandemic, have led to a fundamental change in the behavior of subjects in all online and offline markets of educational services. At the moment, timely monitoring of changes in the behavior of corporations and holding companies that manage educational institutions or provide educational services leads to the formation of a new quality of management, faster business adaptation, changes in the basic principles of interaction and functioning of subjects in all areas, explanation of current trends and prediction of the formation of new trends of key indicators.

Digital technologies are the basis for new ways of obtaining knowledge (both in educational institutions and outside them). In modern conditions of life, the concept of «lifelong learning» becomes relevant, since information and knowledge quickly become obsolete. As a result, there is an active development of educational technologies (EdTech), in particular online courses, mobile applications, etc. [1].

The most popular areas in the EdTech sphere are [2]: educational marketplaces (online courses, interactive textbooks, webinars) for self-study of educational material; programs and platforms for communication between participants in the educational process; technology and learning aids to detect plagiarism and identify online learners; learning bots to help you get assignments and check them. In a pandemic, educational technologies (EdTech) are developing especially actively, and the widespread use of such methods of obtaining knowledge provides an opportunity for participants in the EdTech sphere to choose.

Analysis of recent studies and publications

Modern means of the educational process (information and communication and interactive methods, distance learning methods) have gained wide popularity in the world due to the variability of the structure of educational technologies. The tutorial [3] reveals the theoretical aspects of the technologization of education, analyzes the most common educational technologies of modern educational institutions in Ukraine and Poland. The authors of the tutorial characterize educational, educational, social and educational, information technologies and management technologies. Particular attention is paid to the ways of formation of media literacy of students and protection from harmful informational influences.

The complexity of the EdTech system and the rationale for a systematic approach to EdTech research are discussed in the article [4]. The authors propose a network view of EdTech to provide insight into stakeholder roles, interactions, and influence points that can lead to significant improvements in learning outcomes. Building a robust EdTech knowledge graph can be a valuable tool for understanding and researching EdTech.

The creation of EdTech startups favors the development of online education. The article [5] is devoted to the study

of the directions and prospects for the development of online education as a powerful accumulator of educational innovative technologies, namely, the analysis of the features of the global EdTech market, the study of global trends in the sphere of education, the diagnosis of problems in the Ukrainian development of educational startups and the study of educational technologies in terms of investment attractiveness. The research identified the main inhibitory factors for the active use of educational technologies in Ukraine, such as the lack of a sufficient number of customers, limited resources in educational institutions and insufficient state interest in innovative projects. It was also proposed to economically stimulate Ukrainian developers, actively popularize AR / VR technologies and form ecosystems (fast track), the task of which is to help in the development and rapid growth of educational startups.

Technology allows students to be more involved in the learning process and remember more. Also, educational technologies (EdTech) increase motivation for learning and promote better academic performance due to factors such as ease of use, psychological satisfaction and interest in new learning tools [6]. Promoting motivation to learn is especially important during the COVID-19 pandemic.

A significant number of publications have been devoted to the development of EdTech in the context of the COVID-19 pandemic in recent years. Indian researcher Damini Dutta [7] describes the role of business intelligence in EdTech organizations to adapt to regular changes. Porter's five forces analysis is the basis of the study of the influence factors on EdTech of the organization and competitors. The use of skills and different roles of business analysts determines the competitiveness and positioning of educational organizations.

The authors of the article [8] consider how the coronavirus crisis and broad quarantine rules boost online education or help the system prepare for the next crisis. The example of Learning Management Systems and Language Learning Platforms illustrates how EdTech companies can adapt their business models to changing market conditions and situational customer needs. In addition, with the help of user behavior data, the company has the opportunity to constantly innovate in existing EdTech systems.

The article [9] considers the problems associated with learning foreign languages during the lockdown during COVID-19. The authors conducted a SWOC analysis to identify possible strengths, weaknesses, opportunities and challenges associated with online learning during a pandemic. Based on the results of the content analysis, it was concluded that the flexibility of the time and location of students, the reach of a wide audience and quick feedback are the strengths of educational technologies. The weak side is the lack of eye contact and technical shortcomings in students. But the development of EdTech and academic flexibility are opportunities for distance learning under quarantine restrictions.

The problems that arise when commercial decisions are made too quickly for digital learning in the context of the COVID-19 pandemic are discussed in [10]. The authors state that an urgent task in the context of the COVID-19 pandemic is to actively engage people, networks, projects,

research and public discussions to promote the critically and reflexively informed practice of digitalization of education.

The impact of COVID-19 on business model innovation in EdTech startups is discussed in [11]. Since the pandemic was quick and unexpected, companies have had little time to change their own strategy. The authors found that EdTech startups focused their marketing efforts on the benefits of distance learning and the convenience of using products at home. Also, the parents of students and the formation of tariff plans for them became a new goal. Most of the EdTech startups have continued to offer their services free of charge, which has increased the awareness of the tools and the user base.

The research of the nature of structural changes in the behavior of digital agents in the financial market based on the use of recurrence quantification analysis was considered in the article [12]. The behavior of EdTech market agents is also subject to structural changes under quarantine restrictions, so the practical value of the study is to determine the characteristics of the behavior model of EdTech market agents before and after the introduction of quarantine restrictions due to COVID-19.

Objectives of the article

The purpose of the article is to study the behavior of EdTech market agents in the context of COVID-19, therefore, the dynamics of changes in the value of shares of educational corporations and holding companies for the provision of educational services is analyzed using recurrence diagrams. The object of the study is the time series of the value of shares of educational corporations and holding companies for the provision of educational services according to Google Finance. The subject of the study is the methods of nonlinear dynamics.

The main material of the research

Consider the stock price performance of three EdTech companies before and during the COVID-19 pandemic: Chinese holding company that offers after-school education and tutoring services to elementary and high school students TAL Education Group (NYSE: TAL), Chinese private education provider New Oriental Education & Technology Group Inc. from the USA, which operates commercial institutions of higher education (NYSE: ATGE). The dynamics of stock prices of these companies based on data from the Google Finance service [13] for the period from October 22, 2010 to April 07, 2022 (weekly data) is shown in Figure 1.

The imposition of a lockdown in connection with the COVID-19 pandemic with the complete closure of educational institutions [14] (January 23, 2020 in China and March-April 2020 in the USA) caused an active growth in the value of shares of companies in the EdTech sector. The sharp drop in the value of shares of Chinese companies in May 2021 is due to the introduction of restrictions by the Chinese authorities on online educational platforms and companies that provide tutoring services as part of the school curriculum. According to the new rules, all companies in this sector must be registered as non-profit organizations. They will no longer be able to conduct IPOs and attract foreign capital, as well as provide tutoring services to the detriment of public holidays, weekends and school holidays.

American company Adtalem Global Education Inc. is associated with medical schools, so the drop in the value of the shares of this company is caused by an increase in the number of students in medical institutions in the 3rd quarter of 2021 and the emergence of the Omicron COVID-19 strain in February 2022.

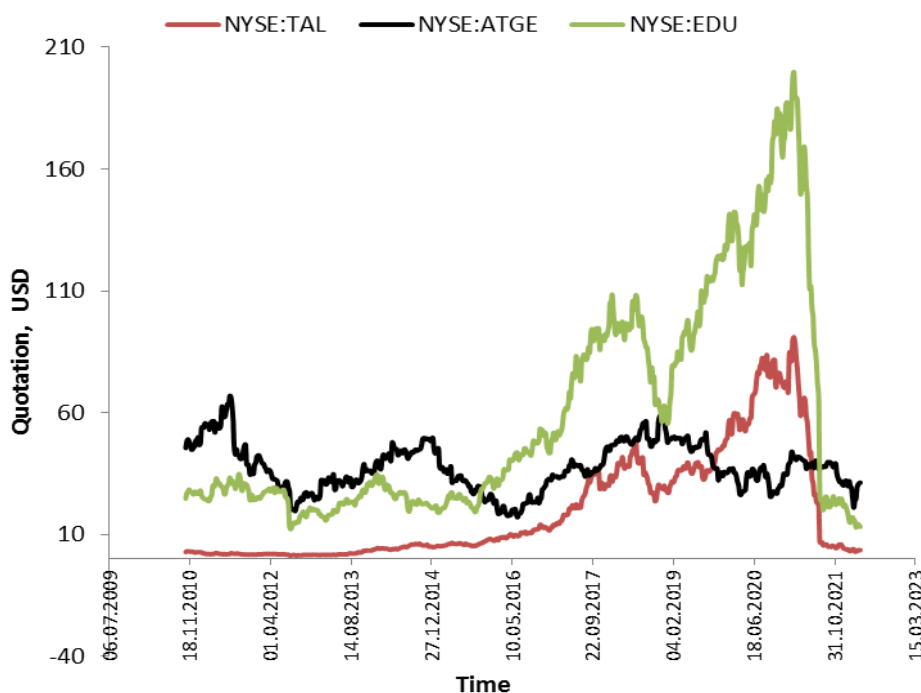


Fig. 1 – Stock quotes of EdTech companies for the period from October 22, 2010 to April 07, 2022

Even before the COVID-19 pandemic, the global education industry was facing a chain of challenges, including limited educational infrastructure, lack of qualified teachers, low public spending and high dropout rates, especially in less developed countries. The pandemic has only exacerbated these problems as most schools closed and uncertainty about the future increased.

The study of the time series of the stock of shares of EdTech companies was carried out by means of recurrence analysis. For the generated database of incoming data, the indicators of the first local minimum of the mutual information function (AMI) and the dimension of the time series (using the false nearest neighbor algorithm) are calculated, on the basis of which the recurrence diagram is built [15]. The calculation of the optimal delay time of the time series, the nearest false neighbors and the construction of the recurrent diagram were performed in the R environment using the tseriesChaos and fractal libraries. The analysis of the statistical characteristics of the recurrence diagram makes it possible to determine the measures of complexity of the structures of the recurrent diagrams [12]: recurrence rate (RR), percent recurrence (REC%), percent determinism (DET%), average diagonal line length (ADL) and maximum diagonal line length (MDL) of the recurrent diagram.

Based on the analysis of the statistical characteristics of the recurrence diagram, it is possible to determine the presence of homogeneous processes with independent random values; processes with slowly changing parameters; periodic or oscillating processes corresponding to nonlinear systems. Thus, the analysis of the recurrence surface makes it possible to evaluate the characteristics of a nonlinear object on relatively short time series, which makes it possible to make prompt decisions regarding the management of the object.

Based on the results of the analysis of the value of shares of selected EdTech companies for 599 weeks in 2010–2022, recurrence diagrams were obtained (Figure 2), the topological analysis of which allows us to determine the structure, type, change in the behavior of the object of study, the boundaries of phase transitions, and establish the sensitivity of quantitative measures.

The topology of recurrence plots for Chinese EdTech stocks traded on the New York Stock Exchange (NYSE: TAL and NYSE: EDU) shows abrupt changes in system dynamics, which causes white areas or stripes to appear. There is a gradual change in the behavior of representatives of the EdTech sphere, a drift of the attractor (white lower and upper corners of the diagram, a diagonal line) and the formation of a new structure during the period of influence of the consequences of COVID-19.

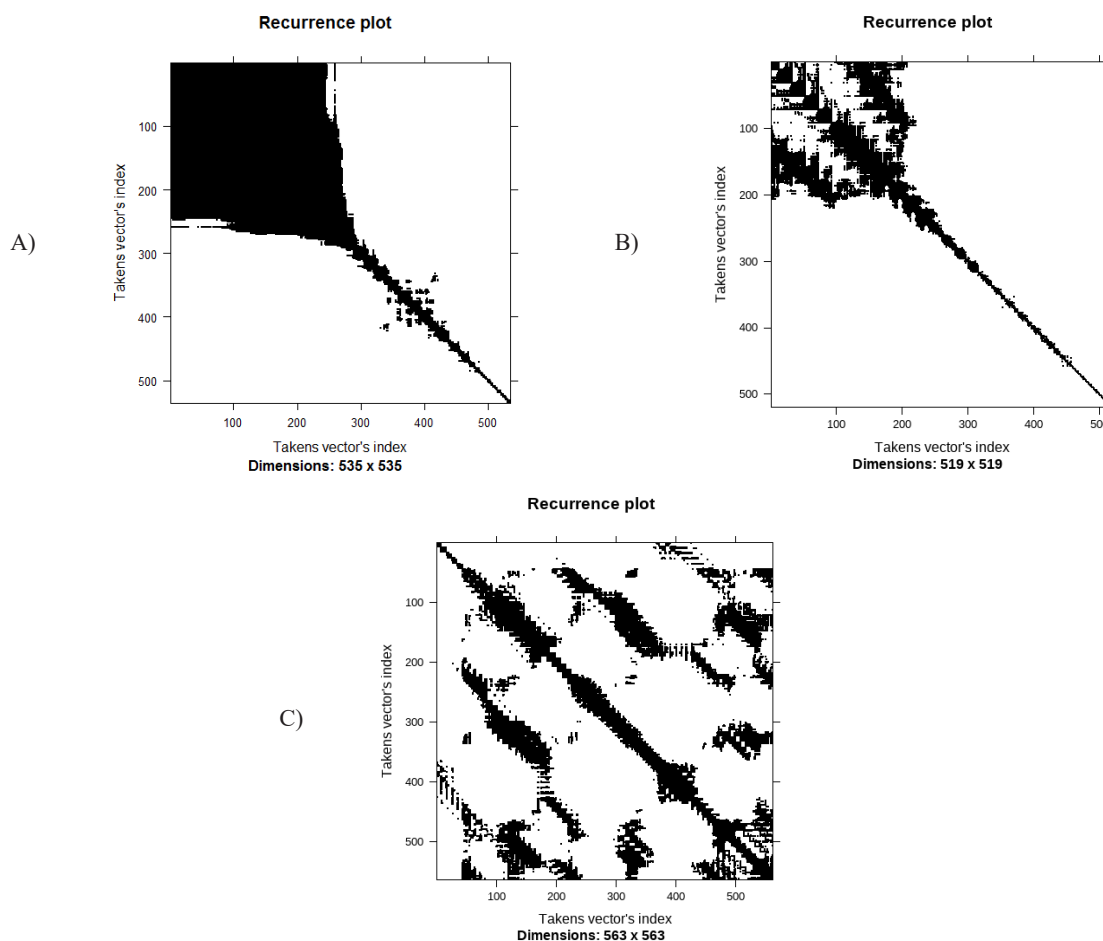


Fig. 2 – Recurrence plots of the stock of shares of educational corporations and holding companies providing educational services for the period from October 22, 2010 to April 07, 2022: A) NYSE: TAL, B) NYSE: EDU, C) NYSE: ATGE

Topology of the recurrence diagram for the value of shares on the New York Stock Exchange of the American Adtalem Global Education Inc. (NYSE: ATGE) contains short diagonal stripes, which indicates the stochastic behavior of the company in the EdTech market and the return of the trajectory to the same region of phase space at different time periods.

Quantitative characteristics of recurrence diagrams are given in Table 1.

Since the value of the percent recurrence (REC%) for all charts of stock prices of EdTech companies is more than 5%, we can conclude that the time series behavior of the stock prices of these companies is irregular. For NYSE: EDU stocks, the average percent recurrence is moderate, while for NYSE: TAL and NYSE: ATGE it is high.

The percent determinism (DET%) characterizes the level of predictability of the time series. Diagonal structures show the time during which a segment of the trajectory passes very close to another segment of the trajectory. For all three time series considered, the level of predictability is over 90%.

The average diagonal line length (ADL) characterizes the average time during which two sections of the trajectory pass close to each other and can be considered as the average predictability time of the series. According to the results of calculations, the shortest average predictability

time has the time series NYSE: ATGE (7.024 points), and the longest – NYSE: TAL (67.181 points).

The maximum diagonal line length (MDL) characterizes the length of the trend. The shortest trend has a time series NYSE: EDU (315 points), and the longest – NYSE: ATGE (519 points).

Recurrence quantification analysis (RQA) can be used not only to quantify the dynamics of the entire time series, but also to study changes in the dynamics of the series. Windowed recurrence quantification is potentially a very powerful tool for detecting changes in subsets of a time series. To study the time structure, the series were divided into two adjacent windows that do not intersect, 128 data points each, and the statistical characteristics of each of them were calculated. The windows are chosen in such a way as to analyze the behavior of EdTech companies before and after the introduction of quarantine restrictions. The first window covers the period from May 19, 2017 to October 25, 2019, and the second window covers the period from November 1, 2019 to April 07, 2022.

Recurrence plots for the windows of the TAL Education Group shares are shown in Figure 3, and the statistical characteristics of these plots are shown in Table 2.

Values of the percent recurrence (REC%) in the periods before the start of the pandemic and after did not change much and indicate the irregular behavior of the time series.

Table 1 – Statistical characteristics of recurrence plots of stock prices of EdTech companies in 2010–2022

Measures of the recurrence plot	NYSE: TAL	NYSE: EDU	NYSE: ATGE
REC%	25.800	8.261	16.098
DET%	99.255	94.634	92.902
ADL	67.181	8.191	7.024
MDL	458	315	519

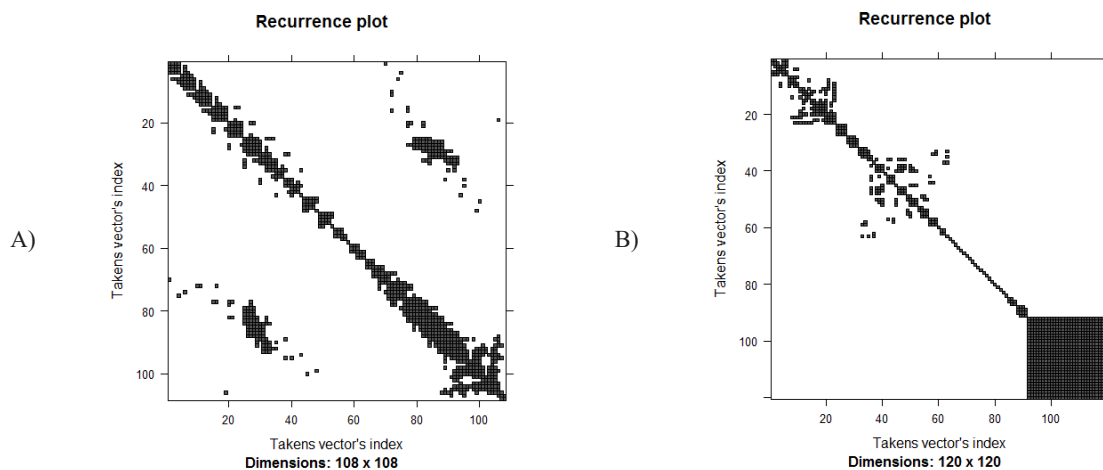


Fig. 3 – Recurrence plots of the stock of shares of NYSE: TAL for the period: A) May, 19, 2017 – October, 25, 2019, B) November, 01, 2019 – April, 07, 2022

Table 2 – Statistical characteristics of recurrence plots of stock prices of NYSE: TAL

Measures of the recurrence plot	May, 19, 2017 – October, 25, 2019	November, 01, 2019 – April, 07, 2022
REC%	8.52	8.53
DET%	84.31	90.23
ADL	5.48	9.01
MDL	44	28

After the start of quarantine measures, the predictability of the time series increased from 84.31% to 90.23%. The average predictability time also increased from 5.48 points to 9.01 points.

Windowed recurrence diagrams for the stock price of New Oriental Education & Technology Group Inc. are presented in Figure 4, and the statistical characteristics of these plots are shown in Table 3.

Values of the percent recurrence (REC%) in the periods before and after the onset of the pandemic indicates the irregular behavior of the time series. After the start of quarantine measures, the predictability of the time series increased from 79.87% to 86.81%. The average predictability time also increased from 3.67 points to 8.91 points.

Windowed recurrence plots of Adtalem Global Education Inc stock prices are presented in Figure 5, and the statistical characteristics of these plots are shown in Table 4.

Values of the percent recurrence (REC%) in the periods before and after the start of the pandemic indicate the irregular behavior of the time series. After the start of quarantine measures, there is a slight decrease in the predictability of the time series from 96.40% to 93.69%. The average predictability time also decreased from 11.39 points to 6.80 points.

The presence of black strips in Figure 5.B indicates the non-stationarity of the behavior of the shares of Adtalem Global Education Inc., which means the formation of a transition period. Periodic patterns characterize the

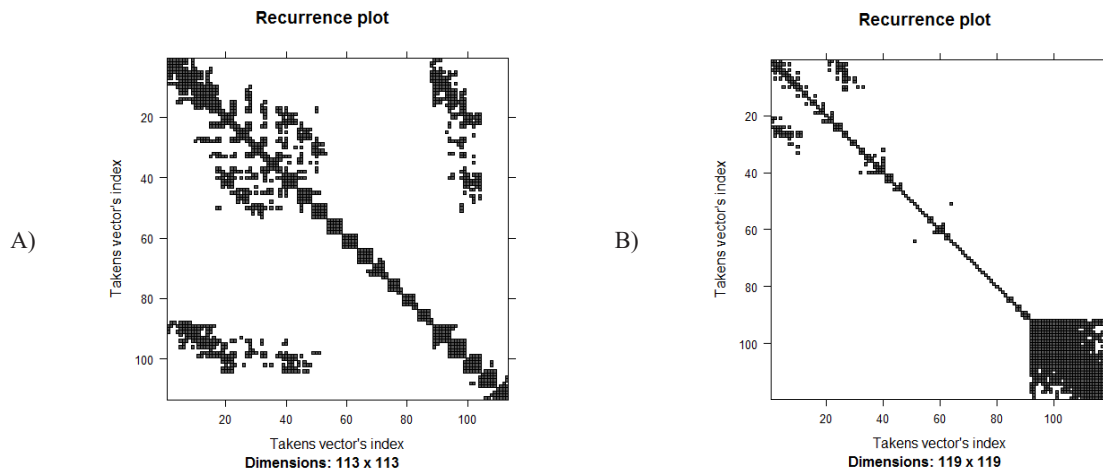


Fig. 4 – Recurrence plots of the stock of shares of NYSE: EDU for the period: A) May, 19, 2017 – October, 25, 2019, B) November, 01, 2019 – April, 07, 2022

Table 3 – Statistical characteristics of recurrence plots of stock prices of NYSE: EDU

Measures of the recurrence plot	May, 19, 2017 – October, 25, 2019	November, 01, 2019 – April, 07, 2022
REC%	10,97	6,74
DET%	79,87	86,81
ADL	3,67	8,91
MDL	37	27

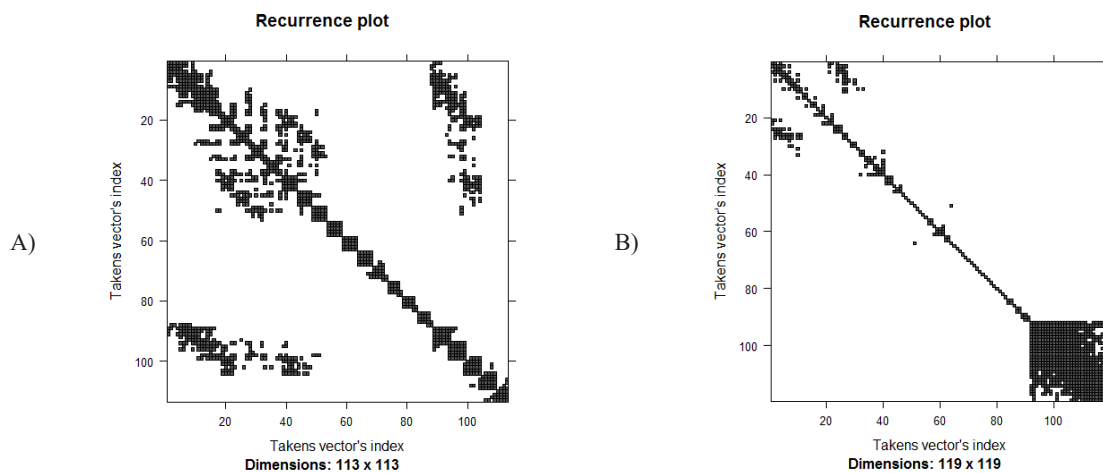


Fig. 5 – Recurrence plots of the stock of shares of NYSE: ATGE for the period: A) May, 19, 2017 – October, 25, 2019, B) November, 01, 2019 – April, 07, 2022

Table 4 – Statistical characteristics of recurrence plots of stock prices of NYSE: ATGE

Measures of the recurrence plot	May, 19, 2017 – October, 25, 2019	November, 01, 2019 – April, 07, 2022
REC%	46.4	51.59
DET%	96.40	93.69
ADL	11.39	6.80
MDL	111	100

cyclicality of certain changes in the value of shares, the distance between which determines the period. Black isolated dots characterize random interest in the value of shares of this company, its rapid change.

Conclusion

The research revealed the nature of the behavior of educational corporations and holding companies for the provision of educational services in the context of COVID-19. New York Stock Exchange share recurrence plots were plotted for a Chinese holding company that offers post-secondary education and tutoring services to elementary and high school students TAL Education Group (NYSE: TAL) and Chinese private education provider New Oriental Education & Technology Group Inc. (NYSE: EDU). For this, weekly data for 599 weeks from 2010–2022 were selected. The dynamics of the value of the shares of both companies has a similar behavior – the time series are non-stationary, but the NYSE: EDU time series has a lower level of predictability than the NYSE: TAL time series. This can be explained by the fact that post-secondary education and tutoring services for primary and secondary school students were less affected by quarantine restrictions than language courses for adults and courses for preparing for professional exams inside China and abroad.

A windowed recurrence analysis was also performed for periods of 128 weeks before and after the introduction of quarantine restrictions. In accordance with its results, it

was revealed that the introduction of quarantine restrictions led to an increase in the level of predictability of the time series by 7% for the shares of TAL Education Group and by 8.7% for the shares of New Oriental Education & Technology Group Inc.

In the research, a recurrence plot of the value of shares of Adtalem Global Education Inc. (USA, NYSE: ATGE) on the New York Stock Exchange was built (weekly data for 599 weeks in 2010–2022). This company operates commercial higher institutions. An analysis of the topology of the recurrence plot indicates that the time series of the value of the shares of this company is non-deterministic and has a stochastic character, and the trajectory returns to the same area of the phase space at different times.

Windowed recurrence analysis of Adtalem Global Education Inc. stock price for periods of 128 weeks before and after the introduction of quarantine restrictions indicates a decrease in the predictability of the time series by 2.8% after the introduction of quarantine restrictions in the USA in March-April 2020. Also, this is due to the fact that Adtalem Global Education Inc. manages medical schools that have experienced an increase in demand for medical education during the pandemic.

The behavior of EdTech sector agents in the context of COVID-19 requires further research, since the EdTech sector in the financial market is represented not only by companies that provide educational services, but also by educational technology companies, scientific publishers, etc.

References

- Velykoivanenko H.I., Skitsko V.I., Kmytiuk T.L. (2019) Educational technologies as a driver of digital economy development. *Modeling and information systems in economics*. № 97 (February 2019). P. 55–68. DOI: 10.33111/mise.97.6
- Belymenko O. Pravovi aspekty EdTech proektiv – [Legal aspects of EdTech projects]. *Legal IT Group*. Retrieved from <https://legalitgroup.com/ed-tech-navchaj-ves-svit> [in Ukrainian]
- Yankovych O., Bednarek Yu., Andzheievskaya A. (2015) Osvitni tekhnolohii suchasnykh navchalnykh zakladiv : navchalno-metodychnyi posibnyk – [Educational technologies of modern educational institutions : teaching tutorial]. Ternopil : TNPU imeni V. Hnatiuka. [in Ukrainian]
- Bapna A., Nicolai S., Myers C., Pellini A., Sharma N., & Wilson S.A. (2021) Case for a Systems Approach to EdTech. (Position Paper) *EdTech Hub*. DOI: <https://doi.org/10.5281/zenodo.4604769>
- Perminova S. (2021) Creation of EdTech startupises as a factor of online education development. *Efektivna ekonomika – Efficient economy*. No. 3. DOI: 10.32702/2307–2105–2021.3.82 [in Ukrainian]
- Niaz Makhdam Muhammad, Mitch Schneider (2021) The Role of EdTech in Enhancing Learners' Motivation. *Selangor Science & Technology Review. Spetial Issue: Science and Technology for Society*. Volume 5. No. 5. P. 73–77.
- Damini Dutta (March 2022) EdTech with Perspective of Business Analysis. *International Journal of Scientific Research in Engineering and Management (IJSREM)*. Volume 06. Issue 03. P. 1–7. DOI: 10.55041/IJSREM12044
- André Renz, Swathi Krishnaraja, Thomas Schildhauer (June 2020) A new dynamic for EdTech in the age of pandemics. *Special Call for Contribution on Crisis-driven Innovation ISPIM 2020. Conference Paper*. P. 1–12. URL: https://www.researchgate.net/publication/342077840_A_new_dynamic_for_EdTech_in_the_age_of_pandemics
- Babelyuk O.A., Koliassa O.V., Kushlyk O.P., Smaglyi V.M. (November 2020) Using Distance EdTech for Remote Foreign Language Teaching During the COVID-19 Lockdown in Ukraine. *Arab World English Journal (AWEJ). Special Issue on the English Language in Ukrainian Context*. P. 4–15. DOI: <http://dx.doi.org/10.24093/awej/elt3.1>

10. Marko Teräs, Juha Suoranta, Hanna Teräs, Mark Curcher (2020) Post-Covid-19 Education and Education Technology «Solutionism»: a Seller’s Market. *Postdigital Science and Education*. Published online: 13 July 2020. DOI: 10.1007/s42438-020-00164-x
11. Ulanova, Y., & Suoranta, M. (2021). Impact of COVID-19 on Business Model Innovation at EdTech Startups. In *RENT 2021: The 35th Annual Conference on Research in Entrepreneurship and Small Business*. P. 1–19. EIASM – European Institute for Advanced Studies in Management. RENT. Retrieved from <https://jyx.jyu.fi/handle/123456789/79115>
12. Kucherova H.Y., Los V.O., Ocheretin D.V., Biliska O.V., Makazan E.V. (2021) Innovative behavior of bitcoin market agents during COVID-19: recurrence analysis. *CEUR Workshop Proceedings*. No. 3048. P. 1–15. Retrieved from <http://ceur-ws.org/Vol-3048/paper01.pdf>
13. Google Finance. Retrieved from <https://www.google.com/finance>
14. COVID-19 Lockdown dates by country. *Kaggle*. URL: <https://www.kaggle.com/datasets/jcyzag/covid19-lockdown-dates-by-country>
15. Kennel M.B., Brown R., Abarbanel H.D.I. Determining embedding dimension for phase-space reconstruction using a geometrical construction, *Phys Rev A* 45. 1992. P. 3403–3411. doi:10.1103/PhysRevA.45.3403

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FUNCTIONAL ANALYSIS OF THE SALES DEPARTMENT OF AN ELECTRONIC COMMERCE ENTERPRISE

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Key words:

functional analysis,
electronic commerce,
sales department,
business processes,
modeling of business processes

The article investigates and systematizes the functions of the sales department at e-commerce enterprises with plans for further use in the development of a project to create a decision support system for the sales department. The analysis was carried out using the methods of systematization, generalization, functional analysis and graphical representation of processes and relationships in the Unified Modeling Language. The main functions of any sales department at a trading enterprise, as well as additional functions that take into account the specifics of the activities of e-commerce enterprises, are highlighted. The interrelationships of the divisions of the sales department at e-commerce enterprises were studied. The concepts, features and problems of the functioning of the sales department at e-commerce enterprises are analyzed. One of the main problematic aspects of the functioning of the sales department at an e-commerce enterprise is the variety of existing structures depending on the type of enterprise and the personal vision of the entrepreneur, as a result of the lack of a single effective system for creating a sales department at an e-commerce enterprise. It was determined that all the mentioned shortcomings make it difficult to create an effective sales department at e-commerce enterprises and, as a result, significantly affect the profitability and economic attractiveness of such enterprises. In order to systematize the functions of one of the most important for generating profit divisions of the enterprise, a model of representation of functional processes and internal relationships was developed using the Unified Modeling Language. The results of the conducted functional analysis of the sales department at e-commerce enterprises are planned to be used to develop a project for a corresponding automated decision support system.

ФУНКЦІОНАЛЬНИЙ АНАЛІЗ ДІЯЛЬНОСТІ ВІДДІЛУ ПРОДАЖІВ ПІДПРИЄМСТВА ЕЛЕКТРОННОЇ ТОРГІВЛІ

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Ключові слова:

функціональний аналіз,
електронна торгівля,
відділ продажів, бізнес-процеси,
моделювання бізнес-процесів

У статті досліджено та систематизовано функції відділу продажів на підприємстві електронної торгівлі з метою подальшого використання у розробці проекту створення системи підтримки прийняття рішень відділом продажів. Аналіз здійснено з використанням методів систематизації, узагальнення, функціонального аналізу та графічного представлення процесів і взаємозв'язків мовою UML. Виділено основні функції будь-якого відділу продажів на торговому підприємстві та додаткові, з урахуванням особливостей діяльності підприємств електронної торгівлі. Досліджено взаємозв'язки підрозділів відділу продажів на підприємстві електронної торгівлі. Проаналізовано поняття, особливості та проблеми функціонування відділу продажів на підприємстві електронної торгівлі. Одним з головних проблемних аспектів функціонування відділу продажів на підприємстві електронної торгівлі визначено різноманітність існуючих структур в залежності від типу підприємства та особистого бачення підприємця, як результат відсутності єдиної ефективної системи створення відділу продажів на підприємстві електронної торгівлі. Визначено, що усі зазначені недоліки ускладнюють створення ефективного відділу продажів на підприємстві електронної торгівлі та, як наслідок, значно впливають на

рентабельність та економічну привабливість таких підприємств. З метою систематизації функцій одного з найбільш важливих для генерування прибутку підприємства відділів, із застосуванням мови UML розроблено модель представлення функціональних процесів і внутрішніх взаємозв'язків. Результати проведеного функціонального аналізу відділу продажів на підприємстві електронної торгівлі планується використати для розробки проєкту відповідної автоматизованої системи підтримки прийняття рішень.

Statement of the problem

In recent years, the share of electronic commerce has been steadily growing on the world and domestic markets. More and more often, trading companies implement and use the possibilities of Internet technologies, which allow entrepreneurs to expand their influence markets, facilitate search and interaction with the target audience, reduce expenses for maintaining warehouse and trading premises, etc.

But at the same time, the e-commerce market is challenging for entrepreneurs because of new forms of distribution, marketing, sales, and work organization. Therefore, there is a need for a more detailed study the peculiarities of the activities e-commerce enterprises, the separation and systematization of the functions the main departments, which is the sales department.

Analysis of latest research and publications

The activities of e-commerce enterprises are the subject of research by foreign and domestic scientists. In particular, one should pay attention to [1] and a series of works by the same author [2–4]. These works consider the content, advantages and disadvantages of e-commerce, features of the application of information technologies used in various functions in the field of retail trade – CRM, ERP, POS equipment, RFID, SCM and others.

Among the publications of domestic authors, it is worth highlighting the article by Khovrak I.V. [5], which reveals the essence, subjects and forms of e-commerce, the main advantages and disadvantages of e-commerce in Ukraine. Krasnokutska N.S. and Kardovska N.S. [6] developed the theoretical provisions of sales management in an online store from the standpoint of a systemic approach and identified the main processes and functions that make up the content of sales management in an online store. Features of the development of Internet trade, advantages and disadvantages that enterprises receive due to the introduction of electronic trade are highlighted in the work of Danko T. and Yavorska N. [7]. This work also carried out a comparative description of certain aspects of traditional trade and Internet trade in its current state.

In the article [8], the authors Bokovets V., Davidyuk L. revealed the prerequisites for the development of electronic commerce, the conditions for its formation as a separate branch of the economy, and also analyzed the largest regions of electronic commerce, companies implementing electronic commerce, and other statistical data regarding online orders in Ukraine.

Therefore, the organization of the activities of e-commerce enterprises has been repeatedly considered in one way or another by researchers, but most scientific achievements are aimed at studying the activities of

enterprises in e-commerce in general. However, the question of distinguishing and systematizing the functions and relationships of the sales department in the context of an e-commerce enterprise, taking into account all the peculiarities of the activities such enterprises, is still relevant. After all, it is the sales department that forms the basis of any trading enterprise and occupies an important place in ensuring its effective functioning.

Goals formulation

The purpose of the article is to carry out a functional analysis of the sales department at the e-commerce company in order to identify and organize the functions of employees, to highlight the relationships between the divisions of the sales department.

Presentation of the main research material

Every modern person has encountered e-commerce enterprises as a buyer, seller or employee. And since the beginning of the COVID-19 pandemic, e-commerce began to occupy an important part of the lives of each of us. According to The Statistical Portal [9], in the period 2014–2019, the volume of global retail e-commerce increased by 2.6 times, and in 2021 amounted to approximately 4.9 trillion US dollars. Obviously, the modern business environment is rapidly transforming, and the introduced quarantines are limited by a much larger number of entrepreneurs and buyers who have turned to Internet technologies to conduct trade transactions.

E-commerce in Ukraine began to take shape later than developed countries, but according to Eurostat [10], Ukraine currently ranks first among all European countries in terms of the growth of e-commerce volumes. The rapid development of e-commerce in our country requires monitoring, support and promotion of the further development of this industry. The war of 2022, the volunteer movement and the internationalization of military and humanitarian aid provide even greater acceleration to these processes.

The rapid acceleration and availability of technology is shaping a new economy with another forms of distribution, marketing, sales, and work organization. Inefficient organization of activities in new conditions leads to an increase in costs for supporting functioning, irrational use of resources, a decrease in the controllability of processes and significant losses.

The main difficulty in studying the business processes of the sales department of e-commerce enterprises is the variety of existing structures of the department, functional divisions depending on the type of enterprise and the personal vision of the entrepreneur. As a result, there is no single approach to creating a sales department. This situation greatly complicates the creation of an effective

sales department at an e-commerce enterprise, which affects the profitability and economic attractiveness of such enterprises. Therefore, in order to identify and organize the functions of one of the most important departments for generating profit, we will conduct a functional analysis of the sales department at the e-commerce company.

Recall that functional analysis is a methodology of complex research of cause-and-effect relationships, separate driving forces of the development of economic phenomena and processes, in which emphasis is placed on the knowledge of dependent functions [11].

The object of functional analysis within the system approach is considered as a system that is characterized by an internal structure and is capable of performing certain useful functions. The description of the system as functions allows to abstract from the specific carriers of these functions (system components) and its physical and economic nature. The function is a converter of input resources and a creator of output systems.

The sales department at any trading company, as a rule, performs the following functions: attraction of new buyers; optimization of orders received from them; conclusion of contracts for the supply of products; ensuring the rhythm and regularity of product sales; study and satisfaction of customer needs for the company’s products; control over the fulfillment of contractual obligations with partners; formation and improvement of the sales information support system.

In addition to the functions mentioned above, e-commerce companies are characterized by certain features. The main difference in the sales process at an e-commerce company is the possibility of selling goods that are not available in the warehouse, making payments using electronic payment systems or postal services, and a significantly longer period of time compared to ordinary trading activities between the order, payment and receipt of the order. For the functioning of the sales department, this means the need to:

- carrying out additional monitoring of the presence of missing goods in the warehouses of the supplier;

- availability of the possibility of quick organization of additional deliveries;
- tracking and fixing the payment;
- availability of control over the reliability of all recipient data when transferring orders to postal services.

According to [6], sales management is a field formed at the intersection of management, marketing and sales. The idea of sales management at an e-commerce company is to identify all possible areas of sales expansion and make decisions regarding the choice of each of them, based on the available potential. This level of sales management is strategic, as it determines the prospects for the development of an e-commerce enterprise. The strategic tasks of the sales department include: forecasting and planning of potential sales channels and methods; justification and selection of the number of intermediate links on the way of goods from the seller to the consumer.

According to the hierarchical structure, sales management is carried out at the level of functional divisions. In an e-commerce business, this can be the sales department, the purchasing department, and the marketing department. At the level of the functional division, sales management is tactical and operational, related to work with existing customers, implementation of programs for attracting new buyers, search and selection of commercial offers for the supply of goods, etc.

On the basis of the generalization of works [12–14], the functions of the divisions the sales department at the electronic trade enterprise were supplemented and systematized in the Table 1.

For the better understanding of the sales department’s functioning process at an e-commerce company the model of functional interaction between the divisions highlighted in Table 1, using activity diagrams in the Unified Modeling Language were constructed.

As can be seen in Fig. 1, among the divisions that make up the sales department at the e-commerce company, the analytical department occupies an important place. Also, the

Table 1 – Functional analysis of divisions of the sales department at the e-commerce enterprise

Divisions	Specialists	Functions
Purchasing divisions	Purchasing manager	Forming orders, sending to suppliers, collecting responses, carrying out, clarifying the specifics of delivery (number of seats, time of arrival of the car, etc.), monitoring the availability of the necessary goods and their quantity at suppliers.
	Supplier relationship management manager	Ensuring the continuity of the supply of goods, finding suppliers for all available product items, agreeing on delivery schedules, finding backup suppliers, assessing the fulfillment of obligations by suppliers.
Divisions of analytics	Manager of analytics and assortment management	Analysis of the product flow, selection of product groups, demand forecasting, support for decision-making on expanding the assortment, removing items from the assortment, on pricing, on manual adjustment of purchase volumes (season, supplier promotions, obligations to suppliers, etc.).
Sales divisions	B2B sales manager	Creation of commercial proposals, invoices, processing of commercial proposals, conclusion of contracts, shipment of goods, formation of TTN, payment and tracking of the status of contract execution, creation and maintenance of friendly business relations with partners.
	B2C sales manager	Checking the availability of the ordered product, processing and confirming the application, consulting, checking payment, forming the TTN, tracking the delivery status, resolving disputed issues, collecting feedback.
Marketing divisions	Advertising manager	Creation and implementation of product promotion strategies on the market, clarification and familiarization with products, promotions, client offers by methods of advertising influence, attraction of new customers (organic search, Internet advertising, e-mail mailings, media activities, online events), analysis of the effectiveness of sales channels.

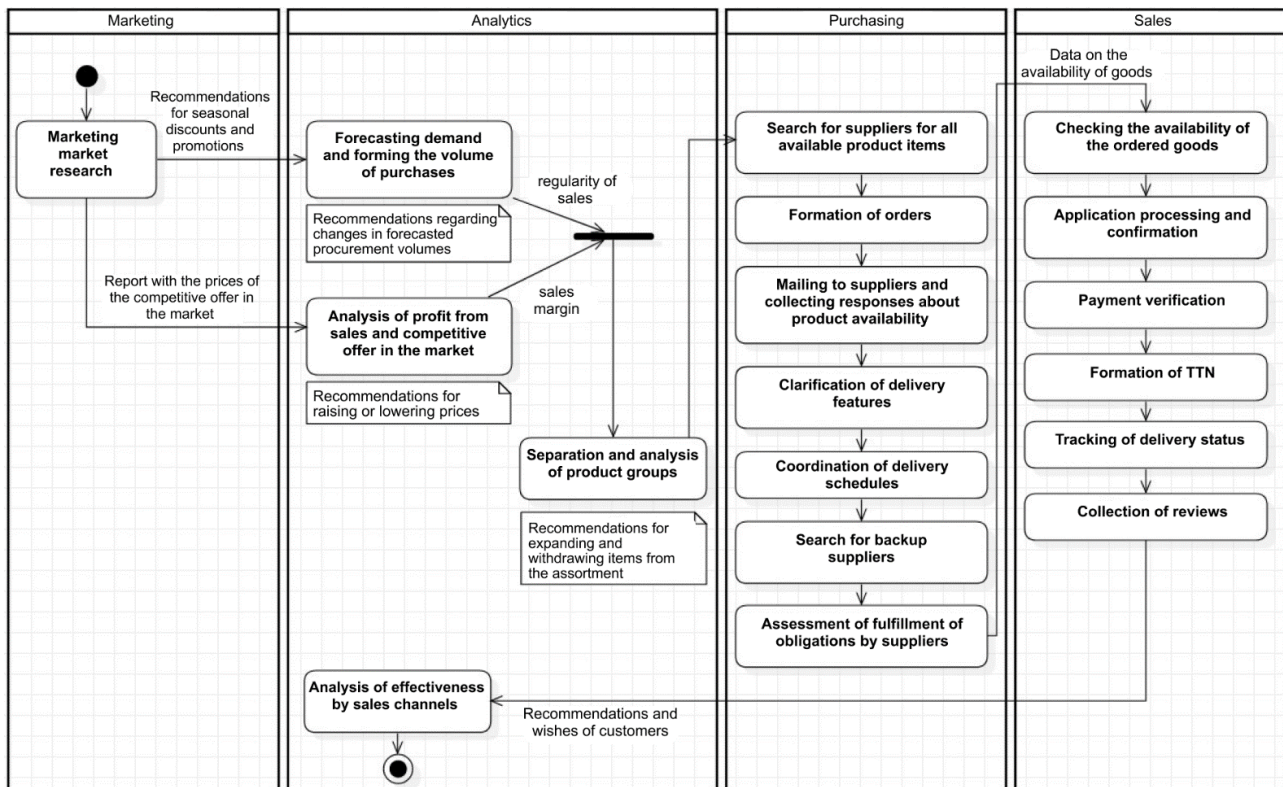


Fig. 1 – Model of the functional interaction of divisions of the sales department an e-commerce company (using the Unified Modeling Language)

tasks of the analytical division are those that most require the development of decision-making support mechanisms (algorithms), because the efficiency of the sales department and the enterprise as a whole depends on the recommendations provided by the analyst of the e-commerce enterprise.

Conclusions

In the article, the functional analysis of the sales department at the e-commerce enterprise is carried out. It can be used as a basis for the formation of a technical task for the development of a project of an automated decision-making support system for this department.

The research was carried out using the methods of systematization, generalization, functional analysis and graphical representation of processes and relationships in the Unified Modeling Language.

Concepts, features and problems of the functioning of the sales department at an e-commerce enterprise are analyzed, the main functions of any sales department at a trading enterprise and additional ones, taking into account the peculiarities of the activities of e-commerce enterprises, are highlighted.

It was revealed that one of the main problematic aspects of the functioning of the sales department at an e-commerce

company is the variety of existing structures depending on the type of company and the personal vision of the entrepreneur. The result is the lack of a single effective system for creating a sales department. This significantly complicates the creation of an effective sales department at an e-commerce enterprise, which in turn significantly affects the profitability and economic attractiveness of such enterprises.

The interrelationships of the divisions of the sales department at the e-commerce enterprise were studied. As a result, a model for representing functional processes and internal relationships using the Unified Modeling Language was developed.

The functional analysis of the sales department at an e-commerce enterprise allows us to identify and systematize the tasks of functional units, evaluate the rationality of existing processes, implement the search for problematic issues (weakly structured tasks) in the functioning of units and the system of their interaction and determine effective ways to implement them.

The results of the conducted functional analysis of the sales department at the e-commerce enterprise are planned to be used for the development of a project for a corresponding automated decision support system.

References

1. Khurana, A. (2009). Information Technology for Retailing: 1E. Indian Institute of Management. Ahmedabad : Tata Mcgraw Hill Education Private Limited.
2. Khurana, A. (2019). Advantages of E-commerce Over Traditional Retail. Retrieved from <https://www.thebalancesmb.com/advantages-of-e-commerce-1141610>

3. Khurana, A. (2019). Advantages And Disadvantages of E-Commerce. Retrieved from <https://www.thebalancesmb.com/ecommerce-pros-and-cons-1141609>
4. Khurana, A. (2019). Defining the Different Types of E-Commerce Businesses. Retrieved from <https://www.thebalancesmb.com/ecommerce-businesses-understanding-types-1141595>
5. Khovrak, I.V. (2013). Elektronna komertsiiia v Ukraini: perevahy ta nedoliky – [Electronic commerce in Ukraine: advantages and disadvantages]. *Ekonomika. Finansy. Pravo – Economy. Finances. Right*. No. 4. P. 16–20. Retrieved from http://nbuv.gov.ua/UJRN/ecfipr_2013_4_7 [in Ukrainian]
6. Krasnokutska, N.S., & Kardovska, N.S. (2012). Systemnyi pidkhdid do upravlinnia prodazhamy v internet-mahazyni – [A systematic approach to sales management in an online store]. *Ekonomichna stratehiia i perspektyvy rozvytku sfery torhivli ta posluh – Economic strategy and prospects for the development of trade and services*. No. 1(1). P. 216–224. Retrieved from <https://docplayer.net/amp/223760214-Sistemniy-pidhid-do-upravlinnya-prodazhami-v-internet-magazini.html> [in Ukrainian]
7. Danko, T., & Yavorska, N. (2021). Osoblyvosti rozvytku internet-torhivli ta porivnialna kharakterystyka z tradytsiinoiu torhivleiu – [Features of internet trading development and comparative characteristics with traditional trade]. *Ekonomika ta suspilstvo – Economy and society*. No. 33. Retrieved from <https://doi.org/10.32782/2524-0072/2021-33-43> [in Ukrainian]
8. Bokovets, V., & Davydyuk, L. (2021). Elektronna torhivlia i yii znachennia dlia rozvytku biznesu – [E-commerce in Business Development]. *Visnyk Khmelnytskoho natsionalnoho universytetu. Ekonomichni nauky – Herald of the Khmelnytskyi National University. Economic sciences*. No. 1. P. 210–213. Retrieved from <http://journals.khnu.km.ua/vestnik/wp-content/uploads/2021/07/2021-1-EH-37.pdf> [in Ukrainian]
9. Retail e-commerce sale worldwide from 2014 to 2023 (in billion US dollars). *www.statista.com*. Retrieved from <https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales>
10. Iak zminiuiutsia zvychky ukrainskykh internet-pokuptsiv. Rezultaty doslidzhennia CBR – [How the habits of Ukrainian Internet buyers are changing. Results of the CBR study]. *RetailersUA*. Retrieved from <https://retailers.ua/uk/news/menedjment/11463-kak-menyayutsya-privyichki-ukrainskii-internet-pokupateley-rezultaty-issledovaniya-cbr> [in Ukrainian]
11. Mocherny, S.V. (Eds.). (2000). *Ekonomichna entsyklopediia – [Economic encyclopedia]*. Vols. 1–3. Kyiv : Vydavnychiy tsentr «Akademiia». [in Ukrainian]
12. Avtomatyzatsiia viddilu prodazhiv – [Automation of the sales department]. *torgsoft.ua*. Retrieved from <https://torgsoft.ua/soft/avtomatizaciya-otdela-prodazh/> [in Ukrainian]
13. Shcho take CRM-systema ta yak vona pratsiuie? – [What is a CRM system and how does it work?]. *www.terrasoft.ua*. Retrieved from <https://www.terrasoft.ua/page/definition-crm> [in Ukrainian]
14. Iak pratsiuivaty z analitykoiu prodazhiv? – [How to work with sales analytics?]. *business.diia.gov.ua*. Retrieved from <https://business.diia.gov.ua/en/handbook/prodazi/ak-pracuvati-z-analitikou-prodaziv> [in Ukrainian]

NATIONAL ECONOMY'S MARKET MECHANISMS OF ACCOUNTING, ANALYSIS AND AUDIT

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ACCOUNTING SUPPORT OF STRATEGIC MANAGEMENT AND MAIN DIRECTIONS OF ITS IMPROVEMENT

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Key words:

strategic management,
accounting support,
strategic accounting,
strategic reporting

The essence of accounting support of strategic management of the enterprise is investigated in the article. The causal relationships that determine the need to improve the accounting support of the strategic management system have been studied. The urgency of improving the accounting system of strategic management is substantiated. The imperfection and inconsistency of the current accounting system with the needs and requests of the subjects of strategic management have been identified. There are three main aspects in terms of which should improve the accounting support of strategic management (theoretical, methodological, organizational). The general directions of further improvement of the accounting system in accordance with the needs of the subjects of strategic management are formed and revealed.

ОБЛІКОВЕ ЗАБЕЗПЕЧЕННЯ СТРАТЕГІЧНОГО УПРАВЛІННЯ ТА ОСНОВНІ НАПРЯМКИ ЙОГО УДОСКОНАЛЕННЯ

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Ключові слова:

стратегічне управління,
облікове забезпечення,
стратегічний облік,
стратегічна звітність

У статті досліджено сутність облікового забезпечення стратегічного управління підприємством. Досліджено причинно-наслідкові зв'язки, які зумовлюють необхідність удосконалення облікового забезпечення системи стратегічного управління. Обґрунтована нагальність удосконалення системи облікового забезпечення стратегічного управління. Визначено недосконалість та невідповідність чинної облікової системи потребам і запитам суб'єктів стратегічного управління. Виділено три основні аспекти, в розрізі яких слід удосконалити облікове забезпечення стратегічного управління (теоретичний, методичний, організаційний). Сформовано та розкриті загальні напрями подальшого удосконалення облікової системи у відповідності до потреб суб'єктів стратегічного управління.

Formulation of the problem

The accounting system of the enterprise, as one of the main sources of information generation for management decisions, is a constant object for improvement, which is justified by the development of enterprise management system in terms of complicating their organizational structure, inter-firm relationships and increasing the dynamism against the background of the formation of the global economy.

The introduction of a strategic management system requires the use of a significant amount of specific information about the activities of the enterprise and about changes in the external environment that affect it. As a result, one of the main keys to the strategic success of

the enterprise is the construction of a strategically-oriented accounting system capable of providing information support to the strategic management system. The emergence of such challenges to the accounting system as the main source of generating information for decision-making has led to a scientific debate about its ability to meet the growing needs of strategic management. Because of this, today in Ukraine a new direction of research has emerged, aimed at improving accounting tools as a means of information support for strategic management decisions.

Analysis of recent research and publications

The works of R.F. Brukhansky, B.I. Valueva, S.F. Chairman, Z.V. Hutsaylyuka, C.B. Gushka, N. Yu. Yershova,

I.I. Krishtopy, O.P. Kundri-Vysotska, S.F. Lehenchuka, M.C. Pushkar, V.Z. Semanyuk, L.V. Semenyuk, A.V. Shaikana, O.I. Pylypenka, B.C. Rudnytsky, V.R. Shevchuk and others are devoted to the issues of accounting and analytical support of strategic management.

Most modern domestic scientists and economists who dedicate their accounting to management, the subject of research choose issues related to the impossibility of using the reflection of future facts of economic life, the separation of environmental components as objects of strategic accounting, the introduction of new activities. strategic accounting projects by capitalizing costs, application of strategic accounting methods to traditional types of facts of economic life and objects of accounting, improving the application of strategic accounting methods in accordance with the new objects of strategic accounting.

Highly appreciating the scientific contribution of these scientists, it should be noted that the outlined issues need further intensification of research on modern accounting support for strategic management of enterprises and areas for improvement.

Formulation of goals

The main task of the study is to reveal the essence of accounting for strategic management and areas for improvement. Carrying out the analysis of modern problems of development of accounting in the direction of creation of preconditions for increase of efficiency of strategic management of the enterprise.

Presentation of the main material of the research

Accounting and analytical support of strategic management is an information system that should be based on accounting data of enterprises and taking into account the analytical information received by business entities from the external environment contributes to the tasks of strategic management.

The system of accounting and analytical support of strategic management of agricultural enterprises should be considered as the unity of the subsystem of accounting and analysis, interacting through information flows in the formation and transmission of operational and quality accounting and analytical information to ensure soundness and efficiency of management decisions in strategic management.

With the development of economics and information systems and technologies, accounting information is becoming increasingly important in the management decision-making process, because unlike many other types of information that can be used in the management process, it meets a set of quality characteristics and is based on accounting principles., compliance with which allows to obtain high quality information. However, in order to cover the information deficit arising from the inadequacy of the current accounting system to provide information to manage long-term development of the enterprise, scientists emphasize the need to improve it (R.F. Brukhansky [1], S.F. Golov [4], N. Yu. Yershov [7], I.I. Kryshchop [8], A.A. Pilipenko [13], V.Z. Semanyuk [16], A.V. Shaikan [18], etc.).

The need to improve the accounting support of the strategic management system takes into account its features

(existing approaches, management tools) when developing a system of accounting information. These features are also unable to take into account the management accounting system, which emerged as a means of information support for operational management through the formation of confidential information about the activities of the enterprise without taking into account the external context of its existence. According to CIMA (Chartered institute of management accountants), management accounting was widely criticized in the 1980s for its excessive internal focus on operational goals, as it could not help managers make strategic decisions [22]. As a result, scientists are currently considering various options for solving this problem, in particular, by improving existing accounting tools in accordance with the needs of strategic management entities, and by developing new tools and instruments (strategic reporting, strategic accounting engineering, integrated reporting, etc.), which will form the accounting information needed to make strategic management decisions.

The need to develop effective accounting and information support of the strategic management system in recent years has become one of the most discussed issues among domestic scientists, which has led to a revision of theoretical, methodological and organizational aspects of the accounting system (Fig. 1).

The development of accounting in the direction of meeting the needs of strategic management primarily involves the need to address theoretical issues, in particular, whether strategic accounting is a separate type of accounting. The presence of such a status in strategic accounting allows it to be distinguished from other types of accounting, to formulate its object and subject, to distinguish its own, not inherent in other types of accounting methods. The discussion between domestic scientists on the possibility of giving strategic accounting such a status began after the publication of Prof. M.S. Pushkar's «Creative Accounting» (2006), where the author, along with the subsystems of financial and management accounting, identified a subsystem of strategic accounting (controlling) [15]. This statement was convincingly opposed by prof. B.I. Valuev [3] and prof. Z.V. Gutsailyuk, noting that it is logical and legitimate to call strategic accounting, which aims to study the external environment and directly the strategy of the enterprise, accounting? Where are his objects as such? Thus, the authors first questioned the possibility of forming strategic accounting information for a new object of study – the external environment of the enterprise based on the use of traditional methods of accounting.

R.F. Brukhansky also tried to solve this problem, which understands strategic accounting as one of the functional areas of accounting, which can apply to all types of accounting, within which its methodological tools can be used [1]. However, this proposal is also quite controversial, because today it is difficult to completely separate all the information needed to make strategic management decisions, and which – for other types of decisions, which also does not allow to identify methods and tools of accounting related to this functional directly. We believe that it is more appropriate to talk about the formation of accounting information space

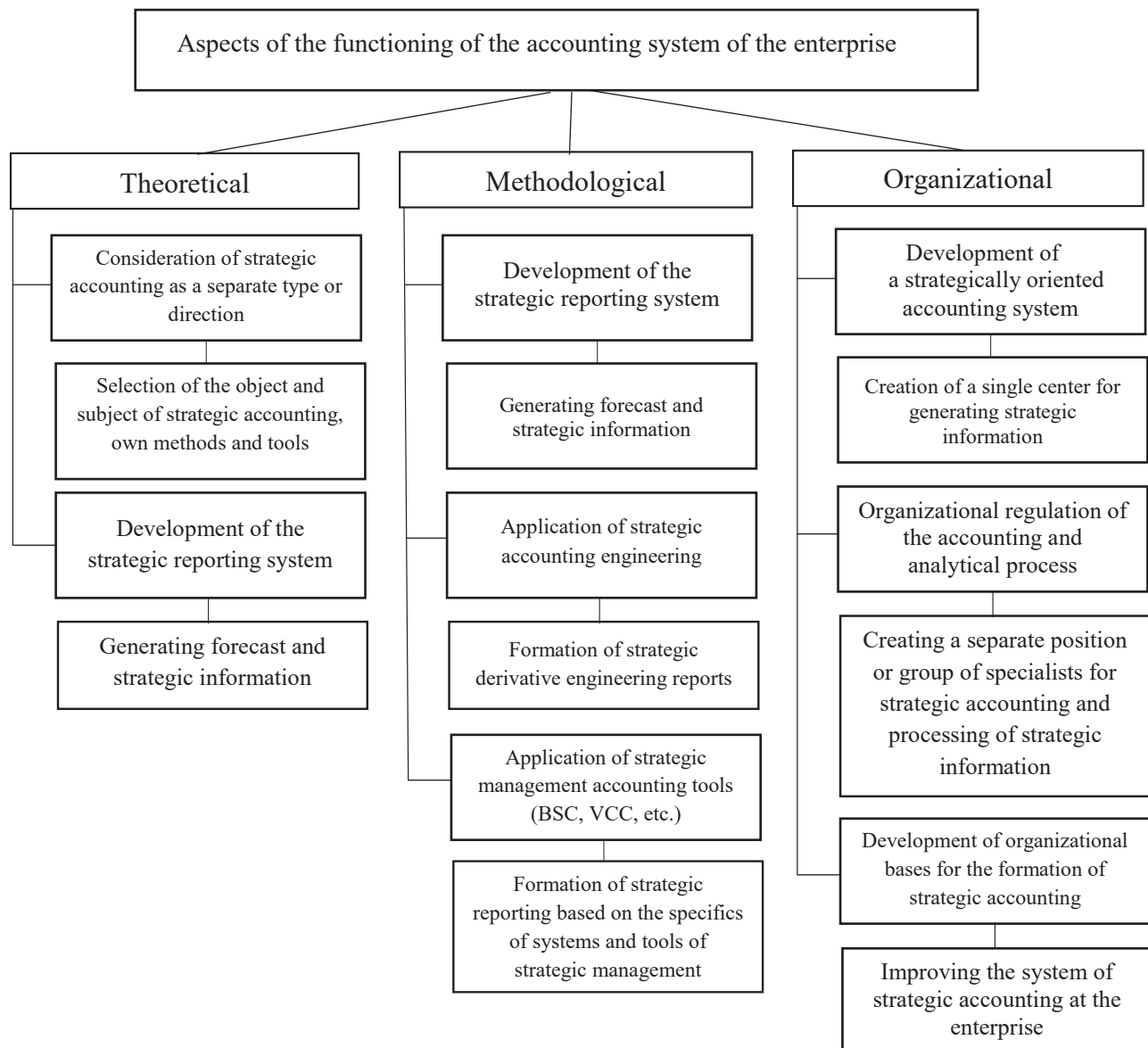


Fig. 1 – Aspects of the accounting system of the enterprise in the context of the strategic management system

that will be used to make strategic management decisions, the filling of which is based on the use of traditional and innovative (strategic) accounting tools.

Another theoretical problem that has arisen due to the need to develop accounting to meet the needs of strategic management is the formation of a strategic accounting paradigm. A number of modern researchers distinguish this type of paradigm, justifying it by the need for organizational and methodological integration of all areas of accounting and analytical work into a single accounting and economic system that would effectively «work for the future» of the business entity [10]. That is, the main purpose of its allocation is the formation of a single system of scientific knowledge in the accounting system, which will provide the generation of accounting information of strategic direction.

To ensure the effectiveness of the strategic management system at the enterprise it is necessary to build an effective

system of its accounting, which would take into account the peculiarities of this type of management on the one hand, and on the other – available accounting tools that can be used to improve theoretical and methodological principles direction. To build such an accounting system, it is necessary to identify the requirements of the subjects of strategic management to the accounting system in the context of the classical set of determinants and to formulate further ways of its development.

Developing ways to ensure that accounting information meets the needs of strategic management necessarily involves determining the reasons for such gaps between the existing needs of entities and the ability of accountants to meet them. The degree of «depth» of such gaps will determine further actions for the development of accounting and strategic management at the level of individual enterprises and at the level of national or global accounting system (establishment of analytical accounting

system, introduction of new accounting tools, radical reform of accounting methodology) methods of valuation of objects of accounting, transformation of the existing system of accounting), etc.).

Today, domestic researchers identify a significant number of reasons for non-compliance of the current accounting system with the needs of strategic management, which are associated with changes in the internal features of the accounting system (theoretical, methodological, organizational, technical and technological, etc.) and changes that occur in the external environment of the accounting system (dynamism of the competitive environment, risks, the emergence of future events with uncertain consequences, etc.) (Table 1).

An analysis of researchers' approaches to understanding the main reasons for the mismatch of the current accounting system to the needs of strategic management found that most of them are formulated quite abstractly, which does not allow to form a clear set of actions to close the gap between accounting capabilities and strategic management needs. The reasons highlighted by the authors (Table 1) should be considered more as general areas for further improvement of the accounting system, which should be clarified and

specified for their smooth implementation in current accounting practice. The composition of such areas include the following:

- creating conditions for the accounting system to provide forecast and strategic information about the activities of the enterprise;
- wider disclosure in the financial statements of the impact of environmental factors on the activities of the enterprise, as well as the introduction of elements of the external environment of the enterprise;
- improving the level of analytical accounting information in terms of strategic aspects of the enterprise (types and types of strategies, new and existing strategies, etc.);
- addition of accounting information required for strategic decisions, non-financial information about the internal and external environment of the enterprise;
- introduction of strategically important resources of the enterprise, strategic risks and formation of separate information about them for internal and external users.

It should be noted that the vast majority of researchers emphasize the need to improve the accounting system based on the needs of internal strategic management of the enterprise, and only some of them (I.I. Kryshchop, and

Table 1 – Generalizations and approaches of researchers on the reasons for the inconsistency of the current accounting system to the needs of strategic management

Author	Reasons for non-compliance of the current accounting system with the needs of strategic management entities
R.F. Brukhansky [1]	Inability to provide: reflection of future facts of economic life; identification of components of the external environment as objects of strategic accounting; introduction of new types of objects of strategic accounting by capitalization of costs; application of strategic accounting methods to traditional types of facts of economic life and objects of accounting; improving the procedure for applying strategic accounting methods in accordance with the new objects of strategic accounting
O.V. Vakun [2]	Impossibility to obtain complete and reliable information about the external environment from the accounting system
S.F. Holovy [4]	Retrospective nature of accounting data and their focus on internal aspects of economic activity
N.O. Holub [5]	The need to provide not only actual but also predictable, expected results
Z.V. Hutsaylyuk [6]	Impossibility to form information about the external environment and directly the strategy of the enterprise in the current accounting system due to lack of relevant facilities
N.Yu. Yershova [7]	Impossibility to provide: 1) Information support of development of several variants of strategy of development of the enterprise and a choice of the most optimum of them; 2) Assessment of the achievement of operational and strategic goals, financial condition and production potential of the enterprise; 3) Integration of forecast, planned, regulatory and actual data of financial and production activities and their calculation for the long term; 4) Accounting for environmental factors, risks, etc.
I.I. Kryshchop [8]	Retrospective nature of information and its focus on internal facts of economic activity
V.I. Kuz' [9]	Lack of information on trends in the external environment and the facts of economic life with uncertain consequences
O.P. Kundrya-Vysots'ka [10]	Direction of the current accounting system to past events, failure to pay sufficient attention to certain strategic special resources, disregard for external factors and risks of the enterprise
A.A. Pylypenko [13]	Orientation of financial accounting in the past; dependence of financial statements on accounting professional judgments; imperfection of the procedure for assessing the effectiveness of the enterprise; imperfection of the system of accounting and evaluation of intellectual capital; the need for accounting reflection of the components of the external environment
I.Y. Plikus [14]	Lack of information to assess the activities of investors
V.Z. Semanyuk [16]	Lack of timely information for management, disregard for strategic issues, inability to provide the necessary information to determine the value of the enterprise and its effectiveness, as well as to create strategic plans and monitor their achievement
A.O. Fatenok-Tkachuk, K.P. Zamoys'ka [17]	Ignoring the influence of external factors of the macroenvironment
A.V. Shaykan [18]	Inability to deliver information to managers of a certain level within the allotted time and inability to provide management with financial and non-financial information about internal business processes and the external environment of the enterprise

I.J. Plikus) emphasize the need to improve accounting, which use external users to make their own strategic (investment, loan) decisions.

Thus, based on the analysis of the reasons for non-compliance of the current accounting system with the needs of strategic management entities, it can be established that internal users need accounting information for strategy formation, implementation and control at the enterprise, and external users – about all strategic initiatives of the enterprise strategic decisions.

Conclusions

As a result of the research the general directions of further improvement of the accounting system in

the direction of ensuring compliance with the needs of strategic management entities (providing forecast and strategic information; disclosure of wider influence of environmental factors in financial statements; internal and external environment of the enterprise, the introduction of objects of accounting for strategic resources of the enterprise, strategic risks and the formation of separate information about them for internal and external users).

A further task of research in the field of accounting for strategic management is to develop more specific proposals and detailed recommendations for improving the theoretical and methodological aspects of accounting in terms of each of the selected areas.

Literature

1. Brukhansky, R.F. (2014). Accounting and analysis in the system of strategic management of agricultural entrepreneurship : monograph / R.F. Brukhansky. Ternopil : TNEU. 384 p.
2. Vakun O.V. (2015). Theoretical aspects of strategic accounting of the enterprise. *Problems of theory and methodology of accounting, control and analysis*. Issue 3(33). P. 19–29.
3. Valuev B.I. (2012). System of economic accounting in industry: questions of theory and methodology : monograph / B.I. Valuev. Odesa : Palmyra. 16 p.
4. Holov S.F. (2007). Accounting in Ukraine: analysis of the state and prospects of development : monograph. Kyiv : Center for Educational Literature. 522 p.
5. Holub N.O. (2013). Accounting and control in the system of strategic management. *Collection of scientific works of the Tavriya State Agrotechnological University. Series: economic sciences*. № 2(4). P. 59–65.
6. Hutsaylyuk Z.V. (2006). Forecast (strategic) accounting and modern problems of development of the theory of accounting. *Accounting and Auditing*. № 2. P. 14–19.
7. Yershova N.Yu. (2016). Development of tools for the implementation of the prognostic function of strategic management accounting in enterprise management. *Economy and Society*. Issue 2. P. 694–701.
8. Kryshchuk I.I. (2016). Building strategic accounting for a combined business : Dissertation Science. stup. Ph.D. with special 08.00.09. Kyiv : KNEU named after V. Hetman. 578 p.
9. Kuz' V.I. (2016). Construction of information system in the context of realization of strategic management functions. *Bulletin of Odessa National University. Series: Economics*. 2016. Vol. 21. Issue. 5. P. 191–195.
10. Kundrya-Vysots'ka O.P. (2010). Substantive characteristics of the strategic accounting paradigm. *Bulletin of the Zhytomyr State Technological University. Series: Economic Sciences*. № 3. Part 2. P. 137–139.
11. Matthews M.R. (1999). Theory of Accounting : Textbook / M.P. Matthews, M.H.B. Perera ; transl. with English under ed. J.V. Sokolova, I.A. Smirnova. M. : Audit, UNITI. 663 p.
12. Muller G. (1996). Accounting: an international perspective / G. Muller, H. Gernon, G. Miik. Moscow : Finance and Statistics. 136 p.
13. Pilipenko A.A. (2007). Organization of accounting and analytical support of strategic development of the enterprise : scientific publication / A.A. Pilipenko. Kharkiv : VID. KhNEU. 276 p.
14. Plikus I.Y. (2002). Strategic accounting as an instrument of strategic enterprise management. *Bulletin of the Ukrainian Academy of Banking*. № 12. P. 94–95.
15. Pushkar M.S. (2006). Creative accounting (creating information for managers) : monograph. / M.S. Pushkar. Ternopil : Carte Blanche. 334 p.
16. Semanyuk V.Z. (2012). Accounting for strategic management: problems of theoretical conceptualization. *Management and Entrepreneurship in Ukraine: Stages of Formation and Problems of Development. Bulletin of the National University «Lviv Polytechnic»*. № 722. P. 236–241.
17. Fatenok-Tkachuk A.O. (2012). Strategic accounting in the enterprise management system / A.O. Fatenok-Tkachuk, K.P. Zamoyska. *Management and Entrepreneurship in Ukraine: Stages of Formation and Problems of Development*. № 721. P. 241–245.
18. Shaikan A.V. (2009). Accounting in the adoption of management strategic decisions : monograph. K. : KNEU. 303 p.
19. Choi F.D.S. (2011). International accounting. 7-th Edition / F.D.S. Choi, G.K. Meek. Prentice Hall. 476 p.
20. Nobes C. (2006). Comparative international accounting. 9-th Edition / C. Nobes, R. Parker. Pearson Education Limited. 576 p.
21. Saudagaran Sh.M. (2009). International Accounting: A User Perspective / Shahrokh M. Saudagaran. CCH. 269 p.
22. Sunder Sh. (2005). Minding our manners: Accounting as social norms. *The British Accounting Review*. Vol. 37. P. 367–387.

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DEVELOPMENT OF MANAGEMENT ACCOUNTING IN THE CONTEXT OF STRATEGIC ENTERPRISE MANAGEMENT

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Key words:

management accounting,
strategic management accounting,
process-oriented management,
value-oriented management,
risk-oriented management,
ABC-costing,
process-oriented budgeting,
EBITDA, NOPAT,
risk acceptability

The article examines the development of management accounting in the context of information support for strategic enterprise management. Within the framework of the set goal, the essence of management accounting was revealed, the prerequisites for its evolution were revealed in the direction of more functional filling of its tools in accordance with the requests of the management system, with a focus on strategic management accounting. The features of strategic management accounting are determined based on the role of information that is formed in its contour with the aim of providing managers at the operational, tactical and strategic levels to make timely and effective decisions within their competence. It was found that with the change in the information needs of managers in accordance with the goals of modern management concepts (Activity-Based Management (ABM), Value-Based Management (VBM), Risk-Based management), the methodology of management accounting is also developing. The characteristics of strategic management accounting methods are given, in particular: Activity-based Costing (ABC), Activity Based Budgeting (ABB); indicators of EBITDA, marginal EBITDA and NOPAT; methods of assessing the importance of risk. The need for further development of strategic management accounting in the conditions of innovative changes in technologies and management systems is substantiated. Prospects for further research in this direction are the study of the advantages of using a balanced system of indicators as an innovative tool of strategic management accounting.

РОЗВИТОК УПРАВЛІНСЬКОГО ОБЛІКУ В КОНТЕКСТІ СТРАТЕГІЧНОГО УПРАВЛІННЯ ПІДПРИЄМСТВОМ

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Ключові слова:

управлінський облік,
стратегічний
управлінський облік,
процесно-орієнтоване
управління,
вартісно-орієнтоване
управління,
ризик-орієнтоване управління,
ABC-костинг,
процесно-орієнтоване
бюджетування, EBITDA,
NOPAT, прийнятність ризику

У статті досліджено розвиток управлінського обліку в контексті інформаційного забезпечення стратегічного управління підприємством. У рамках поставленої мети розкрито сутність управлінського обліку, виявлено передумови його еволюції у напрямі більш функціонального наповнення його інструментарію відповідно до запитів системи управління, з виокремленням стратегічного управлінського обліку. Визначено особливості стратегічного управлінського обліку на основі ролі інформації яка формується в його контурі з метою забезпечення менеджерів оперативного, тактичного та стратегічного рівнів для прийняття своєчасних і ефективних рішень у рамках своєї компетенції. З'ясовано, що зі зміною інформаційних потреб менеджерів у відповідності до цілей сучасних управлінських концепцій (процесно-орієнтоване управління, вартісно-орієнтоване управління, ризик-орієнтоване управління), розвивається і методика управлінського обліку. Надано характеристику методам стратегічного управлінського обліку, зокрема: обліку витрат за видами діяльності (Activity-based Costing), процесно-орієнтованого бюджетування (Activity Based Budgeting); показникам EBITDA, маржинальна EBITDA та NOPAT; методам оцінки значимості ризику. Обґрунтовано необхідність подальшого розвитку стратегічного управлінського обліку в умовах інноваційних змін у технологіях і системах управління. Перспективами подальших досліджень у даному напрямі є дослідження переваг застосування збалансованої системи показників, як інноваційного інструменту стратегічного управлінського обліку.

Formulation of the problem

Increased attention to management accounting as information support for management decision-making is due to factors inherent in modern business: constant growth in capital concentration, high level of competition, unpredictability of inflation movements, significant increase in production costs. The effectiveness and efficiency of the domestic management is evaluated through its ability to coordinate, respond promptly to changes in external and internal factors, analyze and correct irrelevant goals, minimize risks in a timely manner, and strengthen the company's position on the market. Therefore, in today's conditions of risk and uncertainty of the business environment, relevant accounting information is necessary to ensure the competitiveness of the economic entity, the ability of its strategic innovative development. Strategic management accounting can perform this function. Therefore, the study of prospects for the development of strategic management accounting of compliance with the requests of the management system is of great importance.

Analysis of latest research and publications

Foreign scientists R. Cooper, G. Cokins, R.S. pay considerable attention to the problems of the development of management accounting. Kaplan, C. Drury and others. In the context of this article, it should be noted domestic scientists who researched the development of theoretical and methodological approaches of strategic management accounting in accordance with modern concepts of management. N.Y. Yershova [1] in her writings justifies the relevance of using ABC costing as a tool of strategic management accounting in the process management system. Y.V. Karpenko [2] analyzes the features of functional costing as the basis of process-oriented cost management. The prospects of using innovative management accounting methods in the system of strategic cost management are explored by I.V. Pushkar [6]. M. Chut [7] devoted his work to studying the issue of value-oriented management based on the system of strategic management accounting. N.M. Proskurina, I.V. Pushkar [7] justify the system of key performance indicators in the enterprise cost management system. O.I. Pylypenko [3] systematizes conceptual approaches to building risk management in the management accounting system. However, innovations in strategic management accounting become a form of manifestation of competitive relations in the conditions of an innovative economy, which necessitates research into the further development of strategic management accounting in the conditions of innovative changes in technologies and management systems.

Formulation of the goals of the article (statement of the task)

The purpose of the article is to study the prerequisites of the evolution of management accounting as an information basis for making management decisions to justify the need for the development of management accounting in the conditions of global changes in technologies and strategic management systems.

Presentation of the main material

The Law of Ukraine «On Accounting and Financial Reporting» clearly defines that intra-business (management) accounting is a system of processing and preparing information about the company's activities for internal users in the process of managing the company [4]. Instead, the US Institute of Management Accountants defines management accounting as the process of identifying, measuring, accumulating, analyzing, preparing, interpreting, and communicating information used by management to plan, evaluate, and control within an organization and to ensure appropriate accountability. use of resources [8]. It should be noted that the business management system is constantly evolving in accordance with changes in the external and internal environment. At a certain stage, management accounting took an important place in the information provision of the management system. Thus, in the traditional interpretation, it is aimed at obtaining and preparing information for the needs of managing the current activities of the enterprise. However, this function of it turned out to be insufficient in view of the peculiarities of the functioning of enterprises in modern conditions of free competition. To achieve sustainable competitive advantages, accounting data should have a strategic orientation, providing the management apparatus with information for decision-making regarding the formation and effective implementation of the company's strategy.

That is, there was a further development of management accounting in the direction of more functional filling of its toolkit in accordance with the needs of strategic management, with strategic management accounting being singled out. The term «strategic management accounting» (in English – strategic management accounting) was first used by K. Simmonds in 1981, who formulated strategic management accounting as a field of accounting dealing with the provision and analysis of information about enterprises, as well as their competitors, for the purposes of forming and control of enterprise strategy [9]. A general definition of strategic management accounting is given by the Chartered Institute of Management Accountants (CIMA), which considers it as a form of management accounting in which the emphasis is on information related to external factors in relation to the enterprise, as well as on non-financial and internally created information [10]. Thus, the role of strategic management accounting is to provide the management of the enterprise with internal and external financial and non-financial information necessary for planning, analyzing and controlling the development of the enterprise in the interests of owners and investors, as well as in the ability to display and evaluate strategic tasks and plans in specific indicators. The main users of management accounting information are the top management of the enterprise, heads of structural divisions and specialists (Table 1).

According to different levels of management, operational, tactical and strategic levels of accounting information are distinguished. The operational level of management accounting is focused on the formation and provision of information that ensures the achievement

Table 1 – Purpose of management accounting information

Users of information	Hierarchy levels	Management objectives and sources of accounting information
Senior management	Strategic	Formation and implementation of a strategy based on the formation of strategic goals of enterprise management, for the achievement of which it receives: – integrated management reports on the results of production, financial and investment activities of the enterprise, its main structural divisions for the past reporting period and for the specific future; – materials for the analysis of the influence of internal and external factors on the results of the enterprise and its structural units; – planned and forecasted indicators for the expected period.
Heads of structural divisions	Tactical	Formation of an operational strategy for the implementation of the long-term goals of the enterprise’s development. Adjustment of basic plans in accordance with strategic goals and creation of potential for enterprise development. They receive management reports on the activity of the division at a specific moment, the results of their analytical processing, planned and forecasted information on the division, as well as information on adjacent divisions and counterparties.
Specialists	Operative	Ensuring the achievement of goals formed at the tactical level. Within their competence, they receive information about the activities of the enterprise and its structural divisions, as well as forecasts of internal and external factors that affect the results of financial and economic activity.

of goals defined at the tactical level. The received information is detailed and accurate, usually in real time, which allows specialists to make prompt management decisions. The tactical level of management accounting provides information for translating strategic goals and plans into tactical guidelines. The information obtained at this level is used for monitoring, control, decision-making and administration. The strategic level of management accounting is aimed at forming and providing evaluative information about the external environment to identify and use internal opportunities to achieve sustainable competitive advantages in the long term. So, strategic management accounting.

But the management accounting system does not remain static. Along with the changes in the conditions of conducting economic activities, which cause a reorientation of the information needs of managers, the further development of management accounting takes place. First of all, it concerns organizational and economic prerequisites, which are related to the theory and practice of enterprise management. New management concepts are the basis for the development of new forms and methods of management, modeling of

management decision-making processes based on various information that is formed in accounting, reporting and analysis systems. Systemic, situational, process, functional and value approaches are widespread approaches to the management of enterprise activities (Fig. 1).

Activity Based Management (ABM) is considered as an approach that aims to maximize activities that add value and minimize activities that do not change value, or a tool for managing cost minimization and improving customer value by identifying and evaluating processes that exist at the enterprise. At the same time, in order to improve strategic and operational decisions, it is advisable to use the analysis of cost chains, and management is based on appropriate accounting, the main goals of which are: cost reduction; development of quality criteria; increase in cash flows and quality; production of a larger volume of products [11; 12]. Within the framework of this approach, in accordance with the requests of the management system, groups of management accounting methods are used to estimate, plan and manage costs [2]: ABC (Activity Based Costing); ABB (Activity Based Budgeting); ABM (Activity Based Management) – including costs.

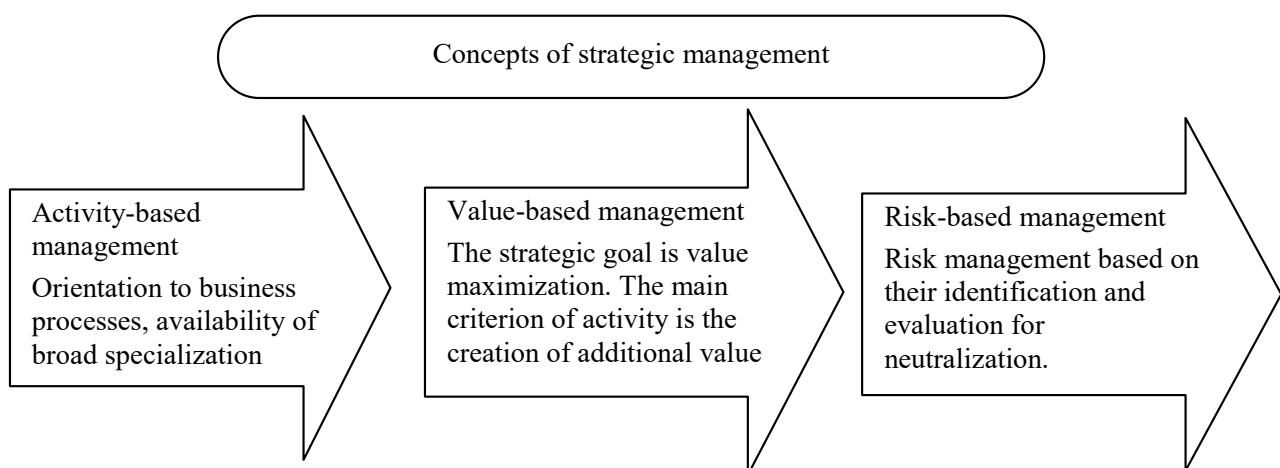


Fig. 1. Transformation of management concepts

The concept of the ABC method consists in the distribution of indirect costs, reducing the volume of «boiler» costs, focusing on cost savings and reengineering business processes [1, p. 179]. The main essential characteristics of the method: it is based on the principle that products consume activities (business processes, operations), and activities consume resources; involves first grouping overhead costs by main types of activities, and then distributing them among types of products; aimed at achieving a rational level of overhead costs, objectively determining the cost of types of products for the purpose of pricing and determining the profitability of production through a more accurate distribution of overhead costs, identifying factors influencing their level [6].

The essence of process-oriented budgeting is to develop a budget of expenses and income for each business process of the enterprise. A special feature is the need to appoint a person responsible for resources to each budget, since the business process budget is identified as the development of implementation plans, resource expenditure norms for each process, normative costing and assessment of resources necessary for the implementation of the business process, in physical and monetary terms.

The further development of methods of process-oriented costing and budgeting and planning testify to their effectiveness, and their principles have become generally accepted not only for cost accounting, but also for enterprise management in general.

Value-based management (VBM) is considered as an approach aimed at increasing and maximizing the value of the enterprise, increasing its investment attractiveness, ensuring the effective use of all types of resources, forming competitive advantages in the long term and taking into account the interests of all interested parties. Within the framework of this approach, the process of making managerial decisions is based on the results of collection, grouping, analysis and processing by special methods of an array of internal and external information about the company's activities. Its initial array is formed by the accounting system, and the processing is by the management system.

It is the models and methods of management accounting that are able to form reliable evaluation indicators that can become the basis for determining the current market value of the enterprise and its reconciliation with the balance sheet value. The informational basis for assessing the performance of domestic enterprises is the financial reporting indicators, in particular the amount of net profit and income from the main and related activities. At the same time, in foreign analytical practice, EBITDA indicators (Earnings before Interest, Taxes, Depreciation and Amortization) and marginal EBITDA are often used instead of profit. This indicator is an element of management accounting and reflects the amount of the company's net profit before taxation, but with the deduction of depreciation and financial expenses [5]. In addition, the evaluation indicators based on the principles and methods of value-oriented management include: net operating profit after taxation NOPAT (Net Operating Profit After Taxes) or net operating profit less adjusted taxes NOPLAT (Net

Operating Profit less Adjusted Taxes). These indicators do not include elements of discounted cash flow in their calculation methodology and can be considered an alternative indicator of the profitability of the main activity [7]. In addition, for a comprehensive assessment, management accounting uses other indicators, including return on assets, interest coverage ratio, return on equity. At the same time, a feature of management accounting is its prospective focus and appeal to forecast indicators.

Risk-oriented management is considered as a new approach aimed at managing risks in economic activity with the aim of minimizing their impact on the results of operations and finding reserves for improving the efficiency of operations [3]. In management accounting based on a risk-oriented approach, the concept of risk acceptability is considered – a criterion for identifying the nature and degree of risk that can be used in relation to a specific goal. Such criteria are determined by choosing a methodology for determining the amount of risk or parameters related to it, simultaneously with the establishment of acceptable values that are unacceptable for a particular risk. Various consequences of identified risks are determined when forming the scope of risk assessment. Enterprises use statistical analysis based on statistical indicators to quantify risks. To assess the significance of the risk, the following tools are used: construction of frequency-number diagrams (F-N) – dependence of the frequency of accidents on their number; constructing a Pareto chart – to select a limited number of tasks that will have a significant overall effect, for example, to determine which risk management methods are most useful or which causes are most important to eliminate; use of risk indices – these risk indices are a measure of risk that is established using scoring methods and ordinal scales. Thus, on the basis of management accounting information, identification, assessment and analysis of risks is carried out, as well as the selection of methods for neutralizing their consequences, aimed at achieving the necessary balance between the strategic capabilities of the enterprise and the level of risk.

Therefore, the significance of the development of management accounting in accordance with the rapid changes in the internal and external environment determines the expediency of considering management accounting as a complex, developing system that ensures the organic relationship of the accounting process, budgeting, control, analysis and management, taking into account the life cycle and the strategy of the enterprise's development. Such a system is not static, as the requirements for a modern management accounting system are influenced by: time limits of management; goals of the owners; business development phase. That is why management accounting must be considered as a system that is in constant development of information support for making management decisions for increasing the efficiency of strategic management of the enterprise, as well as its economic effectiveness.

Conclusions

As a result of the research, it was determined that the information provided by management accounting is aimed

at meeting the needs of the enterprise management system, increasing the efficiency of the use of resource potential in business activities, and objectively evaluating the activities of divisions and their managers. At the same time, the peculiarities of the functioning of modern business structures lead to a growing need for adequate information support for making effective management decisions at both the micro and macro levels. Accordingly, management accounting mostly becomes an important element not only of the operational but also of the strategic level of management.

Thus, in the process of development, strategic management accounting appears, as it has a set of tools

at its disposal, capable of effectively contributing to the achievement of long-term plans of the enterprise and increasing the effectiveness of implemented measures within the framework of the enterprise's development strategy. The further development of strategic management accounting consists in the improvement of methods and tools for the formation and provision of appropriate information in accordance with the purpose of a certain management concept, in particular: process-oriented management, value-oriented management, risk-oriented management.

Thus, today strategic management accounting represents a promising direction of development of management accounting.

References

1. Yershova, N.Yu. (2015). Operatsiyno-oriyentovnyy metod (Activity-Based Costing) yak baza znan ta instrument stratehichnoho upravlinskoho obliku v umovakh innovatsiynoyi ekonomiky – [Activity-Based Costing as a Knowledge Base and a Strategic Management Accounting Tool in an Innovative Economy]. *Naukovyy visnyk Khersonskoho derzhavnogo universytetu. Seriya: Ekonomichni nauky. – Scientific Herald of Kherson State University. Series: Economic Sciences*. No. 10. P. 177–182.
2. Karpenko, Yu.V. (2016). Protsesno-oriyentovne upravlinnya vytratamy vyrobnychoho pidpryyemstva – [Process-oriented management of the costs of a production enterprise]. *Ekonomika: realiyi chasu – Economics: realities of time*. No. 3(25). Retrieved from <http://economics.opu.ua/files/archive/2016/No3/161.pdf> [in Ukrainian]
3. Pylypenko O.I. (2017). Kontseptualni pidkhody pobudovy intehrovanoho ryzyk-menedzhmentu v systemi upravlinskoho obliku dlya zabezpechennya ekonomichnoyi bezpeky pidpryyemstva – [Conceptual approaches to building integrated risk management in the management accounting system to ensure the economic security of the enterprise] Retrieved from <http://194.44.12.92:8080/jspui/bitstream/123456789/3578/0/oblik.pdf>
4. Pro bukhholdersky oblik ta finansovu zvitnist v Ukrayini – [On accounting and financial reporting in Ukraine] : Zakon Ukrayiny vid 16 lypnya 1999 r. #996-XIV – [July 16, 1999 No. 996-XIV]. *Verkhovna Rada Ukrayiny – Verkhovna Rada of Ukraine*. Retrieved from <http://zakon.rada.gov.ua/laws/show/996-14>
5. Proskurina N.M., Pushkar I.V. (2021) Klyuchovi pokaznyky analizu ta otsinky efektyvnosti diyalnosti pidpryyemstva – [Key indicators of analysis and evaluation of the company's performance]. *Visnyk Zaporizkoho natsionalnoho uniwersytetu. Ekonomichni nauky – Bulletin of Zaporizhzhya National University. Economic sciences*. No. 1(49).
6. Pushkar I.V. (2019) AVS-kostynh yak prohresyvnyy metod upravlinskoho obliku vytrat – [ABC costing as a progressive method of cost management accounting]. *Visnyk Zaporizkoho natsionalnoho uniwersytetu. Seriya: Ekonomichni nauky – Bulletin of Zaporizhzhya National University. Series: Economic sciences*. No. 3(43).
7. Chut M. Kontseptsiya stratehiyi vartisno-oriyentovanoho upravlinnya pidpryyemstvom – [The concept of value-oriented enterprise management strategy]. Retrieved from <http://ppeu.stu.cn.ua/article/view/176590/176387>
8. Institute of Management Accountants. URL: <https://www.imanet.org/?ssopc=1>
9. Simmonds K. Strategic Management Accounting. *Management Accounting*. 1981. Vol. 59(9). P. 26–29.
10. CIMA Official terminology. 2005 Edition. London : CIMA Publishing, 2005. 114 p. URL: <https://www.amazon.co.uk/Management-Accounting-Official-Terminology-Support/dp/075066827X?asin=075066827X&revisionId=&format=1>
11. Activity-based Management. An Overview. URL: http://www.cimaglobal.com/Documents/ImportedDocuments/ABMtechrpt_0401.pdf
12. Cokins G. (2002). Activity-based cost management. NY : John Wiley & Sons. 384 p.

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TAX CONTROL AS INSTRUMENT OF ADJUSTING OF RECEIPT OF TAXES FROM IN BUDGET

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Key words:

tax control,
a receipt of taxes in a budget,
profitable part of budget,
taxpayers, tax verifications,
entrepreneurial activity, profits,
control-verification work,
system of taxation,
administration of taxes

The article is sanctified to the study of economic essence of tax control and analysis of his influence on profitable part of general budget of Ukraine. The scientific going is investigational near determination of his essence and place in the systems of taxation and state financial control. It is marked importance of aim and tasks of tax control. The role of events of tax control is investigational for providing of observance of requirements of tax law by the subjects of tax legal relationships. The fiscal function of control-verification works of public tax organs of Ukraine is considered. There is the analysed structure of the erected budget of Ukraine after 2017–2021. The features of realization of the tax checking are considered for the modern stage of development of economy of Ukraine. It is accented on problem questions in relation to the order of administration of tax payments and forming of tax debt within the framework of necessity of providing of receipt of sums from taxes in a budget. Undertaken a study allowed to distinguish basic problems in area of administration of taxes and receipt from taxes to the budgets of all levels. The ways of optimization of events of tax control and order of realization of control-verification works offer as one of his component elements. Paid attention to the preventive events in the process of realization of control-verification works by tax organs.

ПОДАТКОВИЙ КОНТРОЛЬ ЯК ІНСТРУМЕНТ РЕГУЛЮВАННЯ ПОДАТКОВИХ НАДХОДЖЕНЬ ДО БЮДЖЕТУ

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Ключові слова:

податковий контроль,
податкові надходження,
дохідна частина бюджету,
платники податків,
податкові перевірки,
підприємницька діяльність,
доходи,
контрольно-перевірочна
робота, система оподаткування,
адміністрування податків

Стаття присвячена вивченню економічної сутності податкового контролю та оцінки його впливу на дохідну частину загального бюджету України. Досліджено наукові підходи до визначення його сутності та місця в системах оподаткування та державного фінансового контролю. Наголошено на важливості мети та завдань податкового контролю. Досліджено роль заходів податкового контролю для забезпечення дотримання вимог податкового законодавства суб'єктами податкових правовідносин. Розглянуто фіскальну функцію контрольно-перевірочних робіт державних податкових органів України. Проаналізована структура зведеного бюджету України за 2017–2021 рр. Розглянуто особливості проведення податкових перевірок на сучасному етапі розвитку економіки України. Акцентовано на проблемних питаннях щодо порядку адміністрування податкових платежів та формуванні податкового боргу у рамках необхідності забезпечення податкових надходжень до бюджету. Проведене дослідження дозволило виділити основні проблеми в області адміністрування податків та податкових надходжень до бюджетів всіх рівнів. Запропоновано шляхи оптимізації заходів податкового контролю та порядку проведення контрольно-перевірочних робіт як одного із його складових елементів. Приділено увагу попереджувальним заходам в процесі проведення контрольно-перевірочних робіт податковими органами.

Raising of problem

Effective economic development of every state has dependence on the got profits of budgets of all levels, among

that most specific gravity is folded by receipts from taxes.

In addition, approaching of tax politics to the international standards and forming of her on principles of stability and

transparency is impossible without effective tax control. By the main task of tax control as a component system of taxation there is reduction of tax debt of taxpayers before a budget with the aim of forming of transparent national economy and increase of economic welfare of the state. Efficiency of application of tax control is one of key levers of forming of the system of state security.

Analysis of the last researches and publications

The question of theoretical principles and practical application of tax control was investigated by such scientists and specialists in industry of economy: V. Andruschenko, P. Beet, N. Vitvitska, N. Zalutska, B. Karpinskii, A. Kizima, A. Krisovatii, P. Melnik, N. Mariniv, D. Reva et al.

Scientists are study the context of arguments of realization of tax control from different parties. For example, A. Krisovatii in the researches lights up the theoretical aspects of organization and realization of tax control. By the scientists of B. Karpinskii, P. Melnik, A. Cherednechenko efficiency of tax control was investigational and basic directions of her increase are certain.

Without regard to working out in detail of scientific developments, on modern economic development of Ukraine there is a necessity of application of complex method to the decision of main problem of the state budget – filling of him profitable part. And one of directions of decision of set task there is opening of directions of optimization of tax control in forming of receipts in a budget from taxes.

Formulation of aims of the article

The aim of the article is research of economic essence of tax control as to the instrument of increase of efficiency of forming of profits of budget.

Exposition of basic material

Basis of receipts in the State budget of country is presented by receipts from taxes (90–92%), in this connection, the increase of efficiency of tax control assists

the increase of level of filled of budget and his solvency. In accordance to Internal revenue Code of Ukraine tax control is the system of events that is used by supervisory organs, that provides forming and will realize a public financial policy, with the aim of control of rightness of extra charge, plenitude and timeliness of tax payment and collections, and also observance of legislation on questions adjusting of cash, realization of calculation and cash operations, patenting, licensing and other legislation circulation, control after the observance of that is fixed on supervisory organs [6].

The methodical going near interpretation of essence of concept «tax control» is exposed in a table 1.

In modern economic terms in Ukraine tax control it is expedient to consider the basic element of state financial control.

Thus, tax activity of the state is concentrated on providing of efficiency of administration of taxes, functioning of the tax system and providing of equivalence of level of public benefits that get taxpayers, and collections, in accordance with the prepaid taxes. Such approach provides the receipt of money from taxes in the state budget at high level.

Organization of realization of tax control must be formed as a system of directions, that simultaneously provides the necessary level of receipts in a budget and enables and stimuli development of economy of the state.

The use of main index of efficiency of results of control-verification works consists in providing of additional receipts in a budget due to the additional extra charges of sums of tax payments and application of penalty approvals.

To the tasks of tax control providing of timely and complete receipt behaves in the budget of the charged extra tax payments from taxpayers for forming of the effective system of economic security of the state for the decision of questions that touch charges from a budget.

Thus, for the exposure of deviations from set by the tax law of norms, estimation of offences in the field of administration of taxes and tax payments, and in case of necessity – bringing in of guilty to responsibility for certain offences, or realizations of events in relation to

Table 1 – are the Methodical going near interpretation of essence of concept “tax control”

№ of an order	Authors	Interpretation of concept
1	P. Melnik, L. Tarangul, Z. Varnalii [5]	– system of events, that use supervisory organs with the aim of control of rightness of extra charge, plenitude of и timeliness of tax payment and observance of legislation;
2	P. Beet, B. Karpinskii [1]	– activity of tax organs is in relation to watching accordance of process of organization of taxes of account of objects of taxation and determination of influence of consequences of such violations payers;
3	D. Reva [7]	– one of types of financial control that comes true in the field of state administration taxation, on establishment of the state of implementation of requirements of current tax legislation and on proceeding in the broken rights for the state on the receipt of sums of tax payments and non-admission of such violations in the future;
4	N. Gusak [3]	– the multidimensional inter-branch system of supervision of public supervisory organs is after financially-economic activity of taxpayers with the aim of providing of the set level of forming of budget;
5	A. Vlasova [2]	– purposeful activity of public supervisory organs in the field of taxation, that is sent to the increase of efficiency and improvement of work of state functions, of related to the money and material resources;
6	A. Cherednechenko [8]	– the system of actions and events is in the financial management of country, what inhibitions sent to providing by taxpayers current legislation with the aim of filling with the financial resources of budgets of all levels.

their prevention in the future, tax control comes true. Basic principles of his functioning are: legality, obligatory implementation and system.

An evaluation of efficiency of tax control is a necessary condition for the decline of tax offences, providing of stable receipt of money to the budgets of different levels and increase of fiscal function of the system of taxation with obligatory maintenance her stimulant constituent in relation to business activity by the performers of entrepreneurial activities, that in turn assists to economic development of the state on the whole.

In modern terms tax control is sent to taking into account of risks of non-payment of taxes by the subjects of economic activity. Direction taking into account a possible risk during realization of tax control is used with the aim of optimization of process of administration of taxes. Such approach is based on that fiscal organs due to the analysis of the got information about possibility of violations of tax law react on such violations corresponding actions.

Tax risk – it the process of abandonment from declaration or incomplete declaration of the expected sum of taxes and this risk are distributed on high, middle and insignificant.

The analysis of the financial providing of the General budget of Ukraine testifies to his high dependence on the receipt of taxes in a budget (table 2).

In particular, in 2021 of receipt in a budget from taxes in the structure of general budget of Ukraine presented 86,0%, it on 7,8% more than in a previous year. In the same time, specific gravity of receipts in a budget not from taxes diminished in 2021 in comparing to 2020 on 12,9%, the same tendency was observed and in the dynamics of other receipts in a budget, that in 2021 presented 0,5% of profitable part of budget, that on 0,3% less than in a previous period.

To the main problems of forming of receipts in a budget from taxes belong:

- National currency is in the unstable state that results in reduction of production or putting up the shutters volumes;
- The amount of enterprises, that have a profit, but avoid tax payment, grows;
- Receipts from the rent paying for transporting diminish;
- Volumes of foreign trade operations diminish.

The main criterion of estimation of quality of the system of taxation is a level of voluntarily tax payment by payers. But stability and full value of receipts from taxes in a budget take place wherein there is high voluntarily of taxpayers to pay them.

Thus, application of tax control in forming of the state budget complex character must carry on the basis of taking into account of strategic development of public finances of Ukraine.

Undertaken a study allowed to distinguish defects in organization of realization of tax control and offer directions of removal of these defects (Fig. 1).

Thus, an increase of level of control-verification works is the necessary constituent of optimization of tax control and it can be attained for an account:

- Upgrading of materials of verification and evidential base;
- Careful consideration of complaints of taxpayers;
- Input as a criterion of work of territorial organs presence of the sums that is expected on results verification appealed and unpaid in a budget.

One of directions of optimization of tax control there can be erection to a minimum of all cases of errors in the calculations of sums of taxes on results the conducted verifications, that will abolish then, on the basis of the given complaints by taxpayers in relation to the decisions of tax organs, or transform in a tax debt.

Conclusions and prospects of further scientific researches

The primary objective of tax control is filling of profitable part of the state budget due to complete and timely tax, collections, payments payment, that is arrived at through control after the observance of norms of tax law by the subjects of tax legal relationships. From the level of efficiency of realization of tax verifications directly the receipt of money depends in the state budget.

The constituents of tax control are:

- Tax verifications;
- Organization of account of taxpayers;
- The research and information providing of activity;
- a administration of tax debt.

But in spite of the fact that for today, efficiency of organization of realization of home tax control rises, however there is a row of problems of methodical and organizational character, that needs to be decided with the

Table 2 – Structure of the General budget of Ukraine for period of 2017–2021

Years	General budget of Ukraine for period 2017-2021								
	General budget		Including						Transfer payments million hryvnyas
			a receipt is in a budget from taxes		a receipt is in a budget not from taxes		other receipt to budget		
million hryvnyas	specific gravity	million hryvnyas	specific gravity	million hryvnyas	specific gravity	million hryvnyas	specific gravity		
2017	877766	100,0	689136	78,5	154371	17,6	34259	3,9	209100
2018	1005293	100,0	793756	79,0	200516	19,9	11021	1,1	312114
2019	897005	100,0	677547	75,5	212789	23,8	6669	0,7	269027
2020	920194	100,0	670220	72,8	242232	26,4	7742	0,8	174434
2021	1489851	100,0	1280737	86,0	200837	13,5	8277	0,5	185779

Source: authors applied for calculations [4]

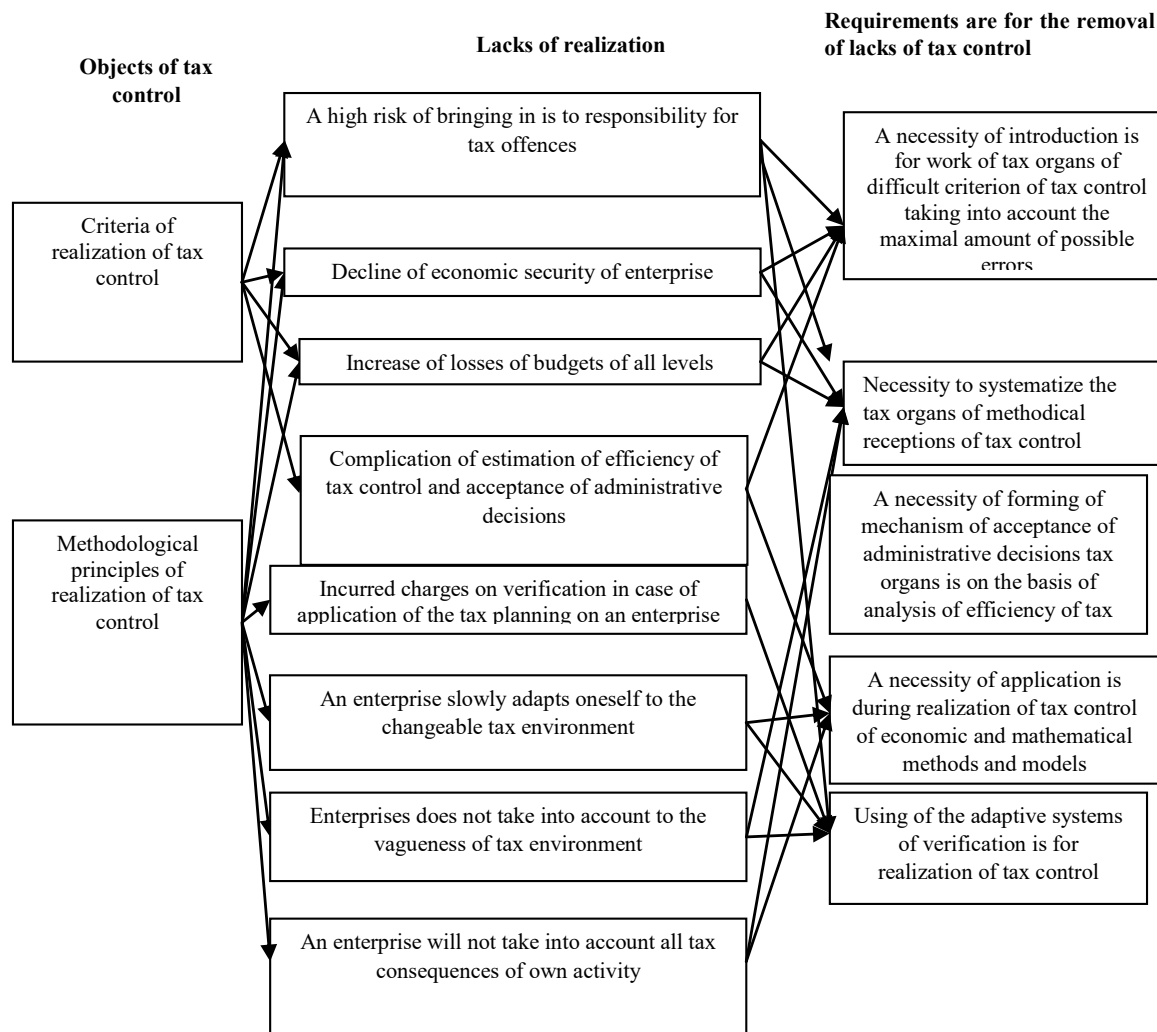


Fig. 1 – Organization of realization of tax control

Source: worked out by authors

aim of providing of sum of receipts from taxes in a budget in accordance with socio-economic and political changes that take place in Ukraine.

Thus, the construction of harmonious relations must become a basic task to optimization of tax control of the

home system of taxation between tax organs and taxpayers, by embodiment of world experience of organization of tax control and forming for home taxpayers tax consciousness and tax culture that will envisage tax payment in a budget in good time and without errors.

References

1. Buryak, P.Yu., Karpins'kyi, B.A., Zaluts'ka, N.S., Bilins'kyi, V.Z. (2007). Podatkovyy kontrol' : pidruchnyk. Kyiv : Khay-Tek Pres. 608 p.
2. Vlasova, A.V., Ponamarchuk, O.M. (2011). Sutnist' ta funktsiyi podatkovoho kontrolyu. *Yurydychnyy visnyk : naukovy zhurnal*. No. 2. P. 107–113.
3. Husak, N.B., Husak, Yu.D. (2007). Kontrol' podatkovykh orhaniv za diyal'nisty pidpryemstv : navch. posib. Kyiv : Tsentru uchbovoyi literatury. 320 p.
4. Dokhody byudzhetu Ukrayiny – [Revenues of the budget of Ukraine – the price of the state]. *Tsina derzhavy*. Available at: <http://cost.ua/budget/revenue/>
5. Ekonomichna bezpeka : navch. posib. / za red. Z.S. Varnaliya. (2009). Kyiv : Znannya. 647 p.
6. Podatkovyy kodeks Ukrayiny vid 2 hrudnya 2010 roku № 2755-VI zi zminamy ta dop. *Zakonodavstvo Ukrayiny*. Available at: <http://www.rada.gov.ua>
7. Reva, D.V. (2005). Pravove rehulyuvannya podatkovoho kontrolyu v Ukrayini : avtoref. dys. ... kand. yuryd. nauk : 12.00.06. Kharkiv : NYUAU. P. 20.
8. Cherednichenko, A.P. (2005) Podatkovyy kontrol' v umovakh transformatsiynoi ekonomiky Ukrayiny : avtoref. dys. ... kand. ekon. nauk : 08.04.01 / Odes'kyi. derzh. ekon. un-t. Odesa. P. 18.

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DOI <https://doi.org/10.26661/2414-0287-2022-2-54-11>**PROBLEMS AND PROSPECTS OF THE DEVELOPMENT OF NEOBANKING IN UKRAINE****Seisebayeva N.G., Goncharova V.G., Dibrova V.O.***Zaporizhzhia National University**Ukraine, 69000, Zaporizhzhia, Zhukovsky str., 66*

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Key words:neobank, bank, neobanking,
online bank, fintech,
digital economy

The article is devoted to the study of the peculiarities of neobanking in Ukraine, the topical issue of the development of banking activity in the conditions of the digital economy. Neobanking is what society needs at the moment. Due to such banking systems, a person can quickly transfer funds, as well as receive credit funds, or open a deposit in a few minutes. In the conditions of war, time has become more important than ever, the time it takes to collect funds to help the Armed Forces, or the time it takes to send funds to a family abroad, neobanks perform such tasks in a few minutes, which attracts the attention of users even more. The article researched and analyzed the number and dynamics of the development of neobanks in the world, as well as determined their number in different parts of the world, considered the richest and largest banks in terms of client audience. Neobanking in Ukraine is only at the nascent stage and the number of neobanks will continue to grow. Therefore, it is quite expedient and relevant to consider the problems and prospects of the development of this type of banking in Ukraine. The article defines the location and number of existing neobanks in Ukraine, their features and the number of users. The essence of the concept of "neobanking" and the history of its emergence are considered. The main problems of neobanking have been identified, including the high cost of establishment, distrust of consumers, the need to work on the basis of a traditional bank. The advantages of Internet banking (remote management of the card, quick execution of financial transactions, payment for services, interaction with the bank, minimum or zero commission) and disadvantages (insufficient trust of customers in online banks, high risks of cybercrimes, probability of server errors, but data shortcomings can be solved with the help of financial literacy, development of tools to ensure safe and continuous use of banking). Conclusions were made regarding the existence of neobanks and traditional banks in Ukraine, about positive dynamics in Ukraine as a whole (legal changes at the legislative level have begun).

ПРОБЛЕМИ ТА ПЕРСПЕКТИВИ РОЗВИТКУ НЕОБАНКІНГУ В УКРАЇНІ**Сейсебаєва Н.Г., Гончарова В.Г., Діброва В.О.***Запорізький національний університет**Україна, 69000, м. Запоріжжя, вул. Жуковського, 66***Ключові слова:**необанк, банк, необанкінг,
онлайн-банк, фінтех,
цифрова економіка

Стаття присвячена дослідженню особливостей необанкінгу в Україні, актуальному питанню розвитку банківської діяльності в умовах цифрової економіки. Необанкінг це те, що на разі потребує суспільство. Завдяки таким банкам людина може оперативно перераховувати кошти, а також отримувати кредитні кошти, або за кілька хвилин відкрити депозит. В умовах війни, як ніколи став важливим час, час за який потрібно зібрати кошти на допомогу ЗСУ, або час за який потрібно відправити кошти родині за кордон, необанки виконують такі завдання за декілька хвилин, що ще більше привертає увагу користувачів. В статті досліджено та проаналізовано кількість та динаміку розвитку необанків у світі, а також визначено їх чисельність у різних частинах світу, розглянуто найбагатші та найбільші за клієнтською аудиторією банки. Необанкінг в Україні тільки на етапі зародження та кількість необанків, ще буде зростати. Тому досить доцільно та актуально розглянути проблеми та перспективи розвитку такого виду банкінгу в Україні. В статті визначено місце та кількість наявних необанків в Україні, їх особливості та кількість користувачів. Розглянуто сутність поняття «необанкінгу» та історію його виникнення. Виявлено основні проблеми необанкінгу, серед яких висока

вартість заснування, недовіра споживачів, необхідність працювати на основі традиційного банку. Визначено та обґрунтовано переваги інтернет-банкінгу (дистанційне управління картою, швидке виконання фінансових операцій, оплата послуг, взаємодія з банком, мінімальна або нульова комісія) та недоліки (недостатня довіра клієнтів до онлайн-банків, великі ризики кіберзлочинів, вірогідність серверних помилок, але дані недоліки можна вирішити, за допомогою фінансової грамотності, розробки інструментів забезпечення безпечного та безперервного користування банкінгом). Зроблено висновки щодо існування необанків та традиційних банків в Україні, про позитивну динаміку в цілому по Україні (почалися правові зміни на законодавчому рівні).

Problem formulation

The external environment of banking activities is dynamically changing through the rapid development of technologies and innovations, namely: the Internet and telephone have become an integral part of every person's life, more and more services are moving online, social networks have become a fairly accessible platform for business development. The development of online banking was facilitated by labor migration, because the need for fast international money transfer increased. In order to retain their customers, banks began to consider options for their development, and one of the solutions was the creation of online banks. And later, in 2017, the first neobank appeared in Ukraine – Monobank, and with that, the problems of the existence and functioning of neobanks and traditional banks in one banking system of the modern economy of Ukraine were determined.

Analysis of latest research and publications

Such Ukrainian experts as M. Guba and A. Linnyk [1] were engaged in defining the essence of neobanking, analyzing their current state and trends in their development. O. Kozlyachenko and A. Berezan [2] analyzed the prospects for the development of virtual banks (neo-banks) in Ukraine, S. Lobozińska, I. Skomorovich and U. Vladychyn [3] distinguished the types of neo-banks, revealed ways of interaction between banks and financial and technological companies, N. Blaschuk-Devyatkina, M. Kapitanchuk [4] listed the main functions of neobanking and highlighted the advantages and disadvantages compared to traditional banking (Table 1).

Goals formulation

The purpose of this article is to identify the problems of neobanking in Ukraine and the world, to determine the characteristic trends and prospects for its further development.

Outline of the main material of the research

For the last few years, the banking system has been developing at a fairly fast pace. In 2022 people are increasingly paying attention to convenience and mobility, and the banking sector is no exception. Due to the spread of Internet services, there is a greater need for online banking. The coronavirus pandemic also led to the rapid spread of this type of service, and paying by phone became a necessity.

As of April 2022, Ukraine is in a state of war with Russia, business cannot function fully, most branches of traditional banks do not work or are located in occupied territory, ATMs do not work in many cities due to lack of electricity. In such conditions, the full-fledged operation of traditional banks is almost impossible, and therefore the emergence of neobanks, which do not have branches, and all functions are already available after downloading a mobile application, is a necessity.

Thus, analyzing and summarizing the researchers' definition of the term «neobank», we can come to the conclusion that a neobank is a bank without branches that provides its services via the Internet.

The global market of neobanking shows rapid growth and is one of the most promising areas of fintech for the next 10 years. The history of neobanks dates back to 1989 in Great Britain, where a bank without branches was created for the first time, providing service by telephone 24/7. British First Direct can be considered one of the first neobanks, it was the first to apply the concept of working without branches, serving customers around the clock with the help of a call center. By May 1991, 100,000 customers used the bank's services.

With the development of the Internet, banking institutions often sought to reduce operating costs by offering Internet banking services to customers. At the same time, the first Internet banks appeared for the first time. In 1998, the Internet bank Egg appeared again in Great Britain. With the

Table 1 – The essence of the concept of “neobank” [1-4]

Author	Definition
M. Guba, A. Linnyk	Neobank is modernized and constantly updated banking with developed modern functionality, forms of communication and data transmission, including such basic elements as the Internet (websites, offices) and mobile banking (programs, messages).
O. Kozlyachenko, A. Berezan	Neobank is a financial and credit institution that conducts various banking operations, while not using office branches, but only a virtual network and modern Internet platforms.
S. Lobozińska, I. Skomorovich, U. Vladychyn	Neobanks are completely online companies that are 100% digital and accessible to customers only through mobile applications and PC platforms.
N. Blaschuk-Devyatkina, M. Kapitanchuk	The essence of the term "neobank" is to provide financial and credit services exclusively through the Internet. This means that these institutes do not have any institutions or representative offices, only a program built on the basis of the latest technologies.

help of a call center and an online portal, customers could manage their accounts. Thanks to the convenient service, soon the bank had more than two million client accounts.

However, in the classic version, which provides the possibility of a completely remote banking service using a smartphone and a mobile application, neobanks have gained popularity only in the last few years and laid the foundation for a new banking industry [5].

A total of 319 banks started to exist during the studied period. According to fig. 1, we can see that the active development of neobanking in the world began in 2015, the highest number of new neobanks opened in 2019. In 2021, the number of neobanks decreased, due to the fact that the banking sector is already quite full of neobanks and newly opened banks will not receive the necessary number of customers for full-fledged life activities.

Analyzing fig. 2, we can come to the conclusion that neobanking is most developed in Europe, there are 37 neobanks in Great Britain alone. Australia has the second largest number of existing neobanks, with only three fewer in North America. The smallest number of neobanks is observed in Africa, this trend may be due to the underdevelopment of the territories and the lack of a properly developed Internet network.

The largest in terms of customer base is the Brazilian neobank Nubank, which has more than 30 million account holders, founded in 2013, is the largest fintech company in Latin America and one of the largest in the world. In addition to opening savings accounts and issuing credit

cards, Nubank offers life insurance, consumer loans, mobile payments, and products for small businesses and entrepreneurs. Last year, the bank acquired the digital investment platform Easynvest, which has 1.6 million customers and \$5 billion in assets. Since its inception, Nubank has raised about \$2 billion in private funding [8].

The richest is the American Chime with a capitalization of \$14.85 billion. The Chime company, founded in 2013, offers a free and convenient banking application, along with the installation of which the client receives a debit card and a savings account. Neobank took advantage of the rise of digital banking during the pandemic and reached a \$14.5 billion valuation in September with a Series F funding round [9].

There are currently 7 neobanks in Ukraine. Among them are BVR Ukraine, Izibank, Monobank, Neobank, O. Bank, Sportbank, Todobank. Ukrainian legislation does not allow banks to exist separately from traditional banks, therefore each neobank is created on the basis of a traditional bank.

The first non-bank in Ukraine was Monobank, according to fig. 3 we can see that it was also single until 2019. In 2019, Sportbank appeared, and in 2020, Izibank and Todobank were added to them. During 2021, three more banks appeared on the Ukrainian market.

Table 2 shows the characteristics of modern neobanks in Ukraine. In general, all non-banks provide classic banking services, focusing on the retail segment. Neobanks in Ukraine were founded on the experience of monobank. However, aware of significant competition from traditional

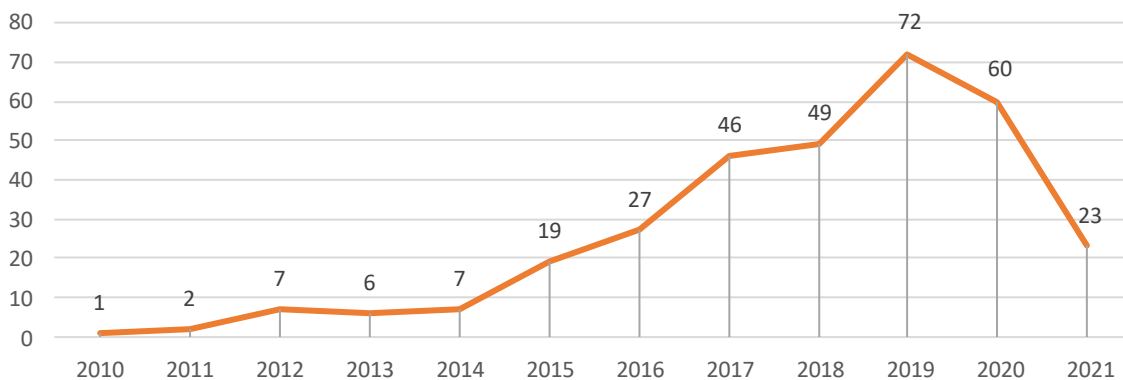


Fig. 1 – The amount of new neobanks 2010–2021 [6]

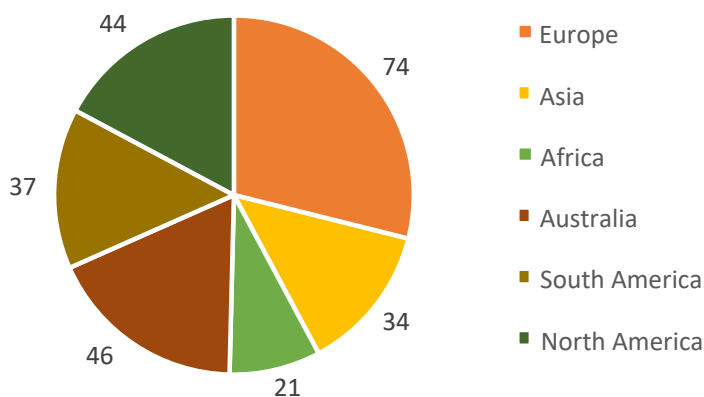


Fig. 2 – The amount of neobanks in different parts of the world

banks and among themselves, non-banks are looking for specific niches for the implementation of banking services.

It should be noted that neobanking in Ukraine is only at the nascent stage and the number of neobanks will continue to grow. Therefore, it is quite appropriate to consider the problems and prospects of the development of this type of banking.

The main problems of neobanking are:

- costs for creating and promoting necessary applications and various programs, websites for customer service;
- lack of trust in the bodies that ensure privacy and protection of personal data of individuals, as well as small and medium-sized enterprises, banking in general and non-banking in particular;

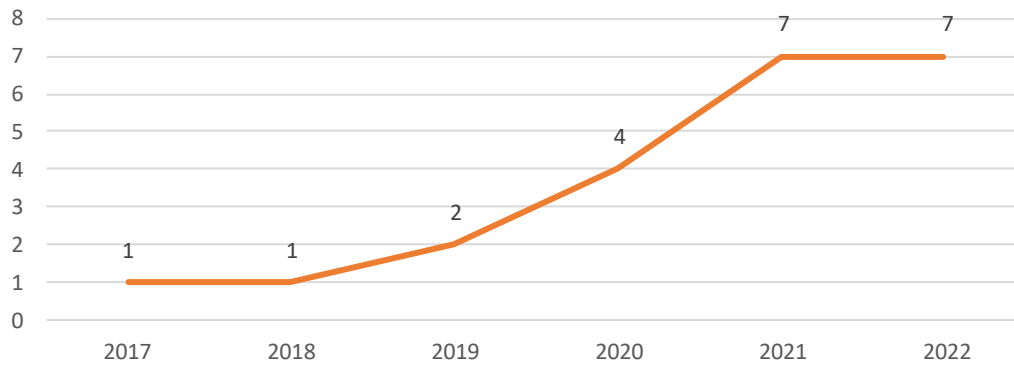


Fig. 3 – The amount of neobanks in Ukraine [7]

Table 2 – Neobanks in Ukraine 2017–2022 [10–16]

Bank	Founding history	The amount od users	Banking products
Monobank	Ukrainian neobank, created in 2017. Using for work banking license of Universal Bank, which is part of the TAC group	As for 12/31/2021 serves more than 5 million customers. The indicator of daily active users is 1.3 million.	Favorable tariffs for online lending, deposits and live customer support 24/7, as well as cash-back with exchange for real money. Turned out to a profit of \$8.6 million per year with an investment of \$2 million.
Izibank	Created in 2020	Has about 150000 users.	Investments – \$2 million. Cashback applies to all transactions, and the grace period for using credit funds is the longest – 72 days.
Sport bank	Ukrainian neobank, created in cooperation between N1 Management Company and DYVOTECH, conceived in 2014 and launched in 2019.	On 12/23/2021, the number of customers was 300,000.	Investment in the project – \$1 million. Record cashback of 10%, but only on all sports goods and services. Referral program for each invited friend – from 55 to 105 UAH, and the invited person receives 55 UAH at your own expense. Credit limit up to UAH 100,000.
O.Bank	At the end of 2021, Idea Bank launched a new mobile bank called O.Bank	Has about 120000 users.	Cashback for basic operations – up to 5%, and for purchases of Google and Apple services – up to 30%. Credit limit up to UAH 200,000. Free p2r transfers and ATM withdrawals without commission, however, only for the first 4 months of use.
BVR Ukraine	On 09/30/2021 – Fozzy Group, together with Bank Vostok and Mastercard, launched the first retail digital bank in Ukraine – Bank Vlasnyi Rakhunok	Has about 10000 users.	Points to the Own Account without restrictions on the amount and category. Fee-free payments and transfers. Top-up with cash at more than 4,033 «Silpo» cash desks without commissions. Cashless top-up without commissions. Preferential loan for up to two months at 0.00001%. 7% per annum with Nazbiratus – our savings account.
Neobank	It works under the license of ConcordBank and was created on the basis of Concord Fintech Solutions, the first fintech ecosystem opened in Ukraine. Launched in 2021	n/a	Entrepreneurs will be able to give separate access to their accountant. With the help of the bank, it will be possible to «open» the cash register in the phone. The tariffs for the service will be as follows: the package for FOP – 50 UAH/month, and for companies – 200 UAH/month. (provided there is movement of funds on the account).In addition to classic services, it is planned to promote own acquiring.
Todobank	The startup was a continuation of the Megabank Online mobile application from Megabank. He started working officially on August 5, 2019 and, one might say, was near the sources of neobanking in Ukraine	Has about 100000 customers.	It issues its own cards based on Visa Gold Rewards, offering 7% on the balance of the card. The credit limit is up to UAH 200,000, with a grace period of up to 62 days. Cashback of 1% on everything, in particular on ERC. The main difference between the service and other neobanks: to become a Todobank client, it is not necessary to order a Todobank card. It is enough to download the mobile application and start using todo using any Ukrainian bank card.

- if there are problems with the servers, accounting and documentation may be suspended until the end of their maintenance and debugging;
- high competition from traditional banks;
- presence of mistrust regarding the transition to alternative payment systems;
- the need to work on the basis of a traditional bank.

Despite the problems listed above, neobanks are gaining more and more popularity due to their advantages over traditional banks:

- simplification of opening an account, clients of neobanks can receive a card only by sending their documents to the application, and then receive the card by courier;
- saving time for making payments;
- 24/7 access to all services;
- simplified crediting procedure thanks to the use of innovative ways of assessing the borrower's creditworthiness by non-banks, which fully automates and accelerates the allocation of funds;
- targeting specific market segments, areas of activity, vulnerable clients who are not sufficiently covered by banking services (in particular, loans for small businesses and individual entrepreneurs, international transfers for labor migrants, mortgage lending for young people, etc.).

The operation of the neobank is fully ensured thanks to the Internet. The use of electronic technologies entails a number of risks:

- probability of DDos-attacks and cyber-attacks (the last big DDos-attack was on February 15, it was inflicted on state websites and large banks, their security survived, but during martial law such DDos-attacks are even more likely, because in addition to physical war, also there is an information war),
- distribution of confidential data by bank employees,
- technical failures (the application may not withstand user overload, so there are frequent failures in their work),
- disclosure of personal data by the clients themselves, and as a result, the leakage of their funds.

Despite all the risks, more and more users are turning to the services of neobanks, during martial law it is most convenient for users to open and use cards online. Therefore, it is reasonable to assume that even more neobanks will open in Ukraine in the coming years.

Conclusion

The history of neobanking in the world began in the 20th century, and in Ukraine, the first neobank appeared only in 2017. Currently, there are only 7 neobanks in Ukraine, but, taking into account their advantages and the constant development of new technologies, the number of such banks in Ukraine will increase. Of course, traditional banks will continue to work on the market of financial services, but neo-banks have already taken a certain position and are popular among Ukrainians. On February 11, 2022, the Law dated December 14, 2021 No. 1953-IX «On Financial Services and Financial Companies» was adopted, which regulates the market of financial services and provides even more opportunities for the development of neobanking.

During martial law, the entire banking system of Ukraine had to be completely reformatted, and neobanks were no exception. Their main risk in this situation was hacker attacks on the systems, but they were avoided. Banks were in a somewhat frozen state for only a few days, but resumed their active work already in March. Users began to trust neobanks even more after these events, actively opened accounts and used the bank's services. Monobank has become a platform for volunteering for many people, thanks to the «Jar» function, people create separate so-called «deposits» for which they collect funds, and then send them to help the Armed Forces.

From this we can conclude that neobanking in Ukraine has quite great perspectives, every year banks are becoming more developed and functional for users, and therefore more attractive.

References

1. Guba, M., Linnyk A. (2019). Development of neobanks in Ukraine and the world. *Regional economics and managment*. URL: <http://biblio.umf.dp.ua/jspui/bitstream/123456789/3830/1/71-74.pdf> (date of access: 10.04.2022).
2. Teslyuk, S., Matviychuk, N., Derkach O. (2021). Neo-banks: essence and development prospects in Ukraine. Ch. III. *Finance, banking and insurance*. P. 61–71. URL: <file:///D:/Downloads/kulmiros,%D0%9C%D0%B5%D0%BD%D0%B5%D0%B4%D0%B6%D0%B5%D1%80+%D0%B6%D1%83%D1%80%D0%BD%D0%B0%D0%BB%D1%83,+10.pdf>
3. Lobozyńska, S., Skoromovich, I., Vladychyn U. (2021). Activities of neobanks in the market of financial services in Ukraine and the world. *Financial space*. Issue 3. P. 7–22. URL: <file:///D:/Downloads/14599-7361-PB.pdf>
4. Blaschuk-Devyatkina, N., Kapitanchuk M. Neobanking: foreign experience and perspective for Ukraine. *Young scientist*. Issue No. 4. URL: <http://molodyvcheny.in.ua/files/journal/2020/4/60.pdf>
5. Demchenko, I. (2021). Do neobanks have a future in Ukraine? URL: <https://blog.liga.net/user/idemchenko/article/40130> (date of access: 10.04.2022).
6. Payments industry intelligence URL: <https://www.paymentscardsandmobile.com/the-global-state-of-neobanks/>
7. Brazilian Nubank website. URL: <https://nubank.com.br/>
8. American Chime website. URL: <https://www.chime.com/>
9. Official Monobank website. URL: monobank.com.ua (date of access: 10.04.2022)
10. Official Izibank website. URL: <https://izibank.com.ua/> (date of access: 10.04.2022)
11. Official Sportbank website. URL: <https://sportbank.ua/> (date of access: 10.04.2022)
12. Official O.bank website. URL: <https://obank.com.ua/uk/> (date of access: 10.04.2022)
13. Official BVR website. URL: <https://bvr.ua/> (date of access: 17.04.2022)
14. Official Neobank website. URL: <https://www.neobank.one/> (date of access: 17.04.2022)
15. Official Todobank website. URL: <https://todobank.ua> (date of access: 17.04.2022)

THEORETICAL AND APPLIED ASPECTS OF ECONOMIC PROCESSES IN UKRAINE AND IN THE WORLD ECONOMY

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RATING ASSESSMENT OF INVESTMENT ATTRACTIVENESS OF ADMINISTRATIVE-TERRITORIAL FEATURES OF LAND RESOURCES AND INVESTMENT PROMOTION

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The article is devoted to the search for an effective model of the functioning of eco-friendly agricultural land use and the agriculture-based economy of Ukraine, taking into account the rating assessment of the investment attractiveness of administrative-territorial features of land resources and areas focused on stimulating investment activity. The article analyzes and studies uses, development trends, and mechanisms of support of state promotion of investment attractiveness of land resources. The research considers a list of actions oriented to develop areas and mechanisms of motivation support, which are generated by investment attractiveness and the nature of their distribution and efficiency of use given green technologies. The goals and objectives of ecological and economic use of natural resources by generating investment attractiveness of land-resource potential as a scientific prerequisite for the advancement of land relations in Ukraine are studied. The authors highlight priority sectors of the economy eliciting the potential of environmental management, land resources, and investment attractiveness promotion. The problems of land relations and land use were analyzed and outlined, and relevant solutions were proposed. Several substantial mechanisms for supporting state incentives for investment attractiveness are identified and formulated. A list of measures for the environmentally sound development of market land relations in Ukraine is offered. Areas for environmental land use regulation, which are one of the most crucial and positive platforms for improving regional investment attractiveness, are established.

РЕЙТИНГОВА ОЦІНКА ІНВЕСТИЦІЙНОЇ ПРИВАБЛИВОСТІ АДМІНІСТРАТИВНО ТЕРИТОРІАЛЬНИХ ОСОБЛИВОСТЕЙ ЗЕМЕЛЬНИХ РЕСУРСІВ ТА СТИМУЛЮВАННЯ ІНВЕСТИЦІЙНОЇ ДІЯЛЬНОСТІ

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Ключові слова:

земельні відносини, земельна реформа, земельні ресурси, земельно-ресурсний потенціал, раціональне землекористування, інвестиційна привабливість, інвестиційно привабливі землі, інвестиційно привабливі галузі, прогнозування, інвестиційно діяльність, механізми підтримки, механізми стимулювання, інвестиції, земельні ресурси, інституції

Стаття присвячена пошуку ефективної моделі функціонування екологічнобезпечного сільськогосподарського землекористування та економіки сільськогосподарства України з урахуванням рейтингової оцінки інвестиційної привабливості адміністративно територіальних особливостей земельних ресурсів та напрямів, направлених на стимулювання інвестиційної діяльності. В статті проведено аналіз та дослідження напрямів використання, тенденцій розвитку та механізмів підтримки державного стимулювання інвестиційної привабливості земельних ресурсів. В процесі дослідження розглянуто перелік заходів, які присвячені розвитку напрямів та механізмів підтримки стимулювання, які сформовані за рахунок інвестиційної привабливості, характеру їх розподілу та ефективності використання з урахуванням екологічнобезпечних технологій. Досліджено цілі та завдання еколого-економічного природокористування за рахунок формування інвестиційної привабливості

земельно-ресурсного потенціалу, як наукової передумови розвитку земельних відносин в Україні. Висвітлено пріоритетні галузі економіки, за рахунок яких розкривається потенціал природокористування, земельних ресурсів та стимулювання інвестиційної привабливості. Проведено аналіз та окреслено проблеми земельних відносин і землекористування, запропоновано шляхи їх вирішення. Визначено та запропоновано декілька суттєвих механізмів підтримки державного стимулювання інвестиційної привабливості. Запропоновано перелік заходів для екологічнобезпечного динамічного розвитку ринкових земельних відносин в Україні. Визначено напрями регулювання екологічного землекористування, які є одними з найважливіших та позитивних платформ розвитку інвестиційної привабливості регіону.

Problem statement

The fundamental goal of investment activity is to ensure financial stability and balance of the economy during its development and functioning, as well as to maintain the most effective ways of implementing the investment strategy. It is determined that the investment attractiveness of land resource potential plays a significant role in activating investment processes at the regional level amidst managerial, financial and regulatory decentralization. High investment attractiveness guarantees a stable inflow of investments into the country, additional revenues to the state budget, and progress and improvement of the domestic social environment. It is scientifically justified that attracting investments in the economy of regions is a key task in current economic conditions. The most rational solution involves increasing the investment attractiveness of the Ukrainian regions for potential investors, the main objective of which is an optimization of the statutory, financial and managerial environment for investment. It determines an investor's choice of a specific investment object represented by a city, region, country, individual project, enterprise, or corporation.

It is most expedient to conduct the actual formation of territorial units of natural and agricultural zoning in order to create conditions for the development of rational land use and stimulation of the investment attractiveness of a region, country, or an individual project. The purpose of natural and agricultural zoning is to identify units, namely, natural-agricultural areas which, in turn, specify the directions of soil-forming processes. Depending on them, it is formed zonal types of agricultural production constituting a natural-scientific basis, which is primarily aimed at implementing the state policy of land relations.

In the search for an effective model of the functioning of agricultural land use and the agriculture-based economy of Ukraine, there are no doubts about the crucial important and strategic role of investments. At the same time, the flow of investment capital in the agricultural sector is characterized by diminished dynamics, although the potential of resources is much higher compared to most European countries. Therefore, under limited investment resources, the investment attractiveness of agricultural land use as a category is the main criterion which lays the groundwork for investment strategy and mechanism of investment attraction and state policy on investment in agriculture. In this regard, the issue of the rating assessment of the investment attractiveness of administrative-territorial features of land resources and investment promotion is of particular relevance.

Analysis of recent research and publications

Land relations, land reform, the concept of an effective model for the functioning of agricultural land use and agriculture in Ukraine, and many other issues related to land resources are highly significant objects of scientific discussions, research, and improvements by scientists, land managers, and land users. The formation of the land market is a strategic point for Ukraine, which is livelyly debatable by scientists and land use experts. The following Ukrainian researchers pay significant attention to the relevant topic: D.S. Dobriak, D.I. Babmindra, O.P. Kanash, I.A. Rozumnyi, and A.M. Tretiak. Their contributions cover such issues as land resources and use; classification of agricultural lands as a scientific prerequisite for their sustainable use. Moreover, they devote much attention to environmental study and classification of land resources, which is primarily aimed at introducing eco-friendly land use systems that are key pillars for rational, progressive and comprehensively effective use of land resources. The above will facilitate creating conditions for an investment-attractive climate.

Statement of research purposes

The purpose of the article is to identify the actual model of functioning and development of eco-friendly agricultural land use and the agriculture-based economy of Ukraine, taking into account the rating assessment of the investment attractiveness of administrative-territorial features of land resources and directions aimed at promoting investment activity; propose mechanisms and ways to support the government promotion of investment attractiveness.

Presentation of basic research material

If one refers to the Land Code of Ukraine, the first thing it declares is that land is the fundamental national wealth, which is under special state protection. First of all, the land is the territory of the state of Ukraine separated by borders from other states. The lands of Ukraine include all lands within its territory, including islands and lands occupied by water bodies, which are divided into categories by their main purpose [7]. The common feature for all lands is that they are the object of social relations, which are governed by the rules of land law. The value of land is that it is an object of nature, hence the protection of land creates favorable conditions for the conservation of natural objects, forests, waters, flora and fauna, subsoil and atmospheric air. The unique properties of land confirm its extreme value for the survival of humankind, the creation

of society, the development of the economy and economic relations as a whole. As a means of production and creation of conditions for the development of society and economy, the land is used for the location and construction of objects of social and economic nature and the production of agricultural goods. Given the significance and scope of resources, rating assessment of the investment attractiveness of administrative-territorial features of land resources and clarification of the investment attractiveness of eco-friendly agricultural land use as the most promising areas for capital attraction are of paramount importance.

Nowadays, Ukraine has a direct impact on the land market, including agricultural lands. Changes are taking place at the state level. The Law on the Circulation of Agricultural Land, which simultaneously amends the agricultural land market, was adopted

The introduction of economic methods for regulating land relations and the formation of the land market, with a significant role assigned to the monetary valuation of land are one of the primary objectives of land reform. The fundamental nature of these reforms transformed the entire system of land relations, which caused, among other things, some problems related to reducing soil fertility, degradation of agricultural land use, violation of evidence-based farming systems, etc. In this regard, the issues of state regulation, control over use and protection, mechanisms of functioning of land relations, and the eco-friendly use of agricultural lands are crucial.

State land policy pays considerable attention to the regulation of the land market, land use and protection, land management, ground rent, maintenance of the state land cadaster, and monitoring of land and state control over the use and protection of land. In a specific period of becoming, state policy on land relations was largely formed under the influence of socio-economic policy. Consequently, it directly depends on the rules of distribution and use of the land fund, restrictions, and incentives for progress in a specific sector.

The eco-friendly use of agricultural land now must be considered as the basis for the development of society and environmental-economic management, which is the key to creating attractive conditions for investment projects, and one of the fundamental and significant factors in the advancement of sustainable land use. At the same time, an important direction of environmental land use regulation should cover contour-reclamation system of organic land use; organizational measures; agrotechnical complex of crop cultivation; forest improvement and hydromechanical complex of surface runoff regulation.

Regulation of property relations in the agricultural sector is required in order to create the prerequisites for the rational use of the main resource of society – agricultural lands for the production of agricultural goods in the interests of society. It is necessary that the land is not depleted, and the ecological balance is maintained. The terms of the landowner are theoretically limitless; in addition, a land potential may tend to increase.

An objective mechanism of land relations, which establishes the rules of conduct with the land and in relation to the land, is essential as well. If the state of

affairs in the relevant area is unsatisfactory, then the reasons should firstly be sought in the land relations in effect, the mechanism of rights and responsibility for the ownership, use and disposal of land, and the methods for the implementation of such a mechanism. The land value must not be reduced to the level of an ordinary commodity resource. Regardless of its form (private, state, or communal), land ownership is a national property in some ways. It is associated with the interests of other territorial entities, land users, and tenants more than any object of property. Taking into account the interests of owners, users of property and society as a whole, we can distinguish the following methods of regulating property relations: legal, administrative and economic, and exclusively state should control use and protection.

Improvement of the mechanisms of state regulation of land relations in Ukraine should rely on the adjustment of agricultural policy, further development of the legal framework at the state and regional levels contributing to its realization, as well as on the creation of an appropriate organizational mechanism with its inherent infrastructure for the implementation of policy on land relations.

As for the refinement of legal methods, there is a need to create prerequisites to meet the personal interests of all participants in the production process: tenants, owners, heads of enterprises, other users, by turning their focus towards organizing socially useful activities which do not disturb environmental and economic balance.

It should also be noted that land legislation and the regulation of land relations to ensure the right to land of citizens, legal entities, territorial communities and the state, rational use and protection of land are the most important steps toward control over the agricultural land market. The revival of agriculture is crucial for the fastest growth of the economy and the improvement of public living conditions.

We believe that it is also significant and expedient to establish the economic sectors which specialize in the disposal of accumulated waste masses and control harmful emissions economically and environmentally.

With regard to the development of sustainable land use and investment promotion, an important step is the introduction and application of some mechanisms of state incentives. First, it refers to a tax incentive. It focuses investments on priority areas of the national economy and stimulates the investment activities of economic entities; it is introduced by lowering the tax rate or tax base; tax exemption; abolition of reinvestment tax; introduction of tax credits; introduction of differential rates. Secondly, it is a financial and credit stimulus, which provides for the expansion of budget financing and accessibility and increases the demand for credit resources. It is introduced by granting targeted state loans and state credits; accelerated depreciation; the provision of preferential and interest-free loans; the formation of state extra-budgetary investment funds.

Thirdly, it encourages the implementation of investment projects. Such a mechanism facilitates achieving the goals of economic and social development of the state, allows advancing the technical level of production, and promotes the competitiveness of national output. It is introduced by

assisting in conducting project feasibility study; providing targeted funding for R&D and engineering works; supporting investors in solving problems or disputes.

Incentive mechanisms for stimulating and using land resources in Ukraine as part of the resource potential indicate the need to concentrate resources and take measures to promote an investment-attractive climate in the current and the short- and long-term.

Conclusions

Therefore, an effective model of the functioning of agricultural land use and the agriculture-based economy of Ukraine is an objective mechanism which comprises

many focus areas evolved within land relations, including the eco-friendly use of land, land protection, land monitoring and state control over the use and protection of land.

In the context of reforming the ecological and economic system of Ukraine and promoting investment, land resources, as the basis of any economic system, have been and remain the fundamental and reliable resources for the creation and enhancement of the current economic situation in the country. The involvement of land and resource potential in the efficient circulation and improvement of land relations is a priority for the socio-economic development of Ukraine and the promotion of investment attractiveness.

References

1. Tretiak A.M., Babmindra D.I. (2003) *Zemelni resursy Ukrainy ta ikh vykorystannia* – [Land resources of Ukraine and use]. Kyiv : TOV «TsZRU»b. 143 p. [in Ukrainian]
2. Tretiak A.M. (2004) *Ekonomika zemlekorystuvannia ta zemlevporiadkuvannia : navch.posibnyk* – [Economy of land use and land management : textbook]. Kyiv : TOV «TsZRU»b. 542 p. [in Ukrainian]
3. Horbulin V.P., Hrekov L.D., Iurchenko A.D., et al. (2010) *Zemelni vidnosyny v Ukraini : zbirnyk inform-analit. materialiv* – [Land relations in Ukraine : collection of information-analytical materials]. Kyiv : Istyna. 136 p. [in Ukrainian]
4. Libanova E.M., Khvesyk M.A. (eds.) (2017) *Sotsialno-ekonomichniy potentsial staloho rozvytku Ukrainy ta yii rehioniv: vektory realnoho postupu: natsionalna dopovid : monohrafiia* – [Social-economic potential of the sustainable development of Ukraine and its regions: vectors of real progress: a national report : monograph]. Kyiv : DU IEPSSR NAN Ukrainy. 864 p. [in Ukrainian]
5. Heleveria Ie.M., Serhiienko Yu.I. (2020) *Investytsiina pryvablyvist rehioniv yak osnova staloho rozvytku krainy – [Investment attractiveness of regions as the basis of sustainable development of the country]. *Biznes Inform.* No. 4. P. 111–117. <https://doi.org/10.32983/2222-4459-2020-4-111-117>*
6. Dobriak D.S., Kanash O.P., Babmindra D.I., Rozumnyi I.A. (2009) *Klasyfikatsiia silskohospodarskykh zemel yak naukova peredumova yikh ekolohobezpechnoho vykorystannia. 2he vyd.* – [Classification of agricultural lands as a scientific prerequisite for their ecologically safe use. 2nd ed.]. Kyiv : Urozhai. 462 p. [in Ukrainian]
7. The Verkhovna Rada of Ukraine (2002) *Zemelnyi kodeks Ukrainy* – [Land Code of Ukraine]. Nos. 3–4. Art. 27; Art.18.
8. The Verkhovna Rada of Ukraine (2002) *Zakon Ukrainy “Pro innovatsiinu diialnist” N-IV-04* – [The Law of Ukraine “On innovative activity” No. IV-04].
9. The Verkhovna Rada of Ukraine (2003) *Zakon Ukrainy “Pro prioritetni napriamy innovatsiinoi diialnosti v Ukraini” N. 433-IV* – [The Law of Ukraine “On priorities of innovative activity in Ukraine” No. 433-IV]
10. Novakovskiy L.Ia. (2013) *Suchasni problemy rehuliuвання zemelnykh vidnosyn v Ukraini* – [Modern problems of regulating land relations in Ukraine]. *Zemlevporiadnyi visnyk.* No. 6. P. 2–6.
11. Plaksin O.A. (2014) *Osoblyvosti formuvannia zemelnykh vidnosyn* – [Particularities of developing land relations]. *Zbirnyk naukovykh prats Tavriiskoho derzhavnogo ahrotekhnolohichnoho universytetu. Seriia: Ekonomichni nauky.* No. 1. P. 205–208.

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TRENDS AND CURRENT CHALLENGES OF UKRAINE'S INTERNATIONAL ECONOMIC ACTIVITY

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of subjects of international
economic relations

The article examines the features, current trends and methods of organizing international economic operations in Ukraine under martial law. The main properties inherent in the implementation of foreign economic transactions by the subjects of economic relations are identified. The documentary aspects of registration of such operations taking into account changes in the legislation in the operational period are analyzed. Also the tendencies of changes of the basic economic indicators of activity of Ukraine in the conditions of martial law are investigated and priority criteria of creation of reserves of economic durability for the enterprises-participants of the international economic operations are revealed, parameters that affect the effectiveness of these operations at both internal and external levels of economic activity are identified. As a result of the study, it was found that the key role in modern conditions to restore the effectiveness of foreign economic activity is the state and its mechanisms of legislative regulation. Recommendations on the formation of a strategy for post-war recovery of Ukraine's foreign economic potential and methods to increase the attractiveness of foreign economic activity with the assistance of state institutions at various levels of government are also provided.

ТЕНДЕНЦІЇ ТА СУЧАСНІ ВИКЛИКИ МІЖНАРОДНОЇ ЕКОНОМІЧНОЇ ДІЯЛЬНОСТІ УКРАЇНИ

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Ключові слова:

зовнішньоекономічна діяльність,
міжнародні економічні
відносини,
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суб'єкти міжнародних відносин,
регулювання діяльності
суб'єктів міжнародних
економічних відносин

В статті досліджені особливості, сучасні напрями та методи організації міжнародних економічних операцій в Україні в умовах військового стану. Визначено основні властивості, притаманні здійсненню зовнішньоекономічних операцій суб'єктами економічних відносин. Проаналізовані документальні аспекти оформлення таких операцій з урахуванням змін у законодавстві в оперативному періоді. Також досліджені тенденції змін основних економічних показників діяльності України в умовах військового стану та виявлені пріоритетні критерії створення резервів економічної міцності для підприємств-учасників міжнародних економічних операцій, виявлені параметри, що впливають на ефективність цих операцій як на внутрішньому, так і на зовнішньому рівнях економічної діяльності. В результаті проведеного дослідження встановлено, що ключову роль в сучасних умовах для відновлення ефективності діяльності суб'єктів зовнішньоекономічної діяльності обіймає держава та її механізми законодавчого регулювання. Також надані рекомендації щодо формування стратегії післявоєнного відновлення зовнішньоекономічного потенціалу України та методи підвищення привабливості сфери зовнішньоекономічної діяльності за умов сприяння цьому державних інституцій різних рівнів влади.

Formulation of the problem

In the current conditions of world economic development, the interconnectedness of production processes based on the international movement of products and services, scientific and creative achievements of different countries is an integral and characteristic element of economic relations. As we know, globalization and integration of all levels of human life, especially the economic sphere, has become the basis for transformational change and restructuring of global productive forces, which in turn has significantly affected global business processes and national economies, including Ukrainian one. Our country is on the right path of economic self-identification and aims to gain full status as an equal member of the world economic community on the basis of recognizing free choice of methods of building its own statehood, and for this it needs, as never before, to expand cooperation with the national economies of the member states of the European Union and the world. Considering that the trajectory of Ukraine's movement towards world economic cooperation is currently disrupted by military action, our country's economy is facing daily challenges and restructuring to take into account the constant risks and challenges of wartime. That is why the issues of adaptation of the domestic business sphere to sudden transformations, its openness to international cooperation and methods of overcoming the difficulties that arise every day during the complex process of adapting international economic relations to new conditions are becoming increasingly important.

Analysis of recent research and publications

Peculiarities and directions of realization of relations in the sphere of international cooperation in the conditions of strengthening of globalization tendencies have been studied by many world-famous scientists, in particular, M. Porter, P. Drucker, A. Morita, F. Kottler and others. The processes of development of international economic relations at the domestic level have also been investigated by such researchers as V. Novytskyi, S. Mocherny, E. Panchenko, S. Fomishyn and others. Issues of research of the current state of international operations in Ukraine are thoroughly considered in the works of F. Butynets, O. Koblianska, L. Davydiuk and others. In today's reality, many researchers pay attention and conduct a thorough analysis of prospects for international economic cooperation between Ukraine and the world community, in particular, such scientists and public figures as E. Litvinov, H. Vyshlinskyi, M. Repko, T. Bebig, S. Didenko and etc.

At the same time, the difficult situation requires finding new solutions and recommendations for choosing effective mechanisms for regulating and balancing the cooperation of economic agents with international partners, with the leading role played by operational national narratives that should properly regulate the situation in the internal market and help participants in economic relations to maintain their own reserves for further operation, and in the future – to quickly get out of the post-crisis period. That is why research in this area is necessary and relevant, and needs further study.

Formulation of goals

The purpose of this article is to theoretically substantiate the nature, forms and methods of international economic operations, analytical study of current trends in the development of international relations of domestic business entities in the context of difficult martial law, to identify promising areas for improving the economic situation in Ukraine by establishing global economic relationships.

Presentation of the main material of the research

The defining characteristic of the dynamics of international economic processes is the internationalization of production, increasing the level of interdependence of national economies, the transition to open economic systems, strengthening cooperation between countries. In addition, the tendencies to recombine economies is exacerbated by the challenges facing humanity in the form of global problems, and today interaction and mutual support in all spheres of human life are more important than ever. The highest form of openness of national economies is considered to be global economic integration.

It is important in this aspect to determine the nature and current state of international business in the present challenges. Many researchers are considering these issues. In particular, Davydiuk L.P., Klishchuk Yu.O. define that international business is associated with the movement of resources, goods and services among countries. The authors note that globalization, universalization and the formation of unified world structures, links and relations between socio-economic systems, intensification of internationalization, scientific and technological progress, international competition, changes in consumption styles in different countries and the impact of socio-cultural parameters determine new forms international business relations [9]. Today, the activities of international companies are characterized by such trends as maintaining high concentration; rapid growth of technology business, Internet companies and companies operating within the model «on demand» through ICT; increasing the number of companies from developing countries, in particular in the technology sector; growing number of small and medium-sized companies operating internationally; enlarge in the share of intangible assets. Researchers single out international licensing, franchising, engineering, outsourcing, subcontracting and offshoring as innovative forms of international business [8].

Ukraine has moved to a market economy since independence, and these processes require active participation in world economic relations, deepening integration into the international economic system. As a result, the number of business units in Ukraine that take an active part in foreign economic activity in all economic, financial and social spheres of state life is constantly growing. Therefore, these processes require government regulation, the attention of regulatory authorities in order to prevent violations and abuses by supporters of unfair competition [17].

Wikipedia notes that the main directions of Ukraine's foreign policy, approved by the Verkhovna Rada of Ukraine on the 2nd of July, 1993, contained two important

provisions on international agreements: firstly, Ukraine unconditionally adheres to the principle of conscientious fulfillment of all its international obligations and considers ratified contracts as part of their domestic law; secondly, the priority is to conclude full-scale agreements on good neighborliness and cooperation with all border states in order to finally confirm the existing state borders, create an atmosphere of reciprocal trust and respect, building friendly and mutually beneficial partnerships in all areas [13].

In the official sources of the Ministry of Finance of Ukraine it is also noted that today between Ukraine and other states there are seventy-four international bilateral intergovernmental conventions (agreements) on the avoidance of double taxation, which operate in accordance with Art. 7 of the Law of Ukraine «On Succession of Ukraine» until the date of entry into force of new agreements concluded by Ukraine. In addition, in the relations between Ukraine and the Republic of Serbia and the Republic of Montenegro, the Convention between the Cabinet of Ministers of Ukraine and the Federal Government of the Federal Republic of Yugoslavia applies on the avoidance of double taxation with respect to taxes on income and capital as these countries are the successors of the Federal Republic of Yugoslavia.

Koblyanska O.I. and Slipchenko Yu. V. emphasize the fact that Ukraine's international relations are expanding, intensifying and the economic reforms are deepening, so companies have begun to carry out foreign economic activity even more. Access to the international level of foreign economic activity should ensure the strengthening of their financial and economic position and the position of the state as a whole. This should be facilitated by modern approaches to the management of foreign economic activity of the enterprise, which are based on the economic justification of each operation, assessment of the effect and effectiveness of its implementation. This should take into account both the interests of the participant and the state, which often require compromise decisions. The experience of Ukrainian enterprises in the foreign market confirms the need to consider its features when assessing the profitability of foreign economic operations and projects [5].

Researchers also emphasize that in the implementation of foreign economic activity by Ukrainian entrepreneurs, the conclusion of any commercial agreement of an international nature requires its documentation, i. e. signing a contract. This necessitates the use of a unified or generalized approach to the conclusion of contracts «with a foreign element», taking into account the peculiarities of contract law in different legal systems and contract regimes of countries with different levels of economic and social development [2].

Therefore, it is important to note that a foreign economic agreement (contract) is an agreement between two or more subjects of foreign economic activity and their foreign counterparties, aimed at establishing, changing or terminating their mutual rights and obligations in foreign economic activity (paragraph 13 of Article 1) Law of Ukraine «On Foreign Economic Activity» [6]. International terms of trade (Incoterms) are an internationally recognized system of trade terms used in the supply of goods.

INCOTERMS rules are known all over the world and are widely used in the practice of international trade. The rules are issued by the International Chamber of Commerce [7]. Incoterms can be used only and exclusively for contracts for the supply of goods that have a material form and can be moved in space. From the 1st of January, 2020, the rules on the use of terms for domestic and international trade INCOTERMS2020 came into force in the world [4].

In this aspect, the peculiarities of the design of international trade agreements with the member states of the European Union as Ukraine's main foreign economic partners need attention. The literature notes that EU directives apply only to treaties above a certain level of value, mainly because such treaties are of interest in the context of international trade. Another feature of EU directives is the distinction between activities on a commercial basis and to meet societal needs. There are features of procurement for enterprises that work in public utilities. The third feature concerns the requirements of the EU directives on technical specifications – a description of the demands for what must be met under a public procurement contract. The fourth property concerns the criteria for determining the best offer. Another feature of EU procurement that should be noted is their use as a tool for implementing environmental and other policies, such as labor protection [3].

Litvinov E. notices that in connection with the imposition of martial law may temporarily impose restrictions on the rights and legitimate interests of legal entities within the limits and to the extent necessary to ensure the possibility of introducing and implementing measures of such a legal regime. Such restrictions may affect the performance and conclusion of international commercial contracts, subject to the participation of residents of Ukraine or, if necessary, their implementation in Ukraine. For most companies, electronic document management has become an integral part of the work. In addition, the international customs of commerce are much more loyal to the forms of contracting, including international. Presenting the content of agreements, the implementation of which is somewhat delayed, in the classic form of a single document, will avoid difficulties with regulatory authorities in Ukraine, activities and interaction with which may be complicated in a special period [1].

According to researchers H. Vyshlinskyi, M. Repko, and others, export opportunities were greatly reduced because of the blockade of Ukrainian ports by the Russian fleet, hostilities in the eastern and southern regions, and a large-scale logistical collapse. Imports declined not only due to logistical problems and reduced demand, but also because of the ban on uncritical import operations imposed by the National Bank of Ukraine to avoid currency volatility [10].

According to official data from the Ministry of Economy of Ukraine (Ministry of Economy), because of Russia's aggression only in March 2022, exports of Ukrainian goods halved, imports reduced by more than three times compared to February 2022 [14].

Vyshlinskyi H., Repko M. and others note that business activity in the first weeks of the war was suspended, and then resumed very slowly. More than half of the

companies-member of the European Business Association in Ukraine stopped or postponed their activities during the war (57%). The situation is similar among smaller businesses. About 39% of companies have stopped their activities and another 20% are practically out of operation. A cautious recovery has been observed since mid-March, when companies resumed operations in relatively safe western and central regions. This wave intensified in early April after the liberation of Kyiv, Chernihiv and Sumy regions from Russian troops [10].

An important role in characterizing the state of international economic relations is played by international foreign exchange reserves, the main purpose of which is to reduce the volatility of the national currency. Thus, as Didenko S. notices, the level of international reserves reflects foreign trade and capital flows in previous periods, which is why during March the dynamics were determined by three factors, including public debt management operations, foreign exchange interventions and revaluation of financial instruments. According to the results of March 2022, the international reserves of the National Bank of Ukraine increased to \$28.1 billion. USA. As a result, in March, reserves increased by 2% (Fig. 1) [15].

Reserves increased primarily due to funding from international partners, which offset the sale of currency by the National Bank and payments for public debt service. International reserves are stored in first-class foreign banks and reliable financial instruments. In terms of currencies, the dominant currency in the structure of international reserves is the USA dollar – 76.8% [15].

At the same time, Vyshlinskyi H., Repko M. and others emphasize the fact that investments in Ukraine are currently frozen. New investments can only be related to the relocation of companies’ production capacity (more than 1,000 companies have applied to participate in the relevant state program), the construction of housing for

internally displaced persons and public investment in the rehabilitation of certain infrastructure. The banking sector has lost much of its assets in war-torn regions, as well as, according to preliminary estimates by several banks, 50–70% of cash flow from loans (interest and repayment). The war caused large-scale destruction of civilian infrastructure. As of the 8th of April, 2022, the total physical damage was estimated at \$80 billion (Fig. 2) [10].

Support for the economy, both internally and externally, is constantly provided at the state level. Thus, on the 7th of April, 2022, the Prime Minister of Ukraine Denis Shmygal announced the embargo imposed by Ukraine on trade in goods from Russia. Resolution № 314 from 18.03.2022 «Some issues of ensuring economic activity in martial law» the CMU significantly simplified the procedure for obtaining the right of economic entities to conduct certain types of economic activity. On the 20th of March, 2022, the Government adopted Resolution № 330 «Some issues of customs control and customs clearance of goods, including vehicles, under martial law», which introduced the possibility of importing most goods in a simplified manner. In addition, the Verkhovna Rada recently adopted the Law of Ukraine № 2142-IX «On Amendments to the Tax Code of Ukraine and Other Legislative Acts of Ukraine to Improve Legislation for the Period of Martial Law», which was published on the 5th of April, 2022. Starting from the 5th of April, 2022, the deadline for settlements of 90 calendar days applies to all export-import operations. This is a significant reduction in time compared to the rules of peacetime. Thanks to the adoption of the Resolution of the Cabinet of Ministers № 289 of the 16th of March, 2022, a list of criteria for determining critical imports for four sectors: energy, security and defense, livelihoods, and the functioning of industrial enterprises [14].

So now the business has enough opportunities to resume work, even if the production process depends on

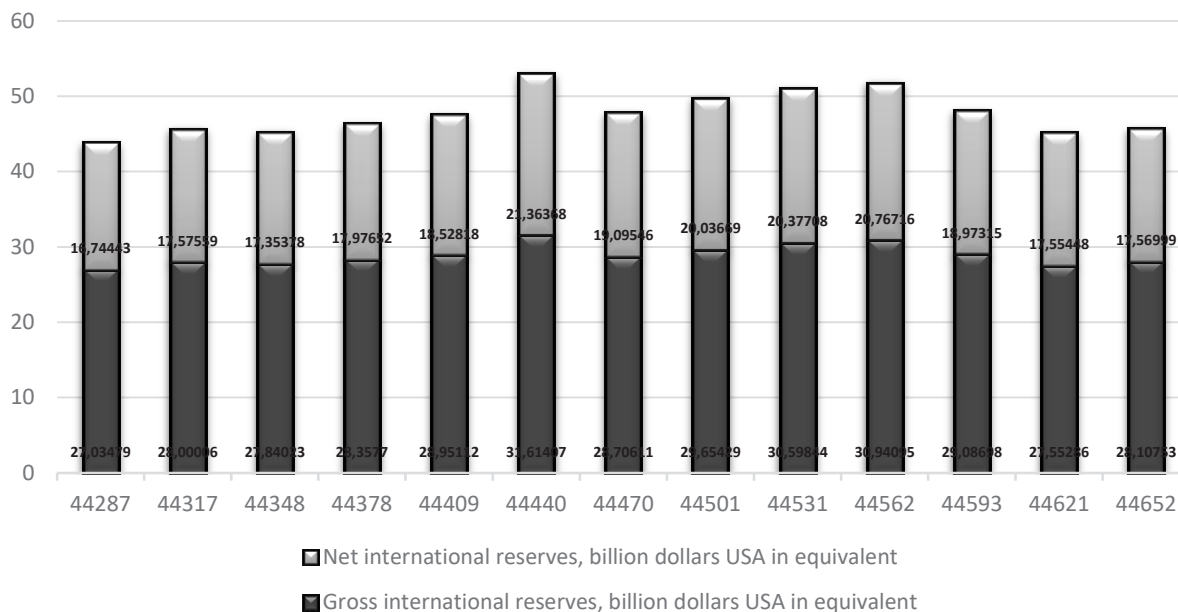


Fig. 1 – Dynamics of international reserves, billion dollars US in equivalent

Source: NBU [15]

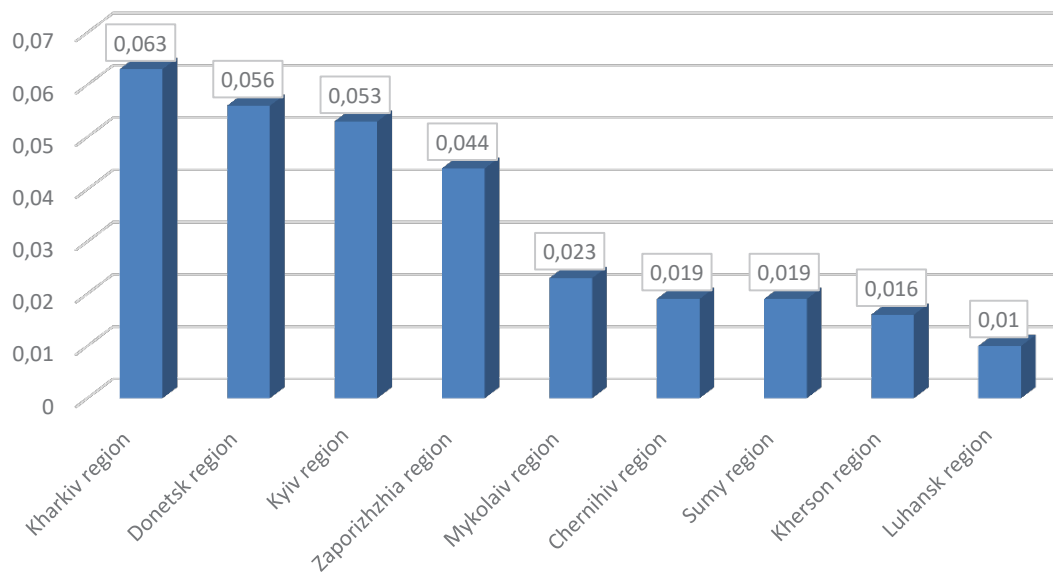


Fig. 2 – The share of regions affected by military aggression in the GDP of Ukraine in 2020

Source: State Statistics Committee of Ukraine

imported raw materials. As practice shows, the regulation of foreign economic activity is currently carried out quite dynamically to ensure a common victory [17].

In addition, both internal and external measures are needed to support Ukraine's economy during the war. Domestic researchers say that the quick and thoughtful decisions of the NBU on the first day of a full-scale invasion prevented the financial crisis and saved the banking payment system. Taxes and profits of state-owned enterprises in 2021, together with quick loans and assistance from MFIs and bilateral partners, helped to finance the budget expenditures of the first month of the war. However, limited budgetary resources are better spent on targeted support for enterprises that have suffered losses, work in critical industries and need relocation, as well as to support IDPs and the unemployed [10]. The fiscal gap cannot be closed without grants and loans from international partners, and Ukraine needs to show examples of responsible and targeted spending. At the same time, mass deregulation, first introduced during the war, must be reconsidered after the war. Coordination of alternative routes of Ukrainian exports and imports, regulation of domestic transportation will require a lot of practical efforts from the Government of Ukraine. The trade balance showed a surplus in March, and exports are expected to grow as Ukrainian producers find new routes and resume operations. The NBU should consider changing the current policy of allowing payments only for critical imports to the policy of allowing all payments for imports supported by contracts (as in 2015–2019), continuing to monitor transactions with related parties [10, 17].

On the 7th of May, 2022 under the chairmanship of the President of Ukraine Volodymyr Zelensky, a meeting was held on topical issues of the executive branch. The participants of the meeting first of all considered the issues of fuel security of the country. In cooperation with the Ministry of Foreign Affairs, work is underway to provide

Ukraine with a green corridor in the ports of Eastern Europe, which is currently the main bottleneck in the logistics of fuel supply to the country. It was also stressed the need to conclude long-term contracts and accumulate state fuel reserves. Regarding the state of state budget execution under martial law, the country ended April with a deficit of UAH 125 billion. UAH 57 billion of revenues are planned for May. They plan to repay the monthly deficit thanks to international grants and loans. Negotiations on international grants in the amount of 11 billion dollars are underway, of which 5 billion dollars our state has already received. During the meeting the preparation of the Plan for Reconstruction and Development of Ukraine after the war was also discussed [12].

International support in bridging the budget gap is now paramount for the Ukrainian economy. Debt reduction and further options for financial support for Ukrainian debt should be based on the following principles: provide grants, not loans, to avoid accumulating debt; cancellation of the existing debt, which should be realized so as not to cause a cross-default of other Ukrainian debts, including Eurobonds, or not to damage Ukraine's reputation as a reliable borrower; the amount of unconditional budget support should increase significantly compared to current levels; a considerable proportion of new debt should be denominated in Ukrainian currency to avoid future currency risks for Ukraine in the near postwar period [10].

At this stage, the support for Ukraine from Western partners plays an important role. The International Monetary Fund has now increased emergency funding by \$1.4 billion to help Ukraine to satisfy its immediate spending needs. The Committee on Economic Development emphasizes the importance of international financial support in the future and notes that the people's deputies of Ukraine – members of the Committee are constantly working on legislative support for the domestic economy [11].

Conclusions from the research

Thus, Ukraine's international economic activity today is significantly complicated by martial law, so the support of the national producer, and in general the entire socio-economic sphere, requires considerable state intervention, prompt and balanced decisions that can affect not only the current situation but and to neutralize as much as possible the negative consequences that our state will face after the end of hostilities. According to the results of the study, the legislation of Ukraine in today's challenges is adapting to existing risks and threats, government agencies are doing everything possible and impossible to keep the state from the economic crisis.

In order to achieve today the balance of the economy and the equilibrium of the domestic market of Ukraine with the system of international division of labor, state regulation of foreign economic activity must protect all economic interests of Ukraine and the legitimate interests of subjects of foreign economic activity. In addition, enterprises participating in foreign economic operations should also constantly monitor changes in foreign trade regulation mechanisms in order to avoid negative consequences of the struggle for markets, as well as supervise differences in the system of national customs regimes, study and control norms and rules of international trade agreements. That is why the essence of state regulation of foreign economic relations should be to ensure the harmony of interests of foreign economic entities both within the country and abroad.

Ukraine has made its civilizational choice in favor of democracy, having come a long way, as all European countries once did. After the war, a large-scale program to support the reconstruction of Ukraine should be launched

immediately so that Ukraine does not have to wait for the completion of procedures to withdraw Russian assets. The main directions of international assistance for the reconstruction of Ukraine's economy should be based on the following theses:

- Ukraine must strive to join the EU. As part of the reconstruction program, Ukraine must renew its institutions and infrastructure in such a way as to become a full member of the European Union;

- a separate institution should be established under the leadership of the EU, which will have a certain period of existence and its own autonomy of action on the coordination and management of reconstruction programs in all spheres of social and economic life of the country. This institutional unit should work in close cooperation with the national government and work directly with local authorities;

- Ukraine must act as an independent developer and owner of the program of its reconstruction, renovation must be carried out in the interests of our state and its citizens;

- it is necessary to promote all possible ways of foreign technologies and investments, taking into account the use of innovative methods and directions of development of all spheres of socio-economic life, production facilities, infrastructure elements and institutions to ensure a decent standard of living;

- an important role should belong to the attraction of private capital on the basis of its stimulation through the provision of subsidies, grants, investment insurance;

- reconstruction should be founded on the smallest possible dependence on energy resources based on fossil fuels, so it is necessary to implement projects to support green energy with the involvement of foreign experts in this field.

References

1. Litvinov, Ye. (2022). Mizhnarodni komertsii kontrakti v umovakh voiennoho stanu – [International commercial contracts in martial law]. *Internet-portal «Liha-zakon» – Internet portal «League-Law»*. Retrieved from https://biz.ligazakon.net/analytics/210852_mzhnarodn-komertsyn-kontrakti-v-umovakh-vonnogo-stanu (date of access: 15.05.2022). [in Ukrainian]
2. Istotni umovy zovnishnoekonomichnykh dohovoriv : arbitrazhne zasterezhenia – [Significant conditions of foreign economic agreements : arbitration clause]. (2022). *Ukrainian Bar Association*. Retrieved from <http://agalawyers.org/ru/publications/60/> (date of access: 15.05.2022). [in Ukrainian]
3. Derzhavni zakupivli: shist kliuchovykh urokiv vid YeS – [Public procurement: six key lessons from the EU]. (2022). *Public procurement online*. Retrieved from <https://www.dzo.com.ua/news/1128-derzhavni-zakupivli-shist-klyuchovih-urokiv-vid-> (date of access: 15.05.2022). [in Ukrainian]
- Zovnishnoekonomichni dohovory (kontrakty) – [Foreign economic agreements (contracts)]. (2022). *Wikipedia*. Retrieved from [https://wiki.legalaid.gov.ua/index.php/%D0%97%D0%BE%D0%B2%D0%BD%D1%96%D1%88%D0%BD%D1%8C%D0%BE%D0%B5%D0%BA%D0%BE%D0%BD%D0%BE%D0%BC%D1%96%D1%87%D0%BD%D1%96_%D0%B4%D0%BE%D0%B3%D0%BE%D0%B2%D0%BE%D1%80%D0%B8_\(%D0%BA%D0%BE%D0%BD%D1%82%D1%80%D0%B0%D0%BA%D1%82%D0%B8\)](https://wiki.legalaid.gov.ua/index.php/%D0%97%D0%BE%D0%B2%D0%BD%D1%96%D1%88%D0%BD%D1%8C%D0%BE%D0%B5%D0%BA%D0%BE%D0%BD%D0%BE%D0%BC%D1%96%D1%87%D0%BD%D1%96_%D0%B4%D0%BE%D0%B3%D0%BE%D0%B2%D0%BE%D1%80%D0%B8_(%D0%BA%D0%BE%D0%BD%D1%82%D1%80%D0%B0%D0%BA%D1%82%D0%B8)) (date of access: 15.05.2022). [in Ukrainian]
4. Koblianska, O.I. and Slipchenko, Yu.V. (2022). Suchasnyi stan provedennia eksportno-importnykh operatsii v Ukraini – [The current state of export-import operations in Ukraine]. *Oblik i finansy APK – Accounting and finance of agro-industrial complex*. Retrieved from <http://magazine.faaf.org.ua/suchasny-stan-provedennya-eksportno-importnih-operatsiy-v-ukraini.html> (date of access: 15.05.2022). [in Ukrainian]
5. The Law of Ukraine «Pro zovnishnoekonomichnu diialnist – [On foreign economic activity]» 959-XII. (1991). *The Verkhovna Rada of Ukraine*. Retrieved from <http://zakon5.rada.gov.ua/laws> [in Ukrainian] (date of access: 15.05.2022).
6. The Law of Ukraine «Pro rehulivannia tovarobminnykh (barternykh) operatsii u haluzi zovnishnoekonomichnoi diialnosti [On the regulation of barter (barter) transactions in the field of foreign economic activity]» 351-XIV. (1998). *The Verkhovna Rada of Ukraine*. Retrieved from <http://zakon5.rada.gov.ua/laws> (date of access: 15.05.2022). [in Ukrainian]

7. Butynets, F.F. (2001). Zahalni zasady eksportno-importnoi diialnosti. Oblik i analiz v ZED – [General principles of export-import activity. Accounting and analysis in foreign trade]. Zhytomyr : PP Ruta. 542 p. (date of access: 15.05.2022). [in Ukrainian]
8. Davydiuk, L.P. and Klishchuk, Yu.O. (2019). Tendentsii rozvytku mizhnarodnoho biznesu v Ukraini – [Rends in international business development in Ukraine]. *Infrastruktura rynku – Market infrastructure*. No. 37. Retrieved from <https://doi.org/10.32843/infrastruct37-5> (date of access: 15.05.2022). [in Ukrainian]
9. Vyshlinskyi, H., Repko, M., Haidai, Yu., Horiunov, D., Kolomiets, O. and Samoiliuk, M. (2022). Ekonomika Ukrainy pid chas viiny: operatyvna otsinka, kviten 2022 – [Economy of Ukraine during the war: operational assessment, April 2022]. *Tsentr ekonomichnoi stratehii – Center for Economic Strategy*. Retrieved from https://ces.org.ua/wp-content/uploads/2022/04/UKR_%D0%95%D0%BA%D0%BE%D0%BD%D0%BE%D1%96%D0%BA%D0%B0-%D0%A3%D0%BA%D1%80%D0%B0%D1%97%D0%BD%D0%B8-%D0%BF%D1%96%D0%B4-%D1%87%D0%B0%D1%81-%D0%B2%D1%96%D0%B9%D0%BD%D0%B8.pdf (date of access: 15.05.2022). [in Ukrainian]
10. Information management (2022). Mizhnarodna finansova pidtrymka vidihraie vazhlyvu rol u pidtrymtsi ekonomiky Ukrainy – zaznachaiut u Komiteti z pytan ekonomichnoho rozvytku – [International financial support plays an important role in supporting Ukraine’s economy, according to the Committee on Economic Development]. Retrieved from <https://www.rada.gov.ua/news/razom/221836.html> (date of access: 15.05.2022). [in Ukrainian]
11. Kyiv Regional State Administration (2022). Prezydent proviv naradu shchodo pytan postachannia palnogo ta vykonannia derzhavnogo biudzhetu – [The President held a meeting on fuel supply and implementation of the state budget]. Retrieved from <https://koda.gov.ua/prezydent-proviv-naradu-shhodo-pytan-postachannya-palnogo-ta-vykonannya-derzhavnogo-byudzhetu/> (date of access: 15.05.2022). [in Ukrainian]
12. Wikipedia (2022). Mizhnarodni dohovory Ukrainy – [International agreements of Ukraine]. Retrieved from https://uk.wikipedia.org/wiki/%D0%9C%D1%96%D0%B6%D0%BD%D0%B0%D1%80%D0%BE%D0%B4%D0%BD%D1%96_%D0%B4%D0%BE%D0%B3%D0%BE%D0%B2%D0%BE%D1%80%D0%B8_%D0%A3%D0%BA%D1%80%D0%B0%D1%97%D0%BD%D0%B8 (date of access: 15.05.2022). [in Ukrainian]
13. Bebiuk, T. (2022). Zovnishnoekonomichna diialnist v umovakh viiny – [Foreign economic activity during the war]. *Internet-portal «Liha-zakon» – Internet portal «League-Law»*. Retrieved from https://biz.ligazakon.net/analytics/210611_zovnishnoekonomichna-dyalnst-v-umovakh-vyni (date of access: 15.05.2022). [in Ukrainian]
14. Didenko, S. (2022). Navit pid chas viiny: Natsbank narostyv mizhnarodni rezervy – [Even during the war: the National Bank increased international reserves]. *Novyny UA – UA News*. Retrieved from <https://ua.news/ua/dazhevo-vremya-vojny-natsbank-narasty1-mezhdunarodnye-rezervy/> (date of access: 15.05.2022). [in Ukrainian]
15. Ministry of Finance of Ukraine (2022). Mizhnarodni dohovory Ukrainy pro unyknennia podviinoho opodatkovannia – [International agreements of Ukraine on avoidance of double taxation]. Retrieved from https://www.mof.gov.ua/uk/international_agreements_of_ukraine_on_avoidance_double_taxation-543 (date of access: 15.05.2022). [in Ukrainian]
16. Beker, T., Aikhenhrin, B., Horodnichenko, Yu., Huriiev, S., Dzhonson, S., Mylovanov, T., Rohoff, K. and Veder di Mauro B. (2022). Shans na krashche zhyttia: yakym mozhe buty plan vidbudovy Ukrainy – [Chance for a better life: what can be the plan for the reconstruction of Ukraine]. *Ekonomichna Pravda – Economic truth*. Retrieved from <https://www.epravda.com.ua/publications/2022/04/11/685537/> (date of access: 15.05.2022). [in Ukrainian]

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DOI <https://doi.org/10.26661/2414-0287-2022-2-54-14>**REGULATORY REGULATION OF INTERNATIONAL MIXED TRANSPORTATION
BY TRANSPORT ENTERPRISES: WORLD EXPERIENCE AND NATIONAL FEATURES****Pereverzieva A.V., Volkov V.P.***Zaporizhzhia National University,**Ukraine, 69600, Zaporizhzhia, Zhukovsky str., 66**pereverzeva@ukr.net, volkovvp49@gmail.com*

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Key words:international mixed transport,
normative-legal regulation,
national economy,
world experience,
international law,
transport enterprises

The issue of normative-legal regulation of international mixed transportations is investigated. It is substantiated that the legal regulation of international mixed transport affects the choice of mode of transport and transport company that provides services, ensuring a rational level of financial and time costs, as well as delivery of goods without damage in full. Rules and legislation in the system of international mixed transport, developed both at the national level and those existing in international legal practice, play an important role. Regulatory and legal support for the provision of services by transport companies for the delivery of goods from consumer to producer based on the use of two or more types of vehicles. The advantages of users in the implementation of foreign trade operations due to the effective organization and the latest information of the technology of transportation, including the reduction of time spent on transportation of goods; reduction of transport costs due to the efficiency of a modern data exchange system; preservation of cargo throughout the delivery of goods from the manufacturer to the final consumer, ie its original state, which becomes possible under the conditions of direct control at each stage of transportation. The norms of international law on the regulation of services provided by transport companies are highlighted. The directions of practical application of the existing legislation of Ukraine on management of international mixed transportations, in particular transport and intercontinental connections are substantiated. The practical significance of the obtained results is determined by the expansion of the possibilities of introduction of international mixed transport by transport enterprises at the world level on the basis of harmonization of the norms of the Ukrainian legislation regulating transportations with the norms of international law.

**НОРМАТИВНО-ПРАВОВЕ РЕГУЛЮВАННЯ МІЖНАРОДНИХ
ЗМІШАНИХ ПЕРЕВЕЗЕНЬ ТРАНСПОРТНИМИ ПІДПРИЄМСТВАМИ:
СВІТОВИЙ ДОСВІД ТА НАЦІОНАЛЬНІ ОСОБЛИВОСТІ****Переверзєва А.В., Волков В.П.***Запорізький національний університет**Україна, 69600, м. Запоріжжя, вул. Жуковського, 66***Ключові слова:**міжнародні змішані
перевезення,
нормативно-правове
регулювання,
національна економіка,
світовий досвід,
міжнародне право,
транспортні підприємства

Досліджено питання нормативно-правового регулювання міжнародних змішаних перевезень. Обґрунтовано, що нормативно-правове регулювання міжнародних змішаних перевезень впливає на вибір виду транспорту та транспортного підприємства, яке надає послуги, забезпечуючи раціональний рівень фінансових та часових витрат, а також доставку товару без пошкоджень у повному обсязі. Важливу роль мають правила та законодавчі норми в системі міжнародних змішаних перевезень, розроблені як на національному рівні, так і ті, що існують у міжнародній юридичній практиці. Визначено нормативно-правове забезпечення надання послуг транспортними підприємствами щодо доставки товарів від споживача до виробника на основі використання двох і більше видів транспортних засобів. Виокремлено переваги користувачів у здійсненні зовнішньоторговельних операцій за рахунок ефективної організації та новітньої інформації технології здійснення перевезень, серед яких скорочення витрат часу на транспортування вантажу; зниження транспортних витрат за рахунок ефективності сучасної системи обміну даними; збереження вантажу протягом всього шляху доставки

товару від виробника до кінцевого споживача, тобто його первинного стану, що стає можливим за умов здійснення безпосереднього контролю на кожному етапі транспортування. Виокремлено норми міжнародного права щодо регулювання послуг, які надають транспортними підприємствами. Обґрунтовано напрями практичного використання існуючого законодавства України щодо управління міжнародними змішаними перевезеннями, зокрема транспортного та міжконтинентального сполучення. Практична значущість отриманих результатів визначається розширенням можливостей впровадження міжнародних змішаних перевезень транспортними підприємствами на світовому рівні на основі узгодження норм українського законодавства, що здійснюють регулювання перевезень, з нормами міжнародного права.

Formulation of the problem

Transport companies play an important role in intensifying and deepening the development of international economic relations. The cost of international mixed transport by different types of vehicles and transport companies, the quality of transport services depends on the efficiency and speed of international operations, on the one hand, and the image of the supplier state – on the other hand.

Given the fact that transport costs account for a significant share of production costs (about 20%), there is a need to develop an effective organizational and economic mechanism for delivery of goods from producer to final consumer, based on legal regulation of international mixed transport. This affects the dynamics of changes in the market of transport services and its approach to equilibrium.

Note that the legal regulation of international mixed transport affects the choice of mode of transport and transport company that provides services, ensuring a rational level of financial and time costs, as well as delivery of goods without damage in full. Rules and legislation in the system of international mixed transport, developed both at the national level and those existing in international legal practice, play an important role. The urgent need to resolve legal conflicts and shortcomings is evidenced by the fact that more than 80% of all foreign economic transactions are carried out using international mixed transport [1, p. 516]. In the EU countries this figure reaches 40–50% [2, p. 68].

The dynamic development of international trade and accelerating the movement of goods, necessitates a harmonized state between Ukrainian and international legislation on the regulation of mixed transport based on the concept of automated management of trade between countries, minimizing government intervention in transport companies. As a result, regulatory actions to ensure an effective international transportation mechanism are being stepped up.

Thus, the actualization of the legal framework for the regulation of international mixed transport by transport companies is due to the widespread introduction of this type of transportation of goods worldwide and the urgent need to harmonize Ukrainian legislation governing transport with international law.

Analysis of recent research and publications

The issue of legal regulation of transportation is the focus of attention among scientists. Such

scientists as A. Andrienko, S. Bogdanov, O. Kaspruk, V. Medvedska [3–5] and others have made a significant contribution to the spread of this problem and its solution. The works of these scientists are devoted to determining the level of responsibility of enterprises-carriers that provide services for the transportation of goods by different modes of transport. The main aspects of the organization and regulation of mixed transport are considered by representatives of private international law. A general understanding of the legal provision of mixed transport is contained in the works of I.V. Hetman-Pavlov [1] and others.

In the scientific literature there is no single approach to the identification of rules and regulations of international mixed transport, which require more in-depth research and systematization based on international experience.

The purpose of the article

The main purpose of this work is to determine the features of regulatory regulation of international mixed transport in the national economy and areas for improvement based on the use of positive foreign experience, including cross-border and intercontinental connections.

Presenting main material

The difficulty of regulating international mixed transport is the need to simultaneously take into account the interests of several entities and combine them into a single as equitable system of profit distribution (Fig. 1).

One of the subjects of the system of regulation of international mixed transport are users who have the opportunity to gain benefits in foreign trade operations through efficient organization and the latest information on the technology of transportation. As advantages, it is necessary to allocate:

- reduction of time spent on cargo transportation;
- reduction of transport costs due to the efficiency of modern data exchange system;
- preservation of cargo throughout the delivery of goods from the manufacturer to the final consumer, i. e. its original state, which becomes possible under the conditions of direct control at each stage of transportation.

Significant benefits from transportation are received by transport companies, which through the use of modern data exchange systems, have the opportunity to change market orientations, develop appropriate marketing strategies and occupy a certain market share by specializing in certain

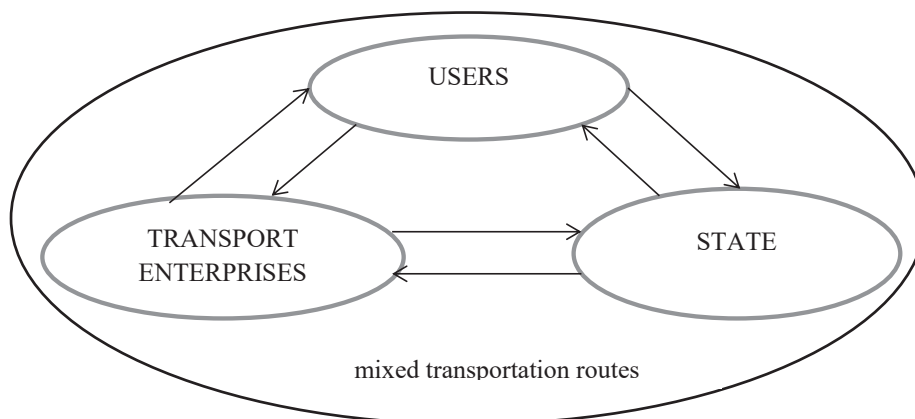


Fig. 1 – Cooperation of entities in the system of regulation of international mixed transport

Source: built by the authors

types of transport, transportation of specific goods and areas of transportation.

The state provides regulatory and legal regulation of transport enterprises and international mixed transport, as well as monitors compliance with rules and regulations, receives benefits, which include the ability to manage international mixed transport of goods by streamlining administrative procedures for regulating international trade and transport services.

Based on the above, it should be noted that the need for a transparent and clear mechanism of legal regulation of transport services, defining the rights and responsibilities of participants in international mixed transport, due to the significant spread and dynamism of transport operations. This is confirmed by the thesis of V. Medvedskaya, who notes that «the relationship between all participants in the transportation process should have proper legal regulation» [5, p. 414].

At the present stage, the probability of violation of delivery deadlines due to conflict situations, changes in established transportation schemes, tariff policies, determines the simultaneous use of different modes of transport for transportation of goods. The regulation of

relations between transport companies within a certain mixed transportation requires the development of rules and legislation that determine the level of responsibility of each participant in the transportation process.

There is no universal law in international transport law to regulate relations between all participants simultaneously within one mixed transport. According to the international practice of legal regulation of mixed transport, there are conventions (Fig. 2) that regulate mixed transport on the basis of management of each mode of transport separately.

One of the most important conventions for the regulation of mixed transport at the international level is the «Tokyo Rules» [6], which were approved in 1969 at the Tokyo Conference of the International Maritime Committee. These rules apply, first of all, to the peculiarities of the carriage of goods by sea, as a carrier of 90% of the world’s tonnage of goods.

Based on the Tokyo Rules, the International Chamber of Commerce has adopted the Multimodal Transport Rules Package, which is a significant contribution to the development of legal regulation of multimodal transportations belonging to international mixed transport.

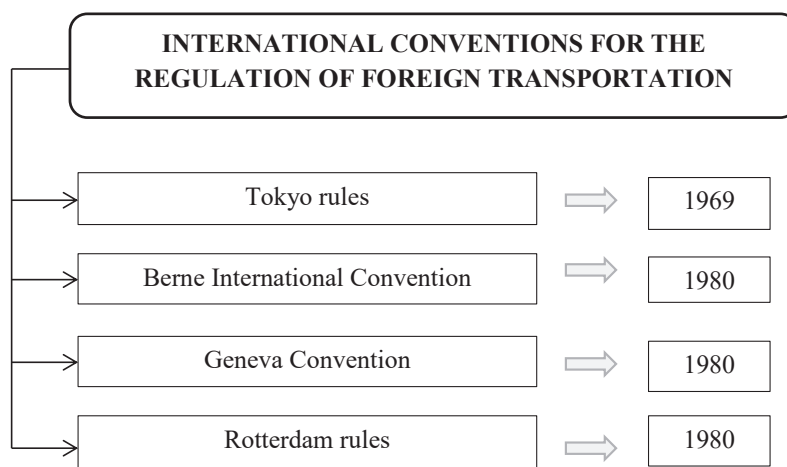


Fig. 2 – Regulatory acts of mixed transport at the international level

Source: built by the authors

Peculiarities of legal regulation of mixed freight transport by rail are regulated by the Berne International Convention on Railway Transport [7].

The basic agreement in the field of legal regulation of international mixed transport is the Geneva Convention – UN Convention on International Multimodal Freight [8], the rules and regulations of which are legislative imperatives and apply to all agreements on international mixed transport. To date, the Geneva concept is theoretically defined, but practically not implemented, ie has no legal force.

At the international level, the most common legal norms are the «Rotterdam Rules», which provide for the legislative regulation of relations between participants in international mixed transport and their practical implementation under the condition of transporting goods by different modes of transport, different transport companies under one agreement. The application of the Rotterdam Rules in practice has a number of limitations. One of them is to determine the limits of liability of the carrier during the carriage, and does not take into account the time of loading and unloading of goods [9]. The Rotterdam Rules superficially deal with the regulation of international mixed transport, but do not contain provisions for clearly defining the level of responsibility of the carrier during the movement of goods from producer to final consumer.

Based on the separation and analysis of conventions governing mixed transport, it should be noted that at the international level, regulation provides only for the transportation of goods by different modes of transport separately, without combining them into a single transport chain.

The basics of legal regulation of mixed transportation in general are presented in the Civil Code of Ukraine [10], which states that the carriage of goods can be carried out using several modes of transport, but on the basis of a single transport document. Such cargo transportation is defined as a direct mixed connection.

In the legislation of Ukraine, in addition to the Civil Code, the legal relations of participants in mixed transportation are regulated by separate laws and intergovernmental agreements with other countries. Among them the following are of special importance: laws: «Law of Ukraine on transit of goods» [11]; intergovernmental agreements: «On International Combined Transport» with the Slovak Republic [12]; «On International Combined Freight with the Republic of Azerbaijan» [12]; «On International Multimodal Cargo Transportation between the Governments of Georgia, Ukraine, Azerbaijan and Moldova (GUAM)» [14].

It should be noted that the existing legal framework in Ukraine does not contain a unified conceptual and categorical apparatus of international mixed transport. The main attention is focused on the types of transport, their technical capabilities for the transportation of goods, the peculiarities of transport documentation. According to the legislation of Ukraine, mixed (combined) transportation is considered to be transportation of goods using two or more modes of transport [12], which involves transportation of goods from the sender on the shortest, allowed by traffic rules economically acceptable route to the railway station

or port of loading (terminal) located in the territory of one of the states of the Contracting Parties (preliminary transportation) [15].

The shortcoming in the legislation of Ukraine is the lack of legal documents, acts and intergovernmental agreements that would carry out regulatory and legal regulation of relations in the system «users-transport companies-state». In this regard, there is a need for practical use of the mechanism of mixed transportation of goods by eliminating inconsistencies in the legal regulation of transportation of goods, taking into account the interests of transport companies and state interests in general, as well as harmonization or harmonization of Ukrainian legislation with international law.

The analysis of conflicts of normative-legal regulation allows to single out priority tasks on intensification of development of international mixed transportations, among which the following are expedient: identifying the development of international transport links as a priority; introduction of modern information technologies to automate the control of the transportation process; simplification of customs procedures for international mixed transport; state support for participants in mixed transport: users, owners of vehicles, i. e. entities directly involved in mixed transport.

In our opinion, one of the most important ways to improve the management system of mixed transportation is to form an effective regulatory framework for relations between participants in the transportation process and clearly define the level of responsibility of each of them based on positive foreign experience and international law. To do this, it is necessary to expand the regulatory framework at the level of legislation: about transport and certain types of vehicles; to regulate the relations that arise between the participants in the process of international mixed transport; on the implementation of international agreements and conventions related to the transportation of goods.

Conclusions and suggestions

Based on the study, it should be concluded that the legal regulation of freight is a form of international economic relations arising from the movement of goods from producer to final consumer with the participation of various vehicles and enterprises. That is, the main area of legal regulation is international trade, which characterizes the efficiency of trade by streamlining the delivery of goods or cargo to the final consumer. The effectiveness of the mechanism for regulating international mixed transport stimulates the development of trade relations between countries, identifies innovative processes in transport and new activities in the transport sector, and enhances the complementarity of modes of transport instead of competition between them. Regulatory regulation of international mixed transport allows them to adapt to modern business conditions and ensure compliance of transport companies with the requirements of a market economy.

Thus, one of the ways to solve the problem of legal regulation is to create a universal convention for the management of mixed transport and its adoption at the global level.

References

1. Mytsyk V.V. (2020). Mizhnarodne publichne pravo – [International public law] : pidruchnykh u 2 t. / V.V. Mytsyk ta in. Kharkiv : Pravo. T.1. Osnovy teorii. 416 s. [in Ukrainian]
2. Braikovska A.M. (2013). Dosvid orhanizatsii vantazhnykh perevezen u zmishanomu spoluchenni – [Experience in organizing freight transportation in a mixed connection]. *Formuvannia rynkovykh vidnosyn v Ukraini*. № 1. P. 68–77. URL: http://nbuv.gov.ua/UJRN/frvu_2013_1_19 [in Ukrainian]
3. Bohdanov S.M., Andriienko A.O. (2017). Vydy zmishanykh vantazhnykh perevezen: yikh osoblyvosti, rol ta perspektyvy rozvytku v Ukraini – [Types of mixed freight transportation: their features, role and prospects of development in Ukraine]. *Menedzhment ta pidpriemnytstvo: trendy rozvytku*. Vyp. 2 (02). P. 80–86. [in Ukrainian]
4. Kaspruk O.S. (2015). Problemy pravovoho rehuliuвання multimodalnykh perevezen – [Problems of legal regulation of multimodal transportation]. *Aktualni problemy mizhnarodnykh vidnosyn*. Vyp. 126. Ch. 1. P. 93–100. [in Ukrainian]
5. Medvedska V.V. (2012). Vidpovidalnist pereviznyka za dohovorem perevezennia vantazhu povitrianyim transportom – [Liability of the carrier under the contract of carriage of goods by air]. *Upravlinnia proektamy, systemnyi analiz i lohistyka. Seriya: tekhnichna*. Vyp. 9. P. 414–417. URL: http://nbuv.gov.ua/UJRN/Upsal_2012_9_101 [in Ukrainian]
6. Malakhova O.A. Problemy rozvytku mizhnarodnoi transportnoi systemy v umovakh udoskonalennia intermodalnykh perevezen – [Problems of development of the international transport system in the conditions of improvement of intermodal transportations.]. URL: <http://www.kpi.kharkov.ua/archive/.pdf> [in Ukrainian]
7. Convention concerning International Carriage by Rail of 9 May 1980. URL: <http://www.ukpandi.com/fileadmin/uploads/uk-pi/legal/COTIF-1999-e.pdf> [in English]
8. Konventsiia Orhanizatsii Obiednanykh Natsii pro mizhnarodni zmishani perevezennia vantazhiv OON vid 24.05.1980 – [United Nations Convention on the Mixed International Carriage of Goods by UN of 24.05.1980]. URL: http://zakon0.rada.gov.ua/laws/show/995_189 [in Ukrainian]
9. Konventsiia Orhanizatsii Obiednanykh Natsii pro dohovory povinstiu abo chastkovo morskoho mizhnarodnoho perevezennia vantazhiv – [United Nations Convention on Contracts for the International Carriage of Goods by Sea or in Part]. URL: http://www.uncitral.org/uncitral/ru/uncitral_texts/transport_goods/2008rotterdam_rules.html [in Ukrainian]
10. Tsyvilnyi Kodeks Ukrainy – [Civil Code of Ukraine]. URL: <http://zakon.rada.gov.ua/laws/show/435-15> [in Ukrainian]
11. Zakon Ukrainy «Pro tranzyt vantazhu» – [Law of Ukraine «On transit of goods»] № 1172-XIV vid 11.08.2013. URL: <http://zakon.rada.gov.ua/laws/show/1172-14> [in Ukrainian]
12. Uhoda mizh Kabinetom Ministriv Ukrainy i Uriadom Slovatskoi Respubliky pro mizhnarodni kombinovani perevezennia – [Agreement between the Cabinet of Ministers of Ukraine and the Government of the Slovak Republic on International Combined Transport], 2007. *Ofitsiinyi visnyk Ukrainy*. № 88. St. 3245. [in Ukrainian]
13. Uhoda mizh Kabinetom Ministriv Ukrainy ta Uriadom Azerbaidzhanskoi Respubliky pro mizhnarodni kombinovani vantazhni perevezennia – [Agreement between the Cabinet of Ministers of Ukraine and the Government of the Republic of Azerbaijan on international combined freight transport]. № 1353 (1353–2007-p) vid 21.11.2007 r. URL: http://zakon.rada.gov.ua/laws/show/031_066 [in Ukrainian]
14. Uhoda mizh Uriadamy derzhav-chleniv Orhanizatsii za demokratiuu ta ekonomichnyi rozvytok – HUAM pro mizhnarodni multimodalni perevezennia vantazhiv – [Agreement between the Governments of the Member States of the Organization for Democracy and Economic Development – GUAM on international multimodal freight transport], 2007. URL: http://zakon3.rada.gov.ua/laws/show/886_008 [in Ukrainian]
15. Uhoda mizh Ministerstvom transportu Ukrainy ta Federalnym Ministerstvom nauky i transportu Respubliky Avstriia pro mizhnarodni perevezennia vantazhiv – [Agreement between the Ministry of Transport of Ukraine and the Federal Ministry of Science and Transport of the Republic of Austria on International Freight], 1997. URL: http://zakon3.rada.gov.ua/laws/show/040_023 [in Ukrainian]
16. Sobkevych O., Yemelianova O. (2011). Shchodo shliakhiv rozvytku multimodalnykh (kombinovanykh) perevezen v Ukraini – [On the ways of development of multimodal (combined) transportation in Ukraine]. *Analitichna zapyska. Instytut stratehichnykh doslidzen*. 6 s. [in Ukrainian]

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THE STATE OF THE FOREIGN EXCHANGE MARKET AND THE NBU'S FOREIGN EXCHANGE POLICY DURING THE WAR IN UKRAINE

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public external debt,
international gold
and foreign exchange reserves,
foreign direct investment,
national currency

Continuous monitoring of the functional structure of the foreign exchange market, especially during hostilities, is very important because of its significant impact on economic processes taking place in Ukraine. The article considers the current state of the foreign exchange market and the effectiveness of monetary policy in Ukraine during the war. Today, there is uncertainty about the macroeconomic situation regarding the fluctuations of the hryvnia against major world currencies. Due to such conditions, control over the stability of the hryvnia exchange rate in the foreign exchange market of Ukraine becomes relevant. In addition, consideration of the degree of influence of gold and foreign exchange reserves, public debt, exports and imports, foreign direct investment in and out of Ukraine, as well as gross external debt will determine their contribution to the exchange rate. Therefore, the state of the foreign exchange market is an indicator that most accurately shows the presence of problems in the economy. The war changed the situation of many processes that take place in the foreign exchange market or affect its state. Therefore, monetary policy now plays an important role in creating a stable situation in the foreign exchange market of Ukraine. Rebuilding a full-fledged foreign exchange market in Ukraine and its effective monetary policy is a necessary condition for the further formation of an open market economy with all the necessary means to stimulate the work of economic entities in the foreign economic sphere.

СТАН ВАЛЮТНОГО РИНКУ ТА ВАЛЮТНА ПОЛІТИКА НБУ ПІД ЧАС ВІЙНИ В УКРАЇНІ

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державний зовнішній борг,
прямі іноземні інвестиції,
курс національної валюти

Постійний моніторинг функціональної структури валютного ринку, особливо, під час воєнних дій має дуже важливе значення через його вагомий вплив на економічні процеси, які відбуваються в Україні. У статті розглянуто сучасний стан валютного ринку та ефективність проведення валютної політики в Україні під час війни. Сьогодні існує невизначеність макроекономічної ситуації щодо коливання курсу гривні стосовно основних світових валют. Через такі умови актуальності набуває контроль стійкості рівня курсу гривні на валютному ринку України. Окрім того, розгляд становлення ступеня впливу золотовалютних резервів, державного боргу, експорту й імпорту, прямих іноземних інвестицій, що спрямовуються як в Україну, так і з неї, а також валового зовнішнього боргу дасть змогу визначити їх внесок у формування валютного курсу. Тож, стан валютного ринку є показником, який найточніше показує наявність проблем в економіці. Війна змінила становище багатьох процесів, які відбуваються на валютному ринку або впливають на його стан. Тому зараз валютна політика відіграє важливу роль у формуванні стабільної ситуації на валютному ринку України. Відбудова повноцінного валютного ринку в Україні та його ефективна валютна політика – це необхідна умова для формування в подальшому відкритої ринкової економіки з усіма необхідними засобами стимулювання роботи господарюючих суб'єктів у зовнішньоекономічній сфері.

Formulation of the problem

The beginning of 2022 is connected with the global sale of Ukrainian government bonds on foreign markets, the outflow of portfolio investments and the devaluation of the hryvnia.

According to the NBU, since the beginning of 2022, non-residents have reduced their IGLBs portfolio. In addition, the hryvnia received from the sale of securities was used to buy foreign currency, which led to increased demand in the foreign exchange market. In addition, the situation in the foreign exchange market was influenced by such factors as: high costs for the purchase of imported goods (gas, oil, cars). At the same time, Ukrainian exporters decided to keep foreign exchange earnings until the exchange rate reached UAH 28 per dollar.

Since the beginning of the war, the NBU and the Government of Ukraine have adopted a correct and timely monetary policy to limit foreign exchange transactions in the foreign exchange market, ie fixed the hryvnia exchange rate, introduced a list of critical imports, transferred a significant amount of foreign exchange to the National Bank. the parameters of the National Bank's operations with government securities were agreed upon.

Therefore, it can be concluded that the same financial policy was typical for the period after the Second World War in the United States, Great Britain and other countries. With its further effective implementation, Ukraine will be able to significantly reduce the debt burden without significant damage to the economy.

Analysis of recent research and publications

Monetary policy and the state of the foreign exchange market have been the subject of research by such domestic scholars as: N.E. Bodrova, R.V. Lavrov, L.M. Crossroads, V.Ya. Rudan, I.V. Himich, M.M. King, I.V. Sadichkova and many others.

Formulation of goals

The purpose of the article is to analyze the state of the foreign exchange market, the processes directly related to it, the NBU's policy on regulating the national unit in relation to foreign currency in accordance with the impact of Russian aggression on Ukraine's economy. Also in the article certain other purposes are formed:

- to find the natural impact of the military conflict on the main economic processes occurring in the foreign exchange market or directly related to it;
- to find the relationship between the implemented measures of the NBU on currency regulation and the economic consequences in the foreign exchange market at present;
- try to form a possible forecast for the development of economic phenomena in the future.

Presentation of the main material of the research

Today, the question of the stability and efficiency of the foreign exchange market is becoming more acute. Ukraine's financial and economic development has a number of problems that need to be addressed in order

to function properly and establish close ties with foreign countries. By constantly conducting research on the foreign exchange market, timely changing approaches to exchange rate regulation, analyzing the impact of specific factors on the economic situation, you can stabilize the level of national currency and succeed.

According to the «Financial and Economic Dictionary», the foreign exchange market is a market that serves domestic and international payment turnover by exchanging one currency for another in the form of purchase and sale [1]. The foreign exchange market of Ukraine carries out transactions for the purchase and sale of non-cash and cash foreign currency, as well as bank metals. Participants in the foreign exchange market of Ukraine are banks and non-banking institutions, bank customers, as well as the National Bank. The regulator conducts operations in the foreign exchange market in order to smooth out excessive fluctuations and the accumulation of international reserves. The National Bank calculates the official exchange rate of hryvnia to foreign currencies and the exchange rate of bank metals [2].

Characteristic of the modern foreign exchange market is the presence of a wide range of regulatory institutions, which include: relevant government agencies; the system of international financial organizations, groups and agreements operating on an interstate basis, as well as the system of insurance against currency risk. However, in modern conditions the role of the state in currency regulation is growing, but state regulation should not imitate market self-regulators. It only needs to be adjusted and supplemented accordingly in their functioning [3].

In 2021, the supply and demand of foreign currency in the interbank market were almost balanced. The rapid improvement in external price conditions for Ukrainian exporters was offset by a dynamic increase in imports and the outflow of capital from non-residents with IGLBs. The latter was due to the deterioration of global financial conditions for developing countries, weak economic recovery in Ukraine, exacerbation of military and political threats.

During 2021, the National Bank's net purchase of foreign currency amounted to \$2.4 billion. USA. Then it allowed to increase international reserves to 31 billion dollars. US and slow down the growth of consumer prices in terms of imports of inflation. The volume of foreign exchange reserves at the end of 2020 was about 4 months of future imports with the criterion of minimum adequacy of international reserves of at least 3 months of future imports.

However, since the end of 2021, the market situation has changed significantly. Due to the threat of military invasion by Russia, the mood of market participants began to deteriorate rapidly. And already in January 2022, the portfolio of IGLBs owned by non-residents decreased by UAH 11 billion. During the same month, large exporters delayed the sale of foreign exchange earnings.

At the beginning of 2022, the daily sales of IGLBs by non-residents on the secondary market amounted to UAH 500–900 million (equivalent to USD20–30 million). The interest rate on the yield of individual IGLBs issues

on the secondary market in January 2022 reached 15% per annum (at the rates of initial IGLBs placement 12–13% per annum). From the beginning of 2022, the balance of IGLBs owned by non-residents decreased by 13% (or USD430 million) [4].

In order to avoid the negative impact of excessive exchange rate volatility and unexpected events in the foreign exchange market on the price and financial stability of the NBU since the beginning of 2021 sold \$1.5 billion. USA. and ended the positive balance of foreign exchange interventions in the amount of 2.4 billion dollars. USA. As a result, it allowed to increase international reserves to \$31 billion. USA. Such processes contributed to the strengthening of the hryvnia, which was observed for most of 2020 [2].

To balance the foreign exchange market, the NBU has sold 1.5 since the beginning of 2022 billion dollars USA (Fig. 1).

One of the important steps to improve the situation on the interbank market than, in addition to consistent implementation of the Strategy, is to maintain consistency in communications. For example, according to the Foreign Exchange Intervention Strategy, the National Bank must publish general information on foreign exchange interventions in public statements of authorized persons and press releases.

In 2020, approximately 3 separate communications were made on economic processes in the foreign exchange market, then in January 2022 there were no notifications on the situation in the foreign exchange market. Such a communication policy may not be perceived by market participants as a sequence in the implementation of communications and may have an appropriate impact on the behavior of market participants and trust in the regulator.

External shocks in the short term remained more or less stable. Starting from September 2019, the coverage of future imports remained at the level of more than four

months, compared to 2018, the coverage of short-term debt increased 1.5 times to 60%. A very horrible picture emerges when comparing Ukraine’s foreign debt with gold and foreign exchange reserves. External public debt as of March 31, 2022, it was compensated by only 47.5% (Fig. 2) [5].

Negative trends in the foreign exchange market are also caused by low investment attractiveness. The main consequence of this is that capital is not invested in the expansion of production or related industries. This is especially noticeable in the trend of rapid growth of the effective rate of property income derived by foreign investors from Ukraine. Thus, income from direct investment withdrawn from Ukraine in 2017 amounted to 4.3% of the average annual volume of foreign capital in Ukraine, in 2018–2020–7.1%, and in 2021–18.5% [4].

In 2019, the volume of foreign direct investment increased by 715 million dollars. USA. The following year, many investment projects became unprofitable, as a result of which many foreign investors lost their funds and began to withdraw investments from Ukraine. However, the coronavirus pandemic has given some projects a chance to express themselves and benefit users around the world. According to the source mind.ua, Ukrainian startups, especially IT projects, only in 2020 managed to attract investments worth 130 million dollars. – 28 public agreements were signed. As well as 14 infusions, the amount of investment for which is not disclosed [6].

In 2020, there is a trend of outflow of funds from Ukraine. In terms of investment attractiveness, Ukraine (58th place), but in 2019 our country was significantly behind the Czech Republic (25), Estonia (27), Lithuania (31), Poland (32). Ahead of us were Hungary (30), Romania (35), Russia (37) and Kazakhstan (52). In the Global Foreign Direct Investment Country Attractiveness Index, our country was between Oman (57) and Uruguay (59).

Foreign investment inflows to Ukraine remain low. In 2021, they do not play a significant role in stimulating

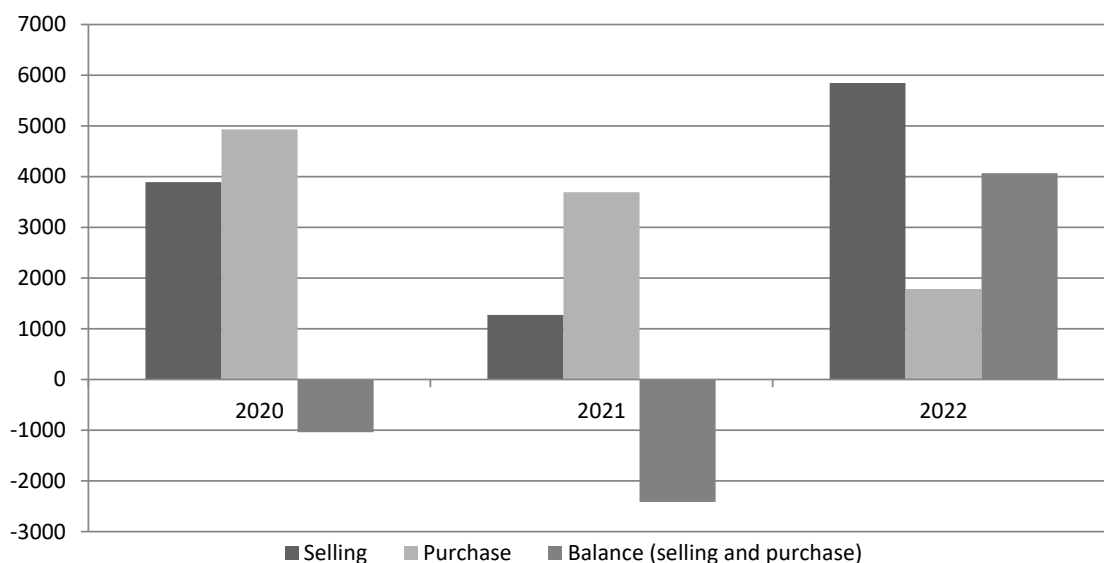


Fig. 1 – Foreign exchange interventions of the NBU, billion dollars USA

Source: [5]

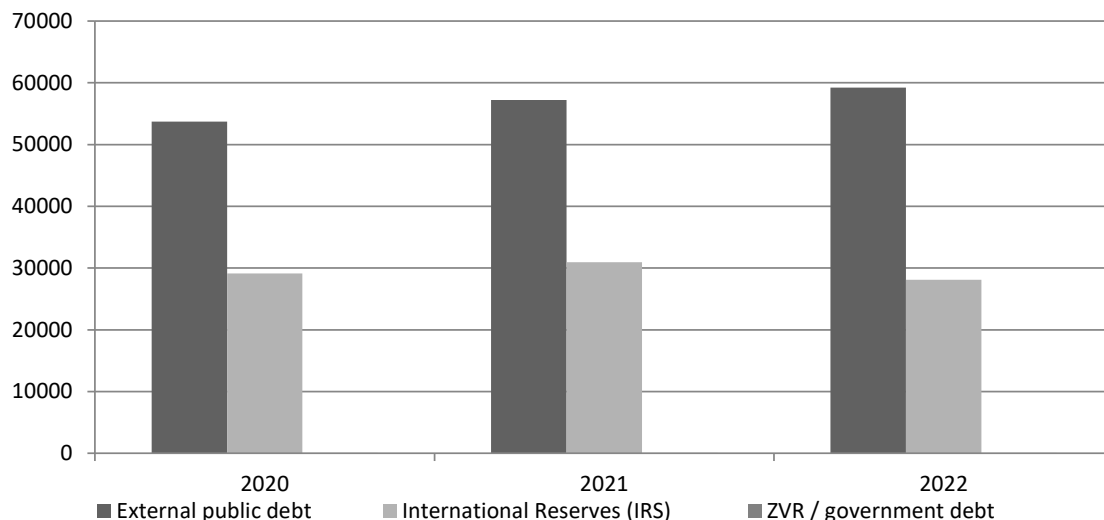


Fig. 2 – Dynamics of External Public Debt and Gold and Foreign Exchange Reserves (ZVR) of Ukraine 2020–2022 (million USD)

Source: [5]

economic activity and in shaping the supply of foreign currency in the market. In the nine months since the beginning of 2021, the payment of income from direct investment to non-residents amounted to almost \$11 billion, of which \$5.2 billion – dividends paid, \$5.2 billion – reinvested earnings, \$0.6 billion – interest payments in favor of foreign direct investment investors (Table 1).

For the first quarter of 2022, the net inflow of foreign direct investment is estimated at 10 million dollars. USA. During the same period last year, the net inflow amounted to 1.5 billion dollars. US (including reinvestment of income – 1.8 billion US dollars). The net inflow of share capital (excluding reinvestment of income) amounted to 139 million dollars. US (in January – March 2021 – 237 million US dollars). Net repayments on debt instruments amounted to 710 million dollars. US dollars, while for three months last year – 308 million dollars. USA.

Thus, the downward trend in foreign direct investment flows in Ukraine was influenced by unresolved factors such as distrust of the judiciary, high levels of corruption, exchange rate volatility, market monopolization, and the war in Ukraine.

Regarding the exchange rate of hryvnia to foreign currencies, in December-November 2021 the euro was fixed at UAH 30 per unit. In the winter of 2022, the euro exchange rate begins to rise and is in the range of 31–32 UAH per unit. At the end of February and until the end of March, the euro exchange rate is fixed at UAH 33. per unit. And in early April, the euro fell by 31 UAH by unit. As of April 13, the euro costs UAH 31. per unit (Fig. 3).

Therefore, analyzing the level of the euro, we can conclude that from the period to 2021–2022 there were fluctuations in the euro, first there was its growth, and in April there is a decline in foreign currency and strengthening of the national currency of Ukraine.

At the end of 2021, the US dollar was at UAH 27 for \$1. At the beginning of 2022, the dollar exchange rate rose to UAH 28 per unit. During February to March, the dollar consolidated at UAH 27–28.

In the spring of March-April there was an increase of UAH 29 per dollar. As of April 13, the dollar exchange rate remains at UAH 29 for a dollar. Therefore, for the period 2021–2022 there is an increase in the value of the dollar against the national currency, which indicates a precarious position of the national currency against foreign currency (Fig. 4).

During hostilities, the NBU pursues a monetary policy to stabilize the supply and demand of foreign currency and the process of devaluation of the hryvnia. First, from March 13, 2022, the National Bank of Ukraine returned the restrictions on the export of cash in foreign currency [7]. Now, in order to transport cash in foreign currency equivalent to more than 10 thousand euros, citizens need to provide appropriate supporting documents, namely: certificate of withdrawal of cash from their own (personal) accounts, currency exchange receipt, certificate of purchase of bank metals. Secondly, Ukrainians must declare currency values worth more than the equivalent of 10,000 euros when crossing the state border of Ukraine. Third, from April 30, banks will suspend the issuance of new savings certificates

Table 1 – Foreign direct investment in Ukraine 2019–2021 (million USD)*

Years	FDI in Ukraine	FDI from Ukraine	Balance
2019	5860	648	+5212
2020	-868	82	-950
2021	6549	-198	+6747

* since 2014 - excluding the occupied territories (Crimea, Sevastopol, parts of Donbass)

Source: [5]

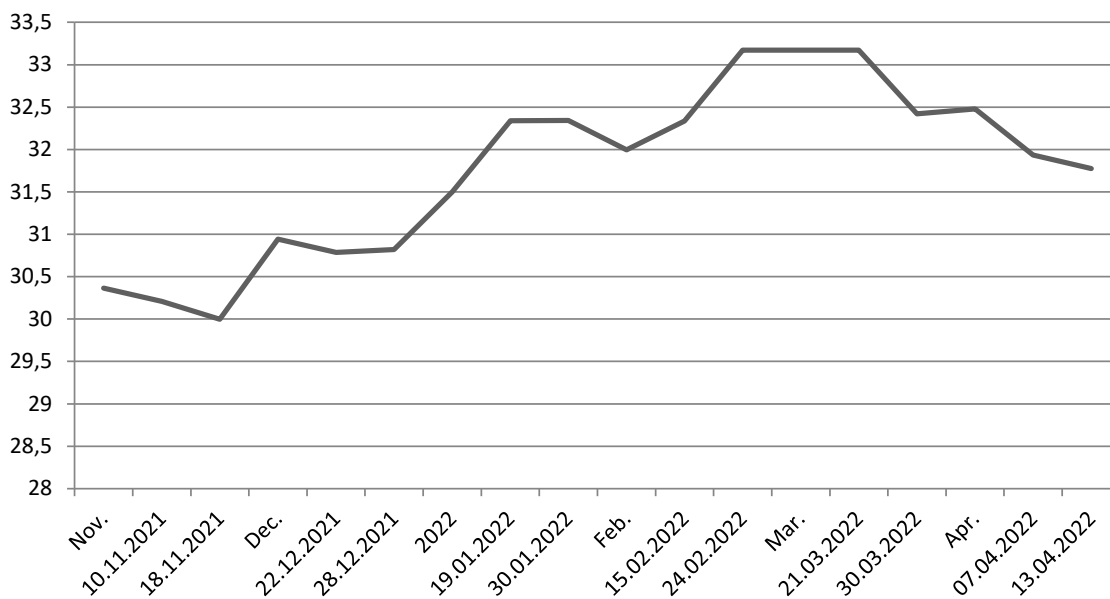


Fig. 3 – Official exchange rate of hryvnia against the euro 2021–2022

Source: [2]

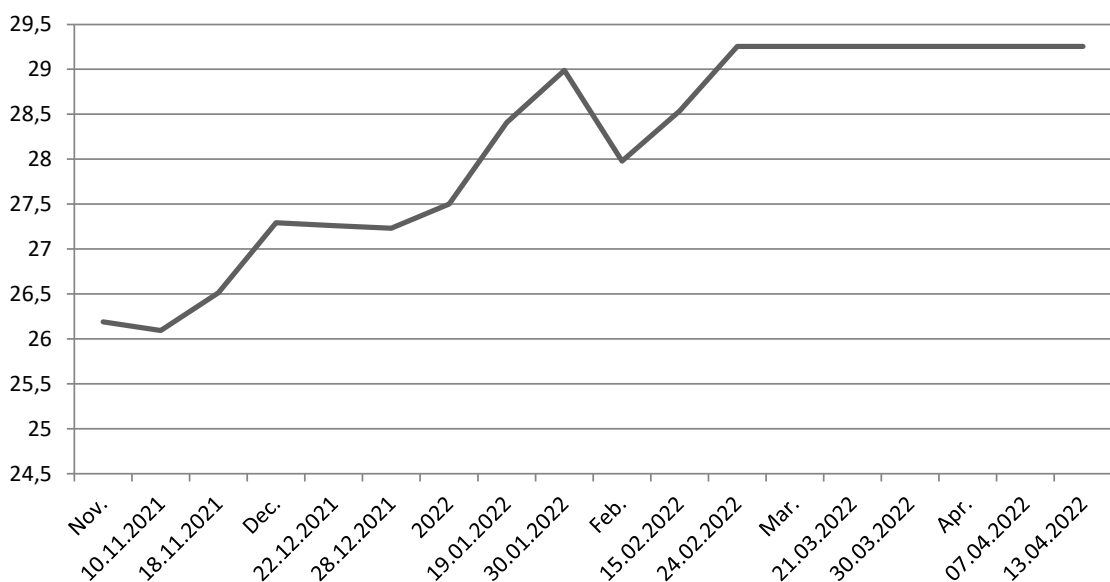


Fig. 4 – The official exchange rate of the hryvnia against the US dollar 2021–2022

Source: [2]

denominated in foreign currency [8]. Fourth, the hryvnia exchange rate against foreign currency should not exceed by more than 10% the official exchange rate of the National Bank (effective on the day of the bank’s transaction) in case of debiting hryvnia funds from the client’s account, if the interbank transfer currency. Fifth, the exchange rate of hryvnia to foreign currency must be equal to or higher than the official exchange rate of the National Bank (effective on the day of the bank’s transaction): in the case of debiting foreign currency funds, if the interbank transfer of such transactions in hryvnia; in the case of crediting funds to the client’s account in the national currency, if the interbank transfer for such an operation is made in foreign currency. Sixth, from May 4, banks will start reducing the limits of

open long and short currency positions from 15% to 5% of their regulatory capital.

It is difficult to predict the future situation in the foreign exchange market of Ukraine, especially in wartime. However, Volodymyr Lepushynskyi, director of the NBU’s Department of Monetary Policy and Economic Analysis, predicted the following: «Given the prospects for a fairly rapid integration into the EU and the peculiarities of the monetary policy of the NBU, Ukraine is likely to expect a scenario that was passed by our neighbors – Poland and the Czech Republic» [9]. In particular, he noted that monetary policy in the foreign exchange market will focus on buying foreign currency, which will come to the economy from external sources (reparations / recovery

funds) to replenish international reserves and avoid shocks of sharp revaluation, which will support domestic producers. At the same time, a moderate revaluation under conditions of currency supply dominance can become a significant disinflationary factor.

Therefore, it can be concluded that the state of the foreign exchange market is difficult, but the National Bank of Ukraine is doing everything possible to stabilize the situation by fixing the hryvnia exchange rate and imposing restrictive measures on the currency.

Conclusions from the study

The amount of international financial support already provided to Ukraine reduces the risks of significant and

prolonged devaluation of the national currency. Certainly difficult economic conditions, broken supply chains, the risk of a significant reduction in yields and other negative factors will not allow Ukraine to completely avoid negative economic processes in the foreign exchange market. When the conflict-induced economic situation stabilizes, currency restrictions will be gradually lifted and the NBU will return to market exchange rates. Given the current circumstances (a sharp widening of the foreign trade deficit due to falling exports, falling GDP), the hryvnia is gradually devaluing, but despite the economic difficulties caused by Russia's aggression, Ukraine will overcome them and begin rebuilding its economy in the future.

References

1. Finansovo-ekonomichnyi slovnyk : slovnyk-dovidnyk / kol. avt.: Unin O.S., Kruglova O.O., Savelieva M.O. ta in. Dnipro : Vydavec Bila K.O., 2018. 164 s. URL: http://er.dduvs.in.ua/bitstream/123456789/1373/1/%D0%A4%D0%86%D0%9D-%D0%95%D0%9A%D0%9E%D0%9D.%20%D0%A1%D0%9B%D0%9E%D0%92%D0%9D%D0%98%D0%9A_%D0%BC%D0%B0%D0%BA%D0%B5%D1%82%20%D0%B2%20%D0%BF%D0%B5%D1%87%D0%B0%D1%82%D1%8C.pdf (accessed 12 April 2022).
2. Valutnyi rynok. *Nationalnyi bank Ukrainy*. URL: <https://bank.gov.ua/ua/markets/currency-market> (accessed 13 April 2022)
3. Xarabara V.M. (2016). Suchasnyi stan ta perspektyvy rozvytku valutnogo rynku Ukrainy. *Ekonomika ta derzhava*. № 3. P. 28–30. URL: http://www.economy.in.ua/pdf/3_2016/8.pdf (accessed 13 April 2022).
4. Danylyshyn B. Pro valutnu polityku ta sytuatsiu na valutnomu rynku. *Lb.ua. Doroslyi poglad na svit*. URL: https://lb.ua/blog/bogdan_danylyshyn/504622_pro_valutnu_politiku_situatsiyu.html (accessed 29 April 2022).
5. Minfin. URL: <https://index.minfin.com.ua/ua/banks/nbu/intervention/> (accessed 1 May 2022).
6. Reityng ukajinskyh starttapiv – 020: komu vdalosa zdobuty naibilshyi obsag investycij i iakym proektam pidvyshyty oborot dopomogla same pandemia. *Mind*. URL: <https://mind.ua/publications/20219740-rejting-ukrayinskih-starttapiv-2020-komu-vdalosya-zdobuti-najbilshij-obsyag-investicij> (accessed 2 May 2022).
7. NBU povernuv obmezhenia na vyvezennia valuty: iaki teper dokumenty potribno nadaty. *Slovo i dilo* : Analitychnyi portal. URL: <https://www.slovoidilo.ua/2022/03/14/novyna/finansy/nbu-povernuv-obmezhenia-vyvezennia-valuty-yaki-teper-dokumenty-potribno-nadaty> (accessed 3 May 2022).
8. Opodatkuvannia u voiennyi chas. Aktualni materialy vid ekspertiv. Novi valutni obmezhenia – NBU. *LIGA: ZAKON*. URL: https://buh.ligazakon.net/news/210933_nov-valutn-obmezhenia_rshennya-nbu (accessed 4 May 2022).
9. Kudy podilysa detalni macroprognozu NBU ta sho vidbyvajetsia v ekonomici? *Interfax-Ukraina* : Informatsijne agentstvo. URL: <https://interfax.com.ua/news/blog/828212.html> (accessed 4 May 2022).

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MODERN CONCEPT OF ORGANIZATION OF THE MECHANISM OF FINANCIAL SECURITY MANAGEMENT OF THE ENTERPRISE

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Key words:

security, economic security,
mechanism for ensuring
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management of economic security

The article is devoted to the study of the problems of the formation of the concept of organizational and economic mechanism for ensuring the economic security of the enterprise in modern conditions for the development of the domestic economy. In particular, scientific approaches to the definition of the concept of "mechanism for ensuring economic security" are analyzed, as well as the interpretation of the category "organizational and economic mechanism for ensuring the economic security of the enterprise" is summarized. The study of the organizational and economic mechanism for ensuring the economic security of the enterprise from the point of view of an integrated approach makes it possible to present it as a holistic system, which is formed from a set of interrelated elements. The concept of enterprise security is a holistic and systematic understanding, vision and representation of ways to eliminate hazards that really threaten or may threaten the enterprise from the inside and outside, as well as ways to minimize possible harmful consequences. The sequence of stages of formation of the concept of management of financial security of enterprise has been formulated: analysis of risks and threats to financial security of enterprise; development of methodological tools for assessing the state of economic security of enterprise; development of a strategy for managing the financial security of the enterprise; development of a mechanism for managing the financial security of the enterprise; assessment of the effectiveness of the implementation of the concept of managing the financial security of the enterprise; adjustment of tactics and strategy of financial security management in accordance with changing conditions. It is shown that the mechanism of economic security of enterprise functioning is a set of: philosophy of economic security of enterprise; functions that implement the process of managing economic security; resource support for the mechanism; target orientation, containing the main organizational forms and economic tools necessary to ensure the economic security of the functioning of the enterprise. The general algorithm of the process of organizing financial security has been induced.

СУЧАСНА КОНЦЕПЦІЯ ОРГАНІЗАЦІЇ МЕХАНІЗМУ УПРАВЛІННЯ ФІНАНСОВОЮ БЕЗПЕКОЮ ПІДПРИЄМСТВА

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безпека, економічна безпека,
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економічної безпеки,
управління економічною
безпекою

Статтю присвячено дослідженню проблематики формування концепції організаційно-економічного механізму забезпечення економічної безпеки підприємства в сучасних умовах розвитку вітчизняної економіки. Зокрема, проаналізовано наукові підходи до визначення поняття «механізм забезпечення економічної безпеки», а також узагальнено трактування категорії «організаційно-економічний механізм забезпечення економічної безпеки підприємства». Вивчення організаційно-економічного механізму забезпечення економічної безпеки підприємства з позиції комплексного підходу дає змогу подати його як цілісну систему, яка формується із сукупності взаємопов'язаних елементів. Концепція безпеки підприємства являє собою цілісне та системне розуміння, бачення та уявлення шляхів уникнення небезпек, які реально загрожують або можуть загрожувати підприємству зовні або зсередини, а також спосіб мінімізації шкідливих

наслідків. Сформульована послідовність етапів формування концепції управління фінансовою безпекою підприємства: аналіз ризиків та загроз фінансовій безпеці; розробка методологічного інструментарію оцінки стану економічної безпеки підприємства; розробка стратегії управління фінансовою безпекою підприємства; розробка механізму управління фінансовою безпекою підприємства; оцінка ефективності реалізації концепції управління фінансовою безпекою підприємства; коригування тактики та стратегії управління фінансовою безпекою у відповідності до зміни зовнішніх умов. Показано, що механізм економічної безпеки функціонування підприємства являє собою сукупність філософії економічної безпеки підприємства; функцій, які реалізують процес управління економічною безпекою; ресурсне забезпечення механізму; цільова спрямованість, яка містить основні організаційні форми та економічні інструменти, необхідні для забезпечення економічної безпеки функціонування підприємства. Побудовано загальний алгоритм процесу організації фінансової безпеки підприємства.

Problem statement

In the context of post-crisis economic development, instability of the external environment and lack of financial resources, one of the main tasks of an entity is to determine the optimal financing strategy that ensures maximum profit growth at minimal risks. Today, borrowed funds are the main resource for providing money for the economic activities of enterprises, regardless of their ownership. In this regard, there is a problem of financial security of the enterprise.

Hence, the key elements of financial management are well-developed long-term financial policy, investment portfolio management, effective control over the own and borrowed capital ratio, which assess the financial stability and independence of the organization. An important element is the formation of an effective mechanism for ensuring the financial security of the enterprise.

Analysis of recent researches and publications

The problem of forming an effective mechanism for the economic security of an enterprise in today's conditions is more relevant than ever. A significant number of works of both domestic and foreign scientists are devoted to the issues of ensuring economic security. The issue of financial and economic security of the enterprise and the mechanism for ensuring financial security were handled by such scientists as: Vasylytsiv T.G. [1], Ivashchenko O.V. [2] and others. So, despite the growing attention to the study of problems devoted to the development of a mechanism for managing the financial security of an enterprise, there is still no unanimity in understanding the content and structure of the internal components of such a mechanism. Having analyzed the existing approaches to the allocation of elements of this mechanism, we believe that the financial security management mechanism should contain such elements as: subject, object, methods, levers, tools, principles, functions, goals, objectives, influence factors and a mechanism support system. In the professional economic literature, there is also no unity regarding the constituent elements of the financial security of the enterprise.

Formulating of objectives

The article is aimed at further development and refinement of the concept and basic principles of formation

of an effective mechanism for ensuring the financial and economic security of enterprise.

Presentation of the main research material

based on the definitions of the concepts of «financial security of the enterprise» and «management mechanism», «mechanism of managing the financial security of the enterprise», we consider as a system of goals, functions, principles, methods, tasks and management tools that interact with each other and are aimed at creating prerequisites for the sustainable development of the enterprise in the current and future periods, strengthening the protection of its financial interests by developing and implementing an effective financial strategy, flexibility in making financial decisions, timely response to hazards and threats of an external and internal nature and effective management of financial risks of the enterprise.

Summarizing different approaches to the interpretation of the definition of the «management mechanism», it is possible to define the «mechanism for ensuring the economic security of business entities» as a single system of forms, methods and levers of influence on the economic, financial and other activities of the enterprise aimed at forming a sufficient level of economic security to achieve the strategic, tactical and operational goals of the enterprise, and the rational use of their various combinations contributes to a stable and invulnerable level of economic security. actions of external and internal threats to functioning.

Any concept must be constructive and flexible enough to respond to changing conditions of the internal and external environment. The constructiveness of the concept lies in the fact that it should reflect the initial state of the object, the transformation of which the concept is aimed; the state of the object, the result achieved in the implementation of the concept; activities to achieve the goals formulated in the concept; the mechanism for implementing the concept, there are ways (methods) of using the allocated funds and resources.

Based on these requirements, the concept of managing the financial security of the enterprise should contain the following sequence of stages: analysis of risks and threats to the financial security of the enterprise; development of methodological tools for assessing the state of economic

security of enterprise; development of a strategy for managing the financial security of the enterprise; development of a mechanism for managing the financial security of the enterprise; assessment of the effectiveness of the implementation of the concept of managing the financial security of the enterprise; adjustment of tactics and strategy of financial security management in accordance with changes in conditions (Fig. 1).

Evaluation of the effectiveness of the implementation of the concept of financial security management of the enterprise is aimed at comparing the compliance of the concept with the goals and objectives formulated in it, as well as assessing the effectiveness of the implemented concept of financial security management [3]. Thus, the main stage in the formation of the concept of managing the financial security of the enterprise is the construction of an effective mechanism for managing the financial security of the enterprise, which would be focused on the timely detection and prevention of external and internal threats and ensuring the protection of the financial interests of the enterprise.

So, proceeding from the above points of view, we will understand the mechanism for ensuring the economic security of the functioning of the enterprise as an integral system consisting of separate, relatively independent, but at the same time interrelated and interacting structural elements.

The main elements of the mechanism include: the form of organization of production, economic or economic ties (relations), the system of incentives, management, planning, financing, taxation, pricing. The most important elements of the economic mechanism are economic entities and the relations in which they enter into regarding the organization of production and economic relations. Forms of economic

relations are diverse, they can be direct and indirect, direct and indirect, productive and non-productive, legally formalized and not formalized, spontaneously arising and consciously established. Economic relations exist both within the form of organization of production and outside it. They also differ in the place of their origin: in production, in exchange, distribution or consumption. Within a specific form of organization of production, economic relations between its participants are realized, as a rule, in the order of exchange of activities, and between economic entities – as an exchange of goods and utilities [1]. The mechanism for ensuring the economic security of the functioning of the enterprise is designed to ensure the creation of conditions that motivate the effective operation of all elements of the enterprise, a high degree of coordination of public corporate and personal needs and interests. The mechanism should be able to ensure economic security at the entrance and exit from the system, to create reliable conditions for the functioning of the control and controlled systems [4]. The mechanism of economic security of the functioning of the enterprise is a set of:

- philosophy of economic security of the enterprise;
- functions that implement the process of managing economic security;
- resource support of the mechanism;
- target orientation, containing the main organizational forms and economic tools necessary to ensure the economic security of the enterprise.

The above components form the structure of the mechanism for ensuring the economic security of the functioning of the enterprise (Fig. 1). The theoretical and philosophical component is the foundation for the formation of the mechanism. The philosophy of economic security is a system of beliefs in the system of the enterprise,

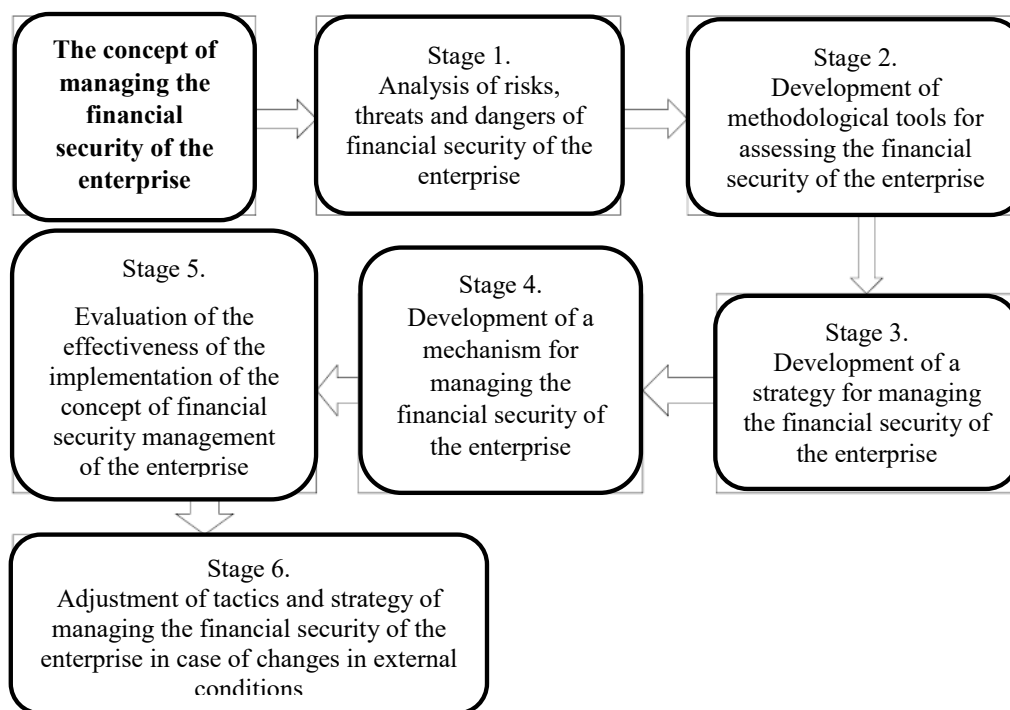


Fig. 1 – The concept of managing the financial security of the enterprise

containing the way of thinking and obligations of each employee to perform his job functions in accordance with safety requirements. The philosophy should be stated, agreed, approved and communicated to each employee.

The target component reveals the content of the mechanism for individual elements of the enterprise – this is a set of interrelated organizational forms and economic methods and tools that allow the enterprise to continuously function in conditions of dynamic environment, achieving and maintaining the planned parameters and results through the implementation of security procedures regulated by external and internal norms and rules.

The supporting component of the desired mechanism includes scientific and methodological, informational, organizational and legal, mathematical and technical, personnel and financial support. The most essential element of the mechanism is the administrative and economic tools, which actually put the mechanism for ensuring the economic security of the enterprise into operation. There are three levels of administrative-economic tools for managing the economic security of an enterprise: central, regional and the level of the economic entity.

Administrative instruments at the central and regional levels include legislative regulation, licensing, quotas, rationing, limiting, inspection. Economic instruments of direct impact include: state order, subsidies, targeted financing, and indirect impact instruments include tax rates, benefits, deferred payments; credit and monetary (the discount rate of the Central Bank, the norms of mandatory reservation, leasing, credit benefits, operations of state institutions in the securities market); currency (exchange rate); customs (fees, state duties, benefits); investment (depreciation, profit, state guarantees of the investor)

At the level of an economic entity, the following administrative and economic tools should be distinguished: diagnostics, controlling, planning, rationing, instructing, collecting, material incentives and others. One of the forms of such management is the organization of the controlling system, which includes the establishment of the goals of the enterprise, the current collection and processing of information for making management decisions, the implementation of functions for monitoring deviations of actual indicators from the planned ones, as well as the preparation of recommendations for making management decisions. Controlling is a kind of self-regulation tool of the enterprise, providing feedback in the control loop.

The protection mechanism usually does not require significant resource provision, but is designed to save system resources. If the threshold value of the disturbance is exceeded, then the regulatory mechanism comes into play – the mechanism of managerial regulation, which requires the involvement of additional production resources in the regulatory process. The regulatory mechanism remains effective until the limit of increasing or decreasing the intensity of functional connections is exceeded. In this case, the actual state of the enterprise refers to a low level of economic security, which for the management subsystem means the need to carry out directions for improving the enterprise by reforming and attracting additional sources of funds to return the enterprise to a normal state [5–7].

The compensatory mechanism is used if the existing structure does not cope with external or internal perturbations and there is a need to change the structure and homeostasis at the expense of internal or external (attracted) resources and non-standard solutions. These solutions are a manifestation of entrepreneurship, which can be used in this case as a resource to transform the less safe activities of the enterprise into a more reliable one. As a rule, such enterprises need to be reorganized.

Situational management is possible within the framework of the regulatory mechanism, when each known state corresponds to some action that returns the financial and economic activities of the enterprise to a normal state. Within the framework of the compensatory mechanism, it is possible to use entrepreneurship as a resource for the benefit of production in order to create new effective combinations of resources aimed at meeting previously unmet needs that gave rise to the problem.

Summarizing the above, it is possible to formulate a general algorithm for the process of organizing the financial security of an enterprise, which is presented in Fig. 2.

Ensuring financial security involves the identification, analysis and assessment of all existing threats for each component and the development on this basis of a system of counteracting and warning measures. The enterprise security system can be built on the basis of the following principles: the priority of preventive measures; complexity; coordination and interaction; competence; economic feasibility; planned framework for action; Consistency.

Financial security should be understood as such a state of the financial system of the enterprise, in which it becomes possible to avoid external threats and resist internal factors of disorganization with the help of available resources, entrepreneurial abilities of managers, as well as structural and functional organization and management relations [6–7]. Management of financial security of the enterprise in conditions of economic instability is a purposeful activity, which consists in the continuous process of making and implementing management decisions aimed at minimizing the negative impact of the factor of economic instability to establish and maintain the maximum possible level of financial security of the enterprise [8]. The main goal of financial security management is to ensure the financial balance of the enterprise in the process of its strategic effective functioning and development on the basis of economical and efficient use of resources, ensuring a certain level of liquidity, financial stability, solvency, etc., as well as constant stimulation of increasing the existing potential for stable development.

The essence of the main task is the procedure for conducting such calculations, which, even if they are incompletely adequate, would make it possible to obtain sufficiently reliable results that can be relied on when choosing an economic alternative. In addition, it should be especially noted that the mechanism for creating financial security should be based on the internal characteristics of the enterprise, that is, the financial and economic system itself should include «built-in» mechanisms for preventing external and internal threats. The objectives of the financial strategy of the enterprise can be achieved in various

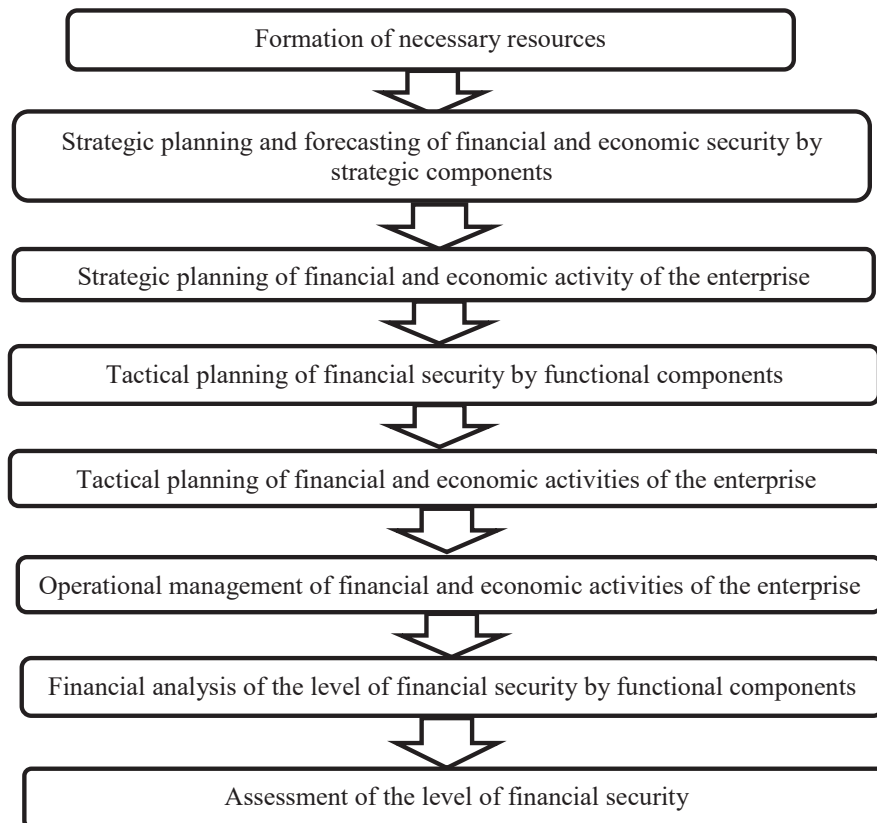


Fig. 2 – The general algorithm of the process of organizing financial security [6]

ways. The choice of the most effective of these methods is carried out in the process of making strategic financial decisions. Strategic financial decision-making is a process of considering possible ways to achieve strategic financial goals to ensure the financial security of the enterprise and selecting the most effective of them for practical implementation, taking into account the strategic financial position of a particular enterprise [8]. Thus, the need for constant observance of financial security is predetermined by the objectively existing task for each business entity to ensure the financial security of the enterprise in conditions of economic instability of the stability of functioning, development and achievement of the main goals of its activities. The level of financial security of the enterprise also depends on how effectively managers will be able to prevent possible threats and eliminate the negative consequences of various factors of the external and internal environment.

Unfortunately, in the current conditions, most of the measures that in normal circumstances would improve the financial condition of the enterprise may not only not bring the expected positive effect. But no matter how paradoxical it sounds, they can cause serious harm to the enterprise. This is primarily due to the absolute unpredictability of the external conditions for the functioning of a business entity. And these are not only natural risks with which any entrepreneurial activity is associated. This is a so-called force majeure circumstance. It is often described in the economic literature. In these sources there are no effective recommendations and proposals that would improve the economic situation of an enterprise operating in conditions

of trench warfare, not economic, but actual combat clashes. The process of formation of statehood, which is taking place in our country, inevitably accompanies the transition period with all the accompanying negative phenomena, which also put pressure on the activities of the enterprise. Based on the foregoing, investment projects related to long-term and medium-term investments are unreasonably risky. This actually deprives the company of the opportunity to significantly diversify the list of services provided by it. Access to services adjacent to the market is also almost impossible. Since they require quite tangible costs, which the company cannot afford at the moment for the above reasons. In the current circumstances, the survival of the enterprise depends entirely on the ability of management to make rational and effective decisions as quickly as possible, to respond in time to the slightest changes in the external environment.

Based on this, in the current conditions, it is quite natural for enterprises to change the behavior model to ensure financial security. In other words, it is necessary to move to the «strategy of financial support for sustainable growth of the enterprise», which should be aimed at achieving the necessary level of financial security of the enterprise while balancing various parameters of limited growth of operating activities. In the process of strategic financial development of the enterprise, the constant support of this parameter puts forward as a priority the dominant sphere of ensuring the effective distribution and use of its financial resources. This model of behavior is described in detail in the economic literature, which simplifies its adaptation

to the current economic situation in which the enterprise is located. In accordance with the chosen strategy in conditions of economic instability, the enterprise should adhere to a conservative type of financial policy, the methods and style of making management decisions of which are focused on minimizing financial risks. Ensuring a sufficient level of financial security of the enterprise, this type of financial policy cannot ensure sufficiently high final results of its financial activities. Taking into account the above and taking into account the system of functioning of the enterprise, it is advisable to adopt a system of centralized functioning of the financial security system. At the same time, the main goal of the financial security of the enterprise is to ensure the financial balance of the enterprise in the process of its strategic development in order to guarantee its stable and most effective functioning at the moment and the high potential for development in the future [4]. Based on the fact that a strategic approach was chosen in ensuring and managing the financial security of the enterprise, the departments that will participate in the execution of tasks regarding the implementation of the functions of the system, four components (financial, client components, internal business processes, development of the company and its personnel) are identified, on which the strategy for its implementation is decomposed.

The strategic approach can be considered as an algorithm for building a strategic map of enterprise financial security management, which combines the principles of management «from top to bottom» and «from bottom to top», which ensures the formation of target indicators of the level of financial security of the enterprise and the formation of effective strategic management decisions regarding their achievement. The goals of the four components are related to each other by cause-and-effect relationships. Strategically aligned goals of all components are the main tool for creating value, and therefore a focused and consistent strategy [5].

Conclusions

The concept of enterprise security is a holistic and systematic understanding, vision and representation of ways to eliminate hazards that really threaten or may threaten the enterprise from the inside and outside, as well as ways to minimize possible harmful consequences. Thus, the results obtained in the system of strategic management of financial security are one of the ways to improve this system, which will lead to an increase in the efficiency of long-term management of the financial security of the enterprise, as well as to the improvement of the enterprise management system as a whole.

References

1. Kovalenko, D.I. & Legka, A.O. Mekhanizm zabezpechennya finansovo-ekonomichnoi bezpeki pidpriemstva – [Mechanism for ensuring the financial and economic security of the enterprise]. URL: <https://www.inter-nauka.com/uploads/public/14495921925940.pdf> [in Ukrainian]
2. Vasylytsiv, T.G. (2012). Finansovo-ekonomichna bezpeka pidpriemstv Ukraïni: strategiya ta mekhanizmi zabezpechennya – [Financial and economic security of Ukrainian enterprises: strategy and mechanisms for ensuring]. Lviv : 386 p. [in Ukrainian]
3. Ivashchenko, O.V. & Chetverikov, P.M. (2012). Sistema finansovo-ekonomichnoi bezpeki pidpriemstva – [Financial and economic system of entrepreneurship]. URL: <http://www.sword.com.index/2012> [in Ukrainian]
4. Kolevatova, A.V. (2016). Osnovni prioritetni napryami ta mekhanizm zabezpechennya finansovoyi bezpeki pidpriemstva – [The main priority areas and mechanism for ensuring the financial security of the enterprise] *Efektivna ekonomika – Effective economy*. № 10. URL: <http://www.economy.nayka.com.ua/?op=1&z=5186> [in Ukrainian]
5. Staverska, T.O. & Shevchuk, I.L. Mekhanizm upravlinnya zabezpechennam finansovoyioi bezpeki pidpriemstva – [Management mechanism of of ensuring financial security of the enterprise]. URL: <https://conf.ztu.edu.ua/wp-content/uploads/2017/09/253.pdf> [in Ukrainian]
6. Marina, A.S., Elansky, N.O. & Petrenko, M.A. (2018). Mekhanizm zabezpechennya ekonomichnoi bezpeki subektiv gospodaryuvannya – [Mechanism for ensuring economic security of business entities]. *Ekonomika i suspilstvo – Economics and Society*. Issue 19. P. 495–500. [in Ukrainian]
7. Denisenko, M.P. & Tretyak, E.V. (2018). Mekhanizm zabezpechennya ekonomichnoi bezpeki subektiv gospodaryuvannya – [Mechanism for ensuring economic security of business entities]. *Ekonomika ta derzhava – Economy and Power*. № 12. P. 59–63. [in Ukrainian]
8. Sabetska, T.I. (2019). Osoblivosti formuvannya organizatsiyno-ekonomichnogo mekhanizmu zabezpechennya ekonomichnoi bezpeki suchasnogo pidpriemstva – [Features of the formation of an organizational and economic mechanism for ensuring the economic security of a modern enterprise]. *Biznes-navigator – Business Navigator*. Issue 3–1(52). P. 118–123. [in Ukrainian]

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**THEORETICAL AND METHODOLOGICAL BASIS
OF MANAGEMENT OF THE BANK INVESTMENT PORTFOLIO
IN THE CONDITIONS OF THE RUSSIA-UKRAINE WAR
AND AFTER THE QUARANTINE VIRAL PANDEMIC OF COVID-19**

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Key words:

efficiency, management, investment portfolio, investments, risk, assets, strategic goals, functions, principles, stages, securities

The types of investments used in the formation of the investment portfolio were supplemented and expanded. The principles of formation and use of the foundations of managing the investment portfolio of a commercial bank and the purpose of its strategic management were studied and augmented. It is justified that in the process of forming an investment portfolio in commercial banks, their investment attractiveness grows, which also leads to an increase in financial stability and makes it possible to increase their assets. It is noted that the efficiency and profitability of using the investment portfolio depends on the quality of performance of such functions of its management, namely: stabilization of the bank profits regardless of the phases of the business cycle; reduction of credit risk in the portfolio of bank loans; diversification of such loans taking into account the geographical coverage of clients; maintaining the level of liquidity; using a portfolio as collateral; insurance of banking activity against losses as a result of changes in exchange rates and interest rates; ensuring the flexibility of the bank portfolio of assets; increasing the financial indicators of the bank balance thanks to the quality of securities. The main goal of the formation and use of the commercial bank investment portfolio is determined, which is to ensure the implementation of its investment strategy by selecting the most effective and safe investment projects and financial instruments. It was established that the investment portfolio should be formed considering their current profitability; rates of capital cost growth; the risk of their value changing over time; financial instruments for managing such a portfolio. It has been proven that the effectiveness of the formation and use of an investment portfolio depends on the choice of its management strategy; influence of internal and external factors; an innovative approach to the speed of reaction of management personnel to such changes and the ability to constantly adjust the strategic management process; getting out of crisis situations with the least losses in the process of managing the investment portfolio.

**ТЕОРЕТИКО-МЕТОДИЧНІ ОСНОВИ УПРАВЛІННЯ
ІНВЕСТИЦІЙНИМ ПОРТФЕЛЕМ БАНКУ
В УМОВАХ РОСІЙСЬКО- УКРАЇНСЬКОЇ ВІЙНИ
ТА ПІСЛЯ КАРАНТИННОЇ ВІРУСНОЇ ПАНДЕМІЇ COVID-19**

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Ключові слова:

ефективність, управління, інвестиційний портфель, інвестиції, ризик, активи, стратегічні цілі, функції, принципи, етапи, цінні папери

Доповнено та розширено види інвестицій, які використовуються при формуванні інвестиційного портфеля. Досліджено та розширено принципи формування та використання принципів управління інвестиційним портфелем комерційного банку та мети стратегічного управління ним. Обґрунтовано, що в процесі формування інвестиційного портфеля в комерційних банках підвищується їх інвестиційна привабливість, що призводить також до зростання фінансової стійкості та дають змогу збільшити їх активи. Зазначено, що ефективність і дохідність використання інвестиційного портфеля залежить від якості виконання таких функцій управління ним, а саме:

стабілізація прибутків банку незалежно від фаз ділового циклу; зниження кредитного ризику за портфелем банківських кредитів; диверсифікації таких кредитів з урахуванням географічного охоплення клієнтів; підтримка рівня ліквідності; використання портфеля в якості застави; страхування банківської діяльності від втрат у результаті зміни валютних курсів, процентних ставок; забезпечення гнучкості банківського портфеля активів; підвищення фінансових показників банківського балансу завдяки якості цінних паперів. Визначено головну мету формування та використання інвестиційного портфеля комерційного банку, якою виступає забезпечення реалізації її інвестиційної стратегії шляхом відбору найбільш ефективних і безпечних інвестиційних проєктів і фінансових інструментів. Встановлено, що інвестиційний портфель повинен формуватися з урахуванням поточної їх дохідності; темпів проросту вартості капіталу; ризику зміни їх вартості в часі; фінансових інструментів управління таким портфелем. Доведено, що ефективність формування та використання інвестиційного портфеля залежить від вибору стратегії управління ним; впливу внутрішніх та зовнішніх факторів; інноваційному підходу швидкості реакції управлінського персоналу на такі зміни і умінню постійного корегування процесу стратегічного управління; виходу з кризових ситуацій з найменшими втратами в процесі управління інвестиційним портфелем.

The purpose of the article is to develop theoretical and methodological approaches to determining the types of investments that should be included in the investment portfolio; expansion of types, addition of stages and principles of formation of such investment portfolios of commercial banks in order to improve the efficiency of their activities.

Analysis of recent researches and publications

The practical application of the system of measures to increase the efficiency of investment portfolio management involves researching the functions, principles and essence of the investment portfolio, defining the expediency and profitability of the results of its use, analyzing the current state of the investment portfolio of a commercial institution, as well as practical recommendations for rising the efficiency of its management. Scientific works of scientists and financiers are devoted to the question of the formation and use of the investment portfolio by commercial banks, namely: Androsova O.F. [1],

Bugai V.Z. [2; 3; 4; 5; 6; 7; 8], Harbar V.A. [9], Harbar Zh. V. [9], Horbunova A.V. [2; 3; 4; 5; 6; 7; 8], Lutsiv B.L. [10], Naumenko O.D. [12], Ozerchuk O.V. [11], Slobodianiuk N.O. [12], Cherep O.H. [2; 3; 4; 5; 6; 7; 8]. In the conditions of the Russia-Ukraine war and after the quarantine viral pandemic of COVID-19, there is an urgent need for an in-depth study of the theoretical and methodological foundations of the management of the bank investment portfolio, and it also indicates the relevance of the issues investigated in the article in a scientific and practical sense.

The results

Depending on the established strategic goals, certain types of investments should be included in the investment portfolio (Fig. 1).

The study of scientific sources regarding the establishment of the main types of investment portfolios (Fig. 2) shows that there is a single opinion concerning the following definitions: the portfolio of real investment

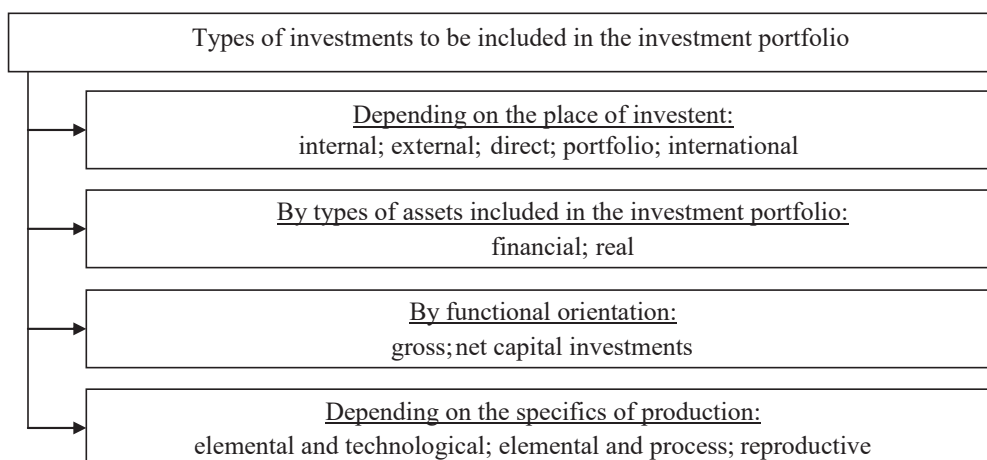


Fig. 1 – Types of investments that should be included in the investment portfolio

Source: grouped and supplemented by the author on the basis of [13, p. 114]

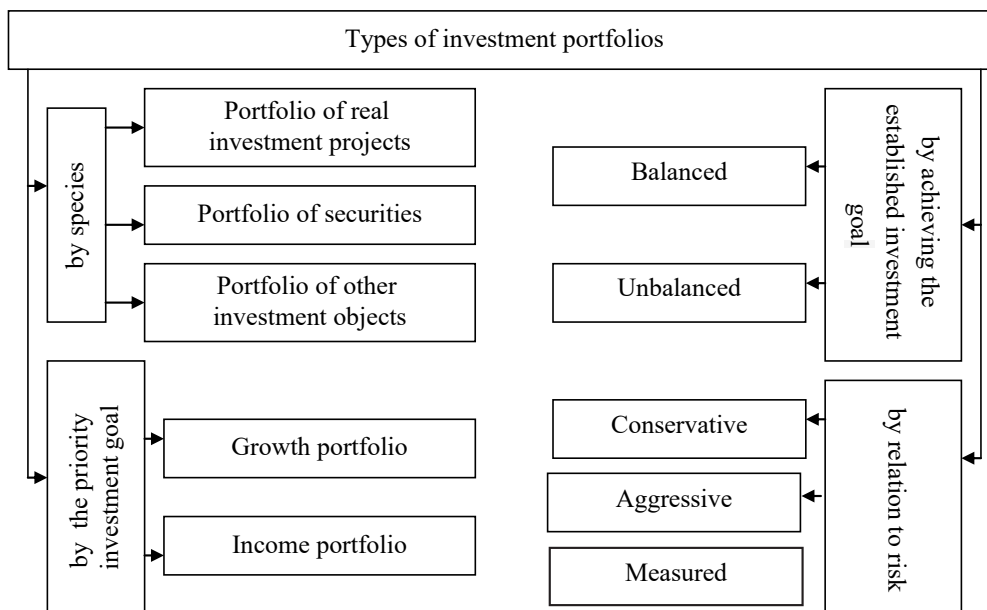


Fig. 2 – Types of investment portfolios

Source: grouped and supplemented by the author

projects is formed at the expense of real investment objects of all types; the growth portfolio is formed at the expense of investment objects that ensure the achievement of high rates of capital growth (with high risk); the income portfolio is made mainly at the expense of investment objects that provide the accomplishment of high rates of income growth (for which the level of risk is also quite high); a balanced portfolio is characterized by the full implementation of the goals of its formation by selecting investment projects or financial investment instruments that most fully meet these purposes; an unbalanced portfolio is specified by the inconsistency of the composition of its investment projects or financial investment instruments with the goals of its formation; conservative portfolio contains the least number of risks, implies a smaller profit; aggressive one is suitable for people who are not afraid to take risks; measured is a portfolio in which both indicators – stability and risk – take equal shares.

An investment portfolio is the tool by which the investor is provided with the optimal ratio of profitability and investment risk. Since all financial investments (securities) differ in terms of profitability and risk, their possible combinations in the portfolio change these characteristics, and in the case of their optimal combination, it is possible to achieve a significant reduction in the risk of the investment portfolio. The principle of diversification is well-known in the formation of an investment portfolio, according to which an increase in the number of types of securities included in the portfolio, leads to a decrease in the risk of this portfolio.

The main goal of forming the investment portfolio of a commercial bank is to ensure the implementation of its investment strategy by selecting the most effective and safe investment projects and financial instruments. Taking into account the chosen strategy of the development of a commercial bank and the features of investment activity,

the specific goal of forming an investment portfolio can be to ensure: high rates of capital growth; high rates of income increase; minimization of investment risks; sufficient liquidity of the investment portfolio.

The formation of the investment portfolio is carried out after ensuring the prerequisites for investing, namely: satisfaction of life needs (of a legal entity or an individual); formation of a minimum reserve of cash on the account or liquid assets in case of an acute need for cash; provision of insurance against accidents and other contingencies.

The analysis of scientific works [14; 15; 16; 17, etc.], devoted to the problem of determining the main stages of the formation of an investment portfolio in accordance with the needs of a commercial bank, allows us to distinguish several key stages: determination of investment goals and type of portfolio; definition of portfolio management strategy; analysis of securities and formation of a portfolio; assessment of portfolio efficiency; portfolio revision (Fig. 3).

In Figure 3, the first stage of the formation of the investment portfolio of a commercial bank is the definition of investment goals, which is primarily related to the need to define portfolio tools. Before setting investment goals, it is necessary to determine: for an individual – the required level of income after retirement, for a legal entity – the stability and sustainability of one’s financial position in the long term. The main goals can be, in particular, the safety of investments, their profitability, capital growth. The priority of certain goals determines the type of portfolio [18, c. 58].

At the second stage of the formation of the commercial bank investment portfolio, it is necessary to determine the portfolio management strategy (active or passive; own management or transfer of the portfolio to trust management; portfolio management technologies and rules for making decisions about buying and selling securities).

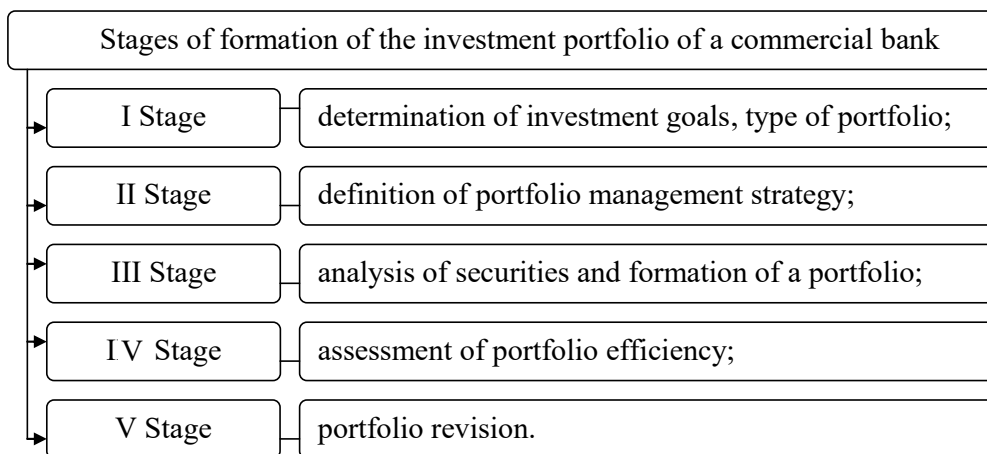


Fig. 3 – Stages of formation of the investment portfolio of a commercial bank

Source: grouped by the author

The third stage of portfolio formation involves the analysis of securities and their acquisition. The success of investments depends entirely on information about the future profitability of certain stocks. Stock exchange rates almost instantly reflect everything that happens in the most remote corners of the world. When Los Angeles imposes legal restrictions on the activities of tobacco companies, it affects the prices of cigarettes around the world. If there is an explosion at oil refineries in Brazil, the share price of English chemical companies, which are only benefited because of this misfortune, immediately soars [19, c.123].

The fourth stage of the securities portfolio management process (assessment of portfolio efficiency) is related to the periodic evaluation of the portfolio performance from the point of view of the actual income received and the risk to which the investor was exposed, and the comparison of the obtained results with the goals of the client (investor). For this purpose, indicators of profitability and reliability of the portfolio are calculated and compared with the accepted criteria of its efficiency.

The last, but no less important stage of the formation of the investment portfolio of a commercial bank in fig. 3,

the revision of the portfolio is indicated in order to remove contradictions with changes in economic circumstances that do not depend on the bank.

During the formation of an investment portfolio, commercial banks should determine the priority goals of investment activity, since to a large extent the specific purposes of the organization of an investment portfolio are alternative. In turn, the established goals can be used as a basis for defining indicators when forming a portfolio [20, c. 121].

Formation of the investment portfolio of a commercial bank is based on five principles (Fig. 4).

The principle of ensuring the implementation of the investment strategy follows from the continuity of long-term and medium-term planning of investment activities of a commercial bank and the subordination of medium-term planning tasks to long-term strategic goals. The goals of the formed portfolio of a commercial bank must be correlated with the purposes of its investment strategy.

The principle of ensuring compliance of the portfolio with investment resources means the need for a strict correlation of the total capital intensity selected for the

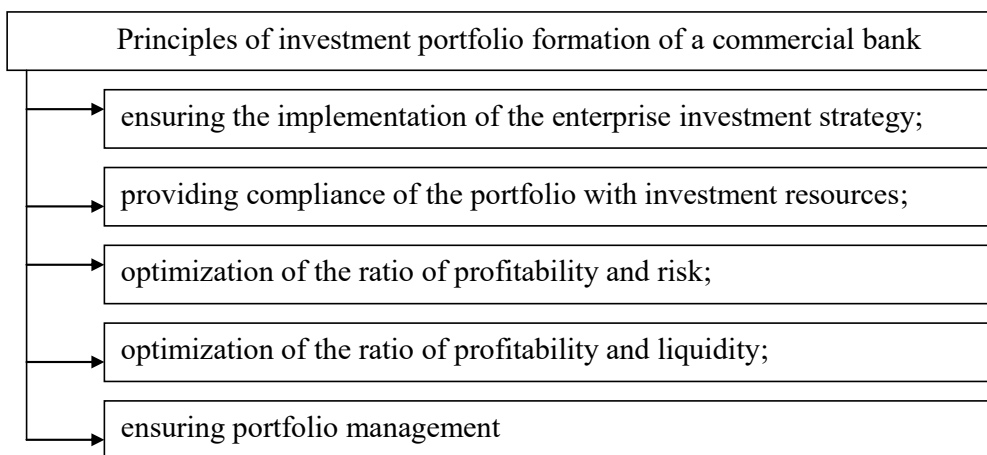


Fig. 4 – Principles of investment portfolio formation of a commercial bank

Source: grouped by the author

portfolio of instruments and objects with the amount of available investment resources. The implementation of this principle determines the limited possibilities of financing the objects selected for the portfolio [21, c.58].

The principle of optimizing the ratio of profitability and risk is related to specific priority goals of portfolio formation. Optimal proportions between risk and income indicators are achieved through portfolio diversification. The principle of optimizing the ratio of profitability and liquidity also determines the necessary proportions between these indicators, based on the priority goals of forming an investment portfolio. At the same time, the optimization should take into account ensuring the financial stability and current solvency of the commercial bank.

The regulation of providing portfolio management means the need to consider the capabilities of the personnel of a commercial bank for operational portfolio management, its monitoring, auditing and the necessary reinvestment of funds.

Based on the direction and scale of investment activity, the investment portfolio of a commercial bank includes a portfolio of capital investments (real investment projects) and a portfolio of securities (Fig. 5).

The formation of a portfolio of capital investments can act as a kind of typical model of making investment decisions, which is inextricably linked with the internal environment of a commercial bank. It is the view of the formation of the portfolio as a process of making investment decisions that fit organically into the internal environment of a commercial bank, which allows us to consider ideas about capital investments arising from employees of a commercial bank at different levels of management as potential investment projects to be implemented. It is important to emphasize that all investment projects are potentially intended for inclusion in the portfolio and should not contradict the strategic plans of the commercial bank, because they determine the general direction of the bank activities [22, c. 15].

The formation of a portfolio of capital investments includes three main stages:

- 1) search for projects (allows to create a solid database of projects ready for processing, evaluation and analysis);
- 2) formulation, initial assessment and selection of projects (necessary information is prepared to obtain a clear formulation of the project (for example, technical information, notes on supplier prices, marketing research, etc.);
- 3) analysis and final selection of projects for the portfolio (a final decision is made on whether money will be invested in investment projects chosen for the portfolio).

Conclusions

It was established that the level and efficiency of strategic management of a commercial bank directly depends on the complete compliance with the principles of profitability, safety of investments, growth of investments and the possibility of quick and painless conversion of securities.

Investors are constantly forced to make various decisions. In some cases, this choice may not affect the further fate of his case, in others, everything may depend on it. In order to make an informed decision, an investor must have certain experience, knowledge and information. However, this is not always possible, so they have to take risks.

Commercial banks are increasingly faced with the problem of forming an optimal investment portfolio. First of all, this is due to the appearance of a large number of issuers on the Ukrainian market. Under such conditions, it becomes increasingly difficult for commercial banks to make the right decisions and not to make mistakes by investing in a commercial bank that in the future will refuse to fulfill its own obligations, that is, declare default. In addition, the investment activity of commercial banks is somewhat limited by the regulations of the National Bank of Ukraine, and its requirements cannot but be taken into account when managing the bank investment portfolio.

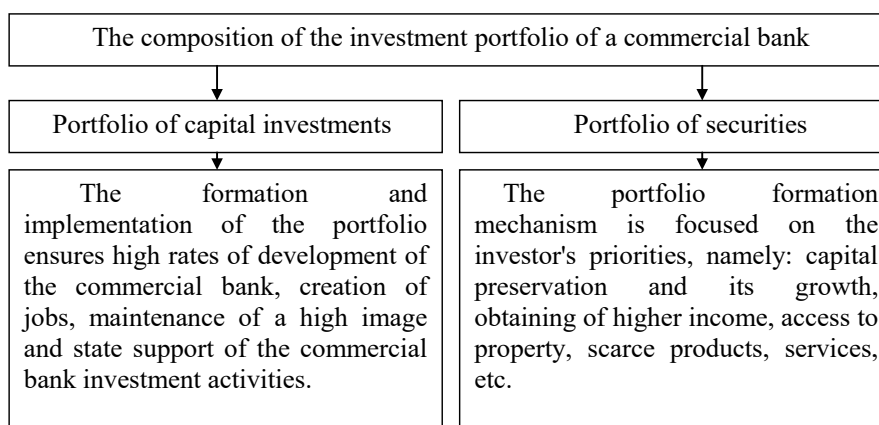


Fig. 5 – The composition of the investment portfolio of a commercial bank in accordance with the direction and scale of investment activity

Source: supplemented by the author on the basis of [15, p. 201]

References

1. Androsova O.F., Cherep A.V. Banking operations : tutorial. K. : Kondor, 2008. 410 p.
2. Cherep A.V., Bugai V.Z., Horbunova A.V., Cherep O.H. (2012). Project financing : practicum. Zaporizhzhia : ZNU. 242 p.
3. Cherep A.V., Bugai V.Z., Horbunova A.V., Cherep O.H. (2012). Money and credit : practicum. Zaporizhzhia : ZNU. 268 p.
4. Cherep A.V., Bugai V.Z., Horbunova A.V., Cherep O.H. (2012). Banking risks and financial stability of commercial banks : monograph. Zaporizhzhia : Zaporizhzhia National University. 135 p.
5. Cherep A.V., Bugai V.Z., Horbunova A.V., Cherep O.H. (2018). Analysis of investment projects : tutorial. Zaporizhzhia : ZNU. 234 p.
6. Cherep A.V., Bugai V.Z., Horbunova A.V., Cherep O.H. (2013). Management of financial and economic security : practicum. Zaporizhzhia : ZNU. 171 p.
7. Cherep A.V., Bugai V.Z., Horbunova A.V., Cherep O.H. (2013). Finance : practicum for university students. Zaporizhzhia : ZNU. 404 p.
8. Cherep A.V., Bugai V.Z., Horbunova A.V., Cherep O.H. (2021). Financial management : textbook. Sofia : Scientific and technical union for machine-building "Industry 4.0". 375 p. ISSN: 978-M619-7383-21-8.
9. Harbar Zh. V., Harbar V.A. (2015). Areas of activity of banks on the stock market of Ukraine. *Scientific Bulletin of the Kherson State University*. Issue 13. Part 2. P. 119–124.
10. Lutsiv B.L. (2002). Investment bank portfolio : monograph / Lutsiv B.L. K. : Libra. 192 p.
11. Ozerchuk O.V. (2019). Investment portfolio management of banks in Ukraine: theoretical and applied aspects. *Scientific works of SRFI*. No. 1(86). P. 85–99.
12. Slobodianiuk N.O., Naumenko O.D. (2017). Financial investments in conditions of instability of the national economy. *Business Inform*. No. 5. P. 177–184.
13. Ensuring conditions for the stable functioning of the banking sector of Ukraine : a monograph / O.M. Kolodiziev, O.V. Boiko, I.O. Hubarieva and others ; under the editorship O.M Kolodizieva. Kh. : Ed. KhNEU, 2010. 312 p.
14. Rogach O.I. (2005). International investments: Theory and practice of business of transnational corporations : textbook. / Rogach O.I. K. : Lybid. 720 p.
15. Sazonets I.L. (2011). Investing : textbook. / I.L. Sazonets, V.A. Fedorova. K. : CEL. 312 p.
16. Skibitsky O.M. (2009). Innovative and investment management : academic. tutorial / O.M. Skibitskyi. K. : CEL. 408 p.
17. Smolinska S.D., Sambirska O.R. (2019). Analysis of credit and investment activity of the bank. *ΛΟΓΟΣ* : online. No. 2 (October). URL: <https://www.ukrlogos.in.ua/10.11232-2663-4139.02.01.html>
18. Polshakov V.I. (2009). Investment management : tutorial / V.I. Polshakov, N.V. Tkalenko. K. : Kondor. 172 p.
19. Investment management : tutorial / L.V. Shynkaruk, I.V. Baranovska. K., 2016. 68 p.
20. Fedorenko V.H. (2001). Investment management : tutorial / V.H. Fedorenko. K. : IAPM. 307 p.
21. Cherep A.V. (2006). Investment science : textbook / A.V. Cherep. K. : Condor. 398 p.
22. Mulyk I.V. (2013). Credit and investment activity of banks: Essence and significance for the economy. *Regional Business Economics and Management*. No. (3). P. 85–91.

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DEVELOPMENT OF THE STOCK MARKET AS A FACTOR OF THE INVESTMENT ATTRACTIVENESS OF THE ECONOMY OF UKRAINE

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stock market, stocks, bonds,
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financial resources, investing

This article identifies the role of the stock market as the basis of economic life of our country, because it is the stock market that allows you to redistribute money effectively between economic entities through financial instruments. It is noted that the stock market of Ukraine at the moment of development is at the stages of further formation, and therefore the analysis of conditions and problems of its functioning requires considerable attention. Changes in the regulatory framework, economic instability, distrust of economic entities are becoming manifestations of stock market imperfections. The article analyzes the current state of the stock market, features of the stock and extra-stock markets. Also the features and problems of the stock market, are highlighted prospects for the stock market of Ukraine, are identified and the factors that inhibit the development of the stock market of Ukraine are considered in this article. Since the instruments for ensuring the turnover of financial resources in the stock market are securities, the article states that stock instruments exist in the first and second order and highlights the share of each in the stock market of Ukraine. The real state of the stock market can be determined by the set of participants that operate there, so it is determined that the main role of major consumers and suppliers in the stock market is played by issuers and investors. The role of financial corporations, which are more likely to act as an intermediary in the extra stock market, is defined but to expand their financial portfolio, very often they issue securities on their own behalf or invest in securities of the real and public sectors of the economy. As the development of the stock market contributes to the development of the real sector of the economy, which in turn should significantly strengthen Ukraine's economic position in the world market, a number of proposals have been identified to ensure the effective development of the stock market in Ukraine.

РОЗВИТОК ФОНДОВОГО РИНКУ ЯК ФАКТОРУ ІНВЕСТИЦІЙНОЇ ПРИВАБЛИВОСТІ ЕКОНОМІКИ УКРАЇНИ

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Ключові слова:

фондовий ринок, акції,
облігації, фондова біржа,
фінансові посередники,
фінансові ресурси, інвестування

У даній статті визначено роль фондового ринку як основи економічного життя нашої країни, оскільки саме фондовий ринок дозволяє ефективно перерозподіляти грошові кошти між економічними суб'єктами за допомогою фінансових інструментів. Зазначено, що фондовий ринок України на даний момент розвитку перебуває на етапах подальшого становлення, а тому аналіз умов та проблем його функціонування потребує значної уваги. Зміна нормативно-правової бази, нестабільність економіки, недовіра економічних суб'єктів стають проявами недосконалості фондового ринку. В статті проаналізовано сучасний стан фондового ринку, особливості функціонування біржового та позабіржового ринків, виокремлено

особливості й проблеми функціонування фондового ринку, визначено перспективи розвитку фондового ринку України, зазначено чинники, що гальмують розвиток фондового ринку України. Оскільки, інструментами забезпечення обороту фінансових ресурсів на фондовому ринку є цінні папери, у статті зазначено, що фондові інструменти існують першого та другого порядку та виокремлено частку кожного на фондовому ринку України. Реальний стан фондового ринку можна визначити за сукупністю учасників, які там функціонують, тому визначено, що головну роль основних споживачів й постачальників на фондовому ринку відіграють емітенти та інвестори. Зазначено роль фінансових корпорацій, які частіше виступають посередником на позабіржовому фондовому ринку, однак для розширення свого фінансового портфелю також часто емітують цінні папери від свого імені або інвестують у цінні папери реального й державного секторів економіки. Оскільки розвиток фондового ринку сприяє розвитку реального сектору економіки, що в свою чергу, має значно посилювати економічні позиції України на світовому ринку, тому визначено ряд пропозицій для забезпечення ефективного розвитку фондового ринку в Україні.

Statement of the problem

Today the state of Ukraine's economy is not in the best condition, for its recovery it is necessary to have a developed financial market, including the stock market, as one of its most important segments. Investing in it is one of the best options. Due to its liquidity, reliability and transparency, the stock market can ensure the realization of Ukraine's national interests by promoting investment in the real sector of the economy and protecting the rights and interests of investors – both domestic and foreign.

The stock market is the main platform for attracting investment capital in business development in Ukraine. It is the stock market that becomes the main intermediary between issuers and investors, organizers of stock trading in the market. The low level of autonomy and self-financing of Ukrainian enterprises requires the constant involvement of financial instruments to find foreign investment, the effectiveness and certainty of which should be established and controlled by the stock market. It is actual the problem of formation of effective market relations, establishment of stability and certainty of the market securities and system of control and supervision.

Analysis of recent research and publications

Problems of the stock market have been studied by many domestic economists, including: Tretyakova O.V., Kharabara V.M., Greshko R.I., Tanklevskaya N.S., Yarmolenko V.V., Kosova T.D., Yaroshevskaya O.V., Arutiunian S.S., Iorgacheva M.I. and others. However, the stock market of Ukraine is still in its infancy and needs to be monitored and analyzed at every step of development.

Objectives of the article

The purpose of the article is to analyze the current state, problems of functioning and prospects of development of the stock market of Ukraine.

The main material of the research

The stock market is an integral part of the economic system of any country in the world. Its development provides businesses with ample opportunities to diversify their financial portfolio, enter into reliable and consistent agreements and attract additional funds for development.

The stock market is the main subject of redistribution of investment capital in the world market. Creating a sustainable market infrastructure with independent experts, exchanges, open conditions of cooperation can be the basis for attracting investment capital for the development of the entire economy of Ukraine.

According to the legislation of Ukraine «stock market is a set of stock market participants and legal relations between them regarding the placement, circulation and accounting of securities and derivatives (derivatives)» [1].

The stock market of Ukraine is one of the platforms for strengthening the investment attractiveness of Ukraine's economy according to the «National Economic Strategy until 2030» [2]. According to this strategy, the main problem of the stock market in Ukraine is the lack of confidence of economic entities in market instruments, national currency and public administration; isolation of the Ukrainian stock market from the world ones; insufficient analytical base and financial awareness of the country's population.

At the present stage of development, the stock market of Ukraine is underdeveloped due to gaps in the regulatory framework of its operation and development problems. Prospects for further development of the Ukrainian market securities largely depend on the correct definition of its role in the investment process and the process of financial development of the country [3].

The stock market is a means of ensuring the proper functioning of all sectors of the economy. At present moment of development of the stock market in the economy of Ukraine, the main subjects of interaction consider large enterprises and the state, while in the world stock markets, almost every individual or legal entity can become its participant. The main problems of the stock market of Ukraine at the present stage of its functioning are:

- instability of the financial system of Ukraine;
- complex system of coordination of decisions at management levels;
- imperfect regulatory framework;
- low level of investor protection in the stock market;
- lack of a developed network of stock exchanges;
- distrust and lack of awareness of the population in the functioning of stock exchanges;

- insufficient development of non-state financial institutions in the market;
- fiscal pressure of tax authorities on enterprises that publicly carry out economic activities;
- lack of a single model of stock exchanges;
- low degree of use of derivative securities [4].

The functioning of the stock market is based on the role of ensuring the proper functioning of all sectors of the economy in it. Securities are the tools for ensuring the turnover of financial resources in the stock market. Stock instruments exist first and second order (derivatives). According to the current legislation of Ukraine, they can be divided into:

- first-order instruments (main): shares; domestic and external government bonds; local loan bonds; corporate bonds; treasury obligations; savings certificates; investment certificates; promissory notes;
- second-order instruments (derivative securities): forward (futures) contracts; options (warrants); depository receipts (certificates) [5].

The Ukrainian market is dominated by first-tier instruments, which in turn determines the low level of development of the stock market of Ukraine. The circulation of securities on the market is controlled by the National Commission on Securities and Stock Market of Ukraine [6].

Equity securities, especially shares, are under the constant supervision of Ukrainian stock exchanges, as the issuers of shares are joint-stock companies, whose activities as issuers are clearly defined by law.

According to statistics, the total volume of shares issued in 2021 increased significantly compared with 2020. As of 2020, the total volume of issued shares amounted to UAH 32982,8 million, with peak issues in September in quantitative terms and the most diversified were the shares of July with the issue of 11 units to the market [6]. The largest shareholder in 2020 was the National Commission JSC «Taxobank» and PJSC «Kyiv Factory «Roshen».

In 2021, the total number of issued shares reached 89, while increasing the volume of issued shares by 30%. Among the significant issues of shares, which significantly affected the overall structure of registered issues of shares in December 2021, registered issues of PJSC «Ukrainian Energy Machines» in the amount of UAH 1,31 billion

and JSC Ukrainian National Airlines in the amount of UAH 0,5 billion. [6].

Except shares other securities than equity have a much lower degree of control. They have significant volumes of turnover on both the stock exchange and over-the-counter stock markets of the country, so their statistics may differ depending on the body that analyzes the market and the purpose of the study. The National Bank of Ukraine submits general statistics collected from the National Commission on Securities and Stock Market, the Ministry of Finance of Ukraine, the State Statistics Service, settlements of commercial banks and own banks (Fig. 1).

During the period 2018–2021, we see a clear trend to increase the volume of securities on the market. For the first quarter of 2018, the total output amounted to UAH 1365815 million, and at the peak position in 2021, in the first quarter of UAH 1769154 million, the total increase from the minimum to the maximum is 29,53%. The total number of securities on the market is dominated by bonds, a significant part of which are government securities.

Despite the positive trends, it should be noted that the choice of liquid financial instruments in the stock market of Ukraine is quite limited for the domestic investor. The instability of the domestic stock market hinders its development, prevents its development into a full-fledged mechanism for mobilizing financial resources.

Not a market can function without entities, and the stock market has its participants who perform certain functions, perform various operations, while entering into economic relations. The real state of the stock market can be determined by the set of participants that operate there. The efficiency of the securities market depends on them. Participants in stock market operations are consumers, suppliers, trade intermediaries, employees-professionals who serve the market bodies that regulate market activities [8].

The main consumers and suppliers in the stock market are issuers and investors. Issuers, in turn, are looking for ways to attract financial resources to the market, and investors seek to effectively use temporarily free funds to make a profit in the future. The stock market offers a fairly extensive system of instruments, in addition to shares, which allow to become a full participant in the capital of the enterprise, the Ukrainian market is widely used bonds,

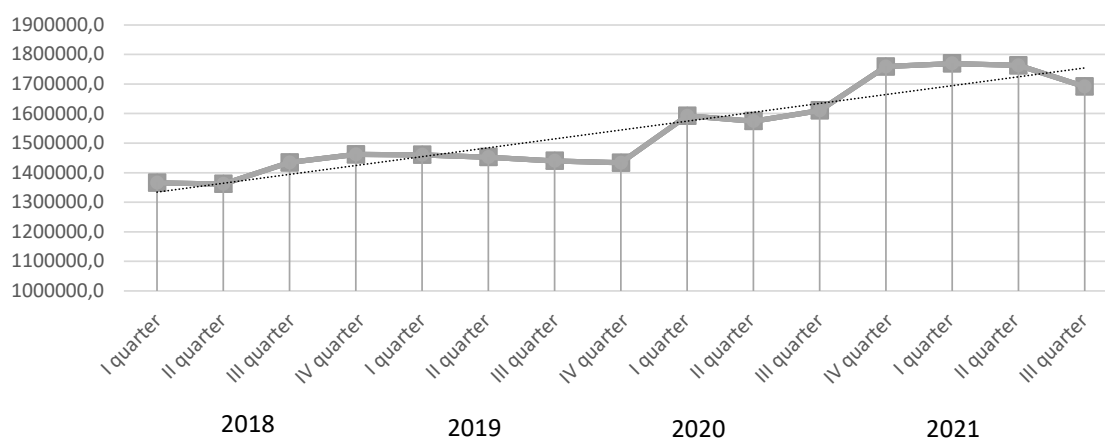


Fig. 1 – Securities, except for shares, issued by residents, with balances at the end of the period, in UAH million [7]

promissory notes, treasury bills, savings certificates. Let's consider in terms of economic sectors the most common securities in the stock market of Ukraine and analyze the trend of their circulation in recent years (Table 1).

According to statistics, the largest issuers on the stock market are government agencies. Domestic government bonds significantly outperform other types of securities. In 2020, domestic government bonds increased by 20,5%, but in 2021 we see a slight decrease, due to the disregard of the fourth quarter in these statistics. External government bonds allow attracting foreign capital to economic development. Statistically, in 2020, the volume of foreign government bonds turnover also increased and the overall increase was 25,2%, with a decrease of 7,5% for the third quarter of 2021. State loans of local loans began to spread more actively after the adoption of the autonomy of local budgets, which led to a jump of 213,2% in 2020. The state is the most reliable issuer in the stock market, so in general in the emerging market they become a good alternative to raising funds.

Securities, except for shares issued by residents, by sectors of the issuer's economy and types of securities by balances at the end of the period, in UAH million [7]

Non-financial corporations are also active issuers of the market. As of 2021, non-financial corporations issued bonds worth UAH 61703 million and promissory notes in the amount of UAH 27215 million. The tendency to increase the turnover of securities issued by non-financial corporations demonstrates the increase in the activity of the real sector in the stock market.

Financial corporations are more likely to act as an intermediary in the extra- stock market, but to expand their financial portfolio they also often issue securities on their own behalf or invest in securities of the real and public sectors of the economy. Separate corporations are singled out in the sector of financial corporations, with a specific security – savings certificates. However, we observe a tendency to reduce the turnover of these securities on the market in 2020 by 14%, and in 2021 at 26,4%.

Institutional investors accumulate free funds, supply them to the stock market (commercial and investment banks, trusts, investment funds, pension funds, insurance companies). Trade intermediaries bring buyers and sellers in the stock market to speed up transactions and receive commissions for their services.

Financial intermediaries are one of the important components of the stock market. The purpose of their operation is to ensure the effective functioning of the stock market and facilitate the process of transformation of temporarily free financial resources into investment capital. This will lead to the successful development of the financial market and the financial system of the country [9].

Intermediaries in the stock market can be: enterprises engaged in intermediary activities for the issuance and circulation of securities, performing operations in the stock market on instruction and at the expense of their clients (brokerage activities); at own expense (dealer activity). If the activity is carried out on behalf of the issuer during the initial public offering of securities and other services related to them (investment advice, trust transactions in securities, securities portfolio management, etc.).

These companies must have equity that will be adequate to the volume of their operations in the stock market. Intermediaries can also set up voluntary associations and stock exchanges to carry out their activities. At the same time, stock market intermediaries can carry out operations both on the stock exchange and on the extra-stock market.

Trading on the stock market can take place on the stock market, which should be clearly regulated, with independent experts, protection of the interests of the parties and extra-stock, where loyal conditions are established, but there is also higher risks. Stock exchanges are special platforms that ensure the full functioning of the organized stock market. This is where issuers who issue shares and investors who buy them.

The basis of exchange turnover are shares, and one of the classic functions is to fix the price. For joint-stock companies – this is a convenient way to obtain funds, which are mostly conditionally paid, it is a mechanism for determining the value of the company. For institutional and non-institutional investors, this is an opportunity to invest in order to generate income in the form of equity or a positive difference between the purchase price and the sale price of shares. This is due to the extremely important role that the stock market plays in the financial systems of economically developed countries. The reason for the existence of the extra-stock market is that many issuing companies can not get on the exchange for various reasons due to non-compliance with the requirements of

Table 1 – Securities, except for shares issued by residents, by sectors of the issuer's economy and types of securities by balances at the end of the period, in UAH million [7]

Indicators		2019	2020	Relative change, % 2020/2019	2021*	Relative change, % 2021/2020
Deposit-taking corporations	savings certificates	2 943	2 531	-14,0%	1 862	-26,4%
	bonds	437	507	+15,8%	533	+5,3%
	promissory notes	2	2	+4,4%	2	+3,2%
Other financial corporations	bonds	6 600	5 902	-10,6%	6 559	+11,1%
	promissory notes	1 471	140	-90,5%	216	+54,0%
Public sector management	state loans (bonds)	822 718	991 742	+20,5%	978 983	-1,3%
	foreign bonds	527 526	660 219	+25,2%	610 838	-7,5%
	domestic internal bonds	1 440	4 510	+213,2%	3 200	-29,0%
Non-financial corporations	bonds	49 840	68 989	+38,4%	61 703	-10,6%
	promissory notes	20 341	24 465	+20,3%	27 215	+11,2%

* statistics are as of the third quarter

the exchange. Today in Ukraine most of the securities are traded on the extra-stock market.

In Ukraine, the main stock exchanges are PFTS, Ukrainian Stock Exchange, UICE and Perspective. Historically, bonds have been mostly traded on the PFTS and stocks on the Ukrainian Stock Exchange. This division is quite conditional, and it is possible to trade any instrument on the exchange where it is more convenient [10]. Let's consider the activities of exchanges in terms of stock instruments on which transactions take place (Table 2).

State loans significantly outperform other types of securities in terms of total volumes, which was noted in the study of issuers of securities in the market. The main exchange for trade in state loans is the PFTS exchange, where trades in domestic bonds amounted to UAH 216624,3 million, foreign bonds – UAH 1275,52 million, and local domestic bonds – UAH 1835,01 million. In general, the PFTS exchange is the largest exchange in Ukraine in terms of trading volumes.

The Ukrainian Stock Exchange serves the most trades in shares – UAH 330,19 million, shares of foreign issuers – UAH 94,95 million and shares of corporate investment funds – UAH 0,11 million. The Ukrainian Stock Exchange is also the only stock exchange in Ukraine that offers transactions with investment certificates.

On the stock exchanges of Ukraine, most trades are held on primary instruments, but there are also derivatives. Options trading is represented only on the Perspektiva exchange in the amount of UAH 22,15 million, however, compared to 2020 the turnover of these securities decreased 2,7 times. Futures contracts are listed on the Ukrainian Stock Exchange and the Ukrainian Interbank Exchange. Their total turnover on the stock market is UAH 37,17 million.

The stock market is comprehensive, as contracts are concluded both on the stock market and off-exchange. However, it is the exchange that should become the standard of trading in securities on the market with clear conditions for concluding agreements, distribution of instruments, defined terms of trading, protection of the interests of

the parties to the agreement, and a transparent regulatory body. All the complexities and shortcomings of the stock market are clearly reflected in the stock exchanges, so it is important to start adjusting the work of this organized stock market as an ideal, the conditions of which will be closer to extra-stock transactions.

The development of information and communication technologies in recent years requires the stock market to automate the provision of services for clear standardization and accelerate the conclusion of contracts. E-trading systems are also actively used by Ukrainian exchanges. Financial intermediaries also move from real applications and interaction to specific types of Internet trading, online brokerage and the use of exchange terminals. Leaders in the use of electronic technologies of securities trading are PJSC «Extra-Stock Trading System» (PFTS), PJSC «Ukrainian Exchange», PJSC «Stock Exchange «Perspective». Their sites have created a simple and clear interface for non-professional private investors, introduced a mode of «virtual trading» (demo trading) [11]. Internet trading also requires the creation of a defined infrastructure, identification system, constant access to the Internet and monitoring of digital innovations on world exchanges to follow the international experience of their implementation.

In general, the stock market of Ukraine is formed from the system of public administration and supervision, the stock exchange network and a set of stockbrokers, financial and non-financial corporations. The basis for the development of the stock market in the future is to improve, standardize and simplify the system of exchange trading to ensure the attractiveness of exchange-controlled trading, which will contribute to the openness and efficiency of the stock market.

The stock market on the world market is the main platform for the circulation of investment capital, in Ukraine this segment is poorly developed, but the authorities and stock exchange platforms are gradually promoting its development. To ensure the effective development of the stock market in Ukraine, a number of recommendations can be identified:

Table 2 – Volume of trades in financial instruments on operators of organized capital markets with a distribution by type of financial instrument (in terms of operators of organized capital markets) during January – December 2021, UAH million [6]

Securities	Ukrainian stock exchange	PFTS	UMVB	PROSPECT	Total
Share	330,19	256,68	0,09	4,12	591,08
Share of a foreign issuer	94,95	8,47	0	0,74	104,16
Share of a corporate investment fund	0,11	0,02	0	0	0,14
Investment certificate	15,74	0	0	0	15,74
State loans	11436,32	216624,3	0	215696,2	443756,9
Domestic local bonds	51,66	1835,01	0	29,38	1916,04
External loans	1104,48	1275,52	0	404,67	2784,66
Bond of a foreign issuer	9,2	100,23	0	0	109,44
Foreign government bond	5,68	222,38	0	0	228,06
Company bond	218,14	1221,12	0	955,79	2395,05
Optional certificate	0	0	0	22,15	22,15
Futures contract	24,13	0	13,03	0	37,17
Financial instrument of a foreign issuer	0	0,01	0	0	0,01
Overall result	13290,61	221543,8	13,12	217113,1	451960,6

- definition of a clear, unchanging legal framework for the development of the stock market, improvement and reduction of stock market norms to world standards;

- involvement of international practices of stock market development to accelerate the development of this market segment;

- openness and transparency should be the basis for conducting operations in the stock market to increase confidence in this market segment among individuals and businesses;

- to promote the dissemination of information about the activities of the stock market and increase information awareness of the population in the use of stock market instruments for the development of internal circulation in the stock market;

- introduction of modern technologies on the stock market will help increase its efficiency and speed of information circulation among economic entities of Ukraine and the world;

- to develop the infrastructure of the stock market to expand the range of financial instruments used in it and strengthen the interaction of market participants.

The stock market acts as an intermediary to attract investment from one economic entity to another. The development of the stock market will contribute to the

development of the real sector of the economy, which in turn should significantly strengthen Ukraine's economic position in the world market. The stock market should also become a platform for the relationship of Ukrainian enterprises with foreign corporations, as it is the stock instruments on the world market that provide a significant amount of capital turnover.

Conclusions

The stock market of Ukraine is at the stage of its formation. At present, the stock market is mainly developing due to government bond securities, which indicates a low level of confidence, difficult trading conditions and uncertainty of the market itself. Every year the volume of trading on the exchange and extra-stock market increases, which indicates positive development trends, but the market itself needs significant improvement to bring it to world standards and create attractive investment conditions for attracting international investment.

The development of the stock market will contribute to the development of the real sector, increase GDP, strengthen Ukraine's position in world markets. To do this, the government, financial corporations, non-financial corporations, stock exchanges must work closely together, creating a clear, defined, open, perfect market infrastructure.

References

1. Zakon Ukrainy «Pro rynky kapitalu ta orhanizovani tovarni rynky» – [Law of Ukraine «On capital markets and organized commodity markets». (2006, February, 23). [www.zakon.rada.gov.ua](http://zakon.rada.gov.ua/laws/show/3480-15/). Retrieved from <https://zakon.rada.gov.ua/laws/show/3480-15/> [in Ukrainian]
2. Postanova Kabinetu Ministriv Ukrainy «Pro zatverdzhennia Natsionalnoi ekonomichnoi stratehii na period do 2030 roku» – [Resolution of the Cabinet of Ministers of Ukraine «On approval of the National Economic Strategy for the period up to 2030» № 179 (2021, March 03). www.kmu.gov.ua. Retrieved from <https://www.kmu.gov.ua/npas/> [in Ukrainian]
3. Tretyakova, O.V., Kharabara, V.M. & Greshko, R.I. (2020). Fondovii rynek Ukrainy: osoblyvosti funktsionuvannia v suchacnykh umovakh – [Fundamental market of Ukraine: features of functioning in modern conditions]. *Ekonomika ta derzhava – Economy and the state*. No. 5. P. 103–107. [in Ukrainian]
4. Tanklevs'ka, N.S. & Yarmolenko, V.V. (2021), Suchasni stan ta problemy funktsionuvannia fondovogo rynku v Ukrainy – [Current situation and problems of stock market functioning in Ukraine]. *Efektivna ekonomika – Effective economy*. No. 7. Retrieved from: <http://www.economy.nayka.com.ua/> [in Ukrainian]
5. Instrumenty fondovogo rynku. Finansovii rynky – [Stock market instruments. Financial markets]. (n. d.). www.buklib.net.ua. Retrieved from: <https://buklib.net/books/25324/> [in Ukrainian]
6. Derzhavnyi veb resurs Ukrainy «Natsionalnoi komisii z tsinnnykh papieriv ta fondovogo rynku. Analiz rynku» – [Government portal. Official website. National securities and stock market commission. Analytical data on stock market development]. www.nssmc.gov.ua. Retrieved from: <https://www.nssmc.gov.ua> [in Ukrainian]
7. Sait Natsionalnogo banku Ukrainy. Statistika finansovogo sektoru. Fondovii rinok. – [Site of National Bank of Ukraine. Financial Sector Statistics. Stock Market]. www.bank.gov.ua. Retrieved from: <https://bank.gov.ua/ua/statistic/sector-financial> [in Ukrainian]
8. Postanova Verkhovnoi Rady Ukrainy «Pro Kontseptsiiu funktsionuvannia ta rozvytku fondovoho rynku Ukrainy» – [Resolution of the Verkhovna Rada of Ukraine on the Concept of Functioning and Development of the Stock Market of Ukraine] (1995, September, 22). [www.zakon.rada.gov.ua](http://zakon.rada.gov.ua). Retrieved from <https://zakon.rada.gov.ua/laws/show/342/95-Br> [in Ukrainian]
9. Arutiunian S.S. & Iorhachova M.I. (2020). Rynok finansovykh posluh – [Financial services market]. Kharkiv : Disaplius. [in Ukrainian]
10. Derzhavnyi portal «Diia. Biznes». Osoblyvosti y instrumenty fondovoho rynku Ukrainy. – [Government portal Diia. Business. Peculiarities and instruments of the stock market of Ukraine]. www.business.diia.gov.ua. Retrieved from <https://business.diia.gov.ua/cases/finansi/osoblyvosti-j-instrumenti-fondovogo-rynku-ukraini> [in Ukrainian]
11. Kosova, T.D. & Iaroshevskaja, O.V. (2017). Fondova elektronna torgivlia tsinnnykh papieramy: vplyv na rozvytok finansovogo rynku Ukrainy – [Stock electronic securities trading: impact on the financial market of Ukraine]. *Ekonomika ta derzhava – Economy and the state*. No. 2. P. 7–10. [in Ukrainian]

LABOUR ECONOMICS, PERSONNEL MANAGEMENT AND MARKETING

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PERSONNEL POLICY OF UKRAINIAN AND FOREIGN ENTERPRISES: MAIN PROBLEMS AND PROSPECTS

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Key words:personnel policy, personnel,
motivation, social responsibility,
organization,
personnel management

The article focuses on the principles of personnel policy of Ukraine and foreign countries, such as – Japan, America and Denmark. The main directions of the personnel management system of the organization are considered, which allow to increase the efficiency of the production process due to the quality work of specialists. The main methods of working with staff, which were formed by world practice, are indicated. The concepts of sustainable economic development of the organization and social responsibility of the entrepreneur are correlated. The operative work with the personnel of the organization in Ukraine and the world is analyzed. There is a trend of changes in these models of work with staff, which was caused by a number of reasons, namely: scientific and technological progress, integration and globalization, the formation of modern personality and society as a whole. The main advantages of each method of personnel policy at the enterprise are indicated. The main problems related to personnel policy at Ukrainian enterprises are described and a parallel is drawn between them and educational training activities. The directions of influence of qualitative personnel policy on the society are characterized. The principles of the correct approach to the personnel of the organization are described. An analysis of motivational methods that should be used to encourage employees to work actively and efficiently. Ways to improve the personnel policy of Ukraine in order to strengthen its competitive position at the level of enterprises and organizations are proposed.

КАДРОВА ПОЛІТИКА УКРАЇНСЬКИХ ТА ЗАРУБІЖНИХ ПІДПРИЄМСТВ: ОСНОВНІ ПРОБЛЕМИ ТА ПЕРСПЕКТИВИ

Бехтер Л.А., Руднік О.Р.*Запорізький національний університет**Україна, 69600, м. Запоріжжя, вул. Жуковського, 66***Ключові слова:**кадрова політика,
персонал, мотивація,
соціальна відповідальність,
організація, кадрове управління

У статті приділено увагу принципам ведення кадрової політики України та зарубіжних країн, а саме – Японії, Америки та Данії. Розглянуто основні напрями системи управління персоналом організації, які дозволяють підвищити ефективність виробничого процесу за рахунок якісної праці робітників. Зазначено основні методи роботи з персоналом, які були сформовані світовою практикою. Співвідносяться поняття сталого економічного розвитку організації та соціальної відповідальності підприємця. Проаналізовано оперативна робота з персоналом організації в Україні та світі. Простежено тенденція змін у наведених моделях роботи з кадрами, що було спричинено рядом певних причин, а саме: науково-технічним прогресом, інтеграцією та глобалізацією, становленням сучасної особистості та суспільства в цілому. Зазначено основні переваги кожного методу ведення кадрової політики на підприємстві. Описано головні проблеми, пов'язані із кадровою політикою на українських підприємствах та проведено паралель між ними та освітніми заходами підготовки фахівців. Надано характеристику напрямкам впливу якісної кадрової політики на суспільство. Охарактеризовано принципи правильного підходу до персоналу організації. Надано аналіз мотиваційним методам, які варто застосовувати

для заохочення співробітників підприємства до активної та ефективної праці. Запропоновано шляхи покращення кадрової політики України з метою зміцнення її конкурентних позицій на рівні підприємств та організацій.

Formulation of the problem

The modern world is under the influence of large-scale processes of integration, globalization and scientific and technological progress. Countries change with society, people have new needs and opportunities. Important task is to track the latest trends in the economic and social sphere. New needs of society cause changes in the field of work. Weak capacity of personnel management in order to ensure effective implementation of tasks related to the implementation of structural reforms; unfavorable social economic conditions; lack of a transparent mechanism for acceptance and promotion; unclaimed knowledge and intelligence in the modern personnel model; insufficient social orientation of Ukrainian enterprises; slow pace of implementation of innovative technologies of professional development leads to a decrease in the formation and development of competitive professionals, which adversely affects the economic development of the state. Progressive processes in society form the need to reform personnel policy on the basis of foreign experience and the concept of «social entrepreneurship».

Analysis of recent research and publications

Many scientists studied the personnel management system and personnel policy, among them: Bobko L.O. [1], Marynyak L.V.[1], who studied the current problems of personnel policy formation in the civil service system of Ukraine, Borshch V.I. [2], Belyakova V.V. [2], who studied the formation and implementation of personnel policy at Ukrainian enterprises, Doronina O.A. [3], Kalina A.V. [4], Krushelnyska O.V. [5], Melnychuk D.P. [5], Malyhina I.V. [6], Rudenko O.V. [7], Kondratyuk O.M. [7], Horeva A.S. [7] and Strehkova S.V. [8], who considered the foreign experience of forming a corporate personnel policy.

Formulation of goals

The purpose of the article is to substantiate the theoretical provisions of personnel policy in enterprises and the introduction of practical recommendations for improving personnel management measures in Ukraine, based on the experience of leading foreign companies.

Presentation of the main research material

In the conditions of modern development of the world economy the main priority for each country is labor resources (personnel of the enterprise). After all, human labor is a factor in shaping the economic potential of the state.

Personnel of the organization (staff) – a set of individuals who have certain qualitative characteristics that ensure the achievement of the goals of the enterprise. There are 2 categories of personnel [4, p. 261]: industrial production personnel engaged in production and maintenance; industrial and non-production personnel.

Every enterprise, organization, institution is interested in the effective use of its labor potential. Thus, the concept

of «personnel management», «personnel policy» becomes important.

Personnel policy has the following directions [5, p. 5]: to ensure the effective implementation of the capabilities of the worker and the organization as a whole through a creative (rather than mechanical) approach, in order to successfully develop the employee as a person, ie create and improve special methods, procedures, personnel programs management; develop personnel policy strategies, concepts, principles and methods of enterprise personnel management, namely, formation of enterprise management system and personnel management system, personnel planning, personnel marketing, determination of personnel potential and needs of the organization in personnel, accounting and rationing of personnel.

Personnel policy of any enterprise should not be one-sided, ie, based on only one area. Thus, world practice has formed several basic methods of personnel management [5, p. 122] – economic methods: material incentives for workers, the use of economic management mechanism; administrative methods: orientation on labor discipline, culture of labor activity; socio-psychological methods: moral incentives, psychological management techniques; legal methods: observance of legal norms, acts, laws, resolutions and instructions; methods of an individual enterprise: employee incentive system, social responsibility.

Methods of personnel management of the organization should include personnel planning, which is based on the operational plan of work with personnel (Fig. 1). Operational plan for work with staff – a set of specific measures, after which the implementation of work with staff in the organization.

At the moment, Ukraine, which aims to create a highly developed society and bring companies to a competitive level, is significantly changing its approach to personnel policy. Personnel policy measures focus on the concept of «social person». The country is more concerned about the social aspects of the functioning of production systems, the emotional and psychological climate that exists in the workforce.

Socially responsible activity of enterprises becomes relevant. The term «social responsibility» means providing assistance to society to achieve social and economic goals. As for Ukrainian entrepreneurs, their socially responsible attitude is based on improving the working conditions of staff, providing educational opportunities, charitable assistance in respect for the consumer [2, p. 177]. In general, socially responsible business in Ukraine is divided into the following areas (Fig. 2).

Thus, it can be argued that Ukraine's personnel policy is based on the principles of working with European-style staff. They are based on certain characteristics of work, socio-psychological climate, personal qualities of the leader, public relations, business culture and social planning [9].

No less important criterion for the functioning of personnel policy is the efficiency of staff. For the development

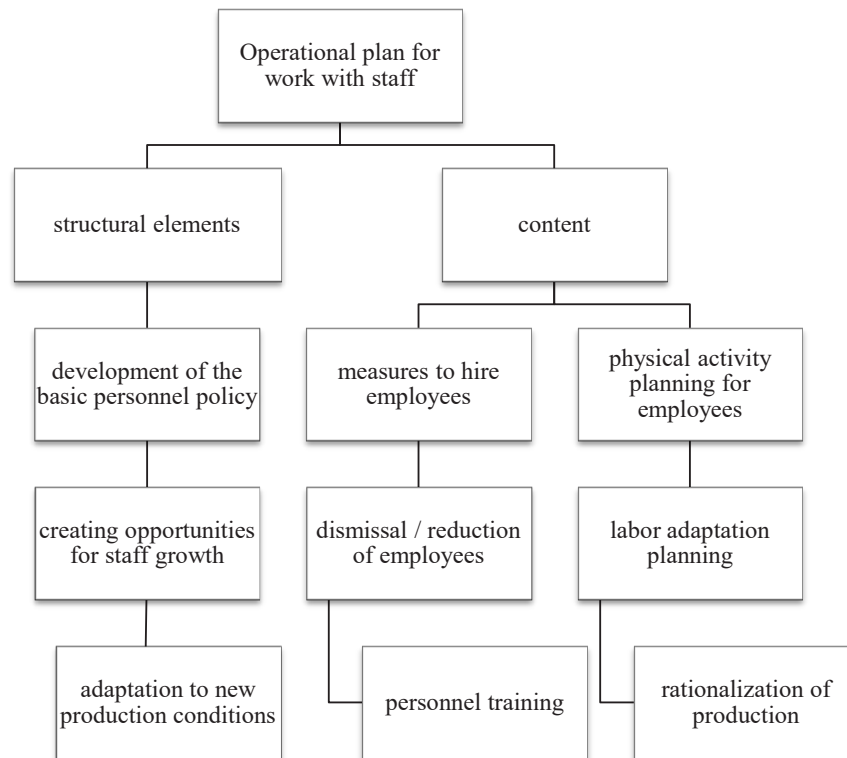


Fig. 1 – Operational plan for work with staff

Source: improved by the authors based on [8, p. 69]



Fig. 2 – Areas of socially responsible business

Source: improved by the authors based on [9]

of any enterprise it is necessary to have quality indicators of its employees, how well the staff performs the task, provides timely results of its work, is active and interested in improving the production process at the enterprise. Hence, Ukraine has adopted the European experience of staff motivation [5, p. 3].

Motivation of work – a complex process that is due to certain personal characteristics of man, as well as meeting their needs and their compliance with external conditions in the process of work. Motivation is a set of internal and external forces that motivate a person to active activity.

This result is achieved using methods that have their own classification (Fig. 3).

If we consider the personnel policy of Ukrainian enterprises, organizations and institutions, a clear drawback is insufficient training of employees.

Today’s problem is the situation when the state is increasingly experiencing a shortage of specialists in the fields of industry and agriculture. As a result, the level of unemployment is increasing [10].

Considering the process of internationalization of modern personnel policy, scholars have traditionally identified the American, Japanese and European approaches to personnel management in the enterprise. To determine the characteristics of each of the main

foreign models of personnel policy (American, European and Japanese), consider the three leading multinational corporations LEGO Group, Ford Motor Company and Sharp, covering different areas of the economy and are typical representatives of the above models [3, p. 130] (Table 1).

We will dwell in more detail on the training system at the Japanese company «Sharp». In our opinion, it is worth paying attention to how carefully specialists are prepared for future tasks in order to obtain the desired results. As a global corporation seeking to expand in the world’s fast-growing markets, Sharp is actively promoting human resources. The company’s personnel policy contains the following personnel development programs [5, p. 123]:

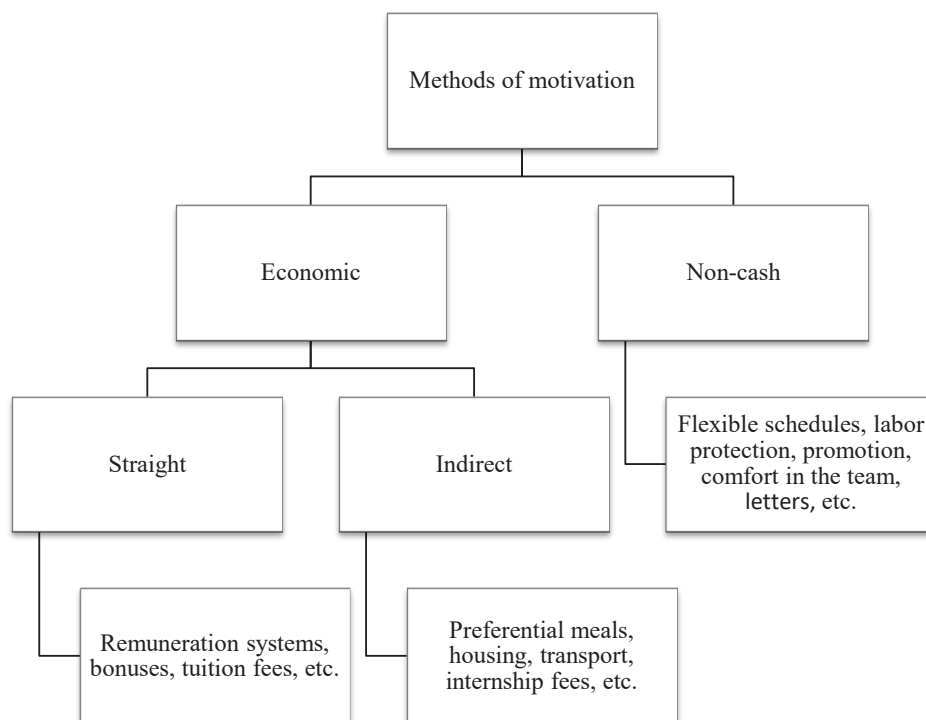


Fig. 3 – Methods of staff motivation

Source: improved by authors based on [2; 4]

Table 1 – Directions of personnel policy of leading foreign companies

Company name	Key components	Directions
LEGO Group (Denmark)	programs for continuous assessment of indicators and causes of staff turnover, monitoring of staff skills, employee training, including knowledge in related fields	<ul style="list-style-type: none"> • create a decent place for employees • provide the qualifications needed to regulate activities today and in the future • create permanent and secure jobs for all employees through careful planning <ul style="list-style-type: none"> • the work of LEGO Group employees must be paid appropriately, taking into account working conditions, personal achievements, results and in accordance with the local level of payment for similar work • personnel policy should be developed and implemented in close cooperation between the company’s management and employees
Ford Motor Company (USA)	Diversification and Involvement as Priorities in the Company's Business Strategy	<ul style="list-style-type: none"> • a barrier-free culture in which every employee feels involved, respected and valued <ul style="list-style-type: none"> • creating a working environment based on respect and involvement of employees in economic processes • ensuring a balance between work and life
Sharp (Japan)	the importance of respect for fundamental human rights and personal dignity, non-discrimination and human rights violations	<ul style="list-style-type: none"> • a healthy work-life balance • create jobs that provide the employee with good mental and physical well-being • the enterprises hold monthly meetings of the Central Labor Management Council, which are attended by representatives of both parties (owners and employees) and a joint discussion of the business environment and labor relations

1) GATE – training for foreign trips (study of the basics of global leadership and features of developing economies);

2) G-BANK – training for current foreign business trips for 3 years;

3) GRID – to train professionals who will hold key positions in the future and ensure the development of the company abroad (sending employees for one or two years to developing countries, such as India or the United States, to study the specifics of their markets, culture);

4) GOAL – for teaching employees a foreign language (Chinese or English). Sharp gives its employees the opportunity to choose the style of work that is most acceptable to them at different stages of their lives and thus helps employees to achieve a balance between work and personal life.

Thus, based on the analysis of personnel policy problems in Ukraine and on the basis of foreign experience, we can provide several suggestions that can significantly improve the personnel policy of Ukrainian enterprises:

1. To provide an opportunity to enterprises, institutions and organizations for state support (as an example of reducing the tax burden) to pay for the education of capable students in areas that are more in demand for them (IT – industry, engineering, computer graphics, etc.), with the aim of obtaining as a result of a highly qualified specialist and do not feel an urgent need to personnel and with the condition that the funds spent on his training will be later returned to the enterprise.

2. To improve the program and system of rewards at Ukrainian enterprises. To equalize the time that the employee spends on work and the time of his personal life, to introduce a system of flexible scheduling.

3. To promote the development of an extensive training program for workers to increase their professional competencies.

4. Provide guarantees of employment and create an atmosphere of trust in the workforce.

5. Provide employees with a work plan for a month so that they have the opportunity to roughly plan their working hours.

6. To create a special recreation room for the employees of the company or institution, where the team will be able to have a full rest and prepare for the next stage of work.

7. Create a special employee assistance fund for employees of the enterprise, from which the employee can take funds as needed.

Conclusions

This article examines the theoretical provisions of personnel policy and its practical application at foreign enterprises. The concept of personnel motivation and its main methods are considered.

The main shortcomings of work and personnel training in Ukraine were identified, namely: conflicts among employees of enterprises, insufficiently comfortable climate in the organization, uneven distribution of jobs, insufficient social orientation of Ukrainian enterprises.

Three models of personnel management are compared – American, European and Japanese, respectively, on the example of the enterprises «Ford Motor Company», «LEGO Group», «Sharp». The principles of personnel management at the specified foreign companies were studied.

There are suggestions for improving the personnel policy in Ukraine, which relate to the educational training of specialists, improving the personnel motivation system, and ensuring trust between the company's workforce and the employer.

References

1. Bobko, L.O., Marynyak, L.V. (2018). Actual problems of personnel policy formation of the civil service system of Ukraine. *Public administration: improvement and development*. Vol. 10. P. 60–72. URL: http://www.dy.nayka.com.ua/pdf/10_2018/23.pdf [in Ukrainian]
2. Borshch, V.I., Belyakova, V.V. (2017). Formation and implementation of personnel policy at enterprises of Ukraine. *Market economy: modern theory and practice of management*. Vol. 16. Is. 3(37). P. 175–187. [in Ukrainian]
3. Doronina, O.A. (2012). Foreign experience in the formation of corporate personnel policy. *Social and labor relations: theory and practice: coll. of science of works / State Higher Secondary School / “Kyiv National economy University named after V. Hetman”*. Vol. 1(3). P. 129–134. [in Ukrainian]
4. Kalina, A.V. (2012). Labor economics and social-labor relations: education. manual. Kyiv : SE “Vyd. “Staff” house”. [in Ukrainian]
5. Krushelnytska, O.V., Melnychuk, D.P. (2005). Personnel management: education. manual. Kyiv : Condor. [in Ukrainian]
6. Malyhina, I.V. (2019). Reforming the personnel support of the education system as a priority of the state personnel policy of Ukraine. *State and regions. Series: Public administration*. Vol. 1(65). P. 76–79. URL: http://pa.stateandregions.zp.ua/archive/1_2019/16.pdf [in Ukrainian]
7. Rudenko, O.V., Kondratiuk, O.M. and Horieva, A.S. (2020). Business social responsibility: essence, accounting aspect and non-financial statements. *Efektivna ekonomika*. Vol. 11. URL: <http://www.economy.nayka.com.ua/?op=1&z=8385> (accessed 04 Aug 2022). [in Ukrainian]
8. Strehkova, S.V. (2012). Personnel policy: levers of influence on efficiency, mechanisms and implementation tools. *Economic magazine XXI*. Vol. 3–4. P. 66–70. [in Ukrainian]
9. Blog of social business in Ukraine: “Is there a socially responsible business in Ukraine”. URL: https://galinfo.com.ua/blogs/chy_ie_sotsialno_vidpovidalnyy_biznes_v_ukraini_289901.html (accessed 31.03.2022). [in Ukrainian]
10. Official website of economic research and political consultations. URL: <http://www.ier.com.ua/ua/publications/articles?pid=6356> (accessed 31.03.2022). [in Ukrainian]

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DOI <https://doi.org/10.26661/2414-0287-2022-2-54-20>**MARKETING MEASURES TO INCREASE SALES VOLUMES****Dashko I.M.***Zaporizhzhya National University, Ukraine, Zaporozhye, Zhukovsky St. 66*

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ORCID ID: 0000-0001-5784-4237

Key words:stimulation, sales,
marketing activity,
staff stimulation,
consumer stimulation,
marketing sales policy,
consumer behavior,
sales stimulation tools

The concepts of sales and sales activities are revealed. The essence of stimulating the company's sales policy is clarified, as an important component for ensuring its effective functioning. The main tasks and the principal advantages and disadvantages of the measures used in the sales promotion system are analyzed. The major stages of the organization of sales activities are highlighted. The types of stimulation are analyzed. Various types of sales promotion are described depending on the subjects of the stimulation, in particular: consumer incentives: price incentives and price reductions with the help of a direct discount: percentage discount, discount with indication of its amount in monetary terms ("minus UAH 1,000"), indication of the new price (without discount amount). The advantages and disadvantages of various means of sales promotion are presented. Sales promotion steps are disclosed. The actions that help in the formation of the marketing activity of the enterprise are considered.

МАРКЕТИНГОВІ ЗАХОДИ ЗБІЛЬШЕННЯ ОБСЯГІВ ЗБУТУ**Дашко І.М.***Запорізький національний університет, Україна, 69600, м. Запоріжжя, вул. Жуковського, 66***Ключові слова:**стимулювання, збут,
маркетингова діяльність,
стимулювання персоналу,
стимулювання споживачів,
маркетингова збутова політика,
поведінка споживача,
інструменти стимулювання
продажів

Розкрито поняття збуту та збутової діяльності. Висвітлено сутність стимулювання збутової політики підприємства, як важливої складової для забезпечення ефективного його функціонування. Проаналізовано головні завдання, та основні переваги та недоліки заходів, які використовуються у системі стимулювання збуту. Виділені основні етапи організації збутової діяльності. Проаналізовано типи стимулювання. Надано характеристику різних видів стимулювання збуту залежно від суб'єктів стимулювання, зокрема: стимулювання споживачів: цінове стимулювання й зниження ціни за допомогою прямої знижки: знижка у відсотках знижка із зазначенням її розмірів у грошовому вираженні («мінус 1000 грн.»), зазначення нової ціни (без розміру знижки). Надано переваги та недоліки різних засобів стимулювання збуту. Розкрито заходи стимулювання збуту. Розглянуто заходи, які допомагають при формуванні маркетингової діяльності підприємства.

Problem statement

In today's conditions, when strengthening the priority of consumer interests in the system of economic relations generates aggressive competition for sales markets, one of the most important prerequisites for the effective functioning of enterprises in the target market becomes the provision of competitive advantages in the field of sales activities. In view of such economic realities of today, the problem of improving the sales activities of enterprises through the introduction of more effective sales promotion tools, which will contribute to maintaining the leading positions of companies and achieving their goals in a changing market environment, deserves special attention. Sales is the final stage of all production and commercial activities of enterprises and performs one of the most important functions.

Analysis of recent researches and publications

The theoretical foundations of sales promotion marketing activities have been comprehensively reflected in the works of such outstanding foreign and domestic scientists as: F. Kotler, A. Strickland, N. Butenko, R. Mallin, E. Coughlan, J. Bolt, L. Balabanova, O. Kuzmina, T. Lukianets, E. Romata, T. Prymaka, V. Bozhkova, A. Balabanyts, S. Kuzmenko. However, despite the significant achievements of scientists in this field, the issue of developing a set of marketing measures to stimulate sales requires a separate study, which determines the relevance of this article.

Formulation of the goals of the article

The purpose of this article is to study measures and means of stimulating sales policy in modern conditions.

Presentation of the main research material

Today’s dynamic development of the economy leads to the fact that enterprises and organizations are forced to constantly evolve in order not to be left behind in progress and business. Absolutely all markets are saturated to such an extent that companies have to literally fight for customers, and this leads to an understanding of the exceptional role of sales in the company’s activities. The product or service produced by the enterprise must be sold: that is, taking into account all the advantages and wishes of customers, and with obtaining the greatest benefit. Therefore, the main task of any entrepreneur is to combine the wishes of clients and his own production capabilities. Strategic solutions should be developed based on the identification of the strengths and weaknesses of the sales activity [9].

Sales should be understood as a set of measures that are carried out after the completion of the production stage, that is, the production of products and their exit from the enterprise, before sale to the final consumer, delivery and after-sales service. It is the core link of marketing and the entire activity of the enterprise regarding the creation, production and delivery of goods to the consumer.

The sales activity of the enterprise consists of several stages, the features of which are determined by various factors: economic changes, peculiarities of the transition period, the mentality and purchasing behavior of the population and other factors. All stages are closely related [8].

It is possible to distinguish the main stages of the organization of sales activities (table 1).

In order to improve sales activities, it is necessary to take strategic measures aimed at creating a more effective sales policy. To stimulate means «to activate activity», the principal task of this process is the activation or renewal of activity with the aim of selling goods [10].

Sales promotion is the use of short-term measures designed for quick market response in answer to the company’s offer of its products. In essence, this is a direct encouragement of consumers to purchase products or services of the company, and the spheres of trade – to include these goods in their assortment for their next sale (we remind you that advertising or propaganda only popularize them or create an appropriate image). Therefore, the primary tasks of sales promotion are:

- ensuring the rapid growth of sales volumes of the company’s products;
- encouraging consumers to try the product or make repeat purchases;
- encouraging the system of intermediary trade organizations and employees of the company’s own sales apparatus to intensify efforts to sell the company’s products [8].

Sales promotion includes measures shown in Fig. 1 [3]: There are three general types of stimulation:

- general stimulation (at the point of sale) – characterized by the task of the topic, is an instrument

Table 2 – Advantages and disadvantages of various means of sales promotion

Means	Advantages	Disadvantages
Discounts	High level of stimulation of trade and consumers. An effective means of increasing sales volumes	They require an accurate calculation. They can damage the image of the product
Samples of goods	They give consumers the opportunity to get to know the product and try it out. Attract new consumers, reduce the risk of purchase	High costs (the product is provided free of charge). Effective only for new products that are significantly different from traditional ones. Difficulty in determining sales prospects
Coupons: sending by mail; placement in magazines or newspapers; direct provision to consumers; placement on packaging; samples of goods	Targeted attention-grabbing consumers to the product. Speed and convenience. The breadth of consumer coverage. Relatively small expenses. Personal contact, selectivity, high level of consumer acceptance. Stimulates initial and repeat purchases. High level of attracting attention	Long period from sending to reaction to response. Dependence on the quality of the written application. It requires precise planning. Low level of perception by consumers. Labor intensity. High cost It requires precise planning
Awards	Stimulate consumer activity. They create a contingent of regular buyers. They increase the prestige of the brand	They require precise planning
Guarantees	They increase the prestige of the enterprise. Contribute to the formation of new markets	Waiting for the result is too long
Packaging	Increase the scope of realization. Clarity and ease of use	Low degree of purposefulness. Harms the prestige of the brand
Contests, lotteries, games	Contribute to attracting the attention of new buyers. They increase the image and popularity of the enterprise	High cost. They require creative or analytical solutions. A narrow circle of participating consumers
Credits	Contribute to the growth in sales volumes. They enlarge the popularity of the product	High cost
Loyalty card	Provide the consolidation of consumers at a trading institution, the accumulation of information about buyers	Organizations of special information marketing systems are needed
Price reduction	Direct benefit for consumers. A good tool for purchase motivation and short-term increase in sales volumes	It is easily copied by competitors. It can damage the image of the goods
Demonstrations	High level of attracting attention. Visibility	They require preparation and the use of special personnel. High cost
Conferences of sellers	Rise the qualifications of trade employees	High cost

Source: developed on the basis of sources [8]

of general revitalization of trade (anniversaries, opening ceremonies);

- selective stimulation – provides for the placement of the product outside the general placement in an advantageous position (at the beginning of the row); the goods can also be stored in another place of the trading hall;

- individual stimulation – takes place in places of general shipment of goods and, as a rule, is initiated by the manufacturer. Advertising posters, indicators signal that the sale of a certain product is stimulated with the help of price reduction, holding contests, presentation of prizes, etc. In this case, the means of stimulation are perceived by consumers only at the moment when he stops in front of the store window [6].

The analysis of marketing activity at the enterprise level has the following directions:

- volume of sales and demand;
- product sales markets; price policy;
- product distribution system;
- competitiveness of production;
- marketing environment of enterprises (including analysis of marketing strategy, effectiveness of communications);
- the study of the economic environment, the use and development of quantitative methods of analysis to reveal the relationship between indicators, factors, etc. [4].

Success in business is success in the market. An entrepreneur usually starts his business with the creation of goods or services, and remains in business thanks to the attraction and retention of consumers [2].

The main task of marketing is the orientation of the enterprise to the production of only such products that will attract the attention of consumers and ensure the satisfaction of their needs. The result of successful marketing activities is the achievement of two goals:

- satisfaction of clients’ needs;
- obtaining the maximum possible profit.

It is for the sake of these goals that the entrepreneur creates his business and develops marketing as the driving force of such a business. In today’s conditions, when markets are oversaturated with products, when companies compete literally for every consumer, it is possible to propose a number of stages that help to increase the efficiency of

the enterprise’s sales activities, and form the enterprise’s marketing policy as a whole. The principal ones are:

1. Formation of the marketing strategy of the enterprise [5].
2. Appoint those responsible for the performance of the main functions of the marketing system, provide them with authority and resources, determine the criteria for evaluating the effectiveness of their work and responsibility.
3. Description of products or services (names, advantages, features).
4. Definition of the target group of consumers and its potential.
5. Explanation of the methods of product promotion to target groups of consumers, determination of the most effective of them.
6. Analysis of the pricing policy.
7. Determination of the company’s break-even point (minimum permissible total sales) in monetary terms.
8. Calculation of an individual sales plan for each employee.
9. Analysis of the work productivity of the sales department.
10. Assigning the number of contacts and clients that one employee of the sales department should provide.
11. Creation of such a system of personnel motivation, which will guide employees of the marketing and sales department to achieve results.
12. Development of a marketing plan: what products to sell and to whom, pricing policy, distribution system, methods of product promotion, how you will inform customers about your products or services [1].

Despite the fact that all this looks convincing, this is only the beginning on the way to creating an effective marketing and sales service, but without their implementation, it is hardly possible to achieve success in the market.

There are different types of sales promotion depending on the subjects of the promotion:

1. Stimulating consumers:
 - 1) Price incentives. A price reduction can be initiated either by a manufacturer (who wants to increase the volume of sales or attract new consumers), or by a trading company that wants to gain a reputation as an inexpensive trading body. A price reduction can also be the result of a mutual agreement between two parties: the manufacturer gives a discount to the trading network, and the latter –

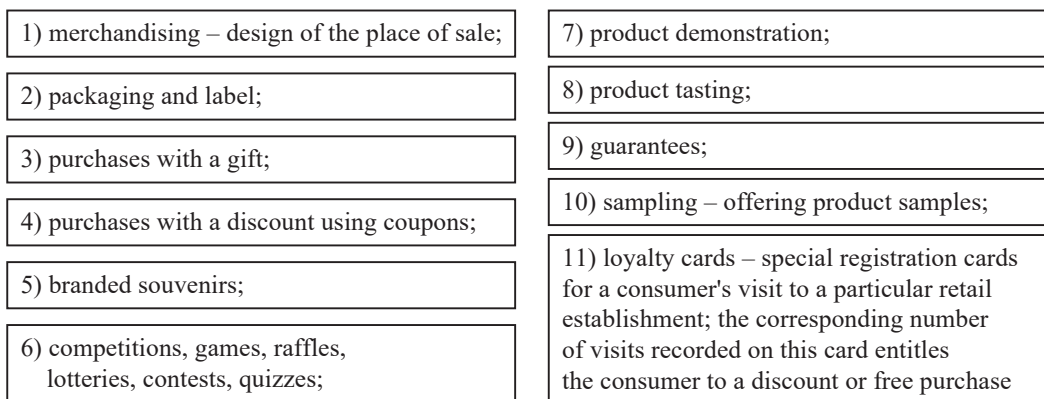


Fig. 1 – Measures to stimulate sales

partially, fully or even in larger sizes, so to speak, «redirects» its to consumers. A temporary reduction in the price of a product has both advantages and disadvantages. The disadvantage is that it does not create a circle of reliable, regular clientele, but forces the buyer to switch from one product brand to another, corresponding to the offer of a price reduction [7].

2) Price reduction with the help of a direct discount:

– discount in percentages. The package states that the price has been reduced by 10 or 20%. This does not lead to changes in the organization of the trading hall or product labeling. Two labels are pasted on the product – with the old (crossed out) and new price;

– a discount with an indication of its amount in monetary terms («minus UAH 1,000»);

– designation of a new price (without the amount of the discount). In this case, they inform about the reason for setting the new price: the release of an improved product; anniversary; holiday (table 2).

3) Combined sale. It applies to goods that complement each other and none of which is a mandatory component of the other. The price of the set is set lower than the sum of the prices of each of the goods.

4) Additional quantity of goods is free of charge. The psychological impact is much greater if 20% more goods are offered than when a 20% discount is offered, although the second option is more profitable. However, in this case, the manufacturer incurs additional costs: for the free provision of a certain quantity of goods; for new packaging for the goods.

Table 1 – The main stages of the organization of sales activities

№	The name of the stage	Description of the stage
1	Choosing a target market or segment	The main method of finding the target market (its segments or niches) is segmentation. Let's consider the method of segmentation, including the goals of its specific stages and tasks that are solved in the process of their implementation. Assessment of the company's own capabilities. The purpose of the stage is to determine the possible directions of development, based on the available equipment, technologies, sources of supply of raw materials, location, etc. In the process of achieving the goal, the following tasks are solved: 1. Analysis of the current market situation and prospects for its development. 2. Identification and evaluation of the potential opportunities of the main competitors. 3. Analysis of the technical and economic capabilities of the analyzed enterprise. 4. Determination of the types of products that this enterprise can produce in the existing market conditions.
2	Determination of the sales system and necessary financial costs	Financial expenses for sales are executed for each item of expenses, which allows you to quickly analyze incurred expenses for sales by direction, size, and timely adjust them and make effective management decisions. In order to generalize information about sales costs and control their level at the enterprise, a form of the accounting of sales costs is offered. Planning of sales costs is proposed to be made on the basis of sales costs of previous periods with adjustments relative to market conditions. As an example, the first proposed group of sales expenses is given, with individual items highlighted.
3	Selection of channels and methods of sales of products	A whole set of measures related to the selection of product movement channels is implemented: a) channels are grouped; b) criteria for choosing channels corresponding to the general concept of the organization are determined; c) the final choice of channels is made based on the economic evaluation of each variant of goods movement.
4	Choosing the way and time to enter the market	Export, licensing and franchising are the main and fastest and least expensive ways for a company to enter foreign markets, while partnerships and strategic alliances create wider opportunities, allow to enter foreign markets with larger volumes, but require trust between partners, long-term cooperation for business reliability, investment in finished production is at the same time the most difficult, risky, but profitable and sure way to enter the foreign market.
5	Definition of the system of goods movement	With a suitable operation of the goods movement system, the delivery time of the goods after receiving the order is a constant regardless of the distance of transportation. The probability of order fulfillment in this period is 91–96%. Therefore, a comprehensive approach is necessary, taking into account all factors that affect the level of service: – order execution speed; – the possibility of urgent delivery of goods by special (emergency) order; – willingness to take back the product in case of a defect in it and replace it with a good quality product as soon as possible; – provision of different bulk shipments at the buyer's request; – the ability to use the best mode of transport; – highly effective service department; – a sufficient level of stocks of both goods and spare parts for goods of the entire range; – price level.
6	Determination of forms and methods of sales promotion on the need for this expenditure	Stimulation of sales can be carried out in three main directions: – intra-firm stimulation; – stimulation of the dealer network; – stimulation of consumers

Source: developed on the basis of sources [8]

5) Cash refund. This is the most common form of price reduction with a delay in receiving the discount, when compensation in the form of a certain amount of money is paid subject to the presentation of several proofs of purchase. It is used more and more to create a circle of regular consumers of goods of a certain brand. Coupons are placed on the packaging, after purchase they are cut out.

6) Samples. This is a free transfer of goods in a quantity that has no commercial value and is used only for checking and evaluating the goods. An inscription is made on the sample: «Free sample, not for sale.» The cost of the sample should not exceed 7% of the selling price of the product.

7) Active proposition. These are all types of stimulation that require the active and selective participation of the consumer. There are two general methods of consumer stimulation based on this principle: contests, lotteries and games.

2. Stimulation of the sales staff. This type of stimulation is aimed at motivating the work of employees of the organization's sales services with the aim of activating their activities. Classic tools for stimulating sales personnel include:

1) Monetary rewards:

a) bonuses to the salary in case of meeting the annual indicators are a reward for the achieved results, the amount of which can reach from one to three monthly salaries;

b) awards for achieving «special indicators» – product cataloging. Overachievement of indicators during a period of decline in business activity is a reason for paying a bonus, the size of which is proportional to the overachievement of indicators;

c) awarding of points, for a certain number of which you can receive expensive gifts, offered in a special catalog;

d) tourist trips – intended for salespeople who have achieved significant success at work.

2) Moral stimulation of sales personnel. Sales personnel, like any other, associate their work at a particular enterprise with the satisfaction of their own needs and the achievement of personal goals. The creation of an appropriate psychological climate at the enterprise will contribute to the satisfaction of the personal needs of salespeople.

These measures include:

- regular meetings of sales network associates;
- creation of a friendly, favorable atmosphere at work;
- providing the opportunity to make a career, employment guarantee;
- equipping employees with modern information and technical means.

Conclusions

Considering the above, we can conclude that sales policy plays an exceptional role in the company's activities, and sales promotion is one of the most important functions of strategic management. The use of various means and the implementation of various types of activities are the very tools that ensure an effective sales policy. The latter itself regulates the marketing strategy in such a way as to ensure maximum consumer satisfaction. The main priority direction of companies should be the implementation of innovative methods and the search for alternative options when forming the company's sales policy. The dynamic development of the economy leads to the fact that constant research and monitoring of this sphere is needed to ensure the growth of enterprises and the economy as a whole.

References

1. Bytenko N.V. (2008). Marketing : pidruchnyk – [Marketing : textbook]. Kyiv : Atika. 354 p. [in Ukrainian]
2. Beljavsev M. and Bospjata M. (2010). Strategichne marketungove upravlinnja zbytom pidpruemstv – [Strategic marketing management of enterprise sales]. *Marketing in Ukraine*. Vol. 1. P. 24–26.
3. Gharkavenko S.S. (2004). Marketyng : pidruchnyk – [Marketing : textbook]. Kyiv : Libra. [in Ukrainian]
4. Girshenko T.D. and Dybovik O.V. (2010). Marketing : pidruchnyk – [Marketing : textbook]. Kyiv : Inkos. 255 p.
5. Dunina K. and Hrypovich S. (2013) Strategija formyvannja konkurentospromognosti – [Competitiveness formation strategy]. *Personnel*. Vol. 1. P. 78–82.
6. Krulov D.V., Dashko I.M. and Bexter L.A. (2021). Prunscupy logistuku ta marketungy v upravlinni ludskumu resyrsamu v formyvanni motuvascii prasci ta scinoytvorennya na pidpruemstvi – [Principles of logistics and marketing in the management of human resources in the formation of work motivation and pricing at the enterprise]. *Efficient economy*. Vol. 5. Available at: <https://cutt.ly/BZbDFEK> (accessed 25 March 2022).
7. Kyrilo L.I. and Larcheva K.O. (2021). Marketungovi zahodu zbilshennja obsjagiv zbyty dlja hlibopekarskuh pidpruemstv – [Marketing measures to increase sales volumes for bakery enterprises]. *Internauka : international scientific journal*. Vol. 5(49). Part. 2. P. 9–16.
8. Pavlenko A.F., Vojchak A.V. (2001). Marketyng : pidruchnyk – [Marketing : textbook]. Kyiv : KNEU. [in Ukrainian]
9. Tkashyk G.U. (2015). Problemu metodologij ta ouinku – [Problems of methodology and assessment]. *Entrepreneurship, trade and exchange activity*. Available at: <http://pbo.ztu.edu.ua> (accessed 25 March 2022).
10. Jamkova O.M. (2012). Zmist formyvannja zbytovoji polituku vurobnuchux pidpruemstv – [The content of the formation of the sales policy of production enterprises]. *Economics and management*. Vol. 2. P. 52–59.

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PROFESSIONALIZATION OF SOCIETY: INTERACTION OF VOCATIONAL EDUCATION AND THE LABOR MARKET

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Key words:

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International labor organization,
state, trade unions, employers

The article considers the role of professionalization to ensure effective employment, as well as the problem of matching learning outcomes and qualifications to the needs of the labor market in the current conditions of economic development, new challenges and urgent tasks that arise between all participants in the social dialogue. Attention is focused on the fact that business and education are no longer self-sufficient and are increasingly dependent on each other, therefore, strengthening the integration of educational services and labor markets is the most important factor in successful socio-economic development in the context of globalization. The flexibility and adaptability of the system of primary professionalization to the needs of the labor market, the focus of educational services on meeting the needs of business is the primary task of management in the education system, and also leads to an increase in the efficiency of the labor market. But today, even the best universities do not keep up with the pace of development of the business context and cannot adapt educational programs in a timely manner. The modern Ukrainian labor market is characterized by significant professional and qualification imbalances. Unresolved problems of employment, in particular for young people, lead to negative consequences, therefore, special attention should be paid to the development and implementation of projects that are focused on financing active measures to promote employment; conducting marketing research or using the services of marketing services in order to study the needs of the labor market, determine the specialties in demand, professional skills, competencies and skill levels that specialists should possess in accordance with the requirements of employers; providing a leading role for the International Labor Organization to achieve the goal of improving employment opportunities for trained youth, promoting better integration in the labor market and reducing youth unemployment or economic inactivity. It was noted that after the end of the war, the highest growth rates will be achieved in industries that will work to restore the domestic market, but the need for professions will depend on the economic strategy of Ukraine and how actively the economy will recover and develop.

ПРОФЕСІОНАЛІЗАЦІЯ СУСПІЛЬСТВА: УРАХУВАННЯ ВЗАЄМОДІЇ ПРОФЕСІЙНОЇ ОСВІТИ ТА РИНКУ ПРАЦІ

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Ключові слова:

професіоналізація,
заклади професійної освіти,
ринок праці, молодь,
Міжнародна організація
праці, держава, профспілки,
роботодавці

Стаття присвячена дослідженню ролі професіоналізації для забезпечення ефективної зайнятості, відповідності результатів навчання та кваліфікації потребам ринку праці в сучасних умовах розвитку економіки, нових викликів та актуальних завдань, які постають між усіма учасниками соціального діалогу. Акцентовано увагу на тому, що бізнес та освіта перестають бути самодостатніми і все більше залежать один від одного, тому посилення інтеграції ринків освітніх послуг і праці виступає найважливішим чинником успішного соціально-економічного розвитку в умовах глобалізації. Для досягнення цілей ефективного функціонування ринку праці гнучкість та адаптованість системи первинної професіоналізації до потреб ринку праці, спрямованість освітніх послуг на задоволення потреб бізнесу є першочерговим завданням менеджменту в системі освіти, але сьогодні навіть найкращі вищі не встигають за темпами розвитку бізнес-контексту та не можуть своєчасно

адаптувати освітні програми. Сучасному українському ринку праці притаманні значні професійно-кваліфікаційні дисбаланси. Невирішені проблеми працевлаштування, зокрема молоді, призводять до негативних наслідків, тому особливої уваги потребують питання розробки та впровадження проектів, орієнтованих на фінансування активних заходів сприяння зайнятості; проводити маркетингові дослідження або користуватись послугами маркетингових служб з метою вивчення потреб ринку праці, визначення затребуваних спеціальностей, професійних навиків, компетентностей та рівня кваліфікації, якими повинні володіти фахівці відповідно до вимог роботодавців; надання провідної ролі Міжнародній організації праці для покращення можливостей зайнятості підготовленої молоді, сприяння кращій інтеграції на ринку праці та зниженню рівня безробіття молоді чи економічної неактивності. Зазначено, що після закінчення війни найбільші темпи приросту досягатимуться в галузях, які працюватимуть на відновлення внутрішнього ринку, однак потреба в професіях залежатиме від економічної стратегії України, від того, наскільки активно буде відбудовуватися і розвиватися економіка.

Introduction

Today, modern society is a mobile and dynamic, multi-level integral system. Changing the content of professional functions, the integration of certain types of labor, their mutual enrichment, the emergence of new professions and the death of old ones is a consequence of the intensification of production, the introduction of new technologies. The intensity of the processes of differentiation of professional activity requires a change in professional values in society: monoprofessionalism is being replaced by polyprofessionalism. Professionally mobile specialists who are able to successfully and effectively find and realize themselves in socio-economic conditions, carry out successful planning and organization of their own professional life are in demand in the modern labor market.

To achieve the goals of the effective functioning of the labor market, the flexibility and adaptation of the system of primary professionalization to the needs of the labor market, the focus of educational services on meeting the needs of business is the primary task of management in the education system, but today even the best universities do not keep up with the pace of development of the business context and cannot timely adapt educational programs. The Ukrainian labor market is characterized by significant professional and qualification imbalances.

This problem is especially relevant in modern society due to the fact that in recent years, in the course of economic and social reforms, and more recently in connection with hostilities, the reasons for the loss of work were unsatisfactory working conditions, many people lost their jobs, some professions became in little demand, many specialists were forced to change their profession, i. e. engage in the process of reprofessionalization. Companies were forced to relocate to safe regions, so the structure of the labor market by regions has changed. Ukrainians are faced with a big problem: there are fewer vacancies in the labor market, and competition has grown.

Analysis of latest researches and publications

The scientific basis of the research is made up of numerous works of famous domestic scientists, in particular, in the works of Ya. Bilokon, M. Waintraub, D. Hordiichuk, L. Lavrynenko, V. Lapshyna, V. Lozovetska,

O. Nesterovych, N. Nychkalo, I. Mosia, A. Romanova, V. Rykhlitskyi and others the various aspects of the content and role of vocational education and training as components of youth employment policy are investigated, the issues of compliance of the scale and structure of labor demand with the existing supply on the market, etc. are also considered. However, despite a significant number of researches, the problems of studying the labor market, the vocational education market and the professionalization of society, taking into account the specifics of their interaction and the elements of state regulation of these markets, remain insufficiently observed in the current conditions of economic development, new challenges and emerging tasks. This leads to the relevance of this study.

Formulation of the purposes of the article

The purpose of the article is to study the role of professionalization to ensure effective employment, the correspondence of learning outcomes and qualifications to the needs of the labor market in modern conditions of economic development, new challenges and urgent tasks.

The main material of the research

The problem of becoming a professional is, first of all, the problem of personal and social development of the future specialist as a subject of social action. A modern professional must see his profession in the totality of its wide social ties, know the requirements for it and its representatives, understand the content and specifics of their professional activities, navigate the range of professional tasks and be ready to solve them in changing social conditions. All the necessary professional knowledge, skills, norms of behavior and value orientations, ideals and structures of the personality are formed in the process of professionalization of the individual.

The core of primary professionalization, its central component and main stage is vocational training, obtaining a specific specialty at a university or other professional educational institution. The main goal of vocational training is the acquisition of certain knowledge, skills and abilities necessary for the successful implementation of a particular type of professional activity. However, the acquisition of a specialty does not exhaust the content of this stage of professionalization. The process of vocational training in a higher educational

institution involves the purposeful formation of a system of social and professional qualities, deep convictions, worldview positions in future specialists, which are the foundation for the development of professionalism. In addition, professional interest, not burdened by universal moral values, can cause professional narrowness, so moral education should become an important component of vocational training.

The system of vocational education is one of the most important and complex in the life of society. It performs various functions, in particular: social, economic, cultural and creative, educational, cognitive and others. They are closely interconnected and implemented in the systemic interaction of educational institutions of different types and forms of ownership, enterprises and organizations of all economic sectors, social partners, public organizations, united territorial communities, public authorities and administration [1, p. 72].

Professional education has the following goals:

1. Creation of conditions for mastering professional activity. For each person, vocational education performs two main functions, in particular: it is a way of self-realization of the individual in professional work and is a means of ensuring the sustainability of an individual's professional career in a market economy.

2. Education of socially active members of society for creative participation in production, responsibility for the results of their work, the state of the environment, etc.

3. Teaching methods of continuous self-learning to maintain the competitiveness of the individual in the labor market and the full disclosure of the abilities of the personality.

The primary professionalization of an individual is completed by the successful execution of a vocational educational institution in the relevant specialty and becomes the starting point for its entry into the world of professional and social and labor relations. Secondary professionalization occurs in the process of an individual's professional activity, his desire for continuous self-development and self-improvement, the accumulation of experience, the assimilation of professional ethics and growth as a professional. Thus, it is in the process of professional work that a specialist turns into a professional, but such a process is successful only if, in the course of primary professionalization, a person, along with receiving appropriate professional training, laid the foundations of a humanistic worldview, brought up an active and creative personality. The psychological factor in the formation of professionalism is important, namely, the orientation of the individual to improvement and creativity, and the social factor – the assimilation of a wide range of norms, values, and professional and universal orientations.

The role of society and the state in the professionalization of the individual primarily consists in the following:

- ensuring social guarantees, free choice of profession;
- improvement and development of new forms of employment, taking into account socio-economic conditions and changes in the labor market;

- determination of the ways of self-realization of the individual in the conditions of the socio-cultural dynamics of society;

- achieving a balance between the possibilities of the labor market and the professional interests of the individual, considering his psychophysiological characteristics;

- effective forecasting of professional progress in labor activity;

- assuring that the level of professionalism of the individual corresponds to his social status and level of well-being.

Being the bearer of the society's innovative potential, young people make up more than half of the working-age population of the country and form a special contingent of the labor market, which differs significantly from other participants in this market. On the one hand, young people are more educated, mobile, enterprising, open and ready for change and job search. They own new knowledge, professions and technologies, they are the possessors of intellectual potential, a significant potential for the socio-economic development of the country. On the other hand, young people have certain social problems with building their own career related to the level of education, choice of profession, professional development in the process of mastering a specific profession in an educational institution, starting work, choosing a direction within the profession, professional growth. The development of a market economy has necessitated professional mobility and competitiveness of workers. These changes inevitably gave rise to problems of professional self-determination and self-development of the individual. Young people entering the labor market generally lack training and relevant work experience. In the conditions of fierce competition in the modern labor market, young people should be able to prove that they have the relevant knowledge, skills and abilities [2, p. 4].

Important for the legal regulation of youth employment in Ukraine is the Law of Ukraine «About population employment» [3], referring to persons who have additional guarantees in facilitating the employment of young people who have completed or stopped their education in general education, vocational and higher educational institutions, resigned from urgent military or alternative (non-military) service (within six months after the end or termination of training or service) and is hired for the first time. For their employment, enterprises, institutions and organizations with more than 20 full-time employees are assigned a quota of 5 percent of the average number of full-time employees for the previous calendar year.

Professional self-realization of the individual occurs in the course of active work, where the factor of choosing a profession and «life in the profession» acquires special significance as determining the interests, life orientations and lifestyle of a person. The professionalization of society at the stage of development leads to an increase in the role of the professionalism of the individual as the most important criterion of social stratification, a factor of social mobility and sociocultural dynamics [4, p. 58].

In the era of globalization and the formation of the knowledge economy, strengthening the integration of educational services and labor markets is the most important factor in successful socio-economic development. Business and education are no longer self-sufficient and are increasingly dependent on each other. Knowledge is an undoubted factor in the success of the functioning of any economic system, both at the micro-, macro-, and at the global level [5, c. 593].

In the Decent Work Agenda 2020–2024 for Ukraine [6], in the rationale for ensuring better matching of learning outcomes and qualifications to the needs of enterprises,

it is noted that the system of vocational education in Ukraine does not fully provide the qualifications required by enterprises; the lack of necessary training creates an obstacle to increasing the productivity and competitiveness of the country. Enterprises regularly report that vocational education institutions do not provide their graduates with practical knowledge or the necessary professional skills. In addition, there is a problem with matching the level and quantity of education to the requirements of employers. According to official statistics, more than half of Ukrainians (50%) do not work in their specialty, which leads to structural unemployment. In addition, a certain proportion of workers (37%), especially those with higher education, have too high a level of education for their positions [6, p. 23; 7].

This situation arose, in particular, as a result of the imperfect formation of the state / regional order for personnel training, the lack of effective relationships between educational institutions, employers and local executive authorities, and insufficient motivation of young people to master working professions.

Entering the market economy sharply raises the problem of professional suitability, competitiveness of employees, the level of their professional competence and professionalism, the problem of building appropriate models of professional activity, personal and skillful qualities of a professional. The world of professions is very mobile, some professions are becoming a thing of the past, others are emerging [8, c. 94]. Unfortunately, today in Ukraine, personnel training is carried out without taking into account the situation on the labor market. More workers in the service sector are graduating, but the industry also requires a lot of skilled workers. The bias occurs due to the fact that there is no interaction between the markets of educational services and labor market [9, p. 115]. Working specialties are most in demand now: employers are looking for assemblers, loaders, pickers and packers of goods. The most demanded specialists also include salespeople, IT specialists, pharmacists, farmers and builders. Demand for the latter was minimal at the beginning of the war, but thanks to the restoration of roads and houses, the number of such vacancies increased. The hardest jobs to find are real estate, finance, insurance, law, hospitality and education. Until recently, this list included the automotive industry, but with the resumption of work of factories in western Ukraine, the situation improved and the sector even showed a slight increase compared to the pre-war period [10].

The state is faced with the task of forming such a mechanism for state regulation of the youth segment of the labor market, which would provide: comprehensive interaction of stakeholders (government bodies, institutions of higher and vocational education, employers and youth) in solving the problem of youth unemployment and professional and qualification imbalance of the labor market; professional self-determination and youth development; acquisition of the first professional experience and search for effective forms of employment; improvement of the conditions for internships and placement of young people in the first workplace; raising the motivation of young people for highly productive activities. Youth policy in the field of employment and job finding should take into account the characteristics of this age category of the population,

the specifics of regional labor markets, the complexity of the formation and functioning of social and labor relations between the employer and youth [2, p. 4–5]. Unresolved problems of youth employment lead to an increase in unemployment and a decrease in living standards; the spread of passive (dependency), unregulated (shadow employment) and destructive (criminal) patterns of behavior; encourage external labor migration; lead to a loss of motivation to work, a change in the structure of value orientations and a drop in the prestige of legal employment, etc. [11, p. 187].

The modern labor market needs the formation of an adequate career guidance system, its compliance with socio-economic requirements and needs, orientation to the labor market. The skills demand forecasting system is not properly coordinated across institutions. As a result, it becomes more difficult to provide effective career guidance and to ensure the relationship between professional and educational standards, curricula and programs. In addition, the social partners are not sufficiently included in forecasting the demand for skills at the national, sectoral and local levels. In this context, the government seeks to increase the number of young people receiving vocational (vocational) education, improve the content and methodology of curricula to synchronize vocational education opportunities with the needs of the economy [6, p. 23].

According to the «Decent work country programme Ukraine 2020–2024» [6], developed by the government, trade unions and employers' organizations in cooperation with the International Labor Organization (ILO) to achieve national and other internationally agreed goals, it is the ILO that has a leading role in ensuring better correspondence of learning outcomes and qualifications to the needs of enterprises, in particular, providing support in improving the quality of vocational (vocational) education in the context of key professions, ensuring the involvement of social partners to help improve coordination of activities and interaction of parties in the process of forecasting the demand for skills, developing and revising professional standards, curricula and teacher training, including gender aspect, promotion of better career guidance and job search, inclusive of support for young girls in choosing careers occupied usually by men.

At the same time, not only the state should help and guide the youth. Employers should also be interested in training highly qualified workers. Support and financing of the specialties they need, holding open days at enterprises and organizations, assisting students in internships are appropriate activities. At the present stage, the system of Ukrainian education is focused on mastering only theoretical material. Therefore, students do not have significant opportunities to gain practical experience, which also affects their further employment. As practice shows, most graduates find work with the help of acquaintances, on the Internet or in newspapers, some turn to the State Employment Service. It would be good if employers cooperate with universities and participate in the educational process of students, provide them with relevant practical knowledge with subsequent employment. Since the majority of Ukrainian employers claim that there is a shortage of necessary skills among young people, especially in areas that need specialists with highly complex technological tasks or in areas that are at the intersection of several types of

activity and provide for a multi-tasking production process. The inconsistency of the areas of training of young specialists with the needs of the economy leads to a professional and qualification imbalance in the labor market. It is necessary to intensify the process of supporting young people's business initiatives, to encourage them to actively search for work and acquire a profession that is in demand on the labor market; develop and implement projects aimed at financing active measures to promote youth employment; conduct research to determine the specialties, professional skills and qualifications that graduates should have; include mandatory internships for students in educational programs; develop a mechanism for propaganda among boys and girls of part-time work in their free time and the organization of experimental enterprises in universities and vocational schools; organize meetings with employers and former unemployed who have successfully found a job or founded their own business [11, c. 189–190]. It is also necessary to introduce world experience, when marketing services that study the needs of the labor market, the definition of popular specialties, professional skills and competencies and the level of qualification that specialists should possess in accordance with the requirements of employers, become an integral part of the educational institution.

Conclusions

Today, a situation has developed on the Ukrainian labor market that requires immediate systemic economic and social

transformations. It is necessary to develop and implement projects aimed at financing active measures to promote employment; conduct marketing research or use the services of marketing services in order to study the needs of the labor market, determine the specialties in demand, professional skills and competencies and the level of qualification that specialists must possess at the request of employers; increase internship hours for students to gain practical skills; introduce into the practice of functioning business incubators, the organization of experimental enterprises in professional educational institutions; organize meetings and involve employers, graduates who have successfully found a job or established their own business in lecturing. Solving the problem of matching qualifications to the needs of the labor market among young people is possible, in particular, by giving the leading role to the ILO and revising the competencies of young graduates of vocational (vocational) education institutions in order to better match the needs of the labor market, which will lead to improved employment opportunities for trained youth, will contribute to better integration in the labor market and reducing unemployment or economic inactivity of young women and men.

After the end of the war, the highest growth rates will be achieved in industries that will work to restore the domestic market, but the need for professions will depend on the economic strategy of Ukraine, on how actively the economy will recover and develop.

References

1. Nychkalo N.H. (2014). Rozvytok profesiinoi osvity v umovakh hlobalizatsiinykh ta intehratsiinykh protsesiv – [Development of professional education in the conditions of globalization and integration processes] : monohrafiia. Kyiv : Publishing house of National Pedagogical Dragomanov University. 125 p. [in Ukrainian]
2. Molod na rynku pratsi: navychky XXI stolittia ta pobudova kariery – [Youth on the labor market: 21st century skills and career building]: *Annual report to the President of Ukraine, the Verkhovna Rada of Ukraine, the Cabinet of Ministers of Ukraine on the situation of youth in Ukraine*. Kyiv : State Institute for Family and Youth Policy, 2019. 107 p. [in Ukrainian]
3. Pro zainiatist naselennia – [About population employment]: *law of Ukraine № 5067-VI*, July 5, 2012. *Voice of Ukraine*. 2012. № 153–154. Retrieved from <https://zakon.rada.gov.ua/laws/show/5067-17#Text> [in Ukrainian]
4. Lapshyna V.L. (2005). Profesionalizatsiia: sutnist ta struktura poniattia – [Professionalization: the essence and structure of the concept]. *Scientific journal "Ukrainian Society"*, No. 2–3(7–8). P. 54–58. [in Ukrainian]
5. Lavrynenko L. (2016). Vzaiemodiia ta vzaiemozviazok rynku pratsi ta rynku osvity posluh – [Interaction relationship and labor market and education market]. *Global and national economic problems*. No. 9. P. 592–596. [in Ukrainian]
6. Prohrama hidnoi pratsi dlia Ukrainy na period 2020–2024 rr. – [Decent Work Country Programme Ukraine 2020–2024]. *International Labour Organization* : official website. 44 p. Retrieved from https://www.ilo.org/budapest/what-we-do/decent-work-country-programmes/WCMS_774455/lang-uk/index.htm
7. Startuvav vseukrainskyi proiekt "Obery profesiui svoiei mrii" – [The all-Ukrainian project "Choose the profession of your dreams" was launched]. *Ministry of Education and Science of Ukraine* : official website. 2021. Retrieved from <https://mon.gov.ua/ua/news/startuvav-vsekrajinskij-projekt-oberi-profesiyu-svoyeyi-mriyi> [in Ukrainian]
8. Lozovetska V.T. (2012). Profesiina orientatsiia molodi v umovakh suchasnoho rynku pratsi – [Professional orientation of youth in the conditions of the modern labor market] : monograph. Kyiv : Institute of vocational and technical education of NAPS of Ukraine, 157 p. [in Ukrainian]
9. Waintraub M.A., Romanova A.M., Mosia I.A., Bilokon Y.Yu. et. al. (2015). Modernizatsiia zmistu profesiinoi osvity i navchannia: teoriia i praktyka – [Modernization of the content of professional education and training: theory and practice] : monograph. / sciences red. M.A. Weintpaub. Kyiv : Ltd. NVP. Polygraph service, 328 p. [in Ukrainian]
10. Hordiychuk D., Rykhlitskyi V. (2022). Znaiyt robotu pid chas viiny. Yak zminyvsia rynek pratsi v Ukraini – [Find a job during the war. How the labor market has changed in Ukraine]. *Economic truth*. June 14. Retrieved from <https://www.epravda.com.ua/publications/2022/06/14/688116/> [in Ukrainian]
11. Nesterovych O.S. (2022). Rynek pratsi i zainiatist molodi v Ukraini v konteksti yevrointehratsiinoho rozvytku – [Labor market and youth employment in Ukraine in the context of European in-tegration development]. *Uzhhorod National University Herald. Series: Law*. No. 70. P. 186–189. Retrieved from <http://visnyk-pravo.uzhnu.edu.ua/article/view/257516/254362> [in Ukrainian]

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DOI <https://doi.org/10.26661/2414-0287-2022-2-54-22>**IMPROVING THE EFFICIENT USE OF THE WORKING TIME OF THE ENTERPRISE STAFF****Dashko I.M., Mykhailichenko L.V., Denysenko M.O.***Zaporizhzhia National University**Soborny Avenue, 74, Ukraine*

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Key words:working time, staff, team,
work space, workplace,
psychological climate, gender,
age, seniority

The notion of working hours is defined. The consequences of the loss of working time for the enterprise were analyzed. The qualification of the employee was defined, which is determined by such factors as the level of general and special education, work experience in similar positions, necessary for mastering the profession. The prerequisites for improving the efficiency of the company's personnel have been analyzed. The employees of the company were examined by qualification level. The actual time spent on individual elements of the operation and the structure of the time spent during the work shift or its part were shown, which is the basis for developing time standards, choosing the most rational work methods, and analyzing the quality of standards and norms. The organization of the employee's workspace was inspected. The factors that in one way or another distract attention in the process of implementing time management were depicted and analyzed, and can be divided into two categories. Measures have been developed that will contribute to reducing the loss of working time, and therefore, savings in the number of the company personnel will be achieved.

ОСОБЛИВОСТІ ЕФЕКТИВНОГО ВИКОРИСТАННЯ РОБОЧОГО ЧАСУ ПЕРСОНАЛУ НА ПІДПРИЄМСТВІ**Дашко І.М., Михайліченко Л.В., Денисенко М.О.***Запорізький національний університет**просп. Соборний, 74, Україна***Ключові слова:**робочий час, персонал,
колектив, робочий простір,
робоче місце,
психологічний клімат,
стать, вік, стаж

Надано визначення робочого часу. Проаналізовано наслідки втрати робочого часу для підприємства. Визначено кваліфікацію працівника, яка визначається такими факторами, як рівень загальної та спеціальної освіти, досвід роботи на аналогічних посадах, необхідних для оволодіння професією. Проаналізовано передумови підвищення ефективності роботи персоналу підприємства. Проаналізовано працівників підприємства за рівнем кваліфікації. Зображено фактичні витрати часу на окремі елементи операції та структуру часу, витраченого протягом робочої зміни або її частини, що є основою для розробки нормативів часу, вибору найбільш раціональних методів роботи, аналізу якості нормативів і норм. Проаналізовано організацію робочого простору працівника. Зображені та проаналізовані фактори, які так чи інакше відволікають увагу в процесі впровадження тайм-менеджменту, що можна розділити на дві категорії. Розроблені заходи, які будуть сприяти зниженню втрат робочого часу, а отже, буде досягнута економія чисельності персоналу підприємства.

Problem statement

Rational use of working time is very important for the enterprise as labor costs fall, productivity increases and unnecessary energy costs are reduced.

Loss of working time has negative consequences. The results of many enterprises and the experience of working with employees show that the formation of production teams, effective use of employees, ensuring high quality of human resources are decisive factors of production efficiency and product competitiveness. According to experts, problems in the field of personnel utilization

and daily work with staff will remain in the center of management attention in the near future. In the future, with the development of scientific and technical progress, the content and conditions and efficiency of work will be more important than material interest. Therefore, the topic of this article is particularly relevant in the modern conditions of the development of Ukrainian society in general and of each business entity in particular. For this, the company employees should be considered one of the most important areas of business development and maintaining competitiveness in the market.

Analysis of recent researches and publications

The works of the following domestic and foreign economists made a significant contribution to the development of the theory and methodology of personnel management: V.V. Adamchuk, O.I. Amoshi, A.S. Afonina, S.I. Bandura, M.H. Bilopolskyi, D.P. Bogynia, H.I. Vychanskyi, V.M. Grinova, V.M. Daniuka, M.I. Dolishnyi, A.P. Yegorshyn, Ye.M. Libanova, Ye.P. Kachana, A. Ya. Kibanova, O.V. Krushelnytska, V.M. Nyzhnyka, A.M. Seleznyi, I.V. Soroky, H.V. Shchokina, L. Iacocca, and others. Working time as an economic category is studied in the works of K. Marks, S.H. Strumilin, H.A. Prudensky and others. They define time as the main measure of work, but they determine the use of working time as the basis for the emergence of such a phenomenon as economic risks, and as an indicator of the development and existence of various material systems, including economic ones that are hardly described in scientific works.

Formulation of the goals of the article

The purpose of this article is to study the prerequisites for increasing the efficiency of the use of time of company employees, to determine the criteria and forms of its effective usage.

Presentation of the main research material

The most important element of productive forces and the main source of economic development are people, that is, their skills, education, training, and motivation. There is a direct dependence of the competitiveness of the economy, the level of well-being of the population on the quality of the labor potential of the employees of enterprises and organizations of the country.

The pace of life of modern people can hardly be called measured – it is a constant lack of time and haste, regularly being in a state where it is not clear what kind of work to do. Of course, all this negatively affects the personal productivity of employees. Learn how to implement rational planning of working hours, because personnel managers must not only do it themselves, but also train their employees.

Working time is a general measure of the volume of work. According to the legislation of Ukraine on labor, working time is the period during which an employee must perform a labor function. This signifies that working time means the duration of a person's participation in the organized labor process, during which he must perform his

production or official duties. The legislation distinguishes separated types of working time: full-time (normal) and part-time. When determining the duration of working hours, working conditions, the nature of work, the state of health and a number of other circumstances are taken into account. According to the Labor Code of Ukraine, the normal working hours of employees cannot exceed 40 hours per week. In the case of harmful working conditions, a reduction of the total working time is provided, which should not exceed 36 hours a week. The legislation also provides the reduced working hours for employees aged 16 to 18 to 36 hours every week, for people aged 15 to 16–24 hours every week, students aged 14 to 15 who work during the school year – no more than half of the maximum duration of working hours for persons of the corresponding age [1].

Everyone understands that time cannot go back, stretch or stop, but many people simply tolerate when they don't have time («I didn't have time – I'll do it tomorrow»), and some even get depressed («I'm a loser, I didn't do anything else»). However, few people mention that time can be controlled by changing the intensity of events that occur over time, leaving only useful and necessary things. Let's consider some simple techniques that will help you spend your time more productively.

According to the level of qualification, workers are divided into four groups: highly skilled, skilled, low skilled and unskilled. They perform work of different complexity and have different training (Table 1).

These classification characteristics of the company employees, together with others (gender, age, degree of labor mechanization, seniority) serve as the basis for calculations of various types of structures. For effective management, it is important not only to determine the number (or its dynamics) of individual categories of employees, but also to study the relationship between them. This makes it possible not only to identify the impact of the personnel factor on the final results of the enterprise, but also to determine the most significant structural changes, their driving forces, trends and, on this basis, to create a real strategy for the development of human resources [4].

The qualification of an employee is defined by such factors as the level of general and special education, work experience in similar positions, necessary for mastering the profession.

The staff of the enterprise is the object of management, the production force, the main component of each production process, therefore planning, formation, redistribution and rational use of «human resources» in the organization is the principal task of personnel management [6].

Table 1 – Classification of workers by qualification level

Qualification groups of workers	Main performed works	Terms of training, internship, experience
Highly skilled	Especially difficult and responsible work (repair and adjustment of complex equipment, furniture manufacturing, etc.)	More than 2–3 years, regular internship, extensive practical experience
Skilled	Complex works (metalworking and woodworking, repair, locksmith work, construction, etc.)	1–2 years, significant work experience
Low skilled	Simple work (equipment, some assembly, technical supervision, etc.)	A few weeks, some work experience
Unskilled	Auxiliary and service (forklifts, cabinets, cleaners, etc.)	It does not require special training

Source: summarized by the authors

Organization of the workspace: this is where you need to start optimizing your business. It also takes about an hour to work, but allows you to work much more efficiently.

It is clear that every employee should have the necessary tools for work. Thus, if we talk about office workers, then this is a computer (with a monitor that meets the requirements of the work), a printer, a photocopier and a scanner.

The work surface should be free – therefore, the work surface should be tidy, it is not allowed to be constantly cluttered with papers and stationery, because at work they will distract and these little things annoy (do not believe that paper chaos on the table is a sign of a creative character, in fact, it is simply a mess that can lead to the loss of important documents or late reporting and, as a result, lead to problems in relations with management and/or customers) [3].

If the nature of the work requires a large amount of paper documentation, then at least carefully organize all the documents in thematic folders with appropriate inscriptions – observing the order and structure in the workspace will save time in searching for the necessary document, etc. If you often have to remember and write down various things, then you should not only have a laptop, but also install a planning board at your workplace. At the same time, it will be effective to divide it into several sections, for example «Tasks», «Priority», «At work», «Done», and move stickers with the corresponding tasks into them. Therefore, everything will always be in front of your eyes.

You can also place one or two accessories (but no more) at your workplace that will inspire and motivate you. It can be, for example, a reproduction of a certain painting by a famous artist, a photo of a place where you would like to go on vacation, etc.

Factors that in one way or another distract attention in the process of implementing time management can be divided into two categories:

- external factors, when someone or something distracts (for example, a person comes to your office, calls or sends text messages);
- internal factors when you interrupt your work (for example, you check your e-mail at the wrong time, go for coffee, browse social networks) [5].

When studying work processes, it is important to find out the actual time spent on individual elements of the operation, as well as the structure of time spent during the work shift or part of it. This is the basis for developing time standards, choosing the most rational work methods, analyzing the quality of standards and norms. When studying the use of working time, much attention is paid to the loss of working time caused by many factors. In particular, we can name such internal reasons as:

- imperfect organization of work and production at the enterprise;
- shortcomings in the system of planning and distribution of labor resources;
- violation of labor discipline (absenteeism, going to work in a drunken state, early departure and end of work, other, often recorded losses of working time);
- personnel turnover;

- unfavorable working conditions in manufacturing, which contribute to the increase in morbidity and accidents in production;

- organization of various social events during working hours, unjustified leave with the permission of the administration [9].

The following methods will help to eliminate or at least reduce external disturbances, as well as minimize the time you spend communicating with others (which also interferes with your work):

- close the door when you need to concentrate and work productively (of course, this can only be afforded by those who either have a separate office, or where there are only two or three employees with whom you can agree on temporarily closing the door);

- come up with a conditional signal about your work, which will be a sign to others that you should not worry now. This can be anything, like wearing headphones (of course you have to inform your colleagues that they don't need to be contacted unnecessarily when you're wearing headphones). By the way, taking into account that many office workers now work in large rooms with about 30–40 people outdoors, some employers create similar general rules that apply throughout the company, for example, buy colorful flags on the desk, pennants etc., where red means that the person is very busy, yellow – that you can apply for a job, but not with an offer, for instance, to drink coffee, and green or the absence of any flag – that now you can ask any question);

- remove colleagues and visitors from your workplace (of course, these are cases when you did not expect a visit and you do not need to discuss any work issues with them). If someone comes to your office or approaches your workplace and you realize that such a conversation can take a long time, then politeness techniques that force to leave will help you to end it much faster – for example, stand up immediately and gently touch the shoulder of your partner to go out into the corridor, explain to him that you have to make some important calls right now and you do not want to disturb other employees, asking him to tell you the purpose of his visit before those calls. In such circumstances, the visitor will, of course, either tell you very briefly about what he contacted you about, or say that he will come at another time. In any case, your goal will be achieved – he will not stay with you and will not take your time for unnecessary conversations [7].

But internal distractions are a little more difficult to deal with than external ones – it's a matter of your own desire to be distracted. This is especially common when someone tries to procrastinate – whether consciously or not, but in any case, it significantly reduces productivity.

You can deal with internal distractions as follows:

- close the e-mail program (leave this window open only if you consciously spent time looking at e-mails and writing replies);

- turn off sound signals and pop-up windows (this is a source of endless interruptions at work, as well as your «rejections» to yourself, why you interrupt work and do what is not necessary);

- put the mobile phone on vibration mode and pick up the receiver only if you know who is calling, this call is important

to you and you are sure that the call will last no more than two minutes (if necessary, and the conversation is long, then take its time in advance according to her schedule) [8].

Saving variable working time has the most significant effect on increasing labor productivity.

Directions for increasing the productivity of the company personnel include: determining the value characteristics of personnel, finding reserves for their enhancement, defining the level of business activity of employees, improving the retraining system, and improving working conditions [10].

Analyzing the current economic situation at many domestic enterprises, the efficiency of the use of personnel has significantly decreased, which was reflected in the increase in the number of unemployed. After determining the criteria for the efficiency of staff use and its indicators, we outlined the main factors of effective personnel management at the enterprise. Therefore, the importance of further research in this area lies in the prospects of creating effective management methods to ensure more effective use of corporate personnel.

Unfortunately, since the 1980s, labor standards for many professions have not been restored in Ukraine. Therefore, they are irrelevant, irrational and ineffective, as they do not correspond to the technological processes of modern equipment. However, each organization can independently create its own standards for its employees. You can take as a basis the approved time standards for the performance of work, but if there are no standards for the required type of work, you can create them yourself. It's a very thorough job, and photos of employees at work can help set standards. For example, if we analyze the execution time of one operation

performed by several employees, we can obtain the upper and lower limits or the average execution time, which is accepted as a standard. Each manager can create his own work standards for his department and optimize its work. The established standards will also help in the organization of employee remuneration, compute the amount of work per employee and will be useful when calculating the required number of employees per department.

The effective use of working time, the correct choice of methods and methods of its implementation therefore have a positive effect on the economic activity of the enterprise.

Conclusions

Based on the above analysis, we can conclude that the working time is not used efficiently enough in the enterprise. There are violations of labor discipline, absenteeism, excessive use of working time for rest and personal needs, waste of working time in connection with waiting for equipment repair, etc. However, in order to increase the efficiency of the enterprise, it is necessary to improve the structure of the use of working time, it is required to reduce intra-shift and daily losses of working time: introduce organizational measures; increase labor discipline: follow safety rules; improve working conditions; carry out labor protection measures; reduce morbidity; eliminate absenteeism and idle equipment; to decrease delays with the permission of the administration to the planned level; to diminish non-exitances permitted by law to the planned level. All these measures will contribute to reducing the loss of working time, and therefore, saving the number of personnel of the organization will be achieved.

References

1. Akylov M.G., Drabanich A.V. and Evas T.V. (2012). *Ekonomika prasci I sotsialno-trydovi vidnosunu* – [Labor economics and social labor relations: textbook]. Kyiv : Center of educational literature. 328 p. [in Ukrainian]
2. Balabanova L. and Sardak O. (2016). *Ypravlinnja personalom* – [HR : textbook]. Kyiv : Professional. 511 p. [in Ukrainian]
3. Grishnova O.A. (2011). *Formyvannja jakosti Konkurentospromognist y sferi prasci* – [Formation of the quality of the workforce. Competitiveness in the field of labor : textbook] Kyiv, 2011. P. 117–126. [in Ukrainian]
4. Danulevich N. (2018). *Shljahu vdoskonalennja systemu motuvyvannja v proscesi ypravlinnja personalom pidpruemstva* – [Ways to improve the motivation system in the process of personnel management of the enterprise]. *Psychological dimensions of culture, economy, management* : scientific journal. Vol. 11. P. 102–118.
5. Dashko I.M. (2021). *Motuvauija personaly v sustemi ypravlinnja ekonomichnou efektuvnistu trudovux resyrsiv pidpruemstva* – [Motivation of personnel in the management system of the economic efficiency of labor resources of the enterprise]. *Tavriysk scientific bulletin. Series: Economy*. Vol. 10. P. 22–29.
6. Dashko I.M., Krulov D.V., Serova V.U. (2021). *Syshasni systemu ypravlinnja personalom* – [Modern personnel management systems]. *Financial strategies of innovative economic development*. Vol. 4(52). P. 121–128.
7. Kolomiets V.M. (2016). *Misce personaly v sustemi trydovux vidnosun pidpruemstva* – [The place of personnel in the system of labor relations of the enterprise]. *State and regions. Series: Economy and entrepreneurship*. Vol. 4. P. 169–171.
8. Levshenko O. (2020). *Jakist trydovogo potentsialy jak vuznachalna ymova konkurentospromognosti roboshoi sulu* – [The quality of the labor potential as a determining condition of the competitiveness of the workforce]. *Ukraine: aspects of work*. Vol. 6. P. 12–16.
9. Lisogor L.S. (2011). *Formyvannja konkurentospromognosti robosoi sulu na runky prasci Ukraine*. *Konkurentospromognist y sferi prasci* – [Formation of a competitive workforce in the labor market of Ukraine. Competitiveness in the field of labor : textbook]. Kyiv. P. 30–39. [in Ukrainian]
10. Cherep A.V., Scutikova L.V. (2013). *Metoduchni pidxodu do vukorustannja trydovux resyrsiv y vidpovidnosti z potentsijnumu moglivoostjamu pidpruemstva* – [Methodical approaches to the use of labor resources in accordance with the potential capabilities of the enterprise]. *Business-Inform*. Vol. 10. P. 253–257.

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THEORETICAL AND METHODOLOGICAL APPROACHES TO THE CLASSIFICATION OF COMPETITIVENESS AND ITS IMPACT ON THE NATIONAL SECURITY OF THE STATE

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It has been established that for many industry niches, not only the issue of increasing international competition of business entities is relevant, but also the raise in the number of internal competitors, as a result of the implementation of effective processes of an innovative nature, modernization, structural restructuring of business processes. It has been proven that another determining trend of competition processes at the level of business entities is the high pace of digitalization of the economy and technological changes, which are realized due to a significant reduction in the cycles of introducing innovative products and a significant change in the structure of relations between entities as a result of the introduction of digital platforms for the sale of goods and services and other IT technologies. The factors of competitiveness formation are added, taking into account the effect of factors on the distribution and use of resources, which, in turn, affect the level of competitiveness and national security of Ukraine. The classification features of competitiveness factors have been expanded, which will allow to determine the level of competitiveness and the main problems of activity, to strengthen competitive positions in the market, to form directions for improvement of activity and competitive advantages considering the national security of the state. Two groups of factors are distinguished, which have a greater influence on the level of competitiveness of products and, as a result, the level of national security of the state, to assess the competitive capabilities of products, product quality, the level of customer service, and the development opportunities of an individual enterprise within the limits of regional and national security of the state. A theory has been developed about the division of competitiveness factors into types of their consideration, which will strengthen the influence of positive factors and reduce the negative effect of some of them; will permit planning a high level of competitiveness in a given period in order to ensure the regional and national security of the state.

ТЕОРЕТИКО-МЕТОДИЧНІ ПІДХОДИ ДО КЛАСИФІКАЦІЇ КОНКУРЕНТОСПРОМОЖНОСТІ ТА ЇЇ ВПЛИВ НА НАЦІОНАЛЬНУ БЕЗПЕКУ ДЕРЖАВИ

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Встановлено, що для багатьох галузевих ніш актуальним є не лише питання зростання міжнародної конкуренції суб'єктів господарювання, але і зростання числа внутрішніх конкурентів, як результату впровадження

Ключові слова:

фактори,
конкурентоспроможність,
регіональна та національна
безпеки держави,
класифікація, ознаки, типи,
чинники, управління

ефективних процесів інноваційного характеру, модернізації, структурної перебудови бізнес-процесів. Доведено, що іншою визначальною тенденцією процесів конкуренції на рівні суб'єктів господарювання є високі темпи цифровізації економіки та технологічних змін, що реалізуються через значне зменшення циклів впровадження інноваційних продуктів та суттєву зміну структури відносин між суб'єктами внаслідок запровадження цифрових платформ для продажу товарів і послуг та інших ІТ-технологій. Доведено чинники формування конкурентоспроможності з урахуванням дії факторів на розподіл, використання ресурсів, які, в свою чергу, впливають на рівень конкурентоспроможності та національної безпеки України. Розширено класифікаційні ознаки факторів конкурентоспроможності, що дозволить визначити рівень конкурентоспроможності та основні проблеми діяльності, зміцнити конкурентні позиції на ринку, сформувати напрями покращення діяльності та конкурентні переваги з урахуванням національної безпеки держави. Виокремлено дві групи факторів, які в більшій мірі впливають на рівень конкурентоспроможності продукції і, як наслідок, рівень національної безпеки держави, що оцінити конкурентні можливості продукції, якість товару, рівень обслуговування клієнтів, можливості розвитку окремого підприємства в межах регіональної та національної безпеки держави. Розвинуто теорію про поділ факторів конкурентоспроможності на типи їх врахування, що підсилити вплив позитивних чинників та зменшити негативну дію окремих з них; дозволить планувати високий рівень конкурентоспроможності в заданому періоді задля забезпечення регіональної та національної безпеки держави.

The purpose of the article is research and development of the theory and methodology of classification of competitiveness and determination of its influence on the national security of the state.

Analysis of the latest researches and publications shows that competition at the level of an individual economic entity arouses the greatest interest among researchers. This is mainly due to a number of multifaceted problems faced by enterprises. One of the most important trends is the globalization of competition, which is realized through the mutual connection between the development of a business entity in the local market and the need to compete in this market with foreign competitors. The increase in the number of foreign competitors on the local market stimulates enterprises to compete with them through the compliance with the requirements of world markets, and also creates conditions for entering the markets of other countries.

It is necessary to note the factors of the formation of competitiveness, which were proposed by Ye.V. Holubko. [1, p. 29–32]. In particular, the scientists identified the main classification features of the factors of competitiveness formation.

Yemelianova I.V., who proposed a more detailed classification of competitiveness factors that are interconnected and have a tangible impact on the level of competitiveness of a business entity [2, p. 21–23].

Sokolovska A.M. studied the problematic issues of ensuring the competitiveness of tax systems and their impact on the national security of Ukraine [3].

Thus, the investigation of competitiveness is relevant in modern realities, and therefore it is advisable to consider this issue in more detail, because in the existing approaches there is no single opinion regarding the evolution and features of development, considering the impact of competitiveness on the national security of the state.

The results

The development and active implementation of technologies have not become the only trends that significantly affect the competitive positions of business entities. Another important factor that is gaining weight in the business environment is the quality of human capital and the qualifications of employees. Thus, in 2017, 24% of entrepreneurs in the Eurozone countries were concerned about the problem of personnel quality [4; 5], which demonstrates the importance of the problem. In addition, studies show a direct connection between the increase in the level of education of the population and the general growth of the economy at the macro level. Thereby, the rates of economic growth are higher in countries with a significant share of educated people, and the high-tech sector of modern industry is the foundation of the strategic advantages of national economies, where education and science are the basis. An increase in education funding by 1% leads to an increase in the country's GDP by 0.35% [6]. At the level of countries, this connection is manifested in the reduction of the unemployment rate, the growth of well-being and the formation of a number of positive changes of a non-economic nature in society.

Equally important in the analysis of the essence of competitiveness is the definition of influencing factors, its classification features, which is caused by the instability of the market environment, the raise in the level of competition, the deterioration of the performance indicators of enterprises, regions, and the state. In addition, strengthening of competitive positions in the market is possible under the condition of research of competitiveness factors for timely management and improvement of performance results in the future. So, the identification of competitiveness factors is expedient, both theoretically and practically.

In particular, the authors I.Z. Dolzhanskyi, T.O. Zahorna determined internal and external factors of competitiveness,

which were of a general nature. Among the internal factors, the following were highlighted: political; economic; legal support; production mechanism; provision of technology; staff productivity; the level of provision of resources. External factors include: innovative development; government control; development of new technologies; regulation of consumer demand; planning of activity results and their adjustment by state authorities; application of advertising measures [7, p. 32–40]. The above factors were defined by dividing them into those that are adjusted by enterprises and those that are determined by the state.

A broader classification of competitiveness factors was proposed by Mazilkina E.I. and Panichkina H.H., who also considered external and internal factors, but supplemented them with influencing factors [8, p. 203–208]. Thus, external factors were divided into: market, that is, the process of market pricing, the product sales system, the quality of goods and their purpose for a separate group of consumers, advertising measures; administrative (adjustment of product quality, supply of raw materials); technical (provision of modern equipment, production automation, product quality); structural, i. e. production control, personnel management, organization of activities, production of products in accordance with existing standards; resource (level of supply of raw materials, efficiency of use of raw materials). At the same time, among the factors such are singled out: the competitiveness of enterprises, the industry, the region, the state, the level of state aid, regulatory and legal support, the availability of information, the development of innovative activities, the availability of product sales markets. In our opinion, the authors have thoroughly analyzed the factors of competitiveness and identified those that have the greatest impact on strengthening competitive positions on the market. In addition, the authors attempted a specific approach to determining competitiveness factors at different levels of management. However, supranational levels of influence on competitiveness were not considered by the author, which in the conditions of globalization and the spread of digitalization of business processes requires additional elaboration.

A slightly different position regarding the classification of competitiveness factors was held by Ya.V. Khomenko and Reznikova O.S., who, on the basis of a thorough analysis of the existing classifications, proposed to divide them according to two classification features, namely: by the degree of influence on the level of competitiveness; by the level of changes in the conditions of globalization. According to the first feature, the factors of the competitiveness of enterprises were divided into: factors of moderate influence, that is, those that have a minor impact on the activity of the enterprise (level of ecology in the region, standardization of products, professionalism of personnel); factors of significant influence that considerably affect the level of competition (formation of prices for products on the foreign market, interaction with other enterprises, production efficiency, the share of obsolete equipment) [9, p. 159–160]. In keeping with the second feature, the following factors are determined: the factors are difficult to change, that is, the level of supply of

raw materials, competition, state control; flexible factors (product range, adjustment of the production process, degree of innovation and investment development, planning mechanism at the enterprise). Highlighting the above factors will allow not only to increase the level of competitiveness, but also contribute to the rational use of resources and the improvement of performance indicators.

An interesting approach was followed by Smolianova E.L. and Malyska V.B., who divided the factors into three groups, namely: mega level, i. e. control from the market; macro level, i. e. control is carried out by the state; micro level, i. e. there is control on the part of enterprises. At the micro level, among the main factors, the following were highlighted: the level of labor productivity; quality and range of products; level of marketing; personnel management process; production technology; speed of customer service; adjustment of product prices [10, p. 239–240]. Macro-level factors include: level of state regulation; economic development of the country; welfare of the population; innovative development and development of new technologies; political situation. At the mega level, the following factors are underlined: information support; scientific and technological progress; features of the international market; geographical location. The advantage of the given classification is taking into account not only the effects of factors at the level of the state and enterprises, but also the influence of factors of the international market. The authors did not distinguish the industry level and the level of clusters for the purpose of analyzing influencing factors.

Chernov V.V. and Tiulenieva Yu.V. summarized the existing approaches to the classification of competitiveness factors and proposed the following classification features: depending on the factors affecting the enterprise activity (internal, external); by the level of control (by the enterprise, the state, the international market); according as specialization (specialized, general); by the source of occurrence (artificially created, natural) [11, p. 301]. In our opinion, considering the factors selected by the authors will improve competitiveness, but only if they are properly taken into account and will contribute to the minimization of risks and the development of the enterprise as a whole.

Holubko Ye.V. [1, p. 29–32]. singled out the main classification features of the factors of competitiveness formation, namely: according to the time of action, temporary and permanent factors were determined, which allow to define the level of competitiveness; by the degree of interdependence – derived and independent factors arising from the action of certain events are distinguished; by the level of influence – on competitive positions on the market, secondary and main factors are determined that have a significant or less decisive influence on the level of competitiveness; depending on the expected consequences – specific, general, individual were established, which lead to changes in the activities of the subjects; according to the nature of the definition, actual and potential features were highlighted, which permit to achieve the desired level of competition; by the direction of action – stimulating and restraining factors regarding the level of competitiveness are singled out;

according to the nature of the action there are institutional, market, industrial; depending on the source of formation – technological, informational, managerial, resource-based; in keeping with the place of occurrence – internal and external (Fig. 1). In our opinion, this classification allows us to take into account the influence of factors on the distribution and use of resources, which in turn affect the level of competitiveness and national security of Ukraine.

An interesting approach was followed by I. Yemelianova, who proposed a more detailed classification of competitiveness factors that are interconnected and exert a tangible influence on the level of competitiveness of a business entity [2, p. 21–23]. The main classification characteristics of factors are shown in fig. 2, and make it possible to single out the main factors influencing the enterprise activity, to assess the influence of factors, to change the level of competitiveness.

Taking these factors into account will allow you to calculate the level of competitiveness, determine the main problems of activity, strengthen competitive positions on the market, form directions for improving activity and competitive advantages in order to ensure the national security of the state.

The group of authors Harbatsevych S.L. [12], A. Trubilina [13], Fathutdinova R.A. [14] held a similar opinion regarding the classification of factors of product competitiveness and defined in their works: external, internal factors (Fig. 3), combined all existing factors into two groups in order to determine those that have a greater influence on the level of product competitiveness and, as a result, the level of national security of the state.

Isolation of these factors made it possible to assess the competitive capabilities of products, product quality, level of customer service, development opportunities of an individual enterprise within the framework of regional and national security of the state.

Thus, based on the results of the analysis, we agree with the views of scientists regarding the division of competitiveness factors into external and internal. This position is explained by the fact that factors affect the level of competitive positions in the market, at the same time, internal factors can be adjusted, while external factors must be adapted or reacted to by forming new ones. Note that the factors of competitiveness must be taken into account in the activities of enterprises, since they affect the level of development and competition.

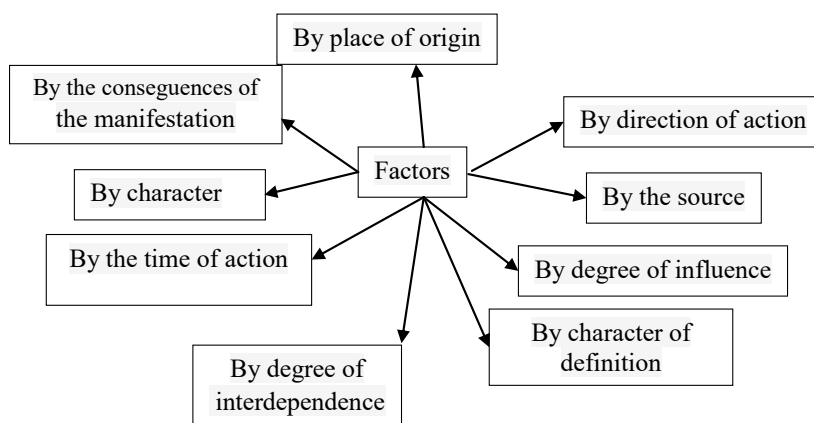


Fig. 1 – Factors of competitiveness formation

Source: built by the authors on the basis of [1, p. 31–32]

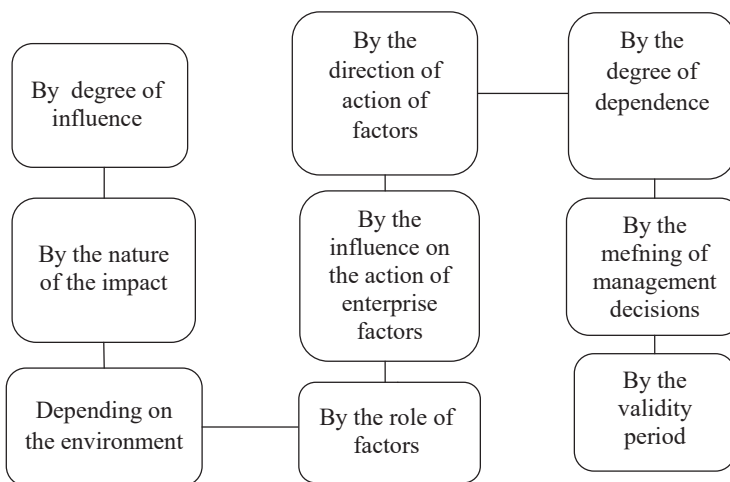


Fig. 2 – Classification features of competitiveness factors

Source: built by the authors on the basis of [12, p. 21]

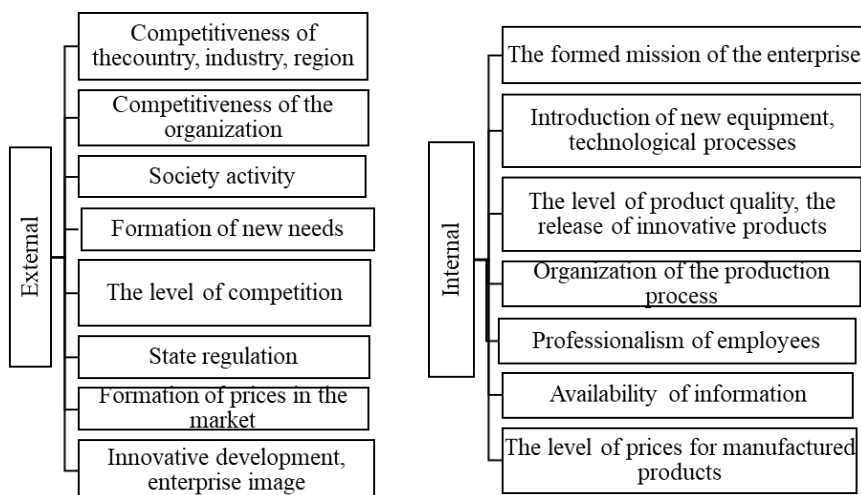


Fig. 3 – Factors of product competitiveness

Source: built by the authors on the basis of [12; 13; 14]

Yemelianov O. Yu., Musiiivska O.B. [2, p. 83–84] proposed some types of competitiveness (Fig. 4).

Taking into account the signs of types of competitiveness depending on the volume of manufactured products; way of realizing competitive advantages; by the term of realization of competitive advantages; according to the level of profitability will make it possible to determine the strengths of the enterprise and its capabilities to conduct a competitive struggle in order to ensure the regional and national security of the state.

Conclusion

It is substantiated that competitive strategies have become relevant on the market, both through the introduction of technological advantages into the production process, which permits to achieve an increase in productivity and a decrease in the cost of production, a raise in product

quality, and through the creation of an innovative product with qualitatively new or superior characteristics, which allows to ensure competitive advantages even if the price of the product is higher than that of competitors. It was determined that such competitive strategies are aimed at forming the ability of enterprises to adapt in conditions of rapid changes, optimize costs, ensure quality, as well as the ability to differentiate products in order to provide the maintenance of product sales markets and access to new markets in order to assure the national security of the state. It has been proven that today, the ability to offer a wide range of goods with clearly segmented consumer characteristics becomes a condition for effective activity and long-term and sustainable development of business structures at the regional and international levels, which guarantee s a high level of regional and national security of the state.

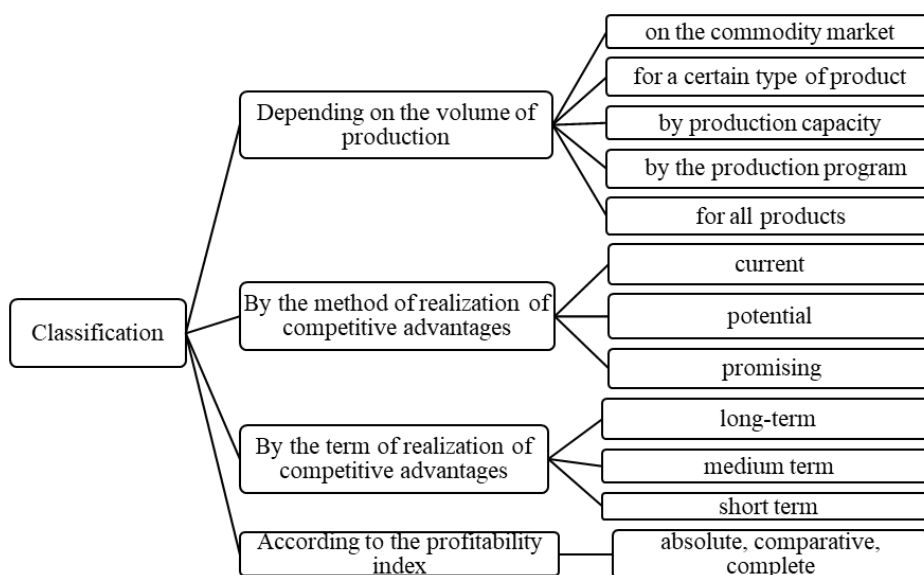


Fig. 4 – Types of enterprise competitiveness (micro level)

Source: built by the authors on the basis of [2, p. 83–84]

The main classification features of types of competitiveness are substantiated, among which there are: depending on the quality of the manufactured products, the range of goods, the competitiveness of the enterprise on the market was determined, according to a separate type of product, in keeping with all manufactured products, the production process, the level of production capacity; prospective, current, and potential competitiveness are distinguished according to existing competitive advantages and the process of their implementation; in terms of profitability – full, comparative and absolute competitiveness; according to the term of use of

competitive advantages – long-term, short-term, medium-term competitiveness. Taking into account the classification features given by the authors when determining competitive advantages will make it possible to define the strengths of the enterprise and its ability to compete in order to ensure the regional and national security of the state.

Also, considering the factors of competitiveness will allow to identify the strengths and weaknesses of the enterprise and products, to reduce the negative effect of certain factors, to evaluate, forecast, and increase the level of competitiveness in a given period in order to assure the regional and national security of the state.

References

1. Holubko Ye.V. (2011). The essence and meaning of the competitiveness of the enterprise. *Visnyk NTU «KhPI» University* : coll. of science works. No. 62. P. 28–33.
2. Yemeljanova I.V. (2010). Classification of competitiveness factors of agricultural enterprises. «Chhid» – an analytical and informative magazine. No. 2(102). P. 20–23. Available: <http://dspace.nbuv.gov.ua/handle/123456789/22025>
3. Sokolovska A.M. (2001). Tax system of Ukraine: theory and practice of formation: monograph / A.M. Sokolovska. K. : NDFI. 346 p.
4. Survey on the Access to Finance of Enterprises in the euro area. October 2017 to March 2018. URL: <https://www.ecb.europa.eu/pub/pdf/other/ecb.accessstofinancesmallmediumsizedenterprises201806.en.pdf?710aadd09e7d0036678df8612df91041>
5. Annual report on European SMEs (2017/2018). Brussels, 20 Nov 2018. URL: https://ec.europa.eu/growth/smes/business-friendly-environment/performance-review_en#annual-report
6. World economic outlook (1997). *International Monetary Fund*. Washington, D.C. : The Fund. 223 p.
7. Dolzhanskyi I.Z. and Zahorna, T.O. (2006). Competitiveness of the enterprise : tutorial for universities K. : CEL. 384 p.
8. Lozynska I.V. (2014). Modern approaches to the formation of competitiveness of products in the field of meat and dairy cattle breeding. *Business Inform*. No. 4. P. 203–208.
9. Khomenko Ya. V., Reznikova O.S. (2013). Factors of competitiveness of metallurgical enterprises in the conditions of globalization. *Academic Review*. No. 2(39). P. 154–161. Available: http://nbuv.gov.ua/UJRN/ao_2013_2_22
10. Sokolovska A.M. (2010). Basics of tax theory : tutorial / A.M. Sokolovska. K. : Condor. 326 p.
11. Chernov V.V., Tiulenieva Yu.V. (2012). Approaches to the classification of factors affecting the competitiveness of the enterprise and their systematization. *Modern problems of economy and entrepreneurship* : collection. of science works. Issue 10. P. 297–302. Available: <http://ela.kpi.ua/handle/123456789/4360>
12. Varnalii Z.S. (2015). Competition and entrepreneurship : monograph. K. : Knowledge of Ukraine. 463 p.
13. Trubylyn A., (2002). Competitiveness – the main factor of effective production. *APC: economy, management*. No. 12, P. 39–46.
14. Fathutdynov R.A. (2000). Competitiveness: economy, strategy, management : tutorial for technical and economical specialties. K. : Condor. 312 p.

ВИМОГИ ДО ОФОРМЛЕННЯ СТАТЕЙ У ФАХОВОМУ НАУКОВО-ПРАКТИЧНОМУ ЖУРНАЛІ «ФІНАНСОВІ СТРАТЕГІЇ ІННОВАЦІЙНОГО РОЗВИТКУ ЕКОНОМІКИ»

З № 2(42) 2019 року фаховий науково-практичний журнал «Фінансові стратегії інноваційного розвитку економіки» виходить лише англійською мовою. **Стаття подається до розгляду в редакцію українською мовою. Після проходження внутрішнього рецензування – обов'язкове надання перекладу статті англійською мовою.** Переклад має бути професійним, у жодному разі не використовуючи інтернет-перекладач.

До друку приймаються наукові статті обсягом від 10 сторінок, що відповідають тематиці серії видання й містять нові наукові результати, не опубліковані раніше. Виклад матеріалу статті має бути послідовним, логічно завершеним, із чіткими формулюваннями, що виключають подвійне тлумачення або неправильне розуміння інформації; мова тексту має відповідати літературним нормам, бути професійною і лаконічною. Автор зобов'язаний забезпечити високий науковий рівень викладеного матеріалу, повноту і системність висвітлення питання, достовірність результатів і даних, що наводяться, правильність цитування та посилань на літературні джерела. Редакційна колегія приймає до друку статті, які характеризуються оригінальністю, високою мірою наукової новизни і практичною значущістю.

1. МАКЕТ СТОРІНКИ

Для оформлення статті автор використовує формат А4 з полями з усіх боків – 2 см. Порядок абзацу виділяється відступом 1,25.

☞ *До уваги авторів:* У разі необхідності для шрифтових виділень у таблицях і рисунках дозволяється застосовувати шрифт Courier New (наприклад, для ілюстрації текстів програм для ЕОМ). Для стилістичного виділення фрагментів тексту слід вживати начертання *курсив*, **напівжирний**, *напівжирний курсив* зі збереженням гарнітури, розміру шрифту та інтервалу абзацу.

2. ТИПОГРАФСЬКІ ПОГОДЖЕННЯ ТА СТИЛІ

Текст статті, яка подається до розгляду та рецензування українською, має бути побудований за такою схемою:

- індекс УДК у верхньому лівому кутку аркуша (Times New Roman, 14 пт., звичайний);
- назва статті великими літерами (по центру, Times New Roman, 14 пт., напівжирний);
- ПІБ авторів (по центру, Times New Roman, 14 пт., звичайний);
- назва ЗВО (по центру, Times New Roman, 14 пт., курсив);
- повна адреса ЗВО або місця роботи автора (по центру, Times New Roman, 14 пт., курсив);
- адреса електронної пошти;
- ORCID (обов'язково);
- анотація (200–250 слів), яка містить стисле формулювання змісту статті (вирівнювання – по ширині сторінки, Times New Roman, 14 пт., звичайний);
- ключові слова (до 10 слів) (вирівнювання – по ширині сторінки, Times New Roman, 14 пт., курсив).

Після цього з абзацу викладається основний текст статті (вирівнювання – по ширині сторінки, Times New Roman, 14 пт., міжрядковий інтервал 1,5).

Структура основної частини рукопису українською мовою:

I. Постановка проблеми в загальному вигляді та її зв'язок з важливими науковими чи практичними завданнями.

II. Аналіз останніх досліджень і публікацій, у яких започатковано розв'язання даної проблеми і на які спирається автор (з обов'язковими посиланнями в тексті на використану наукову літературу!!!), виділення не вирішених раніше частин загальної проблеми, котрим присвячується стаття.

III. Формулювання цілей статті (постановка завдання).

IV. Виклад основного матеріалу дослідження з повним обґрунтуванням отриманих наукових результатів.

V. Висновки і перспективи подальших досліджень у даному напрямку.

VI. Література. Оформлюється відповідно до вимог Національного стандарту України ДСТУ 8302:2015.

**ЛИШЕ ПІСЛЯ ПРОХОДЖЕННЯ ВНУТРІШНЬОГО РЕЦЕНЗУВАННЯ
АВТОР НАДАЄ ПЕРЕКЛАД СТАТТІ АНГЛІЙСЬКОЮ МОВОЮ.**

Схема побудови англійської статті аналогічна українському варіанту:

- UDC у верхньому лівому кутку аркуша (Times New Roman, 14 пт., звичайний);
- назва статті великими літерами по центру (Times New Roman, 14 пт., напівжирний);
- ПІБ авторів (по центру, Times New Roman, 14 пт., звичайний);
- назва ЗВО (по центру, Times New Roman, 14 пт., курсив);
- повна адреса ЗВО або місця роботи автора (по центру, Times New Roman, 14 пт., курсив);
- адреса електронної пошти (по центру, Times New Roman, 14 пт., звичайний);
- анотація англійською мовою розширена (1800 знаків) (вирівнювання – по ширині сторінки, Times New Roman, 14 пт., звичайний);
- ключові слова (key words) – до 10 слів – (вирівнювання – по ширині сторінки, Times New Roman, 14 пт., курсив).

☞ *До уваги авторів:* після ключових слів англійською мовою необхідно надати цей блок інформації (крім УДК) також українською, вимоги до оформлення зберігаються.

Структура основної частини статті англійською мовою

(вирівнювання – по ширині сторінки, Times New Roman, 14 пт., міжрядковий інтервал 1,5)

I. Statement of the problem (Постановка проблеми).

II. Analysis of recent studies and publications (Аналіз останніх досліджень і публікацій).

III. Objectives of the article (Формулювання цілей статті).

IV. The main material of the research (Виклад основного матеріалу дослідження).

V. Conclusions (Висновки).

VI. References (Література), оформлюється за міжнародним бібліографічним стандартом. Приклади оформлення: <http://journalsofznu.zp.ua/References.pdf>

ВАЖЛИВО! Кожен рисунок включається до тексту у вигляді одного графічного об'єкта (положення об'єкта «В тексті»).

ДЛЯ ОПУБЛІКУВАННЯ СТАТТІ АВТОРУ НЕОБХІДНО:

надіслати на електронну пошту редакції збірника konf.econom.znu@gmail.com

1. Текст статті, оформлений відповідно до встановлених вимог.
2. Витяг із протоколу засідання кафедри з рекомендацією статті до друку (скан. копію).
3. Рецензію доктора або кандидата наук із відповідної галузі науки, завірену відповідним підписом та печаткою установи, яка є зовнішньою по відношенню до ЗНУ та установи, де працює автор (автори) статті (скан. копію).
4. Відомості про автора (авторів) у вигляді таблиці (бажано у файлі формату .xls):

П.І.Б.	ORCID	Назва закладу вищої освіти/установи	Назва кафедри/підрозділу	Посада	Науковий ступінь, вчене звання	Назва статті	К-сть стор.	Назва розділу, до якого підготовлена стаття	Контактний телефон	Електронна пошта	Поштова адреса (адреса, куди буде надіслано надрукований примірник)

Кожній статті, починаючи з № 4 2018 року, присвоюється DOI.

Адреса редакції фахового науково-практичного журналу «Фінансові стратегії інноваційного розвитку економіки»: Україна, 69600, м. Запоріжжя, МСП-41, вул. Жуковського, 66.

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(061) 228-76-13 – головний редактор – д.е.н., проф. Череп Алла Василівна (V корпус, кімн. 116).

Збірник наукових праць

**ФІНАНСОВІ СТРАТЕГІЇ
ІННОВАЦІЙНОГО РОЗВИТКУ ЕКОНОМІКИ**

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