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Key words:

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The article investigates the issues of improving the quality of pipe products by improving the methods of surface preparation before applying a protective coating. The value of product quality of the production enterprise in the context of pipe production is considered. It is established, that the most important in most situations are specific proposals to improve the quality of pipe products. The quality of pipe products refers to the pipe industry, which worldwide belongs to the industries that are characterized by stable requirements for product quality, its types and range. Naturally, the buyer prefers those manufacturers whose pipe products, other things being equal (price, appearance, prompt delivery, etc.) have increased consumer properties – strength, durability, accuracy, and so on. The main consumers of pipe products – the basic industries – mechanical engineering, automotive, construction, mining, etc. In the near future, ferrous metallurgy products have no competitors and no real substitutes. Requirements for pipe metal products (in terms of mechanical properties, corrosion resistance, absence of defects, etc.) are constantly expanding. One of the most important areas of optimizing the quality of pipe products at the studied enterprise is the proposal to implement an investment project to purchase a plant for cleaning the outer surface of pipes with mechanization. The economic effect of the project implementation and comparison of manufactured pipes with anti-corrosion coating stored in the port and in the conditions of PRS № 2 is considered. Calculations of the project implementation at the enterprise LLC “INTERPIPE NIKO TUBE” were made. The calculations of financial and economic indicators in accordance with the internal requirements of the enterprise in the preparation of such projects for implementation.

ПІДВИЩЕННЯ ЯКОСТІ ТРУБНОЇ ПРОДУКЦІЇ ЗА РАХУНОК ВДОСКОНАЛЕННЯ МЕТОДІВ ПІДГОТОВКИ ПОВЕРХНІ ПЕРЕД НАНЕСЕННЯМ ЗАХИСНОГО ПОКРИТТЯ

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Ключові слова:

захисне покриття,
конкурентоспроможність,
проект, система управління
якістю, трубна продукція,
управління якістю, якість.

У статті досліджуються питання підвищення якості трубної продукції за рахунок вдосконалення методів підготовки поверхні перед нанесенням захисного покриття. Розглянуто значення якості продукції виробничого підприємства в розрізі виробництва труб. Встановлено, що найважливіше значення в більшості ситуацій мають конкретні пропозиції щодо підвищення якості трубної продукції. Якість трубної продукції відноситься до трубної промисловості, яка у світовому масштабі належить до виробничих галузей, які характеризуються стійкими вимогами до якості продукції, її видів і сортаменту. Природно, що покупець віддає перевагу тим виробникам, чия трубна продукція за інших рівних умов (ціна, товарний вигляд, оперативність поставки, та інше) має підвищені споживчі властивості – міцність,

довговічність, точність і тощо. Основні споживачі трубної продукції – базові галузі промисловості – машинобудування, автомобілебудування, будівництво, добувна промисловість та ін. На найближчу перспективу у продукції чорної трубної металургії немає конкурентів і немає реальних заміників. Вимоги до трубної металопродукції (в частині механічних властивостей, корозійної стійкості, відсутності дефектів та ін.) постійно розширюються. Один із найважливіших напрямків оптимізації якості трубної продукції на досліджуваному підприємстві є пропозиція реалізувати інвестиційний проєкт щодо придбання установки очищення зовнішньої поверхні труб з механізацією. Розглянуто економічний ефект від реалізації проєкту і порівняння виготовлених труб з антикорозійним покриттям на зберіганні в порту і в умовах ТПЦ № 2. Здійснено розрахунки впровадження проєкту на підприємстві ТОВ «ІНТЕРПАЙП НІКО ТЬЮБ». Проведено розрахунки фінансово-економічних показників згідно з внутрішніми вимогами даного підприємства при підготовці таких проєктів до впровадження.

Formulation of the problem

The development of market relations in Ukraine is impossible without efficient and stable economic development, which primarily depends on the production of competitive products. This is an indicator of the activity not only of individual enterprises, but also of the country's economy as a whole. One of the most important factors that determine the success of the enterprise and ensure the competitiveness of its products is its high quality, which must meet not only domestic but also international standards. The quality of metallurgical products, without which the existence of mankind is impossible, primarily depends on the quality of raw materials from which it is made. That is why in order to conquer international markets and ensure the appropriate competitiveness of metallurgical products in domestic markets, it is necessary to constantly monitor the improvement of its quality, which is the key to the successful operation of enterprises. Improving product quality is one of the most important areas of intensive development of the country's economy, a source of economic growth, efficiency of social production. In a market economy, the problem of quality is the most important factor in improving living standards, economic, social and environmental security. Quality is a complex concept that describes the effectiveness of all areas of the enterprise, namely: strategy development, production organization, marketing and more. First of all, the level of development of the enterprise and the size of its profit depends, on quality of production. It is fundamentally important for each company to constantly improve the level of quality. The success of individual companies in foreign and domestic markets depends entirely on how well their products meet quality standards. Therefore, ensuring and improving product quality is relevant for all enterprises. The success and efficiency of the enterprise and, as a result, the national economy as a whole depend on the solution of these problems.

Analysis of recent research and publications

General theoretical, methodological and practical issues on the problem of quality management were considered by domestic scientists, as: V.G. Vasilkov [1], S.O. Gutkevich, M.D. Korinko, Y.M. Safonov, D.V. Solokha, L.A. Punchak, O.V. Belyakova [2], O.C. Ivanilov [3], G.I. Kapinos, I.V. Babiy [4], M.M. Parkhomenko [5].

S.O. Gutkevich, M.D. Korinko, Y.M. Safonov, D.V. Solokh, L.A. Punchak, O.V. Belyakova believe that quality is an international category, which has two components: technical, which is formed in the production process and characterizes the technical level of production (reliability), and economic, which is determined by the price and cost of quality assurance (efficiency).

Ivanilov O.S. argues that the economic category of "quality" is a public assessment, characterized by the degree of satisfaction of consumer needs in certain conditions of consumption of a set of properties that are openly expressed or potentially embedded in the product.

Formulation of goals

The purpose of the article is to substantiate the project of improving the quality of pipe products by improving the methods of surface preparation before applying a protective coating on LLC "INTERPIPE NIKO TUBE".

Presentation of the main research material

The main problem of the quality of the ultraviolet coating, and the quality of production of pipes, applied in the pipe rolling shop № 2 (PRS2) of the company LLC "INTERPIPE NIKO TUBE" today, is the unstable adhesion of the coating of the final product. The degree of adhesion is evaluated according to ISO 2409 on a scale from 0 points (best adhesion) to 5 points (no adhesion). In fact, when coating a unprepared surface, a different degree of adhesion is obtained from a score № 1 to a score № 5, depending on the surface condition of a particular batch of pipes. At the same time on parts of pipes, which show at control at factory satisfactory adhesion, in the course of the subsequent short transportation there is a peeling of a covering. The main factors that have a significant impact on the degree of adhesion:

- the presence of oil and grease contaminants on the metal surface (residues lubricating and cooling fluids used in the processing of pipes);
- the presence of dust on the metal surface and more.

To ensure guaranteed coating quality, the metal surface must be prepared. International standards governing the application of coatings consider various methods of

surface preparation, including: abrasive blasting (shot blasting and sandblasting), chemical cleaning, mechanical cleaning, plasma cleaning, etc. The effectiveness of various methods of surface preparation were carried out on the line SELMERS “INTERPIPE NMTZ” in the processing of pipes with a size of 323.8x10.31x11000 mm, brand Gr. B, smelting № 1200716, pipes rolled on 26.02.2020 in PRS2 LLC “INTERPIPE NIKO TUBE”. During the work, two alternative methods of surface cleaning were compared:

- jet alkaline cleaning of high pressure;
- shot blasting.

The evaluation of the results was performed by the following methods:

- the presence of fat and oil contamination - by wetting;
- degree of dust – by the method of adhesive tape according to ISO 8502-3;
- the degree of corrosion damage to the surface – visually by comparison with the scales according to ISO 8501-1;
- the presence of water-soluble salts on the surface – according to ISO 8502-6 and conductometric method according to ISO 8502-9.

Due to the fact, that in the condition after rolling the amount of dust on the pipes exceeds the maximum estimated according to ISO 8502-3 pollution point № 4, to obtain a quantitative assessment, the control method was adapted. Measurement of the amount of dust on the surface of the pipes was performed by repeated sequential gluing of adhesive tape on the same section of the pipe until the

amount of dust adhering to the tape became much less than the original. The number of prints and their appearance assessed the final degree of contamination.

The following project implementation options were considered:

- line for cleaning the outer surface of the pipe with detergents and brushes (pipe washing) with mechanization;
- installation of a shredding line (9 chambers, 18 devices) with mechanization;
- installation of a shot-cleaning line (2 chambers, 4 devices) with mechanization;
- installation of a shredding line (1 chamber, 2 devices) with mechanization.

Implementation of the project involves the purchase and installation of equipment in front of the pipe finishing line in PRS № 2, according to the proposed configuration: purchase of cleaning the outer surface of pipes with mechanization (main (2 chambers, 4 devices) and auxiliary equipment), construction work by the contractor, dismantling, installation work on the project by employees of LLC “INTERPIPE NIKO TUBE”, commissioning and training of personnel by the company-supplier of equipment for cleaning the outer surface of pipes, closing the application of water-soluble varnishes, project implementation aimed at ensuring product quality.

Given the condition of the surface of the pipes before processing on the finishing line in the PRS № 2, the level of adhesion does not guarantee high-quality application of anti-corrosion coating. In the table 1 shows the effect of

Table 1 – Effect of the project

Losses from the transfer of a suitable PR5 during the repair of pipes	Units measurement	2021	2022	2023	2024	2025	2026	Total (2021–2026)
Sorting of pipes at the enterprise with transfer to PR5 (assortment of PRS № 2)	t	330	1321	1321	1321	1321	1321	6 937
The difference in the price of finished products / PR5 (assortment PRS № 2)	\$/t	256	256	256	256	256	256	1 533
Sorting of pipes at the enterprise with transfer to PR5	\$/year	84 405	337 618	337 618	337 618	337 618	337 618	1 77 2495
Sorting of pipes in the port and return at the enterprise with transfer to PR5 (assortment of PRS № 2)	T	95	378	378	378	378	378	1 986
The difference in the price of finished products PR5 (assortment PRS № 2)	\$/t	303	303	303	303	303	303	1815
Sorting of pipes in the port and return at the enterprise with transfer to PR5	\$/year	28 603	114 411	114 411	114 411	114 411	114 411	600 660
Sorting of pipes in the port and their repair in the USA (assortment of PRS № 2)	t	193	772	772	772	772	772	4051
The weighted average cost of repairing pipes in the United States (range PRS № 2)	\$/t	185	185	185	185	185	185	1 108
Sorting pipes in the port and repairing them in the United States	\$/year	35 629	142 514	142 514	142 514	142 514	142 514	748 199
Sorting of pipes in port and their repair in Ukraine (assortment of PRS № 2)	t	151	605	605	605	605	605	3 175
Weighted average cost of pipe repair in Ukraine (assortment of PRS № 2)	\$/t	137	137	137	137	137	137	821
Sorting of pipes in the port and their repair in Ukraine	\$/year	20 697	82 788	82 788	82 788	82 788	82 788	434 637
Total sorted at the enterprise	t/year	330	1 321	1 321	1 321	1 321	1 321	1 321
Total sorted in ports	t/year	439	1 755	1 755	1 755	1 755	1 755	9 211
Together sorted from lack of LFP	t/year	3 076	3 076	3 076	3 076	3 076	3 076	16 148
Total financial losses	t/year	169 333	677 332	677 332	677 332	677 332	677 332	3 555 991

project implementation and comparison of manufactured pipes with anti-corrosion coating stored in the port and in the conditions of PRS № 2. Indicators of financial efficiency of the project are shown in table 2, 3 and pic.1.

Depending on the requirements of standards and orders, the production of pipes in the PRS № 2 is performed in accordance with the standard routes established at the enterprise. Thus the main stream of production passes the basic technological operations: entrance control of receipt of preparation; cutting the workpiece to rolling lengths;

heating the workpiece, flattening the pipes on PRA 350; control of pipes on the Foerster installation; cutting of pipes on Reika TOC; visual and instrumental control of the tightness test; chamfer cutting.

The final processing of export pipes is carried out on the line of finishing of pipes LLC “VNT” on which the following operations are carried out:

- control of conformity of steel grades by spectral method;
- visual control of pipes, selective control of geometrical parameters;

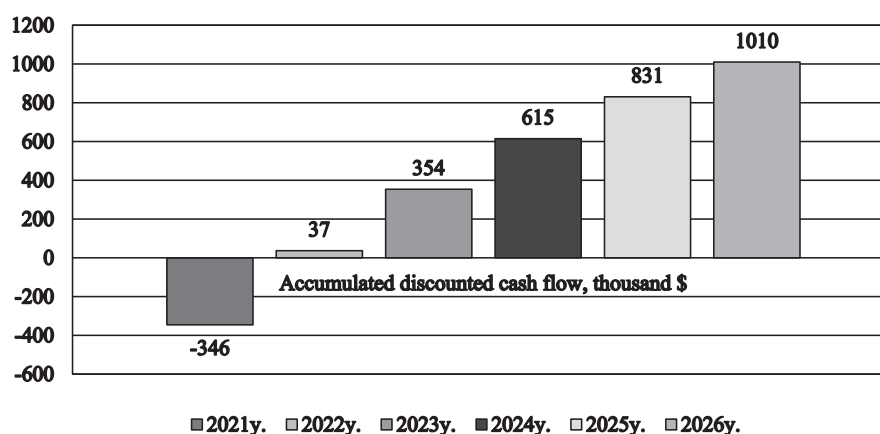
Table 2 – Indicators of financial efficiency of the project

Indicator	2021	Years of project implementation				
		2022	2023	2024	2025	2026
Investments, thousand \$	(468)	–	–	–	–	–
CAPEX	(363)	–	–	–	–	–
HP	(105)	–	–	–	–	–
Total project income, thousand \$	169	677	677	677	677	677
Losses from the production of pipes with poor external coating, thousand \$	169	677	677	677	677	677
Total project costs, thousand \$	(20)	(122)	(122)	(122)	(122)	(122)
The cost of cleaning pipes before painting, thousand \$	(20)	(122)	(122)	(122)	(122)	(122)
Net income before depreciation, interest, incl. and income tax (EBITDA), thousand \$	149	555	555	555	555	555
Depreciation, thousand \$	–	(47)	(47)	(47)	(47)	(47)
Net income before taxes (EBT), thousand \$	149	508	508	508	508	508
Income tax, thousand \$	(27)	(91)	(91)	(91)	(91)	(91)
Net Income, thousand \$	122	417	417	417	417	417
Depreciation, thousand \$	–	47	47	47	47	47
Net cash flow, thousand \$	(346)	464	464	464	464	464
Net discounted cash flow, thousand \$	(346)	383	317	262	216	179
Accumulated discounted cash flow, thousand \$	(346)	37	354	615	831	1010

Table 3 – The main indicators of project effectiveness

Indicator	Value
The cost of capital	21,0%
Investment capital, thousand US dollars	468
NPV, thousand US dollars	1010
PI	3,16
DPP, years	0,9
Internal rate of return (IRR),%	132%

Project effectiveness



Pic. 1. Project effectiveness

- measuring the length and weighing of each pipe;
- marking of pipes;
- heating of pipes;
- application of anti-corrosion coating with UV varnish (if necessary);
- packing and packing of pipes.

As a result of the work and discussion at the enterprise, the optimal configuration of the project of acquisition of the installation of cleaning of an external surface of pipes with mechanization (the main (2 chambers, 4 devices) and auxiliary equipment) was defined.

The installation of new equipment will clean the surface of pipes that need to be covered with UV varnish from rust, peeling scale and dust.

Thus, the following sequence of technological operations in the line of finishing of pipes is offered:

- shot blasting of the outer surface of the pipes (if necessary, to order, which require coating with UV varnish);
- control of conformity of the steel brand by spectral method;
- visual control of pipes, selective control of geometrical parameters;
- measuring the length and weighing of each pipe;
- marking of pipes;
- heating of pipes;
- application of anti-corrosion coating with UV varnish (if necessary);
- packing and packing of pipes.

The technology of processing pipes that do not require the application of UV varnishes, because of the project does not change (crane pipes will be placed on the existing table loading the finish line).

The main purpose of the equipment: preparation of the outer surface of the pipes for the application of UV varnish.

The budget of the project is formed on the basis of the offer of LLC NVF “Tekhvagonmash” (4 devices), thus the choice of the company of the supplier of the equipment will be executed within the limits of the established tender and purchasing procedures of the Company.

Implementation of the project involves the purchase and installation of equipment in the line of finishing of pipes in PRS № 2, according to the proposed configuration:

- purchase of an installation for cleaning the outer surface of pipes with mechanization (main (2 chambers, 4 devices) and auxiliary equipment);
- execution of construction works by the contractor;

- performance of dismantling, installation works on the project by employees of LLC INTERPIPE NIKO TUBE;
- commissioning and training of personnel by the supplier of equipment for cleaning the outer surface of pipes;
- closing the area of application of water-soluble varnishes.

Conclusions

This article considers the problem of the quality of ultraviolet coating of pipes at the company LLC “INTERPIPE NIKO TUBE”. The problem of unstable adhesion of the final product coating causes huge financial losses to the company. Factors that significantly affect the degree of adhesion are the presence of oil and grease contaminants on the metal surface and the presence of dust on the surface. The implementation of the project is proposed, which provides for the purchase and installation of equipment in front of the pipe finishing line in the pipe rolling shop (PRS № 2) LLC “INTERPIPE NIKO TUBE”, according to the proposed configuration: purchase of cleaning the outer surface of pipes with mechanization. The article shows the effect of the project implementation and comparison of manufactured pipes with anti-corrosion coating stored in the port and in the conditions of PRS № 2. As a result of the work and discussion, the optimal configuration of the project was determined at the enterprise, the purchase of the installation of cleaning the outer surface of the pipes with mechanization (main (2 chambers, 4 devices) and auxiliary equipment). Implementation of the project to install new equipment will provide a significant economic effect, reduce future costs and improve the quality of pipes in production, including and provide high-quality cleaning of the surface of pipes that need to be covered with UV varnish, from rust, peeling from scale and dust. The technology of processing pipes that do not require the application of UV varnishes, as a result of the project does not change (crane pipes will be placed on the existing table loading the finish line). The main purpose of the equipment is to prepare the outer surface of the pipes for the application of UV varnish.

First of all, the solution to the problem of improving product quality at the company i, its high image among customers, it is access not only to domestic but also to foreign markets, it is the basis for maximum profit and stable financial position, which determines the prospects for further research.

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DOI <https://doi.org/10.26661/2414-0287-2021-2-50-02>**METHODS OF EVALUATION OF EFFICIENCY OF THE ENTERPRISE****Chazov Y.***Zaporizhia National University
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zhenyavarenaya@gmail.com***Key words:**

efficiency, economic efficiency, efficiency indicators, approaches to evaluation of enterprise efficiency.

The article provides a definition of efficiency, from an economic point of view. The general classification of efficiency indicators used for business evaluation is reflected. They, in turn, are divided at the level of qualifications: The level of economic activity, cost ratio, method of calculation, completeness of the components of costs and results, the object of evaluation, the stage of calculation, the method of calculation. The characteristic concerning each qualification sign is given. The main approaches to assessing the effectiveness of the enterprise are reflected. They are divided into: the classical approach, the concept of sustainable economic growth and modern theory of financial management. The characteristics of each of the approaches are given. It is concluded that the combination of these approaches and the identification of criteria that reflect the efficiency of the enterprise, but are not reflected in the main approaches to assessing the effectiveness of the enterprise.

МЕТОДИ ОЦІНКИ ЕФЕКТИВНОСТІ ПІДПРИЄМСТВА**Чазов Ю.В.***Запорізький національний університет
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ефективність, економічна ефективність, показники ефективності, підходи до оцінки ефективності підприємства.

У статті наведено визначення ефективності з економічної точки зору. Відображено загальну класифікацію показників ефективності, що використовуються для оцінки бізнесу. Вони, в свою чергу, поділяються за рівнем кваліфікації: Рівень економічної активності, коефіцієнт витрат, спосіб розрахунку, повнота складових витрат і результатів, об'єкт оцінки, стадія калькуляції, метод калькуляції. Дається характеристика щодо кожного кваліфікаційного знака. Відображено основні підходи до оцінки ефективності діяльності підприємства. Вони поділяються на: класичний підхід, концепцію сталого економічного зростання та сучасну теорію фінансового управління. Наведено характеристики кожного з підходів. Зроблено висновок, що поєднання цих підходів та визначення критеріїв, що відображають ефективність діяльності підприємства, але не відображаються в основних підходах до оцінки ефективності діяльності підприємства.

Statement of the problem

Economic efficiency is one of the main categories associated with achieving the strategic goal of enterprise development. The main problem in assessing and applying the means of improving the economic efficiency of enterprises is to obtain the best financial results, provided the most efficient use of all available resources. With the development of market relations determines the specifics of the operation of enterprises, as the level of risk increases, competitiveness increases, allows to adapt to economic changes. In order to survive in these conditions, increase their efficiency and competitiveness in a particular market and search for new ones. The efficiency of the enterprise should be based on achieving

the optimal level of costs, while ensuring the appropriate quality of goods or services.

Analysis of recent studies and publications

This question was studied by such scientists as Rogulenko T.M., Pozov D.A., Sharkova A.V., Kilyachkov A.A., Markina E.V., Dashkov, B.A. Reisberg and others. The essence of "effectiveness" and "efficiency" is revealed in the works of these scientists. Others define the criteria and systems of production efficiency indicators.

The main material of the research

The attractiveness of entrepreneurial activity depends on the degree of satisfaction of its results by people who

invest in a particular business. Each investor has his own goals and preferences, expects a certain end result, opening his own business. In general, the more a business meets the needs of an investor, the more efficient it is.

The very concept of “efficiency” is interpreted by different authors depending on its scope. From an economic point of view, efficiency is the ratio of result indicators (effect) and costs (or the sum of resources) used to achieve it (table 1) [1].

Consider another definition of “efficiency” – the relative effect, effectiveness of the process, operation, project, defined as the ratio of effect, result, to costs, the costs that caused it to ensure its receipt [1].

Thus, economic efficiency reflects the relationship between performance and costs incurred for its implementation.

The general classification of indicators used to assess business performance is given below [2].

The system of global indicators covers the macro level, and local ones reflect the efficiency of specific enterprises.

It should be noted that different approaches are used to assess economic efficiency, which can be combined into cost and resource (fig. 1).

The cost approach comes down to the fact that when calculating the performance indicators, the result is correlated with the cost of resources aimed at obtaining this result.

The resource approach involves comparing the result not with the amount of resources expended, but with the cost of resources used in the process of obtaining the result.

The system of absolute indicators shows the natural and cost expression of the obtained result. Relative indicators characterize the quality or level of return on resources used and costs incurred.

Table 1 – Classification of enterprise efficiency indicators

Classifications	Types of indicators
Level of economic activity	Global
	Local
Cost ratio	Expensive
	Resource
Method of calculation	Absolute
	Relative
Completeness of component costs and results	Generalizing
	Partial
Object of evaluation	Resource efficiency
	Efficiency of capital expenditures
	Efficiency of innovations
	Efficiency of operation, agreement, project
	The efficiency of the enterprise as a whole, or its individual components (production, commercial, financial, investment)
Calculation stage	Design
	Planned
	Actual
Method of calculation	Straight
	Reverse

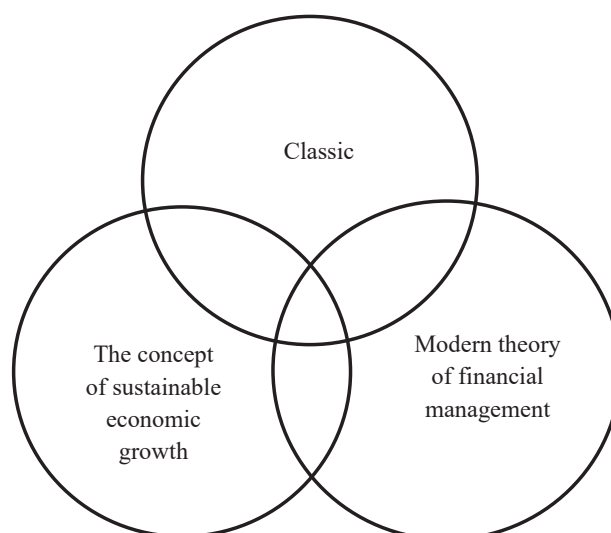


Fig. 1. Basic approaches to assessing the efficiency of the enterprise [3]

Summary indicators characterize the efficiency of the business as a whole, and take into account the overall results and the amount of resources consumed.

Private indicators characterize the level of return of any specific resource, process, unit, etc.

In the process of financial management of the business should predict its effectiveness in the future, set planned current parameters and evaluate the actual results of activities.

Direct and inverse indicators are characterized by differences in calculation. Direct assumes the comparison of the result to the costs (level of return), and inverse – the costs to the amount of the result (the level of resource consumption).

Each of the above groups includes specific indicators that are criteria for assessing business performance.

As key indicators that traditionally characterize the efficiency of the enterprise, we can distinguish the following – profitability, cost level, return on assets, turnover ratio, capital intensity, productivity, and others.

The development of economic science and practice contributes to the improvement of tools for evaluating and managing business efficiency.

Conclusions

The classical approach to efficiency assessment is based on the entrepreneur's focus on the end result in the form of profit. In essence, this is an accounting approach based on the analysis of financial statements. The key performance indicators here are profitability indicators. This approach is quite justified, although it has its drawbacks due to the

fact that current profits are not always able to provide the desired pace of business development.

The concept of sustainable economic development of the enterprise provides a focus on maintaining its stability at all stages of the planned strategy. This approach places more emphasis on maintaining the company's position and minimizing possible risks, ie its economic security.

The modern concept of financial management tends to increase the return on capital from investing in a particular business, taking into account all possible sources of its profitability. That is, in addition to current profitability and indicators that characterize financial stability, the end result is taken into account, which reflects the actual efficiency of entrepreneurial activity – the value of the business. Under effective financial management, the company's value will show steady growth, providing a decent return on investment. This approach is costly.

In this regard, it is obvious that the modern approach to evaluating and managing the efficiency of the enterprise should include not only the traditional set of indicators characterizing the overall results and costs, level of return and consumption of resources, but also the dynamics of business value as a key criterion for evaluating its efficiency.

The combination of cost and accounting approaches allows not only to reflect the state of the business, which is assessed on the basis of internal reporting and information, but also its strategic perspectives, taking into account the presence of external factors and indicators. This comprehensive approach is able to give the most objective view, both business owners and other categories of users interested in this information.

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DOI <https://doi.org/10.26661/2414-0287-2021-2-50-03>**RETROSPECTIVE AND PERSPECTIVE ANALYSIS
OF INNOVATIVE DEVELOPMENT OF ENTERPRISES****Cherep A.V., *Chernikova N.M.***Zaporizhzhia National University**Ukraine, 69600, Zaporizhzhia, Zhukovsky Street, 66***Poltava State Agrarian Academy**Ukraine, 36003, Poltava, Skovoroda Street, 1/3*

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Key words:

innovations, innovative development, innovative development of enterprises, retrospective and perspective analysis, priority directions, strategies of innovative development.

The article presents the results of retrospective and prospective analysis of innovative development of enterprises. This research was conducted to study past experience on the selected theme and predict, on this basis, the further development of innovations. In particular, the theoretical issues of innovative development of enterprises, the state of the legal framework in this area, the interpretation of this definition by domestic and foreign scientists of different times are studied. Prerequisites for effective innovative development of enterprises are established. An analysis of the main indicators of innovative development of enterprises is performed, which shows a negative trend over the past ten years, both in terms of the number of researchers and innovation-active enterprises, the level of their funding, and the number of implemented innovative products and processes. The discrepancy between the actual indicators of innovative development of enterprises and planned in the Strategy of Innovative Development of Ukraine for the period 2013–2020 has been established. The peculiarities, obligatory conditions and priority directions of innovative development of enterprises in modern conditions are determined. The experience of developed countries is studied in supporting and stimulating business to actively implement innovations and a set of measures on the prospects of such development in Ukraine is given. The interrelation of innovative development of enterprises with the main directions of digitalization is established. The main elements of the strategy of innovative development of enterprises are revealed and its perspective directions are offered. Based on the existing opportunities and obstacles to the innovative development of enterprises, a conclusion is made about the need and importance of this issue in modern business conditions.

**РЕТРОСПЕКТИВНИЙ І ПЕРСПЕКТИВНИЙ АНАЛІЗ
ІННОВАЦІЙНОГО РОЗВИТКУ ПІДПРИЄМСТВА****Череп А.В., *Чернікова Н.М.***Запорізький національний університет**Україна, 69600, м. Запоріжжя, вул. Жуковського, 66***Полтавська державна аграрна академія**Україна, 36003, м. Полтава, вул. Сковороди, 1/3*

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Ключові слова:

інновації, інноваційний розвиток, інноваційний розвиток підприємств, ретроспективний та перспективний аналіз, пріоритетні напрямки, стратегії інноваційного розвитку.

У статті представлені результати ретроспективного та перспективного аналізу інноваційного розвитку підприємств. Це дослідження було проведене для вивчення минулого досвіду з обраної теми та прогнозування на цій основі подальшого розвитку інновацій. Зокрема, вивчаються теоретичні питання інноваційного розвитку підприємств, стан законодавчої бази в цій галузі, тлумачення цього визначення вітчизняними та зарубіжними вченими різних часів. Встановлено передумови для ефективного інноваційного розвитку підприємств. Проведено аналіз основних показників інноваційного розвитку підприємств, який показує негативну тенденцію за останні десять років як

за кількістю дослідників, так і за інноваційно активними підприємствами, рівнем їх фінансування та кількістю впроваджених інноваційні продукти та процеси. Встановлено розбіжність між фактичними показниками інноваційного розвитку підприємств та запланованими у Стратегії інноваційного розвитку України на період 2013–2020 років. Визначено особливості, обов'язкові умови та пріоритетні напрями інноваційного розвитку підприємств у сучасних умовах. Вивчається досвід розвинутих країн щодо підтримки та стимулювання бізнесу до активного впровадження інновацій та наводиться комплекс заходів щодо перспектив такого розвитку в Україні. Встановлено взаємозв'язок інноваційного розвитку підприємств з основними напрямками цифровізації. Розкрито основні елементи стратегії інноваційного розвитку підприємств та запропоновано її перспективні напрямки. На основі існуючих можливостей та перешкод для інноваційного розвитку підприємств робиться висновок про необхідність та важливість цього питання в сучасних умовах ведення бізнесу.

Formulation of the problem

What prevents domestic enterprises from becoming more innovative? Why does the innovation component remain very low nationwide? Today, many domestic scientists and practitioners are trying to find answers to these and other questions. And, in fact, the importance of innovative direction of enterprise development to increase its efficiency has already been proven by science and practice. However, considering the innovative development of enterprises as a result of innovation, we understand that it depends on the environment in which transformations take place, namely, on the factors of political, social, economic, legal, international, market, demographic nature, which are constantly changing. In the conditions of fleeting changes, it is difficult to make forecasts, but the retrospective and perspective analysis of innovative development of enterprises will help to understand the available opportunities and obstacles of such development, to predict further events based on past and present experience.

Purpose formulation

The purpose of the article is to establish promising ways of innovative development of enterprises on the basis of a retrospective analysis on this issue.

Analysis of recent researches and publications

Many scientific works of both domestic and foreign scientists are devoted to the innovative development of enterprises, namely: J. Schumpeter, M. Tugan-Baranovsky, M. Kondratiev, G. Mensha, M. Dyba, K. Freeman, D. Clark and L. Soete, L. Kobryn, L. Voloshchuk, E. Kuznetsov and others. The authors pay a lot of attention to the world experience on this issue; explore the theoretical, legal and methodological aspects of innovative activity. Such researches have been going on for decades, but remain relevant to this day, because the level of innovative development of enterprises is an important prerequisite for their success. Countries that implement actively innovations have long been ahead in economic development and, consequently, in social security. However, the meaning of the concept of innovative development undergoes the

refinements and changes over time, in accordance with the transformations taking place in the economy of the country, regions and individual enterprises. The study is devoted to identifying opportunities and challenges for innovative development of enterprises on the basis of retrospective and perspective analysis of this issue.

Presentation of the main research material

The innovative development of enterprises is the basis of their sustainable development and strengthening the competitive position of the state in the world market. Therefore, it is very important to forecast such developments, to invent new approaches and to set new requirements for solving the implementation of innovation policy in real time. But the prediction of innovation development processes is based on the study of theoretical and legal aspects on this issue, the analysis of the dynamics of key indicators, establishing patterns and relationships between them.

The study of scientific works and ideas of researchers of the processes of innovation development has shown that, firstly, the innovation is the basis for increasing efficiency and competitiveness and, secondly, it arises usually when there is a downturn in the economy. Thus, J. Schumpeter considered the main principal of the theory of innovative development of enterprises the fact that innovation is the basis of economic growth and the engine of progress [13]. In M. Kondratiev's theory, which is a continuation of M. Tugan-Baranovsky's idea, the determining factor in restoring economic equilibrium is the time, namely, the cyclical regularities of socio-economic development. His provisions also coincide with the research of the American scientist Marquette, who proved the cyclical nature of innovative economic development. K. Freeman, D. Clark and L. Soete first proved that the rate of economic growth depends on the formation, development and aging of technological systems [14]. According to these authors, the process of dissemination of innovations is seen as a mechanism for the development of the technological system, and most of the innovations are realized in a period of deteriorating market conditions.

L. Kobryn suggests that innovative development should be understood as a structured process of qualitatively

new changes related to the introduction of economic, organizational, technical, technological and other innovations [2]. L. Voloshchuk considers the innovative growth as a dynamic development by means of the formed system of own resources and thanks to use of the available or possible complex of concrete actions in time directed on development, effective introduction and the further modification of innovations. [1]

G. Mensch and A. Kleinknecht link the active introduction of innovations with the deterioration of enterprises as they move from a strategy of maximizing profits to a strategy of minimizing costs and risk. B. Twiss considered the innovative development as a process in which a scientific idea acquires economic meaning [15].

Kuznetsov E.A. identified three stages of development of innovation theory in his scientific works:

1. Formation of the fundamental foundations of the theory, the period of basic innovations in the field of scientific knowledge (1910–1930).

2. Development and detailing of basic innovative ideas of the previous period (1940–1960).

3. A new theoretical breakthrough associated with the development and spread of technological structure, a wave of epoch-making basic innovations in the period of post-industrial society (from the mid-70's to our time) [3].

According to the author, the third stage should cover the first decades of the XXI century, but we believe that innovative development of enterprises in modern business conditions has a new digital format, and therefore we propose to supplement this periodization with the fourth stage, when the development and implementation of innovations cannot be imagined without use of modern digital technologies.

A detailed analysis of the domestic legal framework in the domain of innovative activity of enterprises was conducted by M.I. Dyba, on the basis of research he stated that a legislative field has been formed in Ukraine, which determines the legal basis for the development of scientific, scientific-technical and innovative activities. But the author notes that the competitiveness of individual enterprises, industries and the entire national economy, the improving the welfare of the population depend on choosing the optimal strategy for attracting innovation at the state and micro levels, on the efficient infrastructure and the speed of creating a single center for the management of creative processes, the developing incentives for the use of innovations for business entities [11].

Studies of theoretical issues of innovative development of enterprises prove that the prerequisites for its success are:

- compliance of innovative development of enterprises with global and national strategies of socio-economic development;
- structural restructuring of the economy, which lays the foundations and determines the directions of such development;
- compliance with modern trends in the development of sectors and industries;
- the level of the investment component and the level of providing individual enterprises and the state as a whole with scientific and innovative potential;

- quality of material and technical and information support of these processes;
- state of development of domestic innovation infrastructure and international scientific and technical cooperation;
- ensuring the protection of intellectual property, the legal regulation of other issues related to innovation and enterprise development.

According to the Strategy of Innovative Development of Ukraine for the period 2013–2020, it was planned to move the country pursuant to a complex indicator of innovative development, defined by the European innovation scoreboard, from the group of “modest innovators” to at least the group of “moderate innovators” and under the best conditions – to the group of “follower countries”. Such displacement should ensure the sustainable economic development, the increase of productivity, the return from the use of available natural resources and human potential, the competitiveness of domestic products and the improve the level and quality of life on this basis. This Strategy also provided two scenarios of the country's development:

- inertial (GDP growth forecast up to 5.2%);
- investment-active (GDP growth forecast to 6.5%) [7].

However, such growth did not occur because of many factors (transformation of the state into a raw material appendage, low investment attractiveness of the country, dependence on foreign loans, armed conflict in the Eastern Ukraine, pandemic, etc.). Growth is observed only in nominal GDP, due to higher actual prices, while real GDP (in comparative prices in 2010) continues to decline. In general, in terms of even nominal GDP, Ukraine moved from 48th place in 2014 to 56th place in 2019 [6].

In 2019, according to the Global Innovation Index, the leading countries of innovation are Singapore, South Korea, Switzerland, Iceland, Ireland, Hong Kong, Finland, the USA, Japan and Sweden. Ukraine in keeping with this index took 47th place in the same year.

The role of the state is indisputable in determining the priority ways of innovative development, creating an appropriate climate, supporting breakthrough innovative technologies. Examples of countries that have actively stimulated the innovative activity include the United States, the Great Britain, Germany, Italy, France, Japan, Canada, Brazil, and Australia. In the early 90's of last century, government support for innovation was the impetus for the development of modern and competitive business in these countries [10]. The most common government measures to support innovation in these countries at the time were:

- preferential taxation for enterprises that were actively engaged in research, acquired advanced technologies, implemented risky projects;
- subsidizing and providing dotation to small and medium-sized businesses, industrial enterprises for the reorganization of business processes;
- preferential lending to knowledge-intensive industries, as well as enterprises that have mastered the production of new products, new technologies, invested in the rational use of energy resources and business modernization;
- credit insurance;

– support for venture enterprises (Japan and the United States) by providing soft loans, insurance of funds provided by venture firms, reduction of income tax, as well as the return of funds invested in the venture business.

While innovation-active countries stimulated the development and implementation of innovations, the outflow of personnel abroad, reduction of scientific developments, aging of fixed assets, etc. continued in Ukraine.

In modern economic conditions, the innovation policy of both individual enterprises and the state as a whole, the growth of their stability and competitiveness should be based on the use of scientific potential. But the dynamics of the main indicators of economic innovation indicates the degradation of innovation potential. In recent years, there has been a reduction in the number of researchers in Ukraine, as well as innovative enterprises. The amount of funding for innovation and the number of implemented innovative products is declining, as evidenced by Table 1.

Without promoting the development of knowledge-intensive activities, it will be impossible to make the transition from low-tech (resource) to high-tech (innovative) economy. In turn, improving the level of innovative development of enterprises requires a scientific approach, which involves assessing the factors influencing the innovation climate, analysis of trends in innovation development etc. In today's market, innovation is a key engine of enterprises and industries, ensuring their sustainable development, strong competitive position, increasing efficiency. Among the factors that will determine the success of innovation should be noted: the formation of innovative development strategy, finding new opportunities for business development, expanding innovation infrastructure, development and implementation of innovation management systems, evolution of innovation culture.

Today the priority of innovative development of enterprises is the operation and implementation of modern advanced technologies, focusing on greening and resource saving production. Today, human creativity and intelligence are becoming no less important factor in the innovative development of enterprises than the provision of the necessary means of production.

Perspective analysis of innovative development of enterprises involves the development of a strategy for such development and should contain the following elements:

– definition of the general strategy of development of the enterprises;

– identification of “weaknesses” and outdated techniques, technologies and methods;

– establishment of the subject of innovative development at the enterprise;

– development of the plan of innovative development of the enterprise;

– assessment of the effectiveness of the plan and possible consequences.

The Strategy of Innovative Development of the State until 2030, approved by the Cabinet of Ministers of Ukraine, provides for a set of measures to:

– stimulating and supporting the creation of innovations at the legislative level;

– solving problems of development of startups, entering serial production;

– legal protection of intellectual property;

– establishing links between domestic innovators and partners (representatives of business, the state);

– financial and personnel support for the implementation of the strategy.

The purpose of the Strategy is to build a national innovation ecosystem to ensure rapid and high-quality transformation of creative ideas into innovative products and services, increase the level of innovation of the national economy, creating favorable conditions for innovation, increasing the number of implemented developments, increasing economic return, attracting investment in innovation [8].

Modern directions of innovative development of enterprises, both in Ukraine and in the world are determined by the level of informatization of society, automation of production processes, digitalization of the economy in general. In the context of digitalization of the economy, innovation becomes the basis of efficiency by reducing jobs and accelerating processes. The introduction of digital technologies contributes to the formation of new business models. The relationship of innovative development of enterprises with the main directions of digitalization is presented in the report of O. Pyshchulina about trends, risks and social determinants of the digital economy. According to this study, the following areas are:

1. Blockchain mechanism, which is based on innovative ways to accelerate the transmission of information and its closure in certain types of internal protocols of information systems.

2. Digital banking creates new methods of transfer and payment, the use of mobile applications with specialized digital coding.

Table 1 – The main indicators of innovation of Ukraine for the period from 2010 to 2019

Indexes	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1. Number of researchers, thousand people	133,7	130,4	122,1	115,8	101,4	90,2	63,7	59,4	57,6	51,1
2. Number of innovation-active enterprises, units	1462	1679	1758	1715	1609	824	834	759	777	782
3. Number of implemented innovative – types of products, units, technological processes, units.	2408 2045	3238 2504	3403 2188	3138 1576	3661 1743	3136 1217	4139 3489	2387 1831	3843 2002	2148 2318
4. Volume of financing of innovative activity, million UAH	8045,5	14333,9	11480,6	9562,6	7695,9	13813,7	23229	9117,5	12180,1	14220,9

Source: compiled by the author on the basis of [5; 9]

3. Internet of things, which operates through the connection and computerization of various systems and their full automation of the Internet.

4. Digitalization of business and production processes is possible under the conditions of innovative developments in the field of informatization.

5. Approaches in the work of Big Data are associated with the development of innovative analytical tools in various fields, as well as the automation of mechanisms for planning and forecasting of different economic indicators [12].

In general, the use of digital technologies in the innovative development of enterprises, gives them a competitive advantage by reducing costs due to the avoidance of intermediaries in providing the necessary logistics and services, product sales, improving the communication component, transition to electronic documentation, accelerating rapid response to adverse changes in the activities of enterprises, increasing productivity through the introduction of automated systems, etc.

Conclusions

Studies have shown that the innovative development of domestic enterprises is in decline. On the one hand, the country has all the opportunities to carry out such activities, in particular, a fairly well-formed legal framework, the experience of developed countries in this matter, their own developments and readiness to conduct further developments and innovations. But, along with the available opportunities, there are a number of obstacles, such as the lack of government incentives for business to be more innovative, very low financial support for startups, insufficiency and constant reduction of scientific staff and more. But the modern world, despite all the opportunities and obstacles, requires companies to fully or partially replace production processes, business models, and management methods by others that will meet modern trends, market demands, ensure competitiveness and efficiency.

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UDC 338.24.009.12

DOI <https://doi.org/10.26661/2414-0287-2021-2-50-04>**STRATEGIC PRIORITETI OF THE USE OF MANAGEMENT
OF INDUSTRIAL ENTERPRISES COMPETITIVENESS****Tkachenko S.M.***Classic private university*
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ORCID ID: 0000-0002-3798-5902**Key words:**

competitiveness, industrial enterprises, potential of competitiveness of enterprise, strategic management of enterprise, management conceptions, innovative competitiveness, case an innovative process frame, a competitiveness.

An estimation and strategic management of enterprise a competitiveness are investigated in the article. Considered basic conceptions of management and question of improvement of management innovations that is sent to the increase of competitiveness of enterprise. Reasonably, that the important aspect of the system of providing of the proper level of competitiveness of enterprise is a process of his evaluation, during that appear him strengths and weaknesses, hidden possibilities and potential threats, that in further gives an opportunity effectively to plan and develop activity on the basis of competitive edges. Determination of level of competitiveness of enterprise is the initial moment of planning of his activity and development of strategy of competitiveness. For functioning of organizationally-economic mechanism of providing of competitiveness of enterprise necessary system of estimation of competitiveness, that would take into account interests of investors, enterprises, consumers, state. Attention is accented on that absence of the only understanding stipulated the core concepts of competitiveness of enterprise ambiguousness of interpretation of this category. In modern market conditions enterprises operate in a competition environment. Drawn conclusion, that for providing of effective activity to the enterprises it is needed to study a competition environment, determine competitive edges and competitiveness. Certainly, that different approaches are to determination of competitiveness of enterprise. Drawn conclusion that competitiveness of enterprise it: comparative advantage, difference or relative description, index; property of management (subject of market relations) object to satisfy necessities; system of indexes of competitiveness and efficiency; total score of firmness of work of enterprise, effective use of resources, ability to resist or produce and sell off goods and services; ability to sustain competition at the market; touched market share; a criterion of exit of enterprise is to the commodity markets; flexibility and adaptivity; level of competence of enterprise; priority aspects of competitiveness are taking into account interests of the interested users of information about a competitiveness; quality and competitiveness of products that is produced. Drawn conclusion, that the levers of increase of level of competitiveness of enterprise are factors of competitiveness. Establishments of determinatives of competitiveness carry out after their influence and depending on aims and tasks of management a competitiveness.

СТРАТЕГІЧНІ ПРІОРИТЕТИ ВИКОРИСТАННЯ УПРАВЛІННЯ КОНКУРЕНТОСПРОМОЖНІСТЮ ПРОМИСЛОВИХ ПІДПРИЄМСТВ

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Ключові слова:

конкурентоспроможність, промислові підприємства, потенціал конкурентоспроможності підприємства, стратегічне управління конкурентоспроможністю підприємства, концепції управління, інноваційна конкурентоспроможність, модель управління інноваційним процесом.

У статті досліджується оцінка та стратегічне управління конкурентоспроможністю підприємства. Розглянуті основні концепції управління і питання удосконалення управління інноваціями, що направлені на підвищення конкурентоспроможності підприємства. Обґрунтовано, що важливим аспектом системи забезпечення належного рівня конкурентоспроможності підприємства є процес його оцінювання, в ході якого виявляються його сильні і слабкі сторони, приховані можливості та потенційні загрози, що у подальшому дає можливість ефективно планувати та розвивати діяльність на основі конкурентних переваг. Визначення рівня конкурентоспроможності підприємства є початковим моментом планування його діяльності та розробки стратегії конкурентоспроможності. Для функціонування організаційно-економічного механізму забезпечення конкурентоспроможності підприємства необхідна система оцінки конкурентоспроможності, яка б врахувала інтереси інвесторів, підприємств, споживачів, держави. Акцентовано увагу на те, що відсутність єдиного розуміння суті поняття конкурентоспроможності підприємства обумовило неоднозначність трактування даної категорії. В сучасних ринкових умовах підприємства діють в конкурентному середовищі. Зроблено висновок, що для забезпечення ефективної діяльності підприємствам потрібно вивчати конкурентне середовище, визначати конкурентні переваги та конкурентоспроможність. Визначено, що існують різні підходи до визначення конкурентоспроможності підприємства. Зроблено висновок що конкурентоспроможність підприємства це: порівняльна перевага, відмінність чи відносна характеристика, показник; властивість об'єкта управління (суб'єкта ринкових відносин) задовольняти потреби; система показників конкурентоспроможності та ефективності; підсумковий показник стійкості роботи підприємства, ефективного використання ресурсів, здатності протистояти чи виробляти і збувати товари і послуги; здатність витримувати конкуренцію на ринку; займана частка ринку; критерій виходу підприємства на товарні ринки; гнучкість і адаптивність; рівень компетенції підприємства; пріоритетні аспекти конкурентоспроможності з урахуванням інтересів зацікавлених користувачів інформації про конкурентоспроможність; якість і конкурентоспроможність продукції, що випускається. Зроблено висновки, що важелями підвищення рівня конкурентоспроможності підприємства є фактори конкурентоспроможності. Встановлення визначальних факторів конкурентоспроможності здійснюють за їх впливом та в залежності від цілей і завдань управління конкурентоспроможністю.

Statement of the problem

The modern displays of new terms of competition and absence of the formed effective competition environment, low level of competitiveness, subzero capacity for innovations and subzero innovative activity, determine the necessity of rethinking of changes of control system by the subjects of manage. Intensifying of competitive activity and globalization determine the personal touches of competition at the market of innovations that form the intensive process of fight for intellectual leadership. On the measure of forming of market relations and creation

of competition environment actual are research of essence and management of enterprise a competitiveness.

Analysis of recent studies and publications

Research of competitiveness of enterprise is conducted modern authors in direction of determination of maintenance and estimation of competitiveness. To research of problems of competitiveness of enterprise the devoted labours of I. Ansoff [1], P. Dikson [4], P. Druker [5], M. Porter [7], A. Tompson and A. Strickland [9], A. Voronkova [2], R. Fatkhutdinov [10].

The question of research of forming of competitive edges of enterprise is devote different works, but providing of competitiveness and strategic management a competitiveness is needed further research.

The question of competitiveness and existent methods of her estimation finds his reflection in the advanced studies of M. Porter [11], R. Fatkhurdinov [12], A. Mazaraki [13], L. Balabanov [14], A. Levytska [15], Ye. Karpenko [16], P. Altukhova [17], I. Borysiuk, A. Yeromenko [18], D. Rybnytskyi [19], V. Litvinova [20], V. Dykan [21] but other (Table 1).

A term «competitiveness» depending on the object of research it follows to distinguish competitiveness of products and competitiveness of enterprise. It is thus considered that a competitiveness of commodity is the display of competitiveness of enterprise, and the competitiveness of enterprise removes the competitiveness of country in general. Therefore important both from microeconomic and from macroeconomic positions there is exactly a competitiveness of enterprise:

- to form administrative tasks: determination of going near a production, technology, marketing, labour resources, financing, informative and organizational providing;

- to accept an administrative decision: reduction of charges, focusing on a certain market, contracting segment;

- to work out the events of development of competitive edges: introduction of innovations, offensive events in direction of fixing of long-term advantages, protective measures in direction of warning of actions of participants, development of the program of going into new markets, bringing in of money of investor;

- to adapt an enterprise to the market conditions of menage that as a result gives victory in competitive activity for a consumer and markets of sale.

It should be noted that for today for the estimation of competitiveness of enterprise a number of methods is used.

A. Levytska suggests to examine the existent methods of estimation of competitiveness on next classification signs [15]:

- on the method of estimation (quality, quantitative);
- on a form presentation of result (matrix, graphic, index);

- after the degree of taking into account of aspects of functioning of enterprise (special, complex);

- after possibility of acceptance of strategic decisions (current, strategic);

- after direction of forming of infobase (criterion, expert);

- depending on the object of estimation (methods of estimation of competitiveness of personnel; methods of estimation of competitiveness of products; methods of estimation of competitiveness of organization);

- depending on the specified aim of estimation (of positioning in a group; determination of dynamics of positions in a group; determination of competitive edges.

D. Yatskovyi [22] marks that depending on the degree of scope of these aspects the methods of estimation it is expedient to classify on the special and complex. The special methods are oriented to the analysis of separate parties of activity enterprises (matrix methods, method of estimation of competitiveness of products and others like that) complex (most index methods) on an all-round analysis.

Objectives of the article

The aim of the article is realization of research of essence and estimation of competitiveness of enterprise and determination of feature of providing and strategic

Table 1 – Interpretation of economic category «competitiveness of enterprise»

Author	Determination
M. Porter [11, p. 385]	A competitiveness is property of commodity, service, subject of market relations to come forward at the market at level with analogical commodities, services or competitive subjects of market relations that is present at the market.
R. Fatkhurdinov [12, p. 23].	A competitiveness is property of object that is characterized the degree of the real or potential satisfaction to them of certain problem, comparatively with analogical objects that are at this market.
A. Mazaraki [13, p. 122]	Competitiveness – represents economic relations concerning creation and realization of complex of competitive edges, that inherent to the market subject.
L. Balabanov [14, p. 29]	A competitiveness of enterprise is a level of his competence comparatively with other competitors on such parameters, as technology, practical skills and professional knowledge of personnel, level of the strategic and current planning, politician of sale, level of management, communication, quality of control system, production of goods and others like that.
A. Levytska [15, p. 156]	A competitiveness of enterprise is a capacity of enterprise for realization of competitive edges that give an opportunity effectively to develop comparatively with other enterprises on internal and external markets to him.
Ye. Karpenko [16, p. 257]	A competitiveness of enterprise is relative description that shows up in the conditions of competition how to involve ability necessary resources and to make a competitive commodity out of them, determined by the productivity of the use of productive resources, stipulates his position at the market and depends on analogical property of his industry and country.
P. Altukhova [17, p. 3]	Comparative advantages, that is owned by a certain enterprise in relation to other enterprises that are competitors at the market of commodities and services
I. Borysiuk, A. Yeromenko [18]	A competitiveness of enterprise is ability of enterprise to produce and realize competitive products.

Source: the estimation of level of competitiveness of enterprise allows [22, c.183]:

management of enterprises a competitiveness in modern terms.

The main material of the research

The estimation of competitiveness of enterprise can terminate the contact of competitiveness of enterprise and competitiveness of products and efficiency of functioning or be based on intercommunication of competitiveness of enterprise and level of his potential and degree of influence of environment. On the basis of every approach the built methodologies of estimation of competitiveness. The competitiveness of enterprises can be certain on basis:

- matrix methods that is based on the marketing estimation of activity of enterprise and his products; methods that are base on estimation of competitiveness of products of enterprise (methods based on the theory of quality of commodity and other);
- methods that are based on the theory of effective competition with the use of structural and functional approaches;
- methods, that are based on the theories of equilibrium of firm, and methods that are based on comparative advantages;
- complex methods;
- graphic methods;
- survey of consumers, producers;
- cost methods of estimation of competitiveness.

The level of competitiveness is measured on the basis of the system of base indexes of potential of enterprise and environment and integral indexes. Before determination of competitiveness apply economical methods, hierarchically well-organized system of partial and integral indexes of competitiveness, economic and mathematical design.

Providing of competitiveness comes true on the operating, tactical and strategic levels of management. The management of enterprise a competitiveness is examined as a process of influence on the factors of competitiveness with the aim of her increase through realization of functions of estimation, analysis, planning, organization, control and account. This activity from forming of administrative decisions of achievement of leadership, strategic aims must be base on the corrected and variant types of management. Management priorities are a strategic management, development of personnel, management of enterprise flexibility as open system, forming of innovative resource of competitiveness.

Distinguish methods and facilities of permission of specific tasks of management and integration going near a management an enterprise. Modern conceptions of management is the balanced system of indexes, control system on the basis of index of EVA, management after aims, saving method, Six Sigma-mesons, Five C, system of management of quality, ICO, universal system of indexes, self-education organization. The best instruments of management of organizations are adopt the strategic planning, key competenses, segmentation of clients, survey of consumers in recent

year, benchmarking, remuneration of labour on end-point, balanced system of indexes of efficiency, analysis of valueadded, outsourcing and other Majority from them sent to the improvement of strategies, providing of development, determination of markets and improvement of customer relations. To conceptions of management, the having a special purpose orientation of that is close to the task of providing of high level of competitiveness, take:

- total quality management; reengineering of business processes;
- self-education organization; strategic management;
- organizational development.

Certain approaches improve constantly. The system of indexes that characterize activity of enterprise within the limits of conception of management a cost renovated thus: indexes of increase (Cash Flow, EPS Growth, EBIT Growth, Revenue Growth), indexes of return (ROIC, RONA/ROCE, ROE), indexes of return, increase, remaining acuests (CVA, SVA, EVA, RORAC), indexes of return, increase, remaining acuests, money stream (CFROI, TBR).

Nature of competitive edges and facilities of their achievement are determined on the basis of strategic management. The strategic management of enterprise a competitiveness, as a system of purposeful influence on elements and processes, that provide forming of competitive edges and development of competition potential of enterprise, is an instrument, that allows to promote efficiency of the use of resources, level of innovative activity, quality of commodities. Totality of present resources and possibilities for development and realization of strategy of development of enterprise determines strategic potential. Strategic potential is the result of combination of productive potential of enterprise with market. Ability to provide proof positions at the market determines potential as competitive. Modern progress of strategic management trends determine the necessity of organizational changes, forming of strategic alliances (networks) and use of management of knowledge for the achievement of competitive edges [8].

An effective strategic management becomes the important condition of providing of competitiveness technologies and innovations.

The modern tendencies of forming of innovative competitiveness determine: increase of role of science and knowledge in a production, increase of scientific content of products, reduction of duration of innovative processes, increase of speed and intensity of processes of diffusion of innovations. A volume and type of innovation must answer strategy of organization. A portfolio of innovations construction is the necessary condition of proof innovation and increase of organization. A radical innovation brings fundamental changes in the competition environment of industry, can show out organization in leaders on the basis of collaboration with external organizations in creation of new initiatives, management favour to the

ideas pose of current strategy, resource providing. Half a radical innovation can bring in decision changes in a competition environment, such two-stage innovations are basis of innovative dynamics, zone of considerable potential, it follows that to manage, for this purpose there is a general map of subdivisions of space of business model and technology. An incremental innovation has a considerable value for providing of protecting from competition destruction that diminishes a fate to the market of organization, reduces profitability.

Most facilities and management methods are intended for an assistance to this type of innovations. Blasting innovations focus attention on destruction of competition nature, stop or diminish an increase to the profitableness and potential of creation of values of existent suggestions. There can be strong potential of increase at all innovations, at blasting innovations this potential is the greatest.

An effective management an innovation envisages the management of changes internal sources, by such processes as technological and strategic, determination of business model. The system of strategic management innovations is orientated on a transfer of knowledge, concordance of interests, integration, stimulation of work and studies.

The model of innovation it follows to understand as basis of creation of innovative strategy and development of brief-case that answers general strategy. A case an innovative process frame includes the stages: generation of ideas, previous technological and market researches, conceptual technological and market researches, product, testing development and verification of product, production and leading out of product to the market, after-sale analysis.

Modern models of “Alpha/Beta Ship”, “Time To Market”, approaches of swift innovation, Stage/Gate (The “stage/is Passage-way”) and Phase/Gate (A “phase/is Passage-way”), watching of projects with the use of the Oregon matrix of the productivity improve the linear model of innovations, accelerating an innovative process reduction of the certain stages, participation of guidance in a management projects, by creation of only command, forming of knowledge about a market situation and possibilities of organization, by application of concentration of resources and integration of participants of projects [3; 6].

Conclusions of research and prospect of further works are in this direction.

A competitiveness becomes the determinative factor of successful management and envisages the use of the modern market-adapted methods of management. The conducted analysis of administrative technologies

defined the effective tool of management of enterprise the use of that expediently on the basis of situational approach a competitiveness. Achieving of improvement of products, development of technological constituent, forming of competitive edges will provide the effect of synergy on the basis of the successful use of administrative technologies within the limits of strategic management of enterprise a competitiveness. For creation of proof competitive edge it is necessary to determine the priority sources of competitive edges, form perfect competences, increase a value and create new root competences, use benchmarking, overcome organizational inertia, in good time to find out out-of-date knowledge, skills, processes.

For strengthening of competition position enterprises are determined events after the certain level of breaks between strategy and potential possibilities of enterprise on the basis of analysis of the systems of strategic position of enterprise. An innovation is the main means of achievement of strategic aims of organizations. Bases of competitive edges of innovations are: radically new product, progressive process or method, marketing innovation of providing of differentiation of suggestion, organizationally-administrative changes.

Conclusions

A competitiveness becomes the factor of successful management and envisages the use of the modern market-adapted methods of management. The conducted modern analysis of administrative technologies defined a tool a competitiveness, use of that expediently situational approach. Achieving of improvement of products, development of technological constituent, forming of competitive edges will provide the effect of synergy on the basis of the successful use of administrative technologies within the limits of strategic management of enterprise a competitiveness. For creation of proof competitive edge it is necessary to determine the priority sources of competitive edges, form perfect competences, increase a value and create new root competences, benchmarking, to overcome organizational inertia, in good time to find out out-of-date knowledge, skills, processes.

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ACCOUNTING OF REVENUES AND EXPENDITURES OF THE GENERAL FUND OF LOCAL COMMUNITIES DURING THE PERIOD OF REFORMING THE BUDGET SYSTEM

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Key words:

financial decentralization, general fund, local budgets, revenues, expenditures, program-target method, budget, cash and actual expenditures.

The experience of many countries around the world shows that the problems of a particular village, city or street can be effectively solved only at the local level. Financial support for small communities using the system of subsidized equalization is burdensome for the state budget and makes it impossible to develop small towns and villages. In order for the community to have a strong potential for development and effective functioning, there was a need to unite administrative-territorial units. Enlarged local communities have more management powers and better financial security. Decentralization, as a new phenomenon for our country, is seen as a way of organizing power in the state, in which the formed territorial community has the right to decide on the organization of their work based on their own needs. The process of budget decentralization includes the transfer of authority in the management of revenues and expenditures to local communities in order to increase the efficiency of their use and management. The most important indicator of economic and financial activity of any budgetary institution is the implementation of the budget, which is impossible without the implementation of the expenditure side of the budget. Based on this, it should be noted that the accounting of expenditures is one of the main tasks of financial accounting in a public institution. The article examines the state of decentralization reform in Ukraine, its main achievements and shortcomings; the concepts and the basic aspects of application of the program-target method in budgetary planning are defined; theoretical and practical aspects of the organization of accounting, analysis and control of revenues and expenditures of the general fund of local institutions are considered. The most important indicator of economic and financial activity of any budgetary institution is the implementation of the budget, which is impossible without the implementation of the expenditure side of the budget. Based on this, it should be noted that the accounting of expenditures is one of the main tasks of financial accounting in a public institution. The article examines the state of decentralization reform in Ukraine, its main achievements and shortcomings; the concepts and the basic aspects of application of the program-target method in budgetary planning are defined; theoretical and practical aspects of the organization of accounting, analysis and control of revenues and expenditures of the general fund of local institutions are considered. The most important indicator of economic and financial activity of any budgetary institution is the implementation of the budget, which is impossible without the implementation of the expenditure side of the budget. Based on this, it should be noted that the accounting of expenditures is one of the main tasks of financial accounting in a public institution. The article examines the state of decentralization reform in Ukraine, its main achievements and shortcomings; the concepts and the basic aspects of application of the program-target method in budgetary planning are defined; theoretical and practical aspects of the organization of accounting, analysis and control of revenues and expenditures of the general fund of local institutions are considered. Based on this, it should be noted that the accounting of expenditures is one of the main tasks of financial accounting in a public institution. The article examines the state of decentralization

reform in Ukraine, its main achievements and shortcomings; the concepts and the basic aspects of application of the program-target method in budgetary planning are defined; theoretical and practical aspects of the organization of accounting, analysis and control of revenues and expenditures of the general fund of local institutions are considered. Based on this, it should be noted that the accounting of expenditures is one of the main tasks of financial accounting in a public institution. The article examines the state of decentralization reform in Ukraine, its main achievements and shortcomings; the concepts and the basic aspects of application of the program-target method in budgetary planning are defined; Theoretical and practical aspects of the organization of accounting, analysis and control of revenues and expenditures of the general fund of local institutions are considered.

ОБЛІК ДОХОДІВ ТА ВИДАТКІВ ЗАГАЛЬНОГО ФОНДУ МІСЦЕВИХ ГРОМАД У ПЕРІОД РЕФОРМУВАННЯ БЮДЖЕТНОЇ СИСТЕМИ

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Ключові слова:

фінансова децентралізація, загальний фонд, місцеві бюджети, доходи, видатки, програмно-цільовий метод, кошторис, касові та фактичні видатки.

Досвід багатьох країн світу свідчить, що проблеми конкретного села, міста або вулиці можуть ефективно вирішуватися тільки на місцевому рівні. Фінансова підтримка малих громад з використанням системи дотаційного вирівнювання є обтяжливою для державного бюджету та унеможливає розвиток малих міст та селищ. Для того, щоб громада мала потужний потенціал для розвитку та ефективного функціонування, існувала необхідність в об'єднанні адміністративно-територіальних одиниць. Укрупнені територіальні громади мають більше повноважень в управлінні та краще фінансове забезпечення. Децентралізація, як нове явище для нашої країни, розглядається як спосіб організації влади в державі, при якому утворена територіальна громада має право самостійно вирішувати питання з організації своєї роботи виходячи з власних потреб. Процес бюджетної децентралізації включає в себе передачу повноважень в управлінні доходами та видатками місцевим органам громад з метою підвищення ефективності їх використання та управління. Найважливішим показником господарсько-фінансової діяльності будь-якої бюджетної установи є виконання кошторису, який неможливий без здійснення видаткової частини бюджету. Виходячи з цього слід зазначити, що облік видатків є одним із головних завдань фінансового обліку в державній установі. У статті досліджено стан проведення реформи децентралізації на території України, головні її досягнення та недоліки; визначено поняття та окреслені основні аспекти застосування програмно-цільового методу у бюджетному плануванні; розглянуто теоретичні та практичні аспекти організації обліку, аналізу і контролю доходів та видатків загального фонду місцевих установ.

Statement of the problem

The implementation of decentralization reform in our country has led to the formation of new communities and, as a consequence, new local governments. These changes affected not only the territorial organization, but also significantly affected the restructuring of all inter-governmental relations. Therefore, it is expedient, after the reform, to assess the changes and their consequences, to identify new relevant concepts in the field of financial accounting of budgetary institutions, to identify practical and theoretical aspects of accounting for revenues and expenditures of local budgets.

Analysis of recent researches and publications

Many domestic scholars in their works study the problems of budget accounting and planning, restructuring and functioning of the budget system. These issues are covered in the scientific works of such Ukrainian scientists as: V.S. Len, N.V. Kravchuk, S.V. Svirko, S.O. Levitsyka, M.V. Metelitsa and others. But the questions concerning the complex analysis and theoretical substantiation of necessity remain little researched. Therefore, there is a growing need for additional research that would be aimed at further development of budget regulation and focused on improving the budget system of the national economy. A significant contribution to the

development of theoretical aspects of the formation of the information space of enterprises from the standpoint of innovation and information management made M. Albert, V. Dick, M. Porter, F. Hedoury, B. Milner, R. Fatkhutdinov, E. Rusakova, O. Shaporova, V. Grinyova, I. Buleev, O. Pushkar, M. Kizim, A. Pilipenko, V. Ponomarenko, O. Tridid, A. Skull and others. The historical development of enterprise information systems, automated processing of accounting and analytical information and its use in enterprise management are reflected in the works of M. Perera, G. Plaug, M. Cooter, J. Foster, C. Horngren, M. Schwartz, K. Shannon, X Ueno, M. Mizintseva, J. Sokolov, A. Sheremet, O. Bradul, F. Butynets, V. Zavgorodny, L. Kindratskaya, M. Kuzminsky, Y. Kuzminsky, V. Linnik, L. Lovinskaya, M.R. Luchka, E. Mnykha, L. Napadovska, M. Pushkar and others. Problems of formation of accounting and information space are covered in the works of scientists: M. Van Bred, E. Hendrixen, E. Helfert, J. Clark, M. Vakhrushna, P. Nikiforova, S. Nikolaeva, O. Kaverina, V. Kovaleva, A. Sokolov, A. Shigaev, L. Schneidman, M. Bondar, O. Bradul, S. Golov, V. Evdokimov, Y. Kuzminsky, S. Kuznetsova, M. Pushkar and others.

Goals of the article

Investigate the state of decentralization reform in Ukraine, identify its main achievements and shortcomings; highlight the basic concepts in the field of budget accounting, give a complete definition and highlight the main aspects of the application of the program-target method in budget planning; consider the theoretical and practical principles of organization of accounting, analysis and control of revenues, expenditures and expenses of the general fund of local institutions.

The main material of the research

In the last few years, decentralization has become one of the driving forces in reforming the public administration system. This system is designed to enable local governments to exercise their statutory powers. During the years of Ukraine's independence, the number of rural population, according to the State Statistics Service, decreased by almost 2.5 million people, but at the same time the number of village councils increased by 1,067 units [1]. This imbalance has led to a lack of human resources in the executive branch in village councils, utilities and budget organizations, leading to an inability to develop and function effectively.

Financial support for small communities using the system of subsidized equalization is burdensome for the state budget and makes it impossible to develop small towns and villages. In order for the community to have a strong potential for development, there is a need to unite the administrative-territorial unit. Enlarged communities have more power and better financial security. Due to the above, equality is formed between local governments at all levels of government [2].

Examining decentralization as a new phenomenon for our country, we can conclude that it is a way of organizing power in the state, in which the formed territorial

community has the right to decide issues and organize their work based on its own needs [3]. The management function is based on the Budget Code of Ukraine and the Law of Ukraine "On Local Self-Government in Ukraine" and under the responsibility of authorized bodies and officials. Interference in the activities of the territorial community can take place only in order to monitor the legality of actions and control the targeted use of budget funds.

The process of budget decentralization includes the transfer of authority in the management of revenues and expenditures to local communities in order to increase the efficiency of their use and management.

The positive consequences of budget decentralization include [2]:

- strengthening control over the use of budget funds;
- increasing freedom to use funds within the community;
- strengthening initiative and effectiveness in addressing local issues;
- conducting financial equalization.

The main tasks and goals that budget decentralization includes:

- clear definition of powers at the local levels of government;
- transition to a targeted funding system;
- introduction of transparency of all actions performed by authorized bodies.

After the local elections on October 25, 2020, the entire territory of the state consists of territorial communities, and the State Budget of Ukraine for 2021 introduced a two-tier model of inter-budgetary relations.

The main information portal of the reform of local self-government and the territorial organization "Decentralization" reports that as a result of voluntary association of communities in 2015–2019, 3,700 local budgets were consolidated. A positive aspect of the reform of inter-budgetary relations is the annual increase in investment resources of local budgets and an increase in the share of expenditures for self-government, which indicates increased expenditure autonomy of local budgets and efficient use of budget funds at the local level [1].

Looking at the successful experience of foreign countries, we can conclude that this system of budget management is quite effective and allows local governments to address relevant issues of sustainable development and operation.

In their activities, local governments use the program-target method in budget planning, which allows to assess the effectiveness of state programs and clearly identify ways to spend budget funds [3]. The Budget Code of Ukraine contains the following definition of the program-target method – the management of budget funds to achieve previously defined goals at the expense of budget funds using the assessment of the effectiveness of their use at all levels of the budget process. It should be noted that this method is used at both the state and local levels.

The main purpose of using the program-target method is to outline and further solve socio-economic problems. Ways to address the outlined issues and form result-oriented budget programs, on the basis of which the budget is drawn

up. The main task in applying this method is to determine priorities in the allocation of budget resources, identify sources of funding and control the effective and targeted use of budget funds [4]. The leading idea of the program-target method is not only to outline the possibilities of the budget, but also to determine the most effective use of budget funds. The basic components of this method, ensuring its most effective implementation, are [5]:

- strategic planning of socio-economic activities;
- medium-term budget planning;
- system of evaluation and monitoring of program implementation;
- increasing the degree of transparency of budget information by involving the public in budget decisions.

The application of the program-target method is aimed at efficiency and is formed by budget programs, in contrast to the article-by-article method which is formed by functions. In practice, the presentation of the budget in terms of functions provide software classification codes, which are associated with the codes of functional classification. The peculiarities of the application of the studied method allow to carry out the expenditure part of the budget as efficiently as possible for the sake of the final result, which is a significant advantage of the article-by-article approach. With the program-target method of budget formation, budget managers justify budget requests, taking into account the actual and planned performance indicators.

The main principle of the program-targeted approach to budgeting is to ensure the transition from the purpose of maintaining a budgetary institution to the goal of obtaining specific results and the use of budget funds by each institution, ensuring the targeted use of budget funds. The application of this method at the level of the state budget allows monitoring the effectiveness of budget spending on the basis of information on performance indicators, which is reflected in budget requests, passports of budget programs and their reports. Thus, it is possible to track the compliance of expenditures from the budget to the goals and objectives of the state, which is the basis for assessing the effectiveness of the costs incurred [5].

According to the Budget Code of Ukraine, all revenues of budgetary institutions are divided into revenues of the general and special funds. The main normative documents that regulate the distribution and structure of general and special funds are the Budget Code of Ukraine and the Law of Ukraine "On the State Budget in Ukraine" [6].

The general fund of the budget organization is replenished through transfers from the state or local budgets. All actions are performed through the bodies of the State Treasury Service of Ukraine. Such funding is on a non-refundable and gratuitous basis and is designed to ensure the effective operation of local governments.

Accounting of revenues that in the budget of institutions belong to the revenues of the general fund is conducted on sub-account 7011 "Budget allocations" of account 70 "Revenues from budget allocations". The credit of the account reflects the receipt of budget allocations, the debit – a decrease in income in the amount of targeted funding [7, p. 54].

Analytical accounting of appropriations is conducted in the "Cards of analytical accounting of allocated appropriations". The maintenance of budget funds is provided by the State Treasury of Ukraine, which operates within the Ministry of Finance of Ukraine, on the basis of maintaining a single treasury account opened with the National Bank of Ukraine. Instructions of the State Treasury Service of Ukraine regulate the opening and closing of accounts of budgetary institutions in the bodies of the State Treasury [8, p. 85].

Appropriations are accounted for separately for each program classification code and for a period of one year. In addition, the received appropriations are accounted for separately by the general and special funds. The actual amounts, in the process of implementing the budget of the institution, are written off from the accounts on the basis of statements of the State Treasury. The card is filled in monthly and reflects the amount of funds received, the amounts withdrawn and shows the balances under the code of this program on a certain reporting date.

The most important indicator of economic and financial activity of the budgetary institution is the implementation of the budget, which is impossible without spending. Based on this, it should be noted that the accounting of expenditures is one of the main tasks of financial accounting in the institution. Expenditures are government payments that are provided on a non-refundable basis and provided for in the organization's estimates.

In budgetary institutions, all expenditures are accounted for in accordance with the budget classification defined in the Budget Code and the Instruction on the application of economic classification of budget expenditures, approved by the order of the Ministry of Finance of Ukraine from 12.03.2012 № 333. Depending on the stage of budget funds, they are divided into cash and actual costs [3, p. 87].

Cash expenditures are all funds accrued by the State Treasury and / or from a special registration current account in both cash and non-cash form. It is not possible to determine the actual use of funds for these expenditures, because they also reflect the amounts that have been accrued but not yet paid. This type of expenditure provides an opportunity to see the number of received and spent appropriations for individual EQF codes, which provides important information on the implementation of the estimate and the balance of appropriations at the reporting date. The decrease in cash expenditures is caused by the return of appropriations to accounts. All transactions are accounted for twice: the first time in the state treasury, the second in the budget institution itself [9].

Actual expenditures are those funds that were spent by the budget organization, issued by primary documents and not paid. For example: accrued but not yet paid wages to employees of the organization. Their accounting fully controls the progress of the budget plan and compliance [9].

Actual and cash expenditures do not coincide in amount or time. Usually cash expenses are less than actual, this indicates either the absence of receivables, or the emergence of accounts payable at the reporting date.

To account for the actual expenditures of the general fund of budgetary institutions, the chart of accounts provides for sub-accounts 801 “Expenditures of budget managers for the implementation of budget programs” and 851 “Expenses for non-exchange transactions of budget managers” are active accounts. At the end of the year, the entries on the loan account 80 “Expenditures from the general fund” they are debited to account 5511 “Financial results of the budget for the reporting period”. Analytical accounting of cash expenditures is conducted in the Card of analytical accounting of cash expenditures [8, p. 87].

The card of analytical accounting of cash expenditures is kept for each separate open registration account and for each separate program. Card opening period is one month. It shows the cash flow on a daily basis based on state treasury statements. All expenses of the institution are shown separately according to the program classification codes. As a result of the financial and economic activities of the institution, reimbursed expenses may appear, then they are recorded on the reverse side of the Card and lead to a decrease in the amount of cash expenses in the specified month. Since the Card is maintained separately for each month, it ultimately reflects the number of expenditures at the beginning of the month, during the month, for the month and from the beginning of the year in cumulative total.

In the past 2020, the reform of the new budget system and administrative-territorial structure was fully completed. The state budget for 2021 established direct inter-budgetary relations between 1,438 territorial communities. To analyze the effectiveness of their work and the level of their provision with all the necessary resources to perform the management functions of local self-government, it is necessary to conduct systematic monitoring and analysis of budget indicators.

At the end of 2020, an expert assessment of the budget activities of communities that voluntarily united during 2015–2019 was conducted. A total of eight indicators were identified, among which the main ones, which show the revenue and expenditure part of the budget, are the revenues of the general fund per 1 inhabitant and the expenditures of the general fund per 1 inhabitant of the community.

To conduct this analysis, territorial communities were divided into five groups in terms of population. Thus, the first group includes TG with more than 15 thousand inhabitants; to the second group of TG – from 10 to

15 thousand inhabitants; to the third group of TG – from 5 to 10 thousand inhabitants; to the fourth group of TG with a population of less than 5 thousand inhabitants; to the fifth group of TG-cities of regional significance. The results of the study on the criterion of “Income of the general fund per 1 inhabitant of the community” are given in table 1 [10].

The above indicator calculated as the ratio of the amount of income of the general fund without the amount of transfers to the population of the community. The indicator of income of the general fund per 1 inhabitant shows the financial potential of each separate territorial community, independence and autonomy in providing the community with its own revenues and resources.

According to the results of the study, the following conclusion can be made: out of 872 territorial communities, 274 (or 32% of the total number) income per capita exceeds the average for all communities; the largest difference between income indicators in the communities of the third and fourth groups.

Expenditures of the general fund per 1 inhabitant-calculated as the ratio of the amount of expenditures of the general fund to the population of each individual community. In 2020, the general fund made expenditure payments in the amount of UAH 72.6 billion, which is UAH 6,986.9. the amount of expenditures per inhabitant of the community. Monitoring data are given in table 2 [10].

Out of 872 communities, 353 (40.5% of the total number) expenditures per capita exceed the average for all territorial communities. The largest difference between expenditure indicators is in communities with a population of less than 5,000 people.

Conclusions

Financial decentralization creates favorable conditions for the development of territorial communities, is a powerful driver of development of Ukrainian cities and towns. Community associations have more opportunities and better funding, due to which effective management activities are carried out. Examining decentralization as a new phenomenon for our country, we can conclude that this way of organizing local government gives educated communities the right to decide on their own and organize their work based on their own needs. A positive aspect of the reform of inter-budgetary relations is the annual increase in investment resources of local budgets and an increase in the

Table 1 – Revenues of the general fund per 1 inhabitant of the territorial community for 2020

Groups	Number of TG in the group	Number of TGs in which the income per person is higher than the average for all TGs (UAH 5,200.6)	The average amount of own income received by 1 TG of the corresponding group, UAH	Average income per capita in the corresponding TG group, UAH	The highest income per person, UAH	The lowest income per person, UAH	The difference between the highest and lowest rate, times
1	110	29	95.9 million	4 453.7	25 163.0	1,129.3	22.3
2	134	40	55.9 million	4,600.1	16,381.5	954.7	17.2
3	277	77	32.8 million	4,669.3	34 249.4	833.9	41.1
4	308	110	16.7 million	4,888.4	40482.3	1,009.7	40.1
5	43	23	505.7 million	6,412.6	11,707.9	3,004.7	3.9
Together	872	279					

Table 2 – Expenditures of the general fund per 1 inhabitant of the territorial community for 2020

Group	Number of TG in the group	The average amount of expenditures made from the TG budget, UAH	Number of TGs in which the expenditure per capita is higher than the average for all TGs (UAH 6986.9)	The average cost per person in the relevant group of TG, UAH	The highest rate of expenditure per person, UAH	The lowest rate of expenditures per person, UAH	The difference between the highest and lowest rate, times
1	110	142.7 million	34	6,627.7	22 296.0	1,931.3	11.5
2	134	82.0 million	50	6,826.9	15 084.4	3,784.5	4
3	277	48.4 million	98	6,894.4	21 544.3	2,942.6	7.3
4	308	24.2 million	150	7 101.8	29 462.5	1,313.7	22.4
5	43	578.2 million	21	7,332.2	11,844.4	4 499.7	2.6

share of expenditures for self-government, which indicates an increase in expenditure autonomy of local budgets and efficient use of budget funds at the local level.

The application of the program-target method by local self-government bodies gives them the opportunity to objectively assess the effectiveness of state programs and to carry out continuous monitoring of the institution's expenditures. Thus, the main principle in drawing up a program-targeted approach is to ensure the transition from the goal of maintaining a budgetary institution to the goal of obtaining specific results and use of budgetary funds by each institution, ensuring the targeted use of budgetary funds.

Replenishment of the general fund of the budgetary institution takes place through transfers from the state

or local budgets. All actions are performed through the bodies of the State Treasury Service of Ukraine. The accounting of incomes that in the budget of institutions belong to the incomes of the general fund is conducted on account 70 “Revenues from budget allocations”.

The most important indicator of economic and financial activity of the budgetary institution is the implementation of the budget, which is impossible without spending. Based on this, it should be noted that the accounting of expenditures is one of the main tasks of financial accounting in the institution. In budgetary institutions, all budget expenditures are accounted for in accordance with the budget classification defined in the Budget Code and the Instruction on the Application of the Economic Classification of Budget Expenditures.

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DOI <https://doi.org/10.26661/2414-0287-2021-2-50-06>**STRATEGIC POLICY OF ACCOUNTING AND REPORTING OF ENTERPRISES****Gryn V.P.***Zaporizhzhia national university*
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determinants, strategic management, accounting, strategic accounting, strategic recording, social environment, strategic reporting policy, institutional accounting theory, strategic management.

Nowadays it is the constant object for implementing improvements, which is substantiated by the development of the business management system in the context of their organizational structure's and inter-firm relationship systems' amplification, increasing dynamism of the competitive environment. The relevance of the study of theoretical aspects and practical mechanisms for implementing strategic adjustments to the accounting and reporting policy of the enterprise is proved. The concept of strategic adjustment of the enterprise reporting policy is revealed. The role of accounting theory in the formation of the theoretical foundations of strategic accounting policy of the enterprise is analyzed. The role and purpose of strategic additional reporting in achieving the strategic goals of the enterprise are determined. The causal connections of understanding the information about the accounting policy as a source of formation of accounting signals for external users are revealed. The concept of additional disclosure of accounting information of the enterprise as the transfer of information through additional forms of reporting, which goes beyond the current regulatory requirements or accounting standards set by the regulators of the national accounting system. The need for the formation of strategic accounting policy in the context of reporting based on the strategic objectives defined at the enterprise. The dependence of the achievement of the strategic goals of the enterprise on the disclosure of promising accounting information and on additional detailed or more complete information about its current and past activities is substantiated. General tendencies of further accounting system advancement to meet strategic management stakeholders' needs have been emphasized and proved.

СТРАТЕГІЧНА ПОЛІТИКА ОБЛІКУ ТА ЗВІТНОСТІ ПІДПРИЄМСТВ**Гринь В.П.***Запорізький національний університет*
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детермінанти, стратегічне управління, бухгалтерський облік, стратегічний облік, стратегічний облік, соціальне середовище, політика стратегічної звітності, теорія інституційного обліку, стратегічне управління.

На сьогоднішній день облік це постійний об'єкт для вдосконалення, що обґрунтовується розвитком системи управління бізнесом в контексті посилення їх організаційної структури та міжфірмових відносин, що посилює динамізм конкурентного середовища. Доведено актуальність дослідження теоретичних аспектів та практичних механізмів реалізації стратегічних коригувань облікової та звітної політики підприємства. Розкрито концепцію стратегічного коригування політики звітності підприємства. Проаналізовано роль теорії бухгалтерського обліку у формуванні теоретичних основ стратегічної облікової політики підприємства. Визначено роль та призначення стратегічної додаткової звітності у досягненні стратегічних цілей підприємства. Розкрито причинно-наслідкові зв'язки розуміння інформації про облікову політику як джерела формування бухгалтерських сигналів для зовнішніх користувачів. Концепція додаткового розкриття бухгалтерської інформації підприємства як передача інформації через додаткові форми звітності, що виходить за рамки чинних нормативних вимог або стандартів бухгалтерського обліку, встановлених регуляторами національної системи бухгалтерського обліку. Необхідність

формування стратегічної облікової політики в контексті звітності на основі стратегічних цілей, визначених на підприємстві. Обґрунтовано залежність досягнення стратегічних цілей підприємства від розкриття перспективної бухгалтерської інформації та від додаткової детальної або більш повної інформації про його поточну та минулу діяльність.

Statement of the problem

Nowadays business entity's strategic management information system comprises formation, processing, saving and applying data store for valid decision-making being a paramount element of managerial process. Business accounting system as one of the main sources of generating information for managerial decision-making is a constant object for improvements' implementation. This is explained by the development of business management system in the context of complication of enterprises' organizational structure, inter-firm interconnection systems and the increasing dynamics of competitive environment amid global economy's formation.

The most effective tool of the accounting system in the strategic context, based on its understanding as a social and institutional practice, is a strategic accounting policy that ensures the implementation of strategic plans and initiatives of the enterprise, resulting in the formation of subjective (strategically oriented) accounting reality. One of the ways to implement it is a strategic adjustment of the company's reporting policy, which involves the creation of the necessary informational impact on external users who are the subjects of management decisions (investment, loan, etc.), the implementation of which depends on achieving such strategic goals. Based on the insufficient level of development of this issue in Ukraine and the existing need to form a theoretical basis for institutional accounting theory, it is necessary to substantiate the theoretical aspects and disclose practical mechanisms for implementing strategic adjustments to enterprise reporting policy.

Analysis of recent researches and publications

Issues of formation of strategic accounting policy of the enterprise in terms of accounting are disclosed in the works of J. Ireland, S. Agraval, D. Aobdia, A. Beyer, T. Burvo, R. Wang, M.B. Hitzmenna, D.A. Cohen, T.Z. Lisa, B.A. Lowgie, K. Marquardt, K. Morrill, J. Morrill, J. Sprekman, D. Stitz, M. Trombetta, B.R. Walter, J. Waterhouse, S. Homsisengfet, L. Cheng and others.

Goals of the article

The purpose of the article is to analyze the theoretical foundations and justification of mechanisms for implementing strategic adjustments to the policy of accounting and reporting of the enterprise.

The main material of the research

For a long time, Accounting was considered a system that provides data processing and its transformation

into reliable and relevant information about enterprise's business activities in the form of accounting reporting to make various types of decisions. Herewith, scholars did not pay much attention to the analysis of the factors impact caused by the peculiarities of particular national accounting systems building and general trends in the development of the global accounting system on the Accounting development. The situation changed significantly in the context of globalization of the economy, characterized by the elimination of national trade barriers and improved access to international capital markets, and with the rise of international accounting comparativism in the late 1970s – 1980s. The last is a new strand of research related to the definition and analysis of the distinctive features of Accounting development in different countries and the search for ways to eliminate the existing international accounting diversity.

The methodological basis of the study is a systematic approach, which together with structural-functional, cybernetic, methods of modeling and formalization refers to general scientific research methods, which are a kind of intermediate methodology between philosophy and fundamental theoretical and methodological provisions of special sciences, including accounting science. Accounting knowledge, like any other, is based on four basic concepts: space, time, energy, information. Space and time as philosophical categories still do not have an unambiguous interpretation among researchers, but in the conceptual apparatus formed a generally accepted definition of these categories with a pronounced philosophical and physical aspect. Space is a philosophical category that expresses the length, mutual arrangement of material objects (parts). Figuratively speaking, this is a certain "field" in which various objects exist and interact [9]. Time – a set of relations that express the coordination of changing states (phenomena), their sequence and duration. The most obvious connection from the standpoint of philosophy and physics was established between space and information. In fact, space is always perceived by man, in any form, which is information: the space of Euclid, Lobachevsky, Riemann.

One of the promising areas of using the concept of information space is the enterprise management system, as the formation of a separate information space for certain types or components of the management system can significantly increase its efficiency by increasing information support, reducing costs for information interaction with information providers, more detailed needs and requests of subjects of administrative decisions, etc. Therefore, for the effective implementation of strategic management in the enterprise requires not only a sufficient number of

sources and channels of information about the internal environment of the enterprise (business processes and relationships between them), its meso- and macro-external environment, but must build a single accounting strategic information space that would allow integrating all possible information resources needed for strategic decision-making and implementation of strategic initiatives and would be the basis for the formation of a set of necessary information processes and information systems of strategic direction.

For a long time, accounting was considered a system that provides data processing and conversion into reliable and relevant information about the business activities of the enterprise in the form of financial statements that can be used to make various types of decisions. At the same time, scientists did not pay enough attention to the analysis of the impact on the development of accounting factors caused by the peculiarities of the construction of individual national accounting systems and general trends in the global accounting system. This situation has changed significantly in the context of economic globalization, characterized by the removal of national trade barriers and improved access to international capital markets, and the emergence in the late 1970s – 1980s of international accounting comparative studies – a new area of research related to with the definition and analysis of the distinctive features of the development of accounting in different countries of the world and the search for ways to eliminate the existing international accounting diversity.

The development of methods for the support of accounting information with the needs for strategic management compliance, necessarily involves identifying the reasons for the existing gaps between current needs of business entities and the ability of accountants to meet them. The gaps' "depth" will determine further proceeding of the development of strategic management accounting system both at enterprise and national or global accounting system's levels (establishing system of analytical accounting, introduction of new accounting tools, essential reforms of the accounting methodology (methods of accounting objects evaluation, transformation of the existing system of accounting reporting), etc.).

Strategic adjustment of the company's reporting policy (management, financial, integrated reporting) is to ensure the disclosure of indicators in the financial statements (substantive aspects) and its publication in the necessary form (formal aspects) and with the necessary frequency so that it contributes to achieving strategic goals. Adjustments to the company's current reporting system ensure better strategic communication between the company's management and its external stakeholders (investors, borrowers, the public, etc.) by mandatory and additional disclosure of information that will influence their strategic decisions. In this way, there is a clearly directed informational impact on the subjects of different types, which in general contributes to the achievement of strategic goals of the enterprise.

That is why, as noted by J. Waterhouse, M. Gibbins and A. Richardson, there is already a significant amount of accounting literature in which the assessment of voluntary financial disclosure as a strategic tool. Whether or not to disclose such information depends on the costs and benefits of the process. The subjects of generating such information and its recipients interact strategically in understanding the anticipation of each other's actions in response to their own behavior and act to maximize their own interests [5, p. 526].

According to the signal accounting theory, all published accounting information is a certain information signal about the state of affairs of the enterprise, about the peculiarities of the organization of accounting on it, which allows stakeholders to make strategic management decisions. Signal theory allows us to explain the problems of information asymmetry in the capital market, labor market, corporate dividend policy and more.

Based on the provisions of this theory, "good" companies through the disclosure of accounting information can signal the prospects of their activities to stakeholders who are representatives of the capital market, labor market, and the general public. "Bad" companies, ie companies that are prone to opportunistic behavior, in turn, will not mimic such accounting signals, because their implementation requires significant costs, which will make it inappropriate to use such a tool. Such accounting signaling by the company allows to reduce the information asymmetry between internal and external stakeholders on the strategic prospects of enterprise development.

Thus, in contrast to strategic accounting judgments, the main purpose of which is to achieve the required financial performance, strategic adjustment of the company's reporting policy is aimed at making the necessary informational impact through accounting messages and signals, which are institutionally implemented directly through financial statements. created strategic reports of the enterprise and the order on the accounting policy accepted at the enterprise. Such informational influence is carried out purely on external users of accounting information, as the strategic management of the enterprise has complete and reliable information on both the strategic plans of the enterprise and the implementation of strategies already implemented at the enterprise.

Thus, strategic accounting signals allow to eliminate the information asymmetry between internal and external users of accounting information about the company's strategy, which in general contributes to the efficiency of the capital market. The provision of strategic accounting signals about the value, quality and prospects of enterprise development should be considered as a basis or as a factor of influence that causes external users to make strategic decisions regarding the enterprise.

The above analysis of the directions of strategic adjustment of the company's reporting policy revealed that their main purpose is to exert informational

influence on various groups of external entities, the decisions of which depend on the achievement of strategic goals of the enterprise. Based on the provisions of signal theory, the determining factor in the following areas to ensure effective strategic communication is the additional disclosure of accounting information aimed at the following groups of entities and strategic goals that can be achieved as a result of their decisions:

- 1) Investors (goal – to obtain investment funds);
- 2) Borrowers (goal – to get cheap borrowed resources);
- 3) Participants in the labor market – workers, unions, etc. (goal – the resolution of labor disputes, concessions from unions, the conclusion of a collective agreement, etc.).

Thus, the achievement of strategic goals of the enterprise may be influenced by the disclosure of promising accounting information about the future of the enterprise, and additional detailed or more complete information about its current and past activities. In particular, investors' decisions may be influenced by all of the above types of information, and for borrowers, more important is the additional disclosure of information about past events of the company, which confirms the company's ability to settle existing liabilities.

One of the features of the accounting strategic information space is its ability to change its own information boundaries (their narrowing or expansion), which is the result of the emergence / disappearance of certain types of information flows due to: transformation of economic activity of the enterprise and its external environment, which necessitates the formation of additional information of strategic direction; improvement of the strategic management system, which involves the use of new models of strategic decision-making and their accounting support; improvement of investment systems and strategic decision-making systems of external stakeholders; development of new methodological tools for strategic accounting, which provides processing and generalization of information; constant development of information and computer system of the enterprise under the influence of improvement of technical and technological means.

Conclusions

Accounting and analytical information is an essential part of business data store. Its formation is grounded on system approach in the context of accounting and analytical support, which is part of business management information. The system is a form of different types of accounting and analysis organization. It is formed to supply information for the decision-making process and control its fulfillment.

The analysis of scholars' ideas dedicated to the problems of accounting development to meet strategic management stakeholders' needs allowed to reveal one-sided approach concerning accounting advancement as of instrument to provide business strategic management. Herewith there is lack of studies devoted to the problems of accounting development in the context of information disclosure for external stakeholders regarding peculiarities of current and long-term business strategic development. Above-mentioned means the necessity to study financial recordings' content improvement, which would allow to disclose information about business strategy, as well as application of other reporting tools (integrated recording, strategic recording, etc.) to provide strategic-biased accounting information to external stakeholders.

The analysis of the essence of strategic adjustment of the reporting policy of the enterprise allowed to reach the following conclusions about the role of accounting as a means of communication interaction of the enterprise in the system of strategic management:

- 1) accounting in the context of the strategic management system goes beyond its traditional functions, acting as a tool that directly ensures the achievement of strategic goals of the enterprise through the implementation of direct informational influence on the decisions of external users;
- 2) the subjects responsible for the implementation of strategic decisions and in accordance with the team of strategic management of the enterprise should include entities responsible for the implementation of the accounting policy of the enterprise;
- 3) the effectiveness of the strategic accounting policy of the enterprise should be considered in the context of achieving its strategic goals, because only under such conditions will ensure the preservation of existing and the formation of new competitive advantages of the enterprise.

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DOI <https://doi.org/10.26661/2414-0287-2021-2-50-07>**KEY INDICIES OF BUSINESS EFFICIENCY ANALYSIS AND EVALUATION****Proskurina N.M., Dashko I.M., *Faizullina S.A., Kuzmenko A.U.***Zaporizhzhia National University**Ukraine, 69063, Zaporizhzhia, Zhukovsky str., 66***Turan University**Kazakhstan, 050013, Almaty, street Satpayeva, 16*

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Key words:

accounting, liabilities, debts, creditors, accounts payable, calculations, management.

The article examines the economic essence of the concepts of liabilities, accounts payable, creditors, debt, calculations, accounting for transactions with suppliers and contractors on separate sub-accounts and the use of analytical tables of accounts payable to suppliers and contractors to improve management and control of operations of the enterprise. Today there is no unity of views on the economic essence of these concepts, general economic and accounting terminology, issues of organization of accounting and control over settlements with suppliers and contractors and their management. In modern conditions, effectively organized accounting of payments to suppliers and contractors have a significant impact on the financial condition of the enterprise. The expediency of using off-balance sheet accounts in the working plan of the enterprise's accounts is considered, namely account 010 "Accounts payable" and its sub-accounts, which will allow to control accounts payable under a specific agreement, the term of payment of which has not yet come and overdue debts with domestic and foreign creditors, to prevent overdue or violation of terms of its payment, thereby improving the liquidity and solvency of the enterprise; introduction of sub-accounts of the second order of account 63 "Settlements with suppliers and contractors", which help to assess quickly the status of trade payables in general and for each supplier and contractor and the contract. To improve the accounting of settlements with suppliers, it is proposed to introduce an analytical document "Register of documents for payment". Important issues of the management system in accounting for payments to suppliers at the enterprise are the rational choice of partners to supply the required volumes of goods and materials and the optimization payments for them, so it is advisable to consider the system of criteria for selecting suppliers (quality, reliability, completeness, etc.) using a supplier selection model based on a database: demand; commercial offers; contracts; execution of contracts, which is implemented using a special software interface "Database debugging", that provides opportunities to: change the structure of databases; select records from them; change the location of databases on disk; perform queries to databases; choose the type of access to databases. Such information can be used to manage the enterprise and to analyze trade payables at the enterprise.

УДОСКОНАЛЕННЯ ОБЛІКУ ТА КОНТРОЛЮ РОЗРАХУНКІВ З ПОСТАЧАЛЬНИКАМИ ТА ПІДРЯДНИКАМИ ЗА СУЧАСНИХ УМОВ ГОСПОДАРЮВАННЯ**Проскуріна Н.М., Дашко І.М., *Файзулліна С.А., Кузьменко А.Ю.***Запорізький національний університет**Україна, 69063, м. Запоріжжя, вул. Жуковського, 66***Університет Туран**Казахстан, 050013, м. Алматы, вул. Сампаєва, 16 а***Ключові слова:**

облік, зобов'язання, заборгованість, кредитори, кредиторська заборгованість, розрахунки, управління.

У статті досліджено питання економічної суті понять зобов'язання, кредиторська заборгованість, кредитори, заборгованість, розрахунки, обліку операцій з постачальниками і підрядниками на окремих субрахунках і використання аналітичних таблиць обліку кредиторської заборгованості перед постачальниками і підрядниками для підвищення управління та контролю за здійсненими операціями підприємства. На сьогодні немає єдності поглядів щодо економічної суті даних понять, загальноекономічної та бухгалтерської термінології, питань організації обліку та контролю за розрахунками

з постачальниками і підрядниками та управління ними. В сучасних умовах ефективно організований облік розрахунків з постачальниками і підрядниками здійснюють неабиякий вплив на фінансовий стан підприємства. Розглянуто доцільність використовувати в робочому плані рахунків підприємства позабалансові рахунки, а саме рахунок 010 «Кредиторська заборгованість» та його субрахунки, які дозволяють контролювати кредиторську заборгованість за конкретним договором, термін сплати якої ще не настав та прострочену заборгованість з вітчизняними та іноземними кредиторами, не допускати прострочення чи порушення термінів її сплати, тим самим покращуючи ліквідність та платоспроможність підприємства; введення субрахунків другого порядку рахунку 63 «Розрахунки з постачальниками та підрядниками», які допомагають оперативню оцінювати стан товарної кредиторської заборгованості в цілому та за кожним постачальником і підрядником і договором. Для вдосконалення ведення обліку розрахунків з постачальниками запропоновано ввести аналітичний документ «Реєстр документів до сплати». Важливими питаннями системи управління в обліку розрахунків з постачальниками на підприємстві є раціональний вибір партнерів щодо постачання необхідних обсягів ТМЦ та оптимізація розрахунків за них, тому доцільно враховувати систему критерії вибору постачальників (якість, надійність, комплектність та інші) за допомогою моделі вибору постачальників, основою якої є бази даних: потреба; комерційні пропозиції; контракти; виконання контрактів, що реалізується за допомогою спеціального програмного інтерфейсу «Налагодження баз даних», який надає можливість змінювати структуру баз даних; виділяти записи з них; змінювати місцезнаходження баз даних на диску; виконувати запити до баз даних; обирати тип доступу до баз даних. Така інформація може бути використана для управління підприємством та для аналізу товарної кредиторської заборгованості на підприємстві.

Formulation of the problem

In the course of economic activity each enterprise carries out settlement operations with counterparties. Enterprises receive stocks, goods, services from suppliers and contractors; the settlements with them are the bulk of all settlement operations. Therefore, during the settlement operations, it is necessary to constantly monitor their implementation and reflection in the accounting in order to avoid violations and abuses, as well as to improve constantly this process. In modern conditions, effectively organized accountings of payments to suppliers and contractors have a significant impact on the financial condition of the enterprise. After all, when settling accounts with counterparties there are receivables or payables, which must be controlled clearly and improve constantly its accounting and control over it, to prevent overdue payments and bringing the debt to a state of hopelessness. The solution of this problem is facilitated by the rationalization of information support. The increase in the volume and variety of information is due to the system of socio-economic relations and, in particular, financial relations at the state level and at the level of economic entities. The financial environment determines the functioning and interaction with the settlement system, which mediates financial and economic activities. Calculations, having a permanent, dynamic nature, require certain managerial influences, which are produced on the basis of processing numerical flows of various economic information, the leading role in the aggregate of which belongs to the accounting information. It is possible to control the state of settlement discipline with suppliers and contractors at the enterprise subject to provision that the management is equipped with objective and reliable information, which can be provided only by the company's accounting system.

Analysis of recent research and publications

The current professional literature highlights the positions of many scientists on the economic nature of the category of liabilities to suppliers and contractors. The study of the peculiarities of accounting for the calculations of the enterprise with suppliers and contractors are considered in the works of many scientists, such as O.S. Borodkin, F.F. Butynets, S.F. Golov, O.M. Golovashtchenko, V.M. Kostuchenko, T.N. Malkov, N.M. Maliuha, M.Iu. Medvediev, V.V. Nareznyi, S.A. Nikolaeva, V.F. Palii, M.S. Pushkar, V.O. Shevchuk and others. The works of these researchers reveal the essence of current liabilities, the organization of accounting, as well as their impact on the financial condition of the enterprise. However, there are still issues that need further research: determining the content of liabilities to suppliers and contractors, transparency of their reflection in the reporting, accounting for settlements using promissory notes, organization of accounting calculations in terms of automation, control over settlements with suppliers and contractors, etc. After all, many theoretical provisions concerning the interpretation of the essence of settlements with suppliers and contractors, debts and liabilities to them, their methods of accounting and control need to be further improved. All this affected the level of development of certain theoretical and practical aspects of the accounting process of settlements with suppliers and contractors at the enterprise.

Formulation of the goals of the article

The purpose of the research is to study the theoretical and practical aspects of the essence of settlements with suppliers and contractors and to develop proposals for improving the accounting and control of settlement transactions with them.

Presentation of the main research material

Settlements with suppliers and contractors are mutual settlements of enterprises for inventory, performed work, provided services. Settlement relationships between suppliers (contractors) and buyers arise in the course of economic activity of enterprises and these relations are usually preceded by the conclusion of contracts (contracts) of purchase and sale of inventory, contracts for various works, services and more.

Liaibilities in economic activity indicate that on a competitive market, each producer and seller of goods takes over an informal commitment to satisfy the desires of buyers at the expense of the expected usefulness of the proposed product. This approach to the problem suggests that on the market for goods and services (expected benefits) a process of selling and acquiring liabilities occurs. These commitments are informal: they are not documented, but are actually valid. Being a share of working capital, accounts payable accelerates the turnover of working capital and thus affects the increase in income of the enterprise, which is the settlement of them and other changes in assets and capital. Therefore, transactions are called settlement – commodity, when it comes to payment of: products that have a natural – material form (coal, cement, fabric, etc.); services (repair of equipment, buildings, household services); works (scientific and technical development, construction).

Liabilities are debts (indebtedness) of an enterprise that arise mainly from the purchase of goods and services on credit, or loans that the enterprise receives for its financing. Property relations between business entities that appear as a result of such transactions acquire the character of civil law obligations. Article 151 of the Civil Code of Ukraine emphasizes: “By virtue of the obligation, one party (debtor) is obliged to take a certain action in favor of the other party (creditor), such as: transfer property, perform work, pay money, etc. or refrain from certain action, and the creditor has the right to demand from the debtor to perform his duty” [2].

In turn, in UAS11 “Liabilities”, approved by the order of the Ministry of Finance of Ukraine from 31.01.2000 № 20, the liability defines as a debt of the enterprise, which arose as a result of past events and repayment of which in the future, as is expected to reduce the resources of the enterprise, which embodying economic benefits [6].

Therefore, comparing the two approaches to determining the subject of research should be noted the following. Both individuals and legal entities can be the subjects of the obligation. These are: creditor – a person who has the right to claim; debtor – a person who has a liability which corresponds to the right of claim of the creditor. Each of the subjects of the liability has rights and obligations, legally the same position and not subordinate to another. In some liabilities, one entity acts solely as a creditor and the other acts solely as a debtor. However, for the most part, each party to the liability is both a creditor and a debtor, as both parties may have rights and obligations to each other. The object of the liability is what the rights and obligations of the subjects are aimed at. Thus, the creditor has the right

to demand from the debtor, and the debtor is obliged to take a certain action in favor of the creditor: to transfer property, perform work, pay money.

There is no special standard that defines the methodological principles of formation of accounts payable in accounting and their reflection in the financial statements, and this is not necessary. After all, as already noted, accounts payable are nothing more than goods (real estate and movable property, intangible assets, other non-current tangible assets, low-value perishable items, etc.) or services with the seller of such goods (services). Therefore, the order of formation and reflection of information about liabilities in the reporting is determined by UAS 11 “Liabilities” [6].

In this case, for the recognition of liabilities and their reflection in the accounting, as required by UAS 11, two conditions must be met: their assessment can be reliably determined; there is a possibility of a decrease in economic benefits because of their repayment.

At the same time, certain features should be taken into account when reflecting liabilities under UAS 11.

Firstly, interest-bearing liabilities that are due within twelve months of the balance sheet date should be treated as non-current liabilities, if the original maturity was more than 12 months and there is an agreement for re-registration of this commitment for the long term. This principle is in full compliance with paragraph 63 of International Financial Reporting Standards (IFRS) 1. Long-term liabilities under the loan agreement (if the agreement provides for repayment of obligations at the request of the creditor (lender) in case of breach of conditions related to the financial condition of the entrepreneur – borrower), the terms of which violated, are considered long-term if: the lender before the approval of the financial statements has agreed not to require repayment of liabilities due to breach; no further breaches of the loan agreement are expected within 12 months from the balance sheet date. This principle is also fully consistent with IFRS 1 [2].

Accounts payable is a amount of debt of the enterprise to creditors on a certain date. Accounts payable for goods, works, and services – the amount owed to suppliers and contractors for tangible assets, performed work and tangible services.

Creditors – legal entities and individuals to whom the company owes certain amounts of funds, their equivalents or other assets as a result of past events.

Settlements are a system of relations between legal entities and individuals that arise at the time of practical performance of legally executed financial obligations during the implementation of commodity and non-commodity transactions.

Debt is the status of settlements on financial liabilities at any time.

At each enterprise, the policy of receivables and payables should be not developed separately, but be consistent with each other. From the point of view of accounting, settlement operations are the object of accounting, first, as a dynamic process (payment before, simultaneously or after obtaining of goods, works, services) and, secondly, as a static state, i.e. debt between subjects of calculations.

Thus, the concepts of “settlements” and “debt” in the vast majority contain references to “liabilities”: settlements arise on liabilities or liabilities arise from settlements, debt is a liability or vice versa. That is, there is a need to determine the place of each of the concepts and the relationship between them.

Imperfect accounting of payments to suppliers and contractors can cause a significant amount of accounts payable, which, in turn, will lead to deterioration in the financial condition of the enterprise. The reason for this may be the imperfection of accounting for payments to suppliers and contractors, and the negligence and fraud of employees.

In order to improve the accounting of payments to suppliers and contractors, we propose to use off-balance sheet accounts in the work plan of the enterprise's accounts, namely account 010 “Accounts payable” and its sub-accounts: 0101 “Accounts payable for goods, works, services with domestic suppliers and contractors, payment term of which has not come yet”, 0102” Accounts payable for goods, works, services with foreign suppliers and contractors, the payment term of which has not come yet”, 0103” Overdue accounts payable for goods, works, services to domestic suppliers and contractors”, 0104” Overdue accounts payable debt for goods, works, services to foreign suppliers and contractors.

These sub-accounts facilitate the work of accountants, you do not need to analyze each contract and choose the accounts payable. Such arrears will be kept in off-balance sheet accounts under each agreement separately. Such accounts will help to monitor accounts payable, control the timing of its payment.

Also, to improve the accounting of settlements with suppliers and contractors, it will be more appropriate to introduce sub-accounts of the second order of account 63 “Settlements with suppliers and contractors”, in particular: to sub-account 631 “Settlements with domestic suppliers and contractors”:

- analytical sub-account 6311 “Debts to suppliers and contractors, the due date of which has not come yet”;
- analytical sub-account 6312 “Deferred debts to suppliers and contractors”;
- analytical sub-account 6313 “Overdue debts to suppliers and contractors”;

Similarly, it is also advisable to open sub-accounts to account 632 “Settlements with foreign suppliers and contractors”.

Thus, the proposed sub-accounts help to assess quickly the status of trade payables in general and for each supplier and contractor and contract, as well as to control the maturity.

Important issues of the management system in accounting for payments to suppliers at the enterprise are

the rational choice of partners for the supply of the required amount of goods and materials and the optimization of payments for them and their accounting. Various factors can act as criteria for the optimum choice of suppliers: the price which component is transport expenses; conditions on which stocks are purchased, taking into account: their optimal delivery and transportation costs, mode of transport and optimal delivery route.

Thus, due to the variety of factors that need to be considered when choosing suppliers, the position of individual economists on the use of ratings to assess the choice of suppliers is noteworthy. As practice shows, the enterprise's management uses, as a rule, only a price criterion at decision-making on a choice of partners on supply. But this approach is unacceptable, as the purchase price is in last place in the rank of criteria in many cases [2].

Therefore, it is advisable to take into account the system of criteria for selecting suppliers (quality, reliability, completeness, etc.), using the following model:

$$\sum_{i=1}^n Xi \frac{Li}{Ki} (1 - Hi^{Xi}) \rightarrow \min, \quad (1)$$

where n is the number of potential suppliers; Li (Pi), Ki (Ci), Hi (Ri) – are respectively the purchase price of this product, the coefficient of competitiveness in quality and the coefficient of reliability of i supplier; Xi – is an unknown amount of goods and materials that will be purchased from i supplier.

Based on the proposed model, the decision support system for the selection of suppliers deserves attention; it is based on databases: demand, commercial offers, contracts, execution of contracts; this database is implemented using a special software interface “Database debugging”, which provides opportunities to: change the structure of databases; select records from them; change the location of databases on disk; perform queries to databases; select the type of database access.

When making payments on accounts at enterprises, there are problems in controlling the repayment of debts to suppliers, because the payment can be full or partial. So we propose to introduce an analytical document “Register of documents to be paid” to improve the accounting of payments to suppliers (Table 1).

The main advantage of this document is that it reflects the balances at the end of the day for each specific account of the supplier at the end of the day and month and allows controlling accounts payable to each supplier and avoiding its delay and transition to a state of hopelessness.

In the future, the analytical table 2 can be used to improve the management and control over the implementation of accounting for the obligations of the enterprise.

Table 1 – Register of documents payable by the enterprise

№	Supplier	Name of goods and materials	№ and date of document to be paid	Amount with VAT, UAH.	Payment term, days	Payment amount with VAT, UAH	Account balance at beginning of month UAH	Date of payment under contract	Number of days till pay	Actual payment date

Table 2 – Analytical table of control and management of accounts payable of the enterprise to suppliers and contractors

№	Supplier	Accounts payable of the enterprise to suppliers and contractors									
		Total	including maturity, UAH			from it - overdue, UAH					
			up to 3 months	from 3 to 6 months	from 6 to 12 months	Термін прострочення, дні			Amount, UAH	Causes	Measures taken
						up to 3 months	from 3 to 6 months	from 6 to 12 months			

Thus, summarizing the above, in order to improve the accounting of the enterprise's settlements with suppliers and contractors, we have proposed to:

– use sub-accounts of off-balance sheet account 10, which will allow to control accounts payable under a specific agreement, the maturity of which has not come yet and overdue debts with domestic and foreign creditors, to prevent overdue or late payment, thereby improving liquidity and solvency of the enterprise;

– keep records using sub-accounts of the second order of account 63, which will reflect the debt, the payment of which has not come yet, deferred and overdue debt and will control and prevent its overdue,

which will affect positively the financial condition of the enterprise;

– use an analytical table that will allow to control accounts payable for each supplier and contractor and the terms of its repayment or delay in order to increase control over the accounting of liabilities;

– keep the Register of documents of the enterprise to be paid to suppliers, which will increase the efficiency of accounting work to account the balances on the accounts of suppliers.

These proposals will help to improve accounting and allow to control accounts payable in general, preventing violations of maturity date.

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ACCOUNTING OF PRODUCTION STOCKS ON THE WAY TO INCREASE THE EFFICIENCY OF MODERN PRODUCTION

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Ukraine's transition to modern market economy requirements requires enterprises to increase production efficiency, competitiveness of products and services on the basis of efficient forms of management and production management, these aspects became the basis of this article, because inventories are an important component of every modern enterprise. Necessary to properly reflect the financial condition of production. No enterprise does without the use of inventories in its economic activities. Inventories are one of the most important factors in ensuring the sustainability and continuity of reproduction. This important role is played by all components of the total inventory, including inventory, which are in the enterprise. Continuity of production requires the constant availability of raw materials to fully meet the needs of production at any time during their use. Control over this ensures proper and timely inventory accounting. The study of inventory accounting is of great key importance for effective financial management. Inventories can make up a significant share not only in current assets, but also in the assets of the enterprise as a whole. This may indicate that companies are having difficulty selling their products, which in turn may be due to poor product quality, violation of production technology and the choice of inefficient sales methods. Violation of the optimal level of inventories leads to losses in the company's activities, as it increases the cost of storing these inventories, diverts liquidity from circulation, increases the risk of depreciation of goods and reduce their consumer qualities, leads to loss of customers. Thus, every accountant inevitably faces the need to reflect in the accounting of operations with inventories, their comprehensive study and proper understanding of the essence of inventories, their value and role in the economy of enterprises, is among the most important problems of saving and rational use of inventory. In production, setting tasks for improving production technologies.

ОБЛІК ВИРОБНИЧИХ ЗАПАСІВ НА ШЛЯХУ ПІДВИЩЕННЯ ЕФЕКТИВНОСТІ СУЧАСНОГО ВИРОБНИЦТВА

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Ключові слова:

виробничі запаси, матеріали, облік, методи, матеріали, контроль, цінності, виробництво.

Перехід України до сучасних вимог ринкової економіки вимагає від підприємств підвищення ефективності виробництва, конкурентоздатності продукції та послуг на основі ефективних форм господарювання та управління виробництвом, саме ці аспекти стали основою даної статті, адже виробничі запаси є важливою складовою діяльності кожного сучасного підприємства, а їх облік є необхідним для правильного відображення фінансового стану виробництва. Жодне підприємство не обходиться без застосування виробничих запасів у своїй господарській діяльності. Запаси представляють собою один з найважливіших факторів забезпечення сталості та безперервності відтворення. Цю важливу роль відіграють всі складові частини сукупного матеріального запасу, в тому числі товарно-матеріальні цінності, що знаходяться у підприємства. Безперервність виробництва вимагає постійної наявності сировини і матеріалів, для повного задоволення потреб виробництва в будь-який момент їх використання. Контроль над цим забезпечує правильний і своєчасний облік запасів. Дослідження обліку виробничих запасів має велике ключове значення для ефективного фінансового управління.

Запаси можуть складати значну питому вагу не тільки в складі оборотних активів, але й в цілому в активах підприємства. Це може свідчити про те, що підприємства зазнають труднощів зі збутом своєї продукції, що в свою чергу може бути обумовлено низькою якістю продукції, порушенням технології виробництва і вибором неефективних методів реалізації. Порушення оптимального рівня виробничих запасів призводить до збитків у діяльності компанії, оскільки збільшує витрати по зберіганню цих запасів, відволікає з обороту ліквідні кошти, збільшує небезпеку знецінення товарів і зниження їх споживчих якостей, призводить до втрати клієнтів. Таким чином, кожен бухгалтер неминує стикається з необхідністю відображення в обліку операцій з виробничими запасами, їх всебічне вивчення і правильне розуміння сутності запасів товарно-матеріальних цінностей, їх значення і ролі в економіці підприємств, стоїть в ряді найважливіших проблем з економії та раціонального використання матеріальних цінностей на виробництві, постановки завдань щодо вдосконалення технологій виробництва.

Analysis of recent studies and publications

Theoretical provisions and practical aspects of inventory accounting have been substantiated in their works by such Ukrainian scientists as O.A. Bakurova, O.I. Koblyanska, K.E. Nagirskaya, L.V. Napadovska, M.F. Ogiychuk, O.D. Vovchak, S.F. Golova, F.F. Butynets, P.S. Bezrukykh, S.V. Andros, V.I. Yefimenko, M.V. Kuzhelny, L.I. Slyusarchuk, N.M. Tkachenko and other researchers. Among foreign scientists, the issue of inventory accounting is reflected in the works of E. Britton, K. Waterson, I.A. Blanc, I.A. Bondarev, G. Musa, V.I. Petrov, R. Hanschmann, J. Stevenson. The study of scientific works shows that still remain relevant and debatable theoretical provisions and important issues of inventory accounting, the need for continuous improvement of the accounting system in production, taking into account its specifics.

Formation of objectives of the article

The basis of the research was the study of theoretical and practical experience in the organization of accounting of inventories, the disclosure of the essence of business transactions for inventories and the correctness of their reflection in the accounting of the enterprise. Investigate the processes of improving the accounting of inventories in modern business conditions, which will allow the company to obtain quality accounting information, as well as finding ways to successfully manage it

Formulation of goals

In the economic literature, the concept of “productive resources” appeared in the 70–80-s of last century [1; 2]. In particular, under the “production resources” scientists understand the sum of the constituent resources of fixed assets, material and labor resources. The term “stocks” in the domestic literature appeared with the approval of the Regulation (standard) of accounting 9 [1]. Prior to the introduction of standards, the terminology had a different name, namely commodity – material values, objects of labor, means of labor, material resources, production resources.

The use of the term “inventories” is associated with certain contradictory points, because inventories are not only objects of labor, but also means of labor. Therefore, this concept is broader, because it covers all assets that have a tangible form and are used in the production

process. The terms “inventories” and “inventories” are not acceptable for use because they cover tangible assets that can be both current and non-current. The emphasis is on the possibility of selling such assets.

The term “inventories” reflects the characteristic properties of material elements of production, the main purpose of which – processing in the production process, the formation of the basis of products, taking into account the possibility of their composition in reserves in the form of inventories or finished products (goods) are in warehouses [4]. The use of this term causes certain contradictions, which are related to its interpretation in the reference literature. Thus, most authors understand the term “stocks” as a reserve of material resources that are not used in the current activities of the enterprise and are designed to ensure the continuity of the production process, storage in case of need. That is, the concept of stocks is quite specific. Despite the fact that the term “inventories” is the most acceptable in the application to reveal the essence of the objects of labor, their individual characteristics, with the adoption of P (S) BU the term “stocks” came into wide use.

Inventories are the portion of an organization’s assets that act as current assets.

It is important that inventories can be recognized as assets only if the following standard conditions are met (paragraph 5 of UAS 9, paragraph 2.1):

- 1) the enterprise transferred the risks and rewards associated with the right of ownership or the right of full economic management (operational management) of the acquired (received) stocks;
- 2) the company manages inventories and controls them;
- 3) there is a possibility of obtaining in the future economic benefits associated with the use of stocks;
- 4) the value of inventories can be reliably determined.

A distinctive feature of inventories is that they belong to current assets. In other words, inventories are intended for sale or consumption during one operating cycle or within 12 months from the balance sheet date.

Inventories, depending on the purpose and method of use in the production process have their own classification, the unit of inventory accounting is their name or homogeneous group (type).

The classification of inventories given in paragraph 6 of UAS 9 and paragraph 1.3 provides for the division

of inventories for accounting purposes depending on the manner in which they are obtained and the directions in which they will be used. According to this classification, inventories include:

- raw materials, basic and auxiliary materials, components and other tangible assets intended for production, performance of works, provision of services, production maintenance and administrative needs;
- work in progress (work in progress) in the form of unfinished processing and assembly of parts, assemblies, products and unfinished technological processes;
- finished products, which are produced at the enterprise, are intended for sale and meet the technical and qualitative characteristics provided by the contract or regulatory legal act;
- goods in the form of tangible assets purchased (received) and held by the enterprise for resale;
- low-value and perishable items (IBE), which are used not more than one year or the normal operating cycle, if it is more than one year;
- current biological assets that are valued in accordance with UAS 9, as well as agricultural and forestry products after their initial recognition.

The main tasks of inventory accounting are:

- 1) formation of the actual cost of inventories;
- 2) correct and timely documentation of operations and ensuring reliable data on procurement, receipt and release of stocks;
- 3) control over the preservation of stocks in their places of storage and at all stages of their movement;
- 4) control over compliance with the norms of stocks established by the organization, ensuring uninterrupted production, performance of works and provision of services;
- 5) timely identification of unnecessary and excess stocks for the purpose of their possible sale or identification of other opportunities to attract them into circulation;

6) carrying out the analysis of efficiency of use of stocks.

The following basic requirements will be set for the accounting of production stocks, as:

- continuous, continuous and complete reflection of the movement (arrival, costs, movement) and the availability of stocks;
- quantity accounting and financial evaluation of stocks;
- efficiency (timeliness) of inventory accounting;
- reliability;
- analytical accounting at the beginning of each month (turnover and balances);
- correspondence of data of warehouse accounting and operative accounting of the movement of stocks in divisions of the enterprise according to accounting data.

The chart of accounts provides for several ways of accepting materials for accounting:

1) materials are accounted for at actual cost within account 10 “Materials”. With this method of accounting to account 10 “Materials” can be opened sub-accounts. The cost of materials remaining at the end of the month on the road or not taken out of the supplier's warehouses is reflected on the debit of account 10 “Materials” and the credit of account 60 “Settlements with suppliers and contractors”;

2) materials are taken into account 15 “Procurement and acquisition of tangible assets” before the actual receipt of stocks in the warehouse. Then the deviation of the actual value from the accounting is debited to account 16 “Deviation of the value of tangible assets”, and inventories at actual value are recorded in account 10 “Materials”.

The company chooses the method of accounting for materials and enshrines it in the order of accounting policies. Detailed classification of the use of inventories, distributed to accounts and sub-accounts at the enterprise are presented in table 1.

Table 1. Classification of stocks on accounts (sub-accounts) of accounting

Account (sub-account) of accounting	Contents of the account (sub-account)
1	2
<i>Inventories (account 20) *</i>	
* The account is designed to summarize information on the availability and movement of stocks of raw materials and materials (including raw materials and materials in transit and processing), construction materials, spare parts, agricultural materials, fuel, containers and packaging materials, waste of main production.	
201 “Raw materials”	This sub-account reflects the presence and movement of raw materials and basic materials that are part of the products produced or are necessary components in its production. Here reflect the auxiliary materials used in the manufacture of products or for economic needs, technical purposes and assistance in the production process. Enterprises that procure agricultural products for processing also reflect their value on this sub-account. Contracting construction enterprises keep on this sub-account the account of the basic materials used at implementation of construction and installation and repair works.
202 “Purchasing semi-finished products and components”	This sub-account reflects the presence and movement of purchased semi-finished products, finished components purchased for the assembly of products and require additional labor costs for their processing or assembly. On the same sub-account research and design organizations reflect the components purchased by them for scientific (experimental) work, special equipment and tools, devices and other devices. Products purchased for the completion of finished products, the cost of which is not included in the cost of production of the enterprise, reflect on account 28 “Goods”.
203 “Fuel”	This takes into account the availability and movement of fuel (petroleum products, solid fuels, lubricants), which is purchased or procured for the technological needs of production, operation of vehicles, as well as for energy production and heating of buildings. This sub-account also takes into account paid coupons for oil and gas.

Table 1 continuation

1	2
204 "Containers and packaging materials"	It reflects the presence and movement of all types of containers (except containers used as household equipment), as well as materials and parts used for the manufacture of containers and their repair (parts for assembling boxes, barrel riveting, etc.).
205 "Building materials"	This sub-account of developers reflects the movement of building materials, structures and parts, equipment and components related to installation, and other tangible assets required to perform construction and installation work, manufacture of building parts and structures.
206 "Materials transferred for processing"	This sub-account records materials that are transferred for processing to the party and which are then included in the cost of products received from them. Analytical accounting of materials transferred for processing is conducted in the context that provides information about processing companies and control over processing operations and related costs.
207 "Spare parts"	It keeps records of purchased or manufactured spare parts, finished parts, assemblies, units used for repairs, replacement of worn parts of machines, equipment, vehicles, tools, as well as car tires in stock and turnover. Here they keep records of the exchange fund of complete machines, equipment, engines, assemblies, units created in the repair departments of enterprises or repair enterprises. Analytical accounting of spare parts is conducted by places of storage and homogeneous groups (mechanical group, electrical group, etc.). Analytical accounting of machines, equipment, engines, units and units of the exchange fund is conducted by the following groups: – serviceable (new and refurbished); – subject to renewal (in stock); – are under repair.
208 "Agricultural materials"	This sub-account takes into account mineral fertilizers, pesticides to control pests and diseases of crops, biological products, medicines, chemicals. It also reflects the seedlings, seeds (purchased and own cultivation), used for planting, sowing directly on the territory of the enterprise.
209 "Other materials"	This sub-account records forms of strict accounting (at cost), production waste (trimmings, shavings, etc.), incorrigible shortages, tangible assets obtained from the liquidation of fixed assets that can not be used as materials, fuel or spare parts at this enterprise (scrap metal, recycling), worn tires, etc.
<i>Low-value and perishable items (account 22)</i>	
22 "Low-value and perishable items"	The account is designed to record and summarize information on the availability and movement of IBEs owned by the company and included in inventories. In this case, IBE includes items that are used for no more than one year or the normal operating cycle, if it exceeds one year, in particular: tools, household equipment, special equipment, overalls, etc. Analytical accounting of IBE is conducted by types of items in homogeneous groups, established based on the needs of the enterprise.
<i>Production (account 23)</i>	
23 "Production"	The account is used to summarize information on the cost of production (works, services). It reflects the direct production and distributed overhead costs, as well as losses from shortages of products (works, services) for technological reasons. Analytical accounting is conducted by types of production, by cost items and types or groups of products. In large industries, analytical cost accounting can be conducted by departments of the enterprise and the centers of costs and responsibilities.
<i>Lack of production (account 24)</i>	
24 "Lack of production"	The invoice is designed to record and summarize information about products, semi-finished products, parts, assemblies and works that do not meet the quality standards or specifications and can not be used for its intended purpose or can be used only after additional costs for correction. Analytical accounting is conducted by type of production.
<i>Semi-finished products (account 25)</i>	
25 "Semi-finished products"	The account is designed to account for and summarize information on the availability and movement of semi-finished products of its own production. Accounting for semi-finished products of own production on a separate account is conducted by enterprises in which semi-finished products, in addition to use in production, are sold to the party as finished products.
	We will remind: to semi-finished products carry production which has not passed all stages of production established by technological process and needs completion or completion (pig-iron processing in ferrous metallurgy, crude rubber and glue in the rubber industry, sulfuric acid at a nitrogen-fat combine in the chemical industry, sovar etc.). Analytical accounting is conducted by types of semi-finished products, determined based on the needs of the enterprise.
<i>Finished products (account 26)</i>	
26 "Finished goods"	The purpose of this account is to summarize information on the availability and movement of finished products of the enterprise. In this case, the finished product includes products whose processing is completed and which has been tested, accepted, completed in accordance with the terms of contracts with customers and meets the technical conditions and standards. Analytical accounting is conducted by types of finished products.

End of Table 2

1	2
<i>Goods (account 28) *</i>	
* This account records the movement of inventory, goods received by the company for sale. It is used mainly by sales, trade and procurement companies and organizations, as well as catering companies. At industrial and other industrial enterprises account 28 "Goods" use: – to account for any products, materials, products that are specially purchased for sale; – in cases where the cost of tangible assets purchased for acquisition is not included in the cost of finished products manufactured at this enterprise, and is subject to reimbursement by buyers separately. Supplier, sales, trade enterprises and organizations here also keep records of purchased packaging and packaging of own production, except for inventory packaging, which is used for production or economic needs (accounting of such packaging is on account 11 "Other non-current tangible assets" or account 20 "Production stocks").	
281 "Goods in stock"	This sub-account records the movement and availability of inventories located at wholesale and distribution bases, warehouses, vegetable storages, freezers, etc.
282 "Goods in trade"	It keeps track of the movement and availability of goods at retail outlets (in shops, tents, kiosks, in the cafeterias of catering establishments, etc.).
283 "Goods on commission"	This sub-account records goods transferred to the commission under commission agreements and other civil law agreements that do not provide for the transfer of ownership of these goods before their sale (for example, under power of attorney agreements). Analytical accounting is conducted by types of goods and commission agents.
284 "Packaging for goods"	Here are records of the presence and movement of containers under the goods and empty containers. Trade enterprises may keep records of containers at average accounting prices, which are set by the management of the enterprise by types (groups) of containers and prices for containers. The difference between purchase prices and average accounting prices for packaging is attributed to sub-account 285 "Trade margin".
285 "Trade margin"	On this sub-account of the retail trade enterprise when accounting for goods at selling prices reflect the trade margin on goods, etc. the difference between the purchase and sale price (retail) value of goods.
286 "Non-current assets and disposal groups held for sale"	It records the availability and movement of non-current assets and disposal groups that are recognized as held for sale. It will be recalled that such non-current assets are transferred to inventories in accordance with UAS 27.

The life cycle of production stocks at the enterprise is the following stages: receipt – delivery to production – return from production. In accordance with the cycle in the accounting of inventories are the following groups of accounting transactions: accounting for income; accounting for the release of tangible assets and return from it. According to UAS 9, the initial unit cost of inventories acquired in exchange for similar inventories is equal to the carrying amount of the inventories transferred. If the carrying amount of the inventories transferred exceeds their actual value, the initial cost of the inventories received is their fair value. The difference between the carrying amount and the fair value of the inventories transferred is included in expenses in the reporting period.

At release of stocks in production, from production, sale, or other disposal – their assessment is carried out by one of the following methods:

- the identified cost of the relevant unit of inventory;
- weighted average cost;
- cost of the first time receipts of stocks;
- regulatory costs;
- selling prices.

For all inventory units that have the same purpose and the same conditions of use, only one of the above methods is used [4].

The cost of goods sold is defined as the difference between the selling price (retail) of goods sold and the amount of trade margin on these goods. The amount of trade margin on goods sold is defined as product of value for sale (retail) of sold goods and average percentage of trade margin. Average percentage trade margin is determined by dividing the amount of the balance trade margins at the

beginning of the reporting month and trade margins in the selling price of goods received in the reporting month for the amount of selling (retail) value of the balance of goods at the beginning reporting month and sales (retail) value received in reporting month of goods. The amount by which the initial cost of inventories exceeds the net the cost of their implementation, and the cost of completely lost (spoiled or those that are missing) stocks – written off to the cost of reporting period. Amounts of shortages and losses from damage to values before acceptance decisions about specific culprits are reflected in off-balance sheet accounts. Once the persons to be reimbursed have been identified, the amount to be reimbursed is credited to the receivables debt (or other assets) and income for the reporting period.

At the balance sheet date, inventories should be reflected at the lower of two estimates:

- initial cost (cost of procurement);
- net realizable value.

The reflection in the balance sheet of inventories at net realizable value is used in trade, and at industrial enterprises inventories are reflected at cost.

The initial cost is made differently – depending on the source of receipt of stocks (purchase for a fee, contribution to the authorized capital, result of own production, exchange operations and gratuitous receipt).

The initial cost of inventories purchased for a fee includes the purchase price of fuel and lubricants, commissions paid to intermediaries, customs duties and taxes.

If inventories are accounted for as a contribution to share capital, as a result of exchange transactions, or in connection with gratuitous receipt, the initial cost of such inventories is set at fair value.

The relevance of this definition is that fair value is the agreed value that is recognized by the informed and independent stakeholders involved in this agreement.

Valuation at accounting prices is used to reflect the daily movement of materials [1].

Thus, the current assessment is necessary for the monetary expression of the movement of materials during the month. Evaluation of materials at their disposal (release into production, sale, free transfer) can be carried out by one of the following methods:

- the method of identified cost of the relevant unit of inventory;
- weighted average cost method;
- FIFO method;
- LIFO method;
- method of regulatory costs.

The first method is used when releasing stocks intended for special orders and projects. It is used in relation to those materials that can be replaced by others. This method is used for spare parts and components.

Weighted average cost method. With this method, the assessment is performed for each unit of inventory by dividing the cost of the total inventory in total, taking into account the initial balance by the total number of inventories and received for the month.

The FIFO method is based (from the English. FIFO – first in first out) on the assumption that inventories are used in the order in which they enter the enterprise, which means that inventories released into production are valued at the cost of the first time inventories, ie stocks purchased first are sold first. In turn, the remaining stocks at the end of the period were purchased or manufactured last [1].

By calculating the cost of depleted inventories by the FIFO method at the enterprise, we use the data of the example, the calculation is presented in table 2.

The cost of depleted inventories is:

$$70 \times 55.80 + 50 \times 60.00 + 10 \times 60.00 + 50 \times 61.20 = 10566.00 \text{ (UAH)}.$$

The cost of inventories at the end of the reporting period is equal to:

$$20 \times 61.20 = 1224.00 \text{ (UAH) or } 3906.00 + 7884.00 - 10566.00 = 1224.00 \text{ (UAH)}.$$

The LIFO method is the opposite of the FIFO method. It is based on the sequence of their return to the enterprise. This means that inventories that are released into production

are valued at the cost of the latter at the time of receipt of inventories.

The method of regulatory costs is based on the use of consumables per unit of output. It is very convenient in mechanical engineering, furniture, sewing, leather, food industry at mass and serial production of various and difficult production, with a large number of details and knots. The condition for the application of this method is a constant revision of the technological and planning department of the cost rate and the development of regulatory calculations.

Valuation of materials at weighted average cost is traditional for domestic accounting practice, ie it is convenient and familiar. At the enterprise where perishable materials (raw) are used, application of this method is justified. Many companies in inflation do not use this method. The LIFO method allows you to most accurately determine the profit, based on the real economic conditions of the enterprise. That is, this method is convenient in terms of inflation.

The estimate of actual costs, determined by past costs, in market conditions, may not correspond to the real present value of not only the balances but also the materials consumed. This can be especially true in the context of inflation, but it is equally important to consider when there is a decrease in the value of stocks due to their aging processes.

Inventories can come from suppliers, from their own production (main and auxiliary) as full-fledged items of labor, production waste, tangible assets remaining from the liquidation of fixed assets acquired by the accountable persons of the organization.

Material values come from suppliers, and works and services are performed by contractors on the basis of agreements concluded between the organization and suppliers and contractors, which specify: the type of material values provided, work performed and services, commercial terms of supply, quantitative and cost indicators of material values. works and provision of services), terms of shipment of material values (performance of works, services), the order of calculations (terms of payments) between the organization and suppliers or contractors [4].

Inventories in the organization can be released: for production, production maintenance and management, correction of defects in production, non-production needs, sale to the side, transferred to joint activities, etc.

Table 2. Write-off of inventories at the enterprise by FIFO

Date	The balance at the beginning			Received			It left			The balance at the end		
	number, units.	price	amount, UAH	number, units.	price	amount, UAH	number, units.	price	amount, UAH	number, units.	price	amount, UAH
02.12	70	55,80	3906,00	–	–	–	–	–	–	–	–	–
10.12	–	–	–	–	–	–	70	55,80	3906,00	–	–	–
16.12	–	–	–	60	60,00	3600,0	–	–	–	–	–	–
21.12	–	–	–	–	–	–	50	60,00	3000,00	–	–	–
25.12	–	–	–	70	61,20	4284,0	–	–	–	–	–	–
30.12	–	–	–	–	–	–	10	60,00	600,00	–	–	–
							50	61,20	3060,00			
Total	70	–	3906,00	130	–	7884,0	180	–	10566,0	20	61,20	1224,00

Released materials for production needs on the basis of primary documents (invoices), or compiled on the basis of information on the distribution of materials are written off from the credit of account 10 "Materials" to the debit of production accounts by purpose: account 20 – for production, account 23 – auxiliary production shops, accounts 25 – for the maintenance and management of production, accounts 26 – for the management of the organization as a whole, accounts 28 – for the correction of production defects [6].

Materials released to service industries and farms are transferred from the credit of account 10 to the debit of account 29. Sold to the side and transferred to the authorized capital of other organizations and joint activities materials are written off from the credit of account 10 to the debit of account 91 "Other income and expenses". In this case, the sold materials accrue value added tax payable to the budget, which is reflected on the debit of account 91 in correspondence with the credit of account 68 "Calculations for taxes and fees" (taxation – on shipment) or account 76 "Settlements with various debtors and creditors" (taxation – on payment).

Kt tch.10 "Materials". When organizing inventory accounting at the actual cost of acquisition (procurement), the cost of materials written off during the reporting month at the average actual cost in the presence of costs for their procurement and delivery (indirect costs), is reduced to actual cost by writing off at the end of the month delivery due to the released materials. The amount of these indirect costs, which account for the consumed materials, is debited from the credit of account 10 to the debit of the same accounts to which the materials were attributed:

D-t accounts 20, 23, 25, 26, 28, 29, 91

Kt tch.10 "Materials".

When organizing the accounting of production stocks at book prices after the end of the month, the difference between the actual cost of consumed materials and their value at book prices is determined. The calculation of deviations in the cost of materials is shown in table 2. The identified difference is debited to the same accounts to which the materials were written off at book prices. At the same time the accounting record is made out:

D-t accounts 20, 23, 25, 26, 28, 29, 91

Account number 16 "Deviation in the value of tangible assets".

In this case, the excess of the actual cost over the cost of materials at book prices is usually reflected in the additional record. The excess of the cost of materials at book prices over the actual cost is shown in a separate entry [6].

Important in the process of inventory management is the task of providing information to users to control the availability and movement of inventories, their use in accordance with approved standards.

Control over the availability and movement of inventories is ensured by the proper organization of inventory, which includes: the availability of warehouses equipped with modern weighing instruments and devices, rationing of inventories.

Standardization of production stocks is the establishment of the average size of the stock of each

type of material required for the production process. The stock rate of each type of material is indicated in the inventory card. Data on the actual balances of materials in the warehouse accounting card are entered after each receipt operation. On the basis of these data, the materially responsible person (storekeeper) informs the supply service about the deviation of the actual balance of materials from the established norms.

Control over the use of inventories in accordance with the approved rules is provided by limiting the release of materials into production and identifying deviations of their actual consumption from the established standards. Restriction on the supply of materials is based on the rationing of material costs [7].

The release of tangible assets for production does not always mean their use in production in full. Therefore, for the correct determination of material costs in the production process, deviations from the established norms of consumption are detected. For this purpose methods are used: documentation of deviations, party cutting of materials, inventory.

The method of documenting deviations of actual costs of material values from the norms is used in the case of piece delivery of materials over the limit, replacement of one material with another, etc. In this case, deviations from the norms are documented by special signal primary documents for additional release of materials, or replacement.

The method of party cutting is used when releasing materials by weight. For each batch of metal, leather or fabric is a sheet or map, which indicates the amount of material, the rate of consumption. After cutting, the number of produced parts (blanks), waste and the result (savings or more than the cost) are also indicated. Savings or more costs are determined by comparing the actual costs of materials with the normative ones. Consumption of material by the norm is detected by multiplying the number of workpieces by the rate of consumption. Thus, the daily control of material costs is relevant, and the causes and culprits are identified, as well as control over waste.

The inventory method is used to determine the actual consumption of materials and to identify deviations from the norms in case of impossibility to use other methods of control. This method is based on an inventory of unspent materials per shift, decade or month. The timing of the inventory of material residues depends on the specifics of production, the nature of the manufactured products, the period of manufacture and other conditions.

Actual material costs are determined by calculation: the balance of unspent materials at the beginning of the period is added to the number of materials released into production and the balances of unspent materials at the end of the period are deducted. Data on balances are revealed by inventory, and at the released materials – on primary documents. The actual costs of materials obtained, for the relevant period, are compared with the normative – thus showing savings or overspending. Regulatory costs of materials are determined by multiplying the actual quantity of manufactured products per shift, decade or month by the current rate of consumption.

It is important to remember that the inventory method is time consuming and requires a professional organization of accounting for the production of parts for operations that consume certain materials.

Conclusions

The most important aspect of the impact on the financial condition of the enterprise and its production results is the state of inventories. In order to effectively conduct production on the way of marketing products – stocks must be optimal, compliance with the balance of inventories has become one of the most important criteria for modern financial accounting in production.

Large unplanned stocks lead to a freeze on working capital, slowing its turnover, resulting in deteriorating financial condition of the enterprise, increased property tax, liquidity problems, increased damage to raw materials, increased warehousing costs, which negatively affects the final results of production. At the same time, a shortage of stocks (raw materials, fuel) can lead to disruptions in the production process, to a decrease in production capacity, falling output, rising costs, production losses, which also has a negative impact on the financial condition. Therefore, every company should strive to ensure that production is timely and fully provided with all necessary resources and at the same time that they do not depend on warehouses.

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DOI <https://doi.org/10.26661/2414-0287-2021-2-50-09>**HISTORICAL ASPECTS OF THE FORMATION AND DEVELOPMENT OF ACCOUNTING****Saienko O.R., Somchenko V.V., Melnyk A.O.***Zaporizhia National University**Ukraine, 69063, Zaporizhzhia, Zhukovsky str., 66**Saenkohelen3@gmail.com, vika-znu72@ukr.net**ORCID: 0000-0001-8979-9354, 0000-0003-4860-0964***Key words:**

accounting, double entry, balance, scientific accounting theory, accounting system, subject and accounting methods.

The article deals with the historical and economic preconditions for the origin and development of accounting as science, as well as the evolution of its concepts. The essence of accounting and its features as a sphere of activity and the field of human knowledge is highlighted. The positions of scientists on the possibilities of applying new technologies in the accounting system are generalized. The general trends are formed and the main stages of the development and evolution of the accounting science are presented. A retrospective analysis of methodological approaches to accounting regulation is carried out and their defining features are presented. The traditionally used approaches to the formation of accounting methods based on various signs are analyzed and generalized. The formation of certain accounting methods in the context of historical periodization of accounting systems and within each period, the subject and method of accounting is distinguished. The interconnections between the economic conditions and meaningful filling of the main theoretical concepts of accounting science are analyzed. The need for the use of historical experience in forming accounting as science to improve its modern theory and practice as a constantly developing system is determined. Historical experience determines the development of accounting methodology, necessitates the establishment of clear directions for predicting the further development of accounting science, the development of conceptual foundations of systems of modern accounting, reforming the domestic accounting system and its harmonization with advanced world accounting science and practice. The search for innovative directions of harmonization and standardization of accounting and ensuring the effectiveness of implementing measures for organization and accounting of accounting at Ukrainian enterprises is substantiated.

ІСТОРИЧНІ АСПЕКТИ ФОРМУВАННЯ ТА РОЗВИТКУ БУХГАЛТЕРСЬКОГО ОБЛІКУ**Саєнко О.Р., Сьомченко В.В., Мельник А.О.***Запорізький національний університет**Україна, 69063, м. Запоріжжя, вул. Жуковського, 66;**Каунаський технологічний університет**Литва, м. Каунас, вул. К. Донелайчю, 73***Ключові слова:**

бухгалтерський облік, подвійний запис, баланс, наукова теорія обліку, облікова система, предмет та методи бухгалтерського обліку.

У статті розглянуті історичні та економічні передумови зародження та розвитку бухгалтерського обліку як науки, а також еволюція його концепцій. Висвітлено сутність бухгалтерського обліку і його особливостей як сфери діяльності та області людських знань. Узагальнено позиції науковців стосовно можливостей застосування цих знань для розробки новітніх технологій в системі бухгалтерського обліку. Сформовано загальні тенденції й представлено основні етапи розвитку та еволюції науки про бухгалтерський облік. Проведено ретроспективний аналіз методичних підходів до регулювання бухгалтерського обліку та представлено їх визначальні риси. Проаналізовано та узагальнено традиційно використовувані підходи до формування методів бухгалтерського обліку, які базуються на різних ознаках. Обґрунтовано формування визначених облікових методів в розрізі історичної періодизації облікових систем та в межах кожного періоду виокремлено предмет та метод бухгалтерського обліку. Проаналізовано взаємозв'язки між економічними умовами та змістовним наповненням основних теоретичних понять науки про бухгалтерський облік. Визначено необхідність застосування історичного

досвіду формування бухгалтерського обліку як науки для вдосконалення його сучасної теорії і практики як системи, що постійно розвивається. Історичний досвід визначає розвиток методології бухгалтерського обліку, зумовлює необхідність установлення чітких напрямів для прогнозування подальшого розвитку облікової науки, розроблення концептуальних основ систем сучасного бухгалтерського обліку, реформування вітчизняної облікової системи та її гармонізації з передовою світовою обліковою наукою і практикою. Обґрунтовано пошук інноваційних напрямів гармонізації та стандартизації бухгалтерського обліку та забезпечення ефективності реалізації заходів щодо організації та ведення бухгалтерського обліку на підприємствах України.

Formulation of the problem

The study of the history of the emergence and formation of accounting as science is a necessary component of the analysis of its current state and forecasting the directions of its development. Conducting this study allows you to assess the impact on the accounting system of such external factors as the practical needs of a particular society and the dynamics of scientific and technological progress. For millennia, under the influence of objective historical factors, accounting has changed significantly, which resulted in the formation of a new technical base and the use of another methodology. The study of historical aspects of accounting makes it possible to identify the main stages of the evolution of individual objects, methods and techniques that actualizes in-depth research in the field of accounting.

Analysis of recent research and publications

The issues of formation and development of accounting were studied by the following scientists and specialists in the field of economics: F. Butinets, M. Chumachenko, S. Golov, M. Luchko, T. Pasko, I. Benko, V. Baxter, B. Shu, D. Edwards, P. Lassek, B. Kolass, R. Matthesich, etc.

Scientists give a different context of arguments on the need to study the history of accounting. Thus, F. Butinets, justifies the increased interest in these issues that such a study allows us to understand the historical logic of the formation and development of accounting [1, p. 13]. T. Pasko claims that the study of these issues allows us to understand the current state of accounting and to determine the directions of its evolution in the future [2].

Despite a significant number of scientific developments, the analysis of recent research shows considerable interest in the historical periods of formation and development of accounting for further scientific and practical processing.

Formulation of the goals of the article

The study of historical features of accounting systems in the context of the use methodological techniques within each period with the selection of the subject of accounting led to the choice of the topic of scientific work.

Presenting main material

The history of accounting is measured by millennia, it originated already 5000–4000 years before our era. Archaeologists have found traces of the very first accounting operations on ivory tablets. Sumerian accountants led their records on stones. The accounting of ancient Egypt is reflected in papyrus, in Rome and Greece on wax plates, copper

boards or even skin. This was a crucial step for systematic registration of transactions in a chronological order.

Accounting transactions of that time were primitive in nature, they reflected the daily of operations in natural terms. Accounting is evolving. Interacting with various important sciences, it becomes the basis for other applied sciences.

The 13th century is a period of revival and characterized by the development of both art and science. The first mathematician of medieval Europe Leonardo of Pisa (Fibonacci) in 1202 contributed to the popularization of the positional number system, which was much more convenient than the previous Roman system. New accounting methods have changed the accounting policies of economic entities. Arabic numerals have helped to increase the accuracy of accounting and the creation of commercial law in jurisprudence. During the Proto-Renaissance, three main paradigms of accounting were created – simple, in-house and double, but these paradigms did not interact with each other, although they were the basis of accounting.

Simple accounting is system of accounting that is not based on the application of the double entry method and which reflects the facts of economic life in the units in which they arise (inherent in these facts).

This accounting is carried out by registering the facts of economic activity using the method of inventory without determining the reasons that influenced the result. Ya. Sokolov, who made a significant contribution to the study of the formation and development of accounting, defined this type of accounting as “naive naturalism” [3, p. 13].

When maintaining double accounting to reflect objects use the value in monetary terms.

The double record appeared as a result of the need to control the presence and movement (change) of economic means for a certain period, since in economic activity it was not just a product in the natural expression, but there was a movement of this product: receipt from the supplier, sale, shortage, etc. The application of inventory in this system was not required.

Cameral accounting (budget) has its origins in Latin, which means camera, office. This type of accounting is mainly used in budgetary institutions and public organizations, the main purpose of which is not to make a profit and whose activities are limited by the allocated budget.

All three paradigms have operated for centuries without any correlation. These forms were first used by Italian merchants. This is due to the fact that Italy was once the core of world trade.

In the 15th century, Luca Pacioli wrote a book “Treatise on Accounts and Records”, which describes the use of double entry in a commercial entity, which contributes to the spread of double entry [3, p. 11].

The accounting methodology develops with an increase in production capacities, consistently turns into one system of economic operations.

The dialectical method is a group of principles and requirements in the cognitive process. The scientific meaning of this method in accounting is manifested in the approach to assessing the financial stability of the entity through the definition and generalization of liabilities, assets and accounting transactions.

England was one of the first countries to apply double-entry accounting to the business operations of a manufacturing enterprise by systematizing production costs. Thus, on the basis of the new approach, accounting began to be considered from two sides – accounting and production, and on this basis there is a need for calculation.

In the second half of the 19th century in Europe there was the formation of accounting as a science. The development of European scientific thought gives rise to the theory of accounting, which significantly changes the entire accounting system.

The evolution of accounting science was preceded by the practical introduction of accounting methodology. Further development of accounting methodology contributed to the development of theoretical accounting concepts. There are three main areas of development of accounting theory: legal, economic and balance sheet.

A significant number of monasteries, the work of which was introduced after the adoption of Christianity, also had a significant influence on the formation of the accounting system. This is due to the fact that the monasteries carried out economic activities in large quantities, which required the registration of business transactions in the accounting registers.

The next important economic prerequisite for the formation of the accounting system was industrialization. The Industrial Revolution in the 17th century led to changes in both business and accounting. The individual craft system began to turn into a system of mass production. Technological development ensured not only the creation of new equipment, but also the emergence of a new type of costs. Much attention was paid to the accounting and control system. Quite a lot of instructions for accounting were formed. Daily keeping of income and expenditure

books with personal subordination of responsible persons was a mandatory condition for the work of accounting staff.

All the objective prerequisites for the formation and development of accounting as an independent industry are revealed in the late 19th century. The formation of accounting theory greatly changes the nature of certain objects. Since then, the objects of accounting were not the facts of economic life, and full information about them. Two main accounting concepts were formed: exchange and book value.

In this way, consider the formation of accounting methods in the context of its historical development (Table 1).

In the process of emergence of accounting, there is a need to register business operations and to constertify the presence of material values begins to apply the following methodical techniques as “inventory”, “documentation” and “verification”.

The process of registration of economic operations is carried out in two directions:

- description of material values and organization of warehouse storage;

- classification of material values according to groups with the calculation of the results (generalization within the natural measurement units of accounting objects).

At this stage, the subject and method of accounting coincided. Inventory descriptions combined primary accounting, the order of data registration and reporting.

The use of cash led to the emergence of the method of "valuation" in accounting, which led to the division of accounting objects into physical and monetary dimensions. Thus, Patrimonial accounting (cash application as a measure of value) and cameral accounting (cash is used as a means of payment), identified a new subject of accounting – calculations.

The next stage in the development of accounting is the emergence of double accounting. Double accounting begins its development after publishing scientific work of L. Pacioli. In the treatise, such methods of accounting as accounts and double record are summarized, and the subject of accounting becomes capital.

The adaptation of the Double Accounting to economic needs on the basis of scientific approaches begins. Thus, accounting goes beyond the regulated rules and becomes a means of studying economic activity with the use of its own methodology [4, p. 122].

Thus, at this stage of the evolution of accounting, the foundations of accounting science were formed, its categorical apparatus was determined, and the content of accounting processes was studied. All this led to the

Table 1 – Formation of accounting methods in the context of historical development

Period	Stages of development	Types of accounting	Subject of accounting	Methods of accounting
4000 years before our era – 500 year	The stage of origin of accounting	Registration of business operations	Property	Documentation
				Inventory
				Verification of the results of the registry
500 year – 1300 year	The stage of value formation	Cameral accounting	Calculations with counteragents	monetary meter
		Patrimonial Accounting		Score
1300 year – 1850 year	The stage of development of scientific approaches	Double Accounting	Capital	Dual record
1850 year – 1950 year	The stage of development of accounting as science	Accounting	Commercial Activity	Accounts
				Balance
				Calculation
				Reporting

emergence of such methodological techniques as balance, calculation, reporting.

At present, the subject of accounting, in a broad sense, is everything that is reflected in accounting, ie committed external and internal economic and legal facts [5, p. 94].

International Financial Reporting Standards have also had a significant impact on the development of accounting. IFRS is a set of standards governing the completion of the financial statements required by external users to adopt any economic decisions on the management of enterprises.

IFRS were established at the end of the 20th century and defined the following goals:

- reducing the differences between the principles of accounting in different countries;
- improving the quality and reliability of the information provided;
- Unification of standards.

General accounting standards allow more efficient evaluation and comparison of the performance of various companies, including internationally.

In some countries, bringing financial statements into line with international standards is mandatory. This applies to countries such as the UAE, Denmark, Luxembourg, Hong Kong, Cyprus, Hungary, the Dominican Republic, the United Kingdom and others.

Other factors influencing the formation and development of accounting include:

- the level of application in the accounting of means of communication;
- the level of automation of business transactions, information storage, control;
- the emergence of new accounting technologies.

Conclusions and suggestions

In the study of the history of the emergence and formation of accounting, it is important to disclose its methodological techniques within each period with the separation of the relevant study subject.

The conducted research allows us to make the following conclusions:

- at the stage of origin of accounting (naturalistic stage), the subject and method of accounting were not delimited and inventory descriptions combined the following elements: primary accounting, the form of current accounting, the principle of data registration and reporting;
- at the stage of value formation, the emergence of cash contributed to the emergence of a new subject of accounting – calculations;
- at the stage of development of scientific approaches L. Pacioli generalized the main methods of accounting – accounts and double entry;
- at the stage of development of accounting as science, its categorical apparatus was formed and generalized and the content of accounting processes was determined. This caused the emergence of such methodological techniques as a balance, calculation and reporting.

The emergence of new subjects of accounting research and the need to control them became a prerequisite for the emergence of new accounting techniques. In the process of formation and development of accounting, methods of its management evolve with the development of society, turning into a single system of ways and techniques for its management and demonstrating dialectics of accounting development as economic science.

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ECONOMIC AND STATISTICAL ANALYSIS OF THE UNEMPLOYMENT LEVEL OF UKRAINE

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Key words:

unemployment, growth, migration, emigration, immigration, frictional unemployment, seasonal unemployment, structural unemployment.

The article highlights the reasons and conditions for increasing unemployment in Ukraine. The statistical indicators of unemployment growth throughout Ukraine and separately in Zaporizhzhia region are considered. Therefore, the main purpose of this study was to analyze the state of unemployment in Ukraine, to consider its causes and conditions of their occurrence and to propose methods to solve the problem. The study showed that the reasons for the increase in unemployment in the country and Zaporizhzhia region are a large number of factors, in general, the crisis in the country, military and actions in the East, the coronavirus situation, the departure of citizens abroad, increasing jobs abroad, leads to a mass exodus of citizens. It should be noted that over the last 5 years the unemployment rate has changed dramatically, but now it is increasing. It is determined that the main reasons for the increase in unemployment are: emigration, lack of jobs, unfavorable working conditions, providing better social guarantees, etc. Therefore, their study and analysis is one of the foundations for their solution. In general, if we consider the statistics of unemployment in Ukraine, we can draw several conclusions. First, our country is at the stage of rising unemployment, the causes of which are related not only to demographic, labor, social, but also political factors. Secondly, the legal framework in the field of labor is imperfect: there is a much worse state of social and labor protection, compared to European countries. This situation leads to an increase in the unemployment rate in the country every year. It should be noted that the number of jobs is decreasing, which in turn leads to the departure of citizens abroad to find better and more profitable jobs.

ЕКОНОМІКО-СТАТИСТИЧНИЙ АНАЛІЗ РІВНЯ БЕЗРОБІТТЯ В УКРАЇНІ

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Ключові слова:

безробіття, приріст, міграція, еміграція, імміграція, фрикційне безробіття, сезонне безробіття, структурне безробіття.

У статті висвітлено причини і умови збільшення безробіття на території України. Розглянуто статистичні показники приросту безробіття по всій Україні і окремо по Запорізькій області. Тому, основною метою даного дослідження було проаналізувати стан безробіття в Україні, розглянути його причини і умови їх виникнення і запропонувати методи вирішення поставленої проблеми. Дослідження показало, що причинами збільшення рівня безробіття у країні та Запорізькій області слугує велика кількість факторів, загалом це і кризова ситуація у країні, військові і дії на території Сходу, коронавірусна ситуація, виїзд громадян країни за кордон, збільшення кількості робочих місць за кордоном, що призводить до масового виїзду громадян. Статистичні дані показують, що за останні роки збільшення безробіття припало більше на жіночу частину населення по всій Україні. Слід зазначити, що за останні 5 років показник безробіття різко змінювався, але наразі спостерігається його збільшення. Визначено, що основними причинами збільшення рівня безробіття є: еміграція, відсутність робочих місць, не вигідні умови праці, надання кращих соціальних гарантій тощо. Тому, вивчення їх і аналіз є однією з основ до їх вирішення. Загалом, якщо розглядати статистичні дані безробіття в Україні, то можна зробити декілька висновків. По-перше, наша країна перебуває на стадії приросту безробіття, причини якого пов'язані не лише з демографічним, трудовим, соціальним,

а і політичним фактором. По-друге, законодавча база у трудовій сфері недосконала: спостерігається значно гірший стан соціальної і трудової захищеності, у порівнянні з країнами Європи. Така ситуація призводить до збільшення кожного року рівня безробіття по країні. Слід зауважити, що зменшується і кількість робочих місць, що у свою чергу призводить до виїзду громадян країни за кордон для пошуку більш кращих і прибутковіших робочих місць.

Statement of the problem

Unemployment is one of the main socio-economic problems of the country's economy, it is a threat and has become widespread. At present, there is a disturbance of supply and demand, the spread of social instability and poverty in society, irrational use of public resources, rising crime, increasing numbers of vulnerable groups and other negative socio-economic factors caused by lack of jobs in Ukraine. Unemployment is a macroeconomic problem caused by factors such as structural changes in the economy, declining economic development, scientific and technological progress, price ratios, seasonal fluctuations in production, insufficient aggregate demand, inflation, imperfect labor legislation, low level of training and retraining, insufficient employment programs and demographic processes. Unemployment is a threat to national development and security, as it can be a major cause of socio-economic destabilization among workers in large industrial and key enterprises in the country's livelihood.

Thus, the issue of unemployment is extremely relevant today, it poses a real threat to state and public welfare, which is why it requires considerable attention from the state to regulate stability, identify key factors and analyze the status of indicators that affect unemployment.

Analysis of recent studies and publication

Many works of scientists are devoted to the problems of unemployment. Such scientists as I. Davydova, D. Bohynia, G. Volynsky, V. Geets, V. Gerasymchuk, O. Grishnova, S. Dziuba, S. Doroguntsov, S. Kuznetsova, E. Libanova, G., Lukyanova, S. Mocherny, V. Onikienko, A. Chukhno, V. Halytsky, I. Motin, J. Miklosh, Y. Marshavin and others. They note that unemployment is one of the three important indicators of economic functioning and point out that in market economies, employment and unemployment are studied systematically, as information is needed to regulate the labor market, provide social protection, provide timely training and retraining. However, it should be noted

that despite the large number of scientific studies, the analysis of causes, unemployment and ways to overcome unemployment as one of the global problems of the world at the present stage of reforming Ukraine's economy is relevant, needs further study and additional scientific and practical developments.

Objectives of the article

The main purpose of this study is to analyze the state of unemployment in Ukraine, to determine the reasons for its increase and the conditions of its occurrence; suggest ways to solve the problem.

The main material of the research

Unemployment in Ukraine is an urgent problem today. Its causes are an integral part of the economy. It is a complex macroeconomic factor of economic life.

According to the Law of Ukraine “On Employment”, unemployment is a socio-economic phenomenon in which some people are unable to exercise their right to work and receive wages (rewards) as a source of livelihood; or it is a person aged 15 to 70 who, due to lack of work, has no earnings or other income provided by law as a source of livelihood, is ready and able to start work [1]. The status of «unemployed» is acquired by persons who are legally defined by part (Table 1) [1].

The entire population of the country can be divided into two categories: economically active population (labor force), and economically inactive population (persons outside the labor force). In turn, the economically active population consists of the unemployed and employed, ie people who have a job [4]. In Ukraine, the economically inactive population, ie persons who cannot be classified as unemployed or employed, include the following categories of citizens:

- people of working age (under 16 years);
- incapable of work (category of citizens who have never worked or stopped working due to their health condition);

Table 1 Conditions for acquiring the status of an unemployed person

	He can become unemployed
He is considered unemployed	– a person of working age before the appointment of a pension (in particular on preferential terms or for years of service), who due to lack of work has no earnings or other income provided by law, is ready and able to start work;
	– a person with a disability who has not reached the retirement age established by Article 26 of the Law of Ukraine “On Compulsory State Pension Insurance” and receives a disability pension or social assistance in accordance with the laws of Ukraine “On State Social Assistance to Persons with Disabilities from Childhood and Children with Disabilities” and “On state social assistance to persons who are not entitled to a pension and to persons with disabilities”;
	– a person under the age of 16 who has worked and been dismissed due to changes in the organization of production and labor, including the termination or reorganization of enterprises, institutions and organizations, the reduction of the number (staff) of employees.

- retired pensioners on preferential terms;
- pupils, students, cadets who study in full-time educational institutions;
- persons with disabilities receiving assistance;
- category of citizens engaged in housekeeping, caring for children or sick relatives;
- citizens who could not find a job or stopped looking for it due to inability to find employment, but are ready and able to work;
- persons who do not have the need to obtain a job [6].

There are two main groups of unemployment:

- absolute unemployment – occurs in the presence of a shortage of jobs;
- relative unemployment – a type of unemployment when there is a stratification of surplus and shortage of labor across the country [7].

There are many types of unemployment, but there are two types that may include others. Namely:

- voluntary unemployment is a type of unemployment in which a person who is part of the labor force shows a desire to be temporarily unemployed, in the presence of working conditions that are not acceptable to him [7];
- forced unemployment is a type of unemployment in which a person who is part of the country's labor force does not have a permanent place of employment for reasons that do not depend on it [7].

Unemployment varies depending on the duration and socio-economic consequences, it can be frictional, seasonal, cyclical and institutional.

Frictional unemployment occurs on a voluntary basis, when a person voluntarily changes jobs or in search of a new job. Basically, this type of unemployment is desirable and inevitable, because the initiative to dismiss comes from the employee. Frictional unemployment is temporary, can last from 1 to 2 months [8].

Seasonal unemployment, as the name implies, depends on the seasonal nature of work. These usually include agricultural work, rafting, some fishing and hunting, and others. This type of unemployment is characterized by easy prognosis and the degree of voluntariness is similar to frictional [8].

Structural unemployment appears with a change in structural production and with a change in the structure of production. Scientific and technological progress,

the emergence of new materials, technologies and cause structural unemployment. During it, mostly fired employees who do not meet the new requirements of the enterprise in their specialty and qualification [8].

Cyclical unemployment is the most severe form of unemployment, which is characterized by insufficient demand for labor and has the most devastating socio-economic consequences for people [8].

The unemployment rate in Ukraine in the second quarter of 2020 increased by 1.3 percentage points. – up to 9.9% from 8.6% in the first quarter. This is evidenced by data from the State Statistics Service. In total, 1.7 million Ukrainians are unemployed. The employed population aged 15–70 in the second quarter of 2020 was 15.6 million people. The unemployment rate in Ukraine in January–March 2020 compared to the 4th quarter of 2019 decreased by 0.1 percentage points. – up to 8.6% from 8.7% [2]. According to the government's macroeconomic forecast for the next three years, the unemployment rate for the population aged 15 to 70 is projected at 9.2% in 2021, 8.5% in 2022 and 8% in 2023 (Fig. 1).

The reasons for the increase in unemployment in the country are different. In general, among the main ones are:

- the fall of the economy and the corresponding decline in financial performance of enterprises;
- departure of citizens abroad;
- coronavirus crisis;
- lack of jobs;
- low wages;
- underdevelopment of the private sector and the existence of the shadow economy, etc.

Unemployment, as an integral part of the economy, has a negative impact on the country's GDP. After all, according to Oaken's law, an increase in the unemployment rate by more than 1% of the natural level leads to a loss of 2–3% of GDP.

If we analyze the unemployment rate in the period from 2015 to 2019, we can conclude that for 5 years in the country there has been a decrease in the unemployed population and an increase in the employed population (Table 2) [3; 5].

Thus, the level of employed population aged 15–70 years increased by 135.1 thousand. persons. The unemployment rate decreased by 166.83 thousand

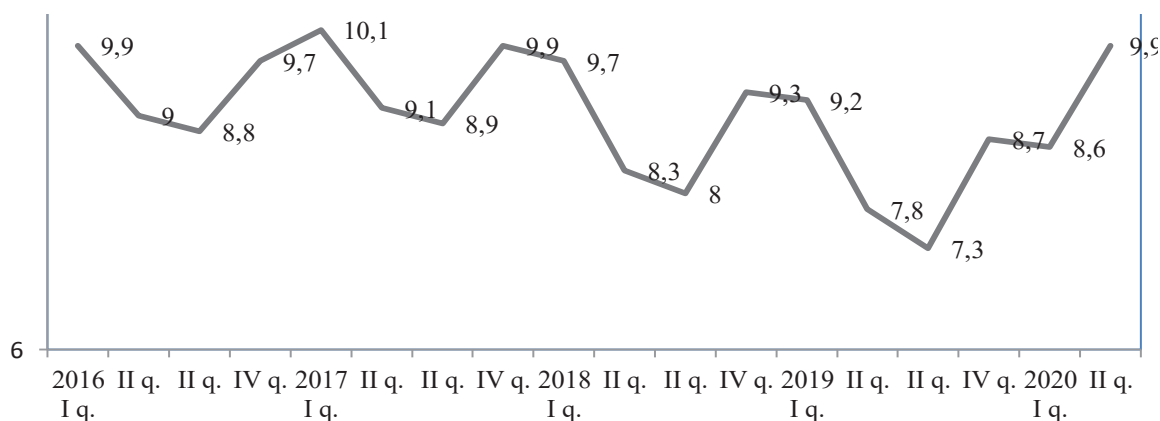


Fig. 1 Unemployment rate of the population aged 15-70 (in % to the labor force of the corresponding age)

Table 2 The level of employed and unemployed population in the period from 2015 to 2019 in the country and Zaporizhzhia region

Years		2015		2016		2017		2018		2019	
		Ukraine	Zapori-zhzhia	Ukraine	Zapori-zhzhia	Ukraine	Zapori-zhzhia	Ukraine	Zapori-zhzhia	Ukraine	Zapori-zhzhia
At the age of 15–70 years	Employed population	16443,2	745,1	1627,69	734,9	15495,9	694,3	16360,9	732,2	165783,3	741,6
	Unemployed population	1654,7	80,4	1678,2	81,4	1698,0	86,2	1578,6	80,4	1487,87	77,5
Working age	Employed population	15742,0	709,5	15626,1	708,0	16156,4	719,7	15718,6	702,7	15894,9	707,7
	Unemployed population	1654,0	80,4	1677,5	81,4	1697,3	86,2	1577,6	80,4	1486,9	77,5

* Source: compiled by the author

people. In Zaporozhzhie, this figure was respectively – 3.5 thousand people and 2.9 thousand people.

If we consider the employment rate of people of working age, the employment rate increased by 152.9 thousand people, and unemployment decreased by 2.9 thousand people. In Zaporizhzhia, this figure was 1.8 thousand people and 2.9 thousand people, respectively.

If we consider the unemployment rate, using the distinction by sex in the period from 2017 to 2019, we obtain the following data (see Fig. 2).

The unemployment rate among women has increased significantly, from 2017 to 2019, this figure increased by 155.3 thousand people. Such changes can be due to a number of reasons: demographic factor, economic crisis, political changes, etc.

Among men, the number of unemployed decreased by much – 365.6 thousand people. Such positive changes have several reasons, in general: the demographic factor, hostilities in the Donbass (a significant number of men received working months at the forefront), increasing the number of jobs abroad, and others.

Migration is also one of the key reasons for rising unemployment. It can be divided into external and internal.

Internal, this is a migration that occurs between separate administrative units of one state, at different levels.

External, in turn, occurs between states, regions of the planet, continents. They include:

– emigration (departure of citizens of a particular state abroad);

– immigration (entry of foreign citizens into a particular country);

– re-emigration (return of former or current citizens of the state to their homeland);

– repatriation (return of people who were forcibly deported).

If we consider the duration, they are divided into:

– permanent (moving to permanent residence);

– temporary (moving for a relatively short period);

– seasonal (connected with seasonal work, resort rest, etc.);

– pendulum (regular daily or weekly trips to work or study).

If we consider the situation based on statistics, we obtain the following data shown in table 3.

Among EU countries, the largest number of migrations is observed in Poland. This is due to the fact that our citizens provide jobs with higher pay than in Ukraine. Also a high rate of labor migration to the Russian Federation. The reasons include the provision of jobs and the lack of a language barrier. A significant figure is also observed in Italy, where the percentage of women's labor migration is much higher. This is due to the high number of jobs for women.

Thus, analyzing the data, we can conclude that in the period from 2015 to 2018 in Ukraine there is a significant increase in the number of emigrants. This is primarily due to more favorable working conditions and wages, providing our citizens with a wider range of jobs. Also, a significant

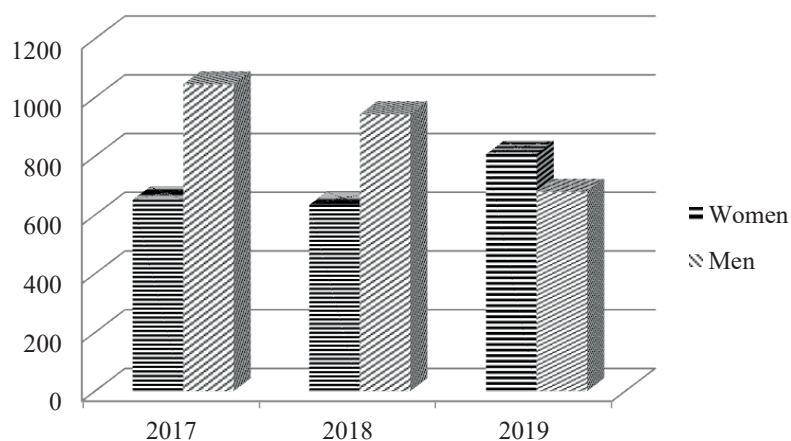


Fig. 2 The level of the unemployed population in 2017–2019 by sex

Table 3 Migrant workers by country of residence, sex and place of residence before leaving for abroad, 2015–2017

	Total	Women	Men	Urban settlements	Countryside
The number of migrant workers, in total, thousand people	1303,3	385,8	917,5	663,5	639,8
including by host country, %					
Poland	38,9	42,6	37,3	38,3	39,5
Russian Federation	26,3	15,1	31,0	33,0	19,3
Italy	11,3	27,0	4,7	7,3	15,4
Czech Republic	9,4	6,2	10,7	5,2	13,7
United States	1,8	–	2,6	3,5	–
Belarus	1,7	0,8	2,1	0,9	2,6
Portugal	1,6	0,4	2,0	2,1	1,0
Hungary	1,3	0,9	1,5	1,2	1,5
Israel	1,1	0,6	1,3	1,9	0,2
Finland	1,0	0,8	1,1	0,8	1,3
Germany	0,8	0,5	0,9	1,1	0,4
Other countries	4,8	5,1	4,8	4,7	5,1

Source: Derzhkomstat [9]

factor in the departure of citizens to work abroad is the provision of social benefits and guarantees.

Conclusions

Among the main factors of the country's well-being is the unemployment rate. The analysis of this indicator in Ukraine showed that there are large enough problems that need to be addressed. In general, the problem of unemployment in Ukraine has existed for a long time, but it began to develop especially acutely in the last 5 years. According to a study of statistics – the unemployment rate has decreased, but in reality, this figure is only increasing. After all, the comparison is made in relation to the entire existing population, which is only decreasing in Ukraine. Also, one of the reasons for the change could be the increase in the number of people working abroad.

Unemployment itself can be seen as an imbalance in labor supply and demand, and its causes can be related to economic, political, demographic, social and many other reasons.

Therefore, in order to prevent a critical situation, first of all it is necessary to pay attention to the legal, economic, organizational and social nature and to develop a system

of human resources, which will be the goal of further research.

Also, it is necessary to take into account the legal framework, namely the laws governing the rights of workers and employers. Pension reform should not be overlooked either, as there is currently a known dissonance between the number of employees and the number of retirees. In order to better regulate employment, it is necessary to resolve the contradictions of legal, economic, organizational and social nature and to develop a system of staffing, which will be the goal of further research.

To encourage workers, the main goal of the state should be to increase jobs with favorable wages and comfortable working conditions. Thus, it may be of interest to more workers to stay in the country rather than go abroad.

Therefore, solving the problem of high unemployment should be considered at all levels. Given the current state of Ukraine's economy, the best solution to this problem is: the use of active political employment, among the main - increasing the number of self-employed; reducing the difference in terms of reproduction of labor potential between regions; maximum approximation of demand to labor supply; increasing labor mobility, etc.

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

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FOREIGN TRADE AS A STRATEGY FOR THE DEVELOPMENT OF BUDGET-FORMING BRANCHES OF THE ECONOMY OF UKRAINE

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Key words:

foreign trade, branch, export, structure, competitiveness.

The article is devoted to the study of the main budget-forming sectors of the Ukrainian economy and their export structure. The article reveals the essence of the concept of industry. It is determined that the largest share in the export of Ukraine is occupied by the products of the agro-industrial complex and food products, the products of the metallurgical complex, the products of mechanical engineering and mineral raw materials. The structure of exports of agro-industrial, metallurgical, machine-building and mineral-raw materials complex is analyzed. It is investigated that in the structure of exports of the agro-industrial complex the largest share is the sale of plant products, in the structure of the metallurgical complex – ferrous metals, in the structure of the machine-building complex – machines, mechanisms, equipment and electrical equipment, in the structure of mineral complex – ore, slag and ash. It is established that the structure of exports of the national economy is dominated by raw materials with a low degree of processing. Problems of competitiveness of Ukrainian enterprises are revealed. It is determined that in general, the sectors of the economy of Ukraine are characterized by high energy intensity of production, lack of investment and own financial resources to ensure efficient development of production. The directions of transformation of structure of export on each of branches are offered. It is proved that the directions of transformation of the structure of exports should be the reduction of the share of exports of raw materials and production of knowledge-intensive goods, as well as increasing the volume of goods with high added value.

ЗОВНІШНЯ ТОРГІВЛЯ ЯК СТРАТЕГІЯ РОЗВИТКУ БЮДЖЕТОУТВОРЮЮЧИХ ГАЛУЗЕЙ ЕКОНОМІКИ УКРАЇНИ

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Ключові слова:

зовнішня торгівля, галузь, експорт, структура, конкурентоспроможність.

Стаття присвячена дослідженню основних бюджетоутворюючих галузей економіки України та їх структури експорту. У статті розкрито сутність поняття галузі. Визначено, що найбільшу питому вагу у експорті України займають продукція агропромислового комплексу та продуктів харчування, продукція металургійного комплексу, продукція машинобудування і мінерально-сировинна продукція. Проаналізовано структуру експорту агропромислового, металургійного, машинобудівного та мінерально-сировинного комплексу. Досліджено, що у структурі експорту агропромислового комплексу найбільшу частку становить продаж продуктів рослинного походження, у структурі металургійного комплексу – чорні метали, у структурі машинобудівного комплексу – машини, механізми, устаткування та електротехнічне обладнання, у структурі мінерально-сировинного комплексу – руда, шлак і зола. Встановлено, що у структурі

експорту національної економіки переважає сировинна продукція з низьким ступенем обробки. Виявлено проблеми конкурентоспроможності українських підприємств. Визначено, що в цілому для галузей економіки України є характерною висока енергоємність виробництва, брак інвестицій та власних фінансових ресурсів для забезпечення ефективного розвитку виробництва. Запропоновано напрямки трансформації структури експорту по кожній з галузей. Доведено, що напрямками трансформації структури експорту має стати скорочення частки експорту сировини і виготовлення наукомістких товарів, а також нарощення темпів обсягу товарів із високою доданою вартістю.

Statement of the problem

With the intensification of the processes of globalization of the world economy, the role of foreign economic relations is growing and Ukraine's opportunities for trade operations are expanding. Exports, as one of the main components of foreign economic activity, are not only a significant source of budget revenues and improving the country's balance of payments, but also an opportunity for Ukraine to show its economic potential on the world stage.

But globalization is also leading to changes in the structure of exports of major budget-generating sectors of the economy. Therefore, there is a need to analyze the structure of exports of budget-generating sectors of the economy of Ukraine and identify goods in each of the industries that would bring more income from exports.

Analysis of recent studies and publications

The works of such domestic and foreign scientists as A.A. Mazaraki [1], Yu.V. Makogon, V.S. Mironov, M.I. Kravchenko [2], I.M. Makarchuk [3], S.P. Kulitsky [4], S.P. Kolomatska [5] and others are devoted to the definition of branch priorities and branch structure of the economy of Ukraine.

The works of these scientists cover studies of current trends and factors in the development of Ukraine's foreign trade, the impact of Ukraine's foreign economic relations on the realization of opportunities to attract foreign investment. However, the issue of the latest sectoral priorities in Ukraine remains insufficiently researched. In the context of globalization processes, the priorities of sustainable development appear, which include not only economic, but also social and environmental components.

Objectives of the article

Identify the main budget-generating sectors of the economy of Ukraine, analyze their condition and structure, identify problems of competitiveness of domestic enterprises, suggest ways to transform the structure of each of the identified industries.

The main material of the research

According to Article 260 "Branches of the economy and their classification" of the Commercial Code of Ukraine, a branch is a set of all production units that carry out mostly the same or similar types of production activities [6].

In order to identify the main budget-generating sectors of the Ukrainian economy in terms of foreign trade should refer to the statistics of the State Statistics Service of Ukraine [7] and official data of the Ministry of Economic Development, Trade and Agriculture of Ukraine [8].

Figure 1 shows the share of products of the largest sectors of Ukraine's economy in exports.

Figure 1 shows that the largest share of exports is occupied by products of the agro-industrial complex – 45.1%, products of the metallurgical complex – 18.3%, engineering products – 11% and mineral products – 10.8%.

We describe the state and trends in the development of these sectors of the economy.

As for the agro-industrial sector, its main task is to increase agricultural production, provide the country with reliable food and agricultural raw materials, unite the efforts of all sectors of the complex to achieve high economic performance and enter the world market. The agro-industrial complex consists of three interrelated areas: agriculture, which forms the raw material base of

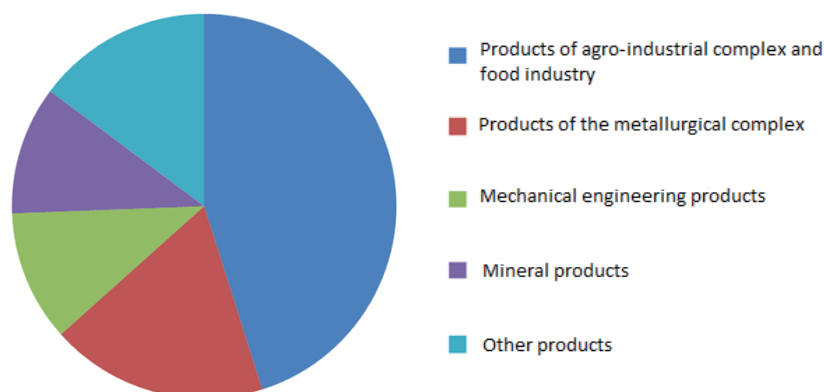


Fig. 1 The share of products in Ukrainian exports in 2020

Source: formed by the authors on the basis of [7]

the agro-industrial complex; industries that produce means of production and maintenance of agriculture; industries for storage, processing and sale of agricultural products.

In recent years, the agro-industrial complex has become a key sector of the Ukrainian economy. Today, the agricultural sector is the leader of the Ukrainian market in terms of exports. For a more detailed analysis of the state of the industry should consider the structure of exports of agro-industrial products.

Figure 2 shows that the largest share of exports is the sale of plant products. At the same time, there is a relative monoculture: the main commodity mass and money earnings provide only a few products – corn, wheat, sunflower, canola, soybeans. Fats and oils of vegetable or animal origin also account for a significant share of agricultural exports. This group of goods is dominated by the production of sunflower oil. Exports of finished food products account for only 15.1% of agricultural exports, for comparison, plant products account for 53.6% of agricultural exports. Finished food products would be more profitable to export, because it has a higher added value than plant products, and is made from the same plant products. As for the livestock sector, it is in deep crisis. The only exceptions are poultry and dairy production at agricultural enterprises, which are guaranteed to purchase products that meet European standards and which are highly profitable due to state support of the industry.

From the above, we can conclude that the positive dynamics of agricultural production is a consequence of the growth of grain and oilseeds, which allows us to expect further growth in exports and foreign exchange earnings. However, exports of Ukrainian agricultural products are mostly raw materials. Betting on growing crops is a very risky strategy, because the harvest in the fields can die, and the main cereals and oilseeds are depleting the soil. Today, the tasks of supporting the livestock sector, the development of finished food production, renewal and modernization of production and processing facilities of the agro-industrial complex are important for the industry.

The second of the leading budget-generating sectors of the Ukrainian economy, which provides a significant part of foreign exchange earnings due to the developed export potential, is the metallurgical industry of Ukraine. Exports

of metallurgical products accounted for 18.3% of Ukraine's exports in 2020.

Regarding the structure of exports of metallurgical products, the largest share of exports are ferrous metals – 85.2% and ferrous metal products – 9.7%, other products account for only 5% of exports of base metals and articles thereof.

Figure 3 shows that over the last 5 years, the share of ferrous metals exceeds the share of ferrous metal products. This indicates a tendency to consolidate the raw material orientation of Ukrainian exports of metallurgical products. In addition, in the export of ferrous metals there is a reduction in the volume of rolled metal – products with relatively high added value.

The main limitations for Ukrainian products in the metallurgical markets of developed countries are the lack of demand for Ukrainian finished metallurgical products. Developed countries prefer to purchase semi-finished products for further processing into high-quality finished products. Thus, the problem of the low level of competitiveness of Ukrainian metal products on the world metallurgical market is the low quality of products, non-compliance with standards and outdated fixed assets. Many Ukrainian enterprises have too physically and morally obsolete fixed assets that do not allow them to produce better and more modernized products. On the territory of Ukraine, only the enterprises of Interpipe Steel LLC and Zaporizhstal PJSC are able to be competitive on the world metallurgy market.

To increase Ukraine's competitiveness on the world metal market, it is necessary to establish a full production cycle in the country, improve scientific, technical and engineering bases, expand cooperation with the chemical industry to improve the properties of steel and cast iron.

The third budget-forming sector for Ukraine's economy is the machine-building industry. The state of the machine-building industry depends on the provision of other industries with fixed assets, the pace of economic and social progress of the country. The development of the machine-building industry improves the state of scientific and technical potential of the country and its place in the global competitive environment. In Ukraine, engineering products account for 11% of exports.

Figure 4 shows that the production of machinery, equipment and mechanisms significantly prevails over the

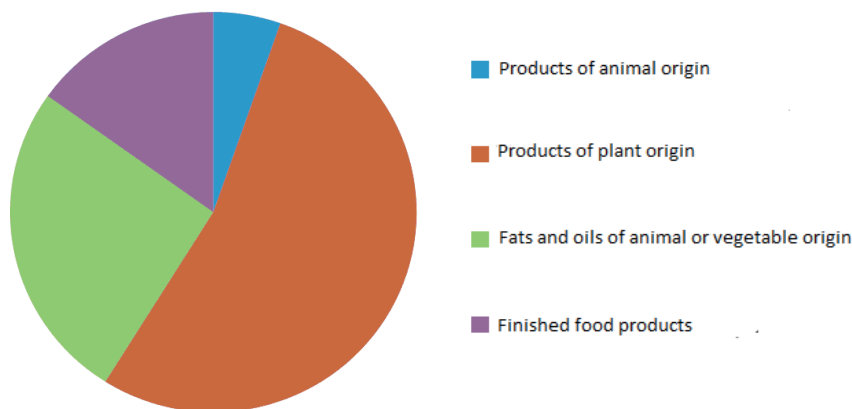


Fig. 2 The structure of exports of agro-industrial products of Ukraine in 2020

Source: formed by the authors on the basis of [7]

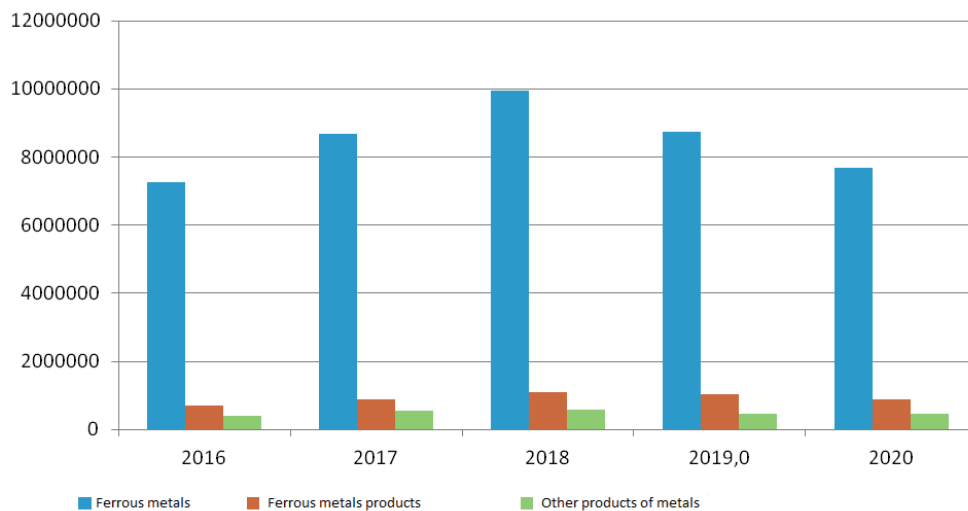


Fig. 3 Structure and dynamics of exports of metallurgical products for 2016–2020

Source: formed by the authors on the basis of [7]

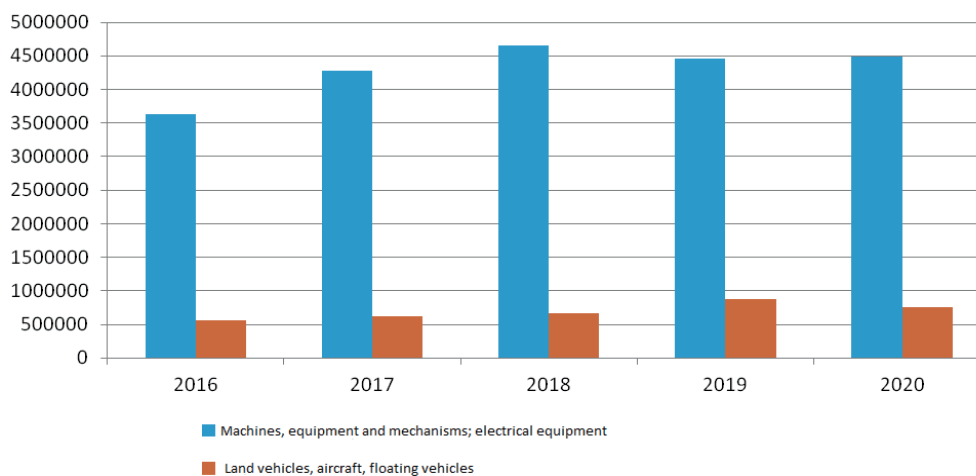


Fig. 4 Structure and dynamics of exports of machine-building products for 2016–2020

Source: formed by the authors on the basis of [7]

production of land vehicles, aircraft and floating vehicles in the structure of exports of machine-building products. This trend has not changed over the last 5 years. Of all manufactured electric motors, generators and transformers, 46.7% were exported; household appliances – 67.3%; general purpose machinery and equipment – 57.4%; motor vehicles, trailers and semi-trailers – 66.3%; components, parts and accessories for motor vehicles – 92.9% [6]. These data are evidence not so much of high competitiveness of the industry, but of low effective demand within the country and underdeveloped markets.

The complexity of the situation of machine-building enterprises is also evidenced by the statistics of financial results of their activities. Thus, in January-June 2019, the activities of 26.7% of machine-building enterprises were unprofitable [6]. The level of profitability of all activities of machine-building enterprises is insufficient to ensure their innovative development.

The main factors hindering the development of the machine-building industry include: outdated logistics,

high level of depreciation of fixed assets, significant cost of production; lack of investment and own financial resources to ensure the development of production; low level of innovative activity of machine-building enterprises; underdeveloped infrastructure and markets.

To solve the problems, first of all it is necessary to develop effective programs and strategies for the development of the industry with a clear definition of funding sources; re-equipment and modernization of the industry; stimulating innovative development of enterprises and development of new technologies; increasing the share of finished products in total exports, not just parts and components.

The fourth budget-generating branch in foreign trade is the mineral complex. According to 2020, the share of mineral products amounted to 10.8% of total exports.

Figure 5 shows that the largest share of exports of mineral products are ore, slag and ash. Significant volumes of ore production and export are explained by the fact that iron ore provides ferrous metallurgy, is the basic branch of the economy of Ukraine, the raw material.

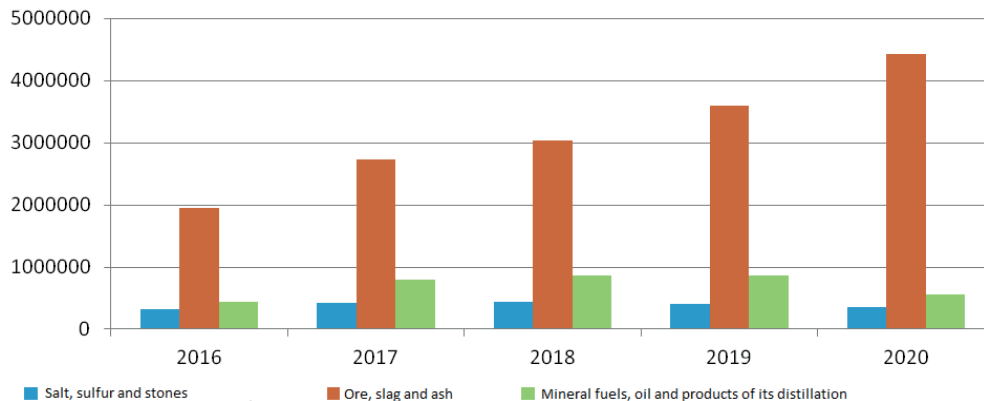


Fig. 5 Structure and dynamics of exports of mineral products of Ukraine for 2016–2020

Source: formed by the authors on the basis of [7]

However, due to insufficient production of mineral fuels and oil for Ukraine there is a problem of energy deficit. Fuel and energy raw materials play a key role in the viability of any state, as it involves almost all sectors of the economy, and to some extent political and economic independence. Ukraine has reserves of all types of fuel and energy raw materials (oil, natural gas, coal, peat, uranium, etc.), but the degree of availability of reserves, their extraction and use are different and in total they do not create the necessary level of energy security. Therefore, the sectors of Ukraine's economy are characterized by unreasonably high energy intensity of production.

The presence of energy deficit and high energy intensity are the main reasons that led to Ukraine's energy dependence. To reduce it, on the one hand, it is necessary to reduce energy consumption, and on the other – to significantly increase oil and gas production in Ukraine.

Conclusions

The structure of exports of each of the budget-generating sectors of the national economy, namely agro-

industrial, metallurgical, machine-building and mineral-raw materials complex is dominated by raw materials or low-tech. Effective development of Ukraine's economy is not possible without adjusting the structure of exports of budget-generating industries.

The main reasons for the trend of raw material orientation of Ukrainian exports of goods are: low quality of finished products; physically and morally obsolete fixed assets that do not allow to produce better and more modernized products; underdeveloped markets; insufficient level of profitability of enterprises to ensure innovative development; high energy consumption of finished products.

To increase the pace of economic development of Ukraine, the state needs to transform the structure of exports. First of all, the directions of transformation of the structure of exports should be the reduction of the share of exports of raw materials and production of knowledge-intensive goods, as well as increasing the volume of goods with high added value.

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DOI <https://doi.org/10.26661/2414-0287-2021-2-50-12>**PROBLEMS OF INVESTMENT ACTIVITY IN THE AGRICULTURAL SECTOR OF UKRAINE****Babmindra D.I., Slobodyanik I.M., Yevpak L.V.***Zaporizhzhya national university**Ukraine, 69000, Zaporizhzhya, Zhukovsky str., 66*

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Key words:

investment activity, investment climate, investment policy, foreign investments, capital investments, agriculture, Agrarian-industrial complex, agrarian sector, agrarian economy, AIK.

The article is devoted to the issues of investments in the development of the Agrarian-industrial complex of Ukraine. The article examines the state of investment policy in the field of agriculture, highlights the main problematic aspects of this activity and considers the factors that negatively affect the inflow of foreign investment, identifies problems and solutions to the problem of attracting foreign investment. The reasons for the priority of investment attractiveness of agriculture are indicated and recommendations for its activation to improve the current situation are given. The article considers the issues of investment activity, highlighting the main problematic aspects of such activities and offers methods and steps for the development of a favorable climate for investment, including foreign.

**ТРАНСНАЦІОНАЛЬНІ КОРПОРАЦІЇ ТА ЇХ РОЛЬ
В РОЗВИТКУ МІЖНАРОДНИХ ЕКОНОМІЧНИХ ВІДНОСИН****Бабміндра Д.І., Слободяник І.М., Євпак Л.В.***Запорізький національний університет**Україна, 69600, м Запоріжжя, вул. Жуковського, 66***Ключові слова:**

транснаціональна компанія, міжнародні компанії, міжнародне виробництво, прямі іноземні інвестиції.

Сучасний стан економіки потребує нових підходів та нового рівня. Статтею спробуємо дослідити загальні положення про поняття, сутність та критерії визначення транснаціональних компаній. Покажемо та розглянемо місце транснаціональних компаній у міжнародних економічних відносинах. Розглянемо найбільші транснаціональні корпорації світу. Визначимо вплив транснаціональних корпорацій на внутрішній валовий продукт та економіку країн в цілому. Спробуємо виділити як позитивні, так і негативні риси діяльності транснаціональних корпорацій.

Statement of the problem

Providing a conducive investment climate in the agricultural sector of the economy remains an important issue, the implementation of which depends on the socio-economic condition of the state, the effectiveness of involvement in the global division of labor, opportunities for modernization of the agricultural economy. Investment activity is an important point of market promotion and raising production efficiency. This issue is quite problematic for agricultural enterprises, which are significantly inferior to industrial ones in terms of the level of investment attractiveness and the volume of attracting additional resources, especially foreign investment. The course of modern political processes and the practical implementation of the established goals and priorities of improving the investment climate in Ukraine mainly negatively affect the investment climate and, in particular, the international investment attractiveness of Ukraine, increase risks for investors, thus causing losses in competition for global investment resources. issues that need improvement and constant monitoring.

Analysis of recent studies and publications

Most economists-scientists consider the financial support of this type of economic activity to be the main factor in ensuring the investment activity of agricultural enterprises. For instance, O.M. Labenko [11] emphasizes the importance of providing financial resources for investment activities of agricultural enterprises [12]; S.A. Gutkevych draws attention to a number of factors influencing the course of investment processes in agriculture, namely economic and political factors [7]. Investment activity is the object of research of such scientists as P.I. Gaidutsky [5], M.P. Denisenko [7], A.A. Peresada [14] and others. Unresolved parts of the overall problem. Some aspects of investment and development of the agro-industrial complex of Ukraine were considered by domestic scientists: V.I. Vlasov [15], G.V. Karpenko [8], M.I. Kisil [15], M.Y. Kodenska [10], A. Lissitz [12], K.A. Prib [15], P.T. Sabluk [15], and others. However, issues related to the problems of investment and development of the agro-industrial complex of Ukraine remain insufficiently

developed. In particular, the role of investing in solving a whole set of urgent problems of development of the Agrarian-Industrial Complex of Ukraine needs to be clarified.

Objectives of the article

Coverage of the current situation of investment activity, highlighting the main problematic aspects of such activities. Identifying the reasons for prioritizing the investment attractiveness of agriculture and providing recommendations for improving the current situation. Defining the principles of implementation of the investment policy of the state, which will positively affect the provision of investment activities in the field of agriculture.

The main material of the research

Investment is an economic category of expanded reproduction, which is the main tool for the formation of micro and macroeconomic proposals and determines the rate of economic growth [10]. According to the Law of Ukraine "On Foreign Investment", foreign investment includes all types of values invested directly by foreign investors in business and other activities for profit (income) or social impact [1]. Thus under the capital in financial sense understand assets (means) of firm, the enterprise. In economic terms, it is embodied in the means of production, fixed and working capital. In practice, investment is a long-term investment of the enterprise in the acquisition of fixed and current assets. In other words, these investments are not only a replenishment of funds for the expansion and reform of the material and technical base, but also costs, which are the basis for further prospects for effective work. The main factors that negatively affect the inflow of foreign investment, or rather the desire of developed countries to invest in the AIK of Ukraine, include:

- instability and uncertainty of the legislation in the field of agrarian and industrial complex, uncertainty in questions of property, especially on natural resources;
- high inflation rates, which are much higher than in the EU;
- reduction of effective demand of the population for food;
- high interest rates on loans;
- unpredictable changes in the tax policy of the state;
- preservation of the monopolized structure of the industrial sector of the domestic agro-industrial complex;
- lack of market mechanisms governing the price relations of agricultural, processing, trade and procurement enterprises;
- non-convertibility of the national currency;
- reduction of profits of domestic producers due to unreasonably high share of imported food in the domestic Ukrainian market;
- acute shortage of commercial, legal, market information needed by investors and entrepreneurs themselves.

Investment activity is a type of economic activity that is directly related to and depends on market trends and processes. Investing in production without making forward-looking calculations is quite risky and unwise. That is why every investor seeks to be confident in the profitability of the invested project, and for this a number of calculations and analysis of a number of factors. However, it should be noted that there is currently a high risk of investment in agricultural production, which is assessed as too high, primarily due to political and legal instability of the state. The legislation does not define the approach to foreign economic and investment activities, there is no clear position of the state to support foreign investors. Also, it should be noted that there are no large-scale programs to attract investment in the main sectors of the agro-industrial complex, and agriculture is not included in the list of investment-attractive industries. Even at the beginning of hostilities in eastern Ukraine, it was clear that this would reduce investor interest, as it is impossible to predict developments in such conditions. The rate of outflow of investment in agriculture was even higher than in the economy as a whole. As of the end of the first half of 2014, the volume of foreign direct investment in agriculture, forestry and fisheries of Ukraine decreased. Foreign direct investment in all economic activities of the state decreased. This is a consequence of reduced profitability of agricultural production and deteriorating access to credit resources. In addition to the obvious impact of the military-political and macroeconomic situation, investors are also affected by the Ministry of Finance's permanent proposals to revise the taxation system in the agro-industrial complex. One of the indicators that most clearly reflects the current situation with the investment, political and economic climate is the capitalization of public companies. Ukraine is actively considering the possibility of integration with the markets of the European Union. First of all, it involves creating conditions for increasing investment in the agricultural sector, ensuring the free movement of capital, the development of the financial services market, the introduction of modern technologies and European social living standards in rural areas. Due to the difficult situation with the pandemic around the world, large-scale projects should not be expected from the Ukrainian agribusiness in 2021, and those that will still be implemented will be much more modest. The intensification of investment activity is not only the main condition for bringing agriculture out of the deep crisis, but also becomes the most important determining factor in its further development. It is necessary not only to reform the social order in the countryside through institutional transformations, which was a priority in the initial period of agrarian reform, but also to attract large-scale investments in the agricultural sector, which are urgently needed by almost all agro-industrial sectors. residential area of the village. Therefore, the formation of preconditions for a massive inflow of investment into the agricultural sector should become the most important element of the strategy of state agricultural

policy at the present stage. First of all, it is necessary to provide wider investment opportunities at the state level to restore the fixed capital of agricultural enterprises and increase it at the expense of own and borrowed funds, in particular foreign capital. This can be largely achieved by introducing a new, adequate to the market system of the economic mechanism of management, which takes into account the specifics of agriculture. In addition, investment in agriculture will harmoniously solve the economic and social problems of the village. Thus, internal migration of the population, mortality, birth rate will increase, the number of jobs will increase, per capita consumption of grain products will increase to the level of scientifically based food norms, which is the main criterion for sustainable agriculture. Currently, the priority area of investment in agriculture is the renewal and modernization of agricultural machinery. At the present stage it is very important to carry out technical re-equipment and reconstruction of livestock farms and complexes, to replace the park with high-quality machines of the new generation. This is due to the fact that field work, performed qualitatively and in the established agro-technical terms, guarantees stable yield. This is especially true of harvesting equipment. Its current state causes large yield losses and reduced yields from 1 hectare of land. A promising area of investment activity in agricultural enterprises is the introduction of advanced energy-saving technologies for growing crops, aimed at saving resources and storing and increasing soil fertility with a sufficient level of yield. An important factor in restoring the economy of the agricultural sector and stimulating economic growth is the state credit policy, which should be a concise continuation of innovation and investment policy by providing loans at preferential interest rates based on their differentiation on such grounds as land fertility, share of own funds in the estimated cost construction of agricultural facilities, the share of farm and processing revenues in the value of products sold by the agricultural enterprise; opening and prolongation of lending programs and issuance of targeted loans for the construction of facilities of economic importance; public money should be directed, first of all, to the renewal of the technical potential of the village; completion of construction of previously started facilities provided for in the target programs; strengthening the material and technical base of agricultural science, seed production; housing construction in villages; development of specialists; business support; financing of activities where the activity of individual investors is the lowest; elimination of consequences of accidents, natural disasters, ecological catastrophes, creation of objects and systems which provide ecological safety of production. Investment policy in the coming years should be carried out taking into account the following principles:

- consistent decentralization of the investment process;
- increase in the share of own funds of enterprises in the total amount of capital investments;

- increasing the role of depreciation as one of the sources of investment financing;
- direction of state investments for production purposes on the basis of return of centralized capital investments;
- expanding the practice of joint state-commercial financing of projects;
- coverage by the innovative process of the entire technological chain of agro-industrial complex (preparation – production – sales);
- strengthening state control over the target expenditure of state budget funds invested in investments;
- stimulating foreign investment;
- accounting for seasonal factors and regional features of agriculture;
- conducting a thorough analysis of investment risks in order to reduce them.

To address the problem of attracting foreign investment, it is necessary to take appropriate measures that would increase the investment attractiveness of enterprises, industries and the country as a whole.

Taking into account the experience of most foreign countries, it is necessary to develop a comprehensive program to attract foreign investment both in the country and in individual regions and industries, which should approximately consist of the following actions:

- 1) to create special economic zones in depressed regions;
- 2) creation of a base, stable, clear, legislative, which concerns not only investment, but also the functioning of the whole economy;
- 3) providing funding for priority sectors of Ukraine's economy that contribute to development;
- 4) promoting the development of a transparent stock market that meets international standards;
- 5) simplification and improvement of the country's tax system;
- 6) formation of the investment risk insurance system;
- 7) fight against corruption and crime;
- 8) minimization of bureaucratic procedures regarding the investment process.

It takes a long period of time to create a favorable investment climate and stabilize it, so even if all the above steps are implemented, you should not expect a quick result.

Conclusions

Investments are the basis for the development of enterprises, individual industries and the economy as a whole. The state of investment activity in the agricultural sector of Ukraine's economy is low, and the investment climate is unfavorable for investors. The investment process itself is seen as a long-term investment to create new and modernize existing agricultural enterprises, and barriers and risks to investment remain high. In order to improve the investment climate in the agricultural sector of Ukraine, it is necessary to stabilize the situation in the

country, improve legislation, increase the efficiency of agricultural production, strengthen the role of the state in the banking system with the creation of a state specialized bank (land, mortgage, investment, etc.), which the state could regulate the credit market and credit relations in agriculture. The decision of these

and other questions will allow to use the involved means more rationally, to control their movement and timely return. A balanced state investment policy in the agricultural sector should become one of the most important ways out of the financial and logistical crisis in which the country's agriculture has found itself.

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DOI <https://doi.org/10.26661/2414-0287-2021-2-50-13>**STRATEGIC DIRECTIONS OF INTERNATIONAL INVESTMENT ACTIVITY AMID PANDEMIC****Duhienko N.O., Venherska N.S., Osaul A.O.***Zaporizhzhia National University**Ukraine, 69600, Zaporizhia, street Zhukovsky, 66*

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The features of international investment activity amid pandemic have been revealed in the article. Current position of international investment activity affected by the pandemic and international investment policy have been analyzed. The quarantine has slowed down international investment projects, that is why governments have imposed new investment restrictions. In addition to the pandemic, international investment processes have been affected by the next factors: new industrial revolution, political shifts toward greater economic nationalism, and sustainability trends. These determinants will have long term impact on the configuration of international production over the decade to 2030. The analysis of foreign direct investment in Ukraine have been carried out and the problems of attracting investments in the context of economic security have been determined. Strategic trends of foreign direct investment in Ukraine have been revealed to achieve sustainable development goals, high level of economic security and minimization of the pandemic consequences. Recommendations for the formation of Ukraine's international innovation and investment strategy in the context of integration processes and transnationalization of the economy have been proposed. Regulation of international investment activity in Ukraine should be aimed at creating an effective legal framework, attractive investment climate, and appropriate institutional support. It is necessary to respond to the problems of mobilization, directions and return of investments, including sustainable development goals and the concepts of national investment policy.

СТРАТЕГІЧНІ НАПРЯМИ МІЖНАРОДНОЇ ІНВЕСТИЦІЙНОЇ ДІЯЛЬНОСТІ В УМОВАХ ПАНДЕМІЇ**Дугієнко Н.О., Венгерська Н.С., Осаул А.О.***Запорізький національний університет**Україна, 69600, м. Запоріжжя, вул. Жуковського, 66***Ключові слова:**

міжнародна інвестиційна діяльність, міжнародне інвестиційне виробництво, прямі іноземні інвестиції, сталий розвиток, транснаціоналізація, пандемія.

У статті розкриваються особливості міжнародної інвестиційної діяльності в умовах пандемії. Проаналізовано сучасний стан міжнародної інвестиційної діяльності під впливом пандемії та міжнародну інвестиційну політику країн світу. Введення карантину уповільнило розпочаті міжнародні інвестиційні проекти, урядами країн було введено нові інвестиційні обмеження. Окрім пандемії, на міжнародні інвестиційні процеси вплинули такі фактори як нова промислова революція, зрушення політики в бік більшого економічного націоналізму та тенденції стійкості. Ці фактори матимуть далекосяжні наслідки для конфігурації міжнародного виробництва протягом десятиліття до 2030 року. Здійснено аналіз прямого іноземного інвестування в Україні та визначено проблеми залучення інвестицій в контексті економічної безпеки. Розкрито стратегічні напрями прямого іноземного інвестування в Україні задля досягнення цілей сталого розвитку, високого рівня економічної безпеки та мінімізації наслідків пандемії. Запропоновано рекомендації щодо формування міжнародної інноваційно-інвестиційної стратегії України в умовах інтеграційних процесів та транснаціоналізації економіки. Регулювання міжнародної інвестиційної діяльності в Україні має бути спрямоване на створення ефективної законодавчої бази, привабливого інвестиційного клімату, відповідного інституційного забезпечення. Необхідно реагувати на проблеми мобілізації, напрямки та віддачу інвестицій, включаючи цілі сталого розвитку до концепцій національної інвестиційної політики.

Statement of the problem

Attraction of long-term foreign investments, as well as activities intensification aimed at their “promotion” during the independence period in Ukraine was one of the priorities of its economic policy determined by a number of official documents. However, unfortunately, today Ukraine is considered by foreign investors, firstly, as a country with unattractive investment climate, and secondly, as a country with a rich resource base, which governments and TNCs want to use for their own economic interests, not taking into account national priorities of Ukraine. There is also a need to include Sustainable Development Goals (SDGs) in the development of the country's international investment strategy amid pandemic.

It is important to take into account the pandemic impact on attracting foreign direct investment (FDI). World practice shows that countries may choose a strategy to attract investment to copy technology or create new jobs, but the country may lose its own economic resources, including natural resources, which in turn reduces their economic security. Therefore, the issue of attracting and encouraging foreign direct investment is an important component of the programme of economic reforms in Ukraine. FDI can become an engine for economic growth and prosperity shaped by the competent government investment policy of Ukraine.

Analysis of recent studies and publications

Markevych K.L. [1], Dykii N.O. [2], Zadoia A.O. [3] and other have studied international investment trends in Ukraine. The study of foreign countries experience analysis in the development of investment activities and international investment have been made by the Ukrainian scholars, in particular: Gutkevych S.O., Sydorenko P.O., Solomko A.S. [4], Pashchenko O.V. [5] and Gryniowa A.V. [6]. Despite the presented scientific achievements, the problem of attracting investment during the pandemic and after it is insufficiently studied and requires the study of foreign direct investment inflow taking into account new conditions.

Objectives of the article

The objective of the article is to analyze international investment activities in modern conditions and substantiate the strategic directions of attracting foreign direct investment in Ukraine during the pandemic.

The main material of the research

Investment activity becomes international when it involves crossing the customs border. International investment activities are carried out in two directions: the export of capital and attraction of foreign investment [6]. The export of capital is determined by the factors like country's capital surplus, the demand for new markets and raw materials, the formation of a competitive economy, international division of labour and transnationalization of an economy.

Foreign capital flows are inextricably linked to multinational corporations. Nowadays transnational corporations have become one of the main drivers of globalization. Transnationalization of the economy is one of the main parts of the global economy. As an important element of globalization, it directly influences its development and has almost become its synonymous, helping to accelerate the processes of rapprochement and interpenetration of different cultures, civilizations, states, regions, economic systems, markets and institutions [7].

In Economics, the concept of investment strategy is applied to individual participants of the investment process – investors, financial intermediaries, as well as to territorial systems (country, region and municipal institutions) [8–9]. National investment strategy is a strategy and programme to stimulate investment inflow into the country's general development, its industry, economy and enterprises, to improve the level and quality of life (in the development and growth of human capital, infrastructure and institutional development).

The main goals of the state's investment strategy are to create attractive investment and business climate (both terms are, in fact, synonymous); increase investments; develop human capital; create competitive economy; diversify the economy; develop the priority industries with high added value; rise the efficiency of the national economy; improve the level and quality of life; solve national defense and geopolitical tasks [9].

To ensure sustainable development goals amid pandemic, i.e. dynamic change, international investment strategy must be based on the principles of adaptability and flexibility of the investment process, to provide a rational structure of investment in specific conditions, a reasonable ratio of specialization to diversification.

The world economy is currently facing a serious crisis caused by the COVID-19 pandemic. Its direct impact on FDI has come as a shock to supply, demand and investment policy. The introduction of quarantine has slowed down international investment projects. Policy measures have also been introduced, which included new investment restrictions. From 2022, investment flows will be gradually restored through reorganization to ensure sustainability, replenishment of fixed capital and recovery of the world economy [10–11].

However, the COVID-19 crisis has already caused a sharp decline in FDI. The decline in global FDI inflows in 2020 has led to new FDI falling below \$ 1 trillion for the first time since 2005. According to forecasts, in 2021 FDI will decrease by another 5–10% and will begin to recover in 2022. In 2022, the return of FDI to the long-term trend before the pandemic is possible, but only at the upper limit of expectations. The impact varies by region. FDI losses are expected most in developing countries, as they are more dependent on investment in industries related to global value chains and extractive industries, and because they cannot take the same economic support measures as developed countries.

COVID-19 is not the only factor that has radically changed FDI. A new industrial revolution, shift toward greater economic nationalism, and trends in sustainability will have far-reaching implications for international production configuration over the decade to 2030. The general trend of international production is aimed at reducing value chains, higher value added concentration and lower international investment in physical assets. This will create huge challenges for developing countries. For decades, their development and industrialization strategies have depended on attracting FDI, expanding participation and retaining added value, and gradually improving technology within international production systems.

The expected transformation of international production also opens up some opportunities for development, such as promoting investment aimed at increasing resilience to shocks, creating regional value chains and entering new markets through digital platforms.

Amid pandemic, some rebalancing towards growth is needed based on domestic and regional demand and encouraging investment in infrastructure and domestic services. This means encouraging investment in sustainable development sectors, in particular in promising projects in the areas of infrastructure, renewable energy, water and sanitation, food and agriculture, and health care.

It is worth noting that there is a change in investment policy during the pandemic. Support measures include simplification of online investment procedures, pandemic-related agency services to encourage investment, and new measures to encourage investment in health care. Several countries have tightened foreign investment controls to protect their medical and other strategic sectors. Other measures include binding production, a ban on the medical equipment export and import duties reduction on medical goods. The crisis has also slowed down negotiations on international investment agreements.

Pandemic causes long-term consequences for investment policy. On the one hand, it may increase the shift towards more restrictive foreign investment policy in different strategic areas. On the other hand, it may tighten countries' competition for investment to overcome the crisis. At the international level, pandemic will arise the reform in international investment agreements' procedure, as governments' response to the epidemic crisis and its economic outcomes may create problems related to the implementation of national obligations under the agreements.

Trends in technology, policy and sustainability have a multifaceted impact on international production. Formation of one of the four trajectories depend on every industry's initial position, its status in international production (table 1).

Achievement of the Sustainable Development Goals (SDGs) is one more important megatrend. More than 150 countries have adopted national sustainable development strategies or revised existing SDG development plans. UNCTAD's analysis shows that, while many of these strategies emphasize the need for additional financial resources, very few of them contain specific roadmaps for promoting investment in SDG.

FDI stock has recently declined in Ukraine as Russian investors have seized much of the assets they previously owned. However, according to the UNCTAD World Investment Report for 2020, FDI inflows amounted to \$ 3.1 billion in 2019, up from \$ 2.3 billion in 2018 (+ 30%). FDI was about \$ 49 billion in 2019 compared to \$ 53 billion in 2010. They mainly invested in manufacturing, wholesale and retail trade, mining, financial services and real estate. To attract more FDI inflows, Ukraine has simplified and reduced costs of registering of foreign trade entities' office representatives. The dynamics of foreign direct investment net inflow as % of GDP shows that 2014–2015 period was critical, as the military conflict in Donbass began in Ukraine. In 2019, the FDI net outflow (% of GDP) for Ukraine was 0.4%.

Table 1 – International investment production set amid pandemic

International investment production set amid pandemic	Main outcomes of different trajectories for host countries' investment and development
Reshoring	Potential restructuring shock, including investment withdrawal, relocation; redirection of investments. Reduction of efficiency-biased FDI resources. The need for reindustrialization or counteraction to premature deindustrialization. Complications in integration into global supply chains and production development of higher level.
Diversification	Higher ability of integration into global supply chains, with rising management flexibility, focusing on platforms and reducing capital intensity. Accelerate transition to intangible assets and global service chains based on services. Value concentration, which makes it difficult to maintain value in host countries. Participation in global supply chains contributes to the quality of hard and soft digital infrastructure.
Regionalization	Transition from global efficiency-biased investments to regional investments focused on market development. Transition from vertical investment of global supply chains to clusters funding and a broader industrial assets. Close reshoring reproduces the effects of reshoring restructuring (but mitigates others). Building regional value chains requires regional economic cooperation.
Copying	Transition from investment in large industrial production to investment into small distributed production. Local production services and production facilities are a necessary condition for attracting final production to global supply chains. Growing need for cost-effective physical support infrastructure and quality digital infrastructure (hard and soft).

Source: compiled by the authors on the basis [10-11]

Although the FDI net outflow to Ukraine (% of GDP) has significantly fluctuated in recent years, in general it has increased between 2000 and 2019, amounting to 0.4% in 2019 [12–14].

Statistics on the total foreign direct investment stock (FDI) in the economy of Ukraine allow us to certify that its dynamics were significantly affected by the military conflict in Donbass, financial and banking crisis of 2014–2015 and the following slow structural reforms.

It is worth noting that the military conflict in Donbass has only deepened the wide range of typical problems of attracting FDI to Ukraine. Low FDI growth rate in the Ukrainian economy is explained by a significant outflow of non-resident capital from the Ukrainian economy, which provoked funds shortage in the domestic financial market, which drastically limited investment objects supply to potential investors; instability of the general macroeconomic situation, which caused rapid growth of consumer prices negative balance of payments, significant and unpredictable changes in national currency exchange rate, in-government corruption and lack of tax incentives.

Direct investment (equity) inflow statistics into the economy of Ukraine in 2019 reveal that almost 26% of FDI to Ukraine come from Cyprus [14], which is one of the closest to us offshore zones. One can consider it as funds return which were previously offshored for “laundering”.

Thus, today offshore zones are used be a typical way for Ukrainian entrepreneurs to avoid excessive tax burden. Entrepreneurs pull a substantial amount of capital to foreign tax jurisdictions and hide their activities behind offshore companies to protect funds. The problem is in pulling not only Entrepreneurial but also governmental capital. This deteriorates national economic situation.

There are some features of foreign investment in Ukraine. Firstly, despite the fact that about 130 countries put foreign direct investment (FDI) in the economy of Ukraine in 2020, the bulk of funding for many years has accounted for a small number of countries. This indicates a slight geographical diversification of FDI exporting countries to Ukraine. Secondly, FDI in Ukraine is formed by two groups of capital: stock owned by foreign residents and stock controlled by foreign companies of owned by Ukrainian residents (Ukrainian capital was previously pulled from the country, usually to offshore jurisdiction). A survey of FDI exporting countries to Ukraine’s economy shows low FDI share from developed countries, while the number of offshore zones is quite significant. In this way, offshore investment shifts the capital from the developed countries into the Ukrainian economy. It provides only quantitative indicators of FDI inflows growth to Ukraine, but not qualitative ones.

Regulation of international investment activity in Ukraine should be aimed at effective legal framework, attractive investment climate, and appropriate institutional support. In addition, it is advisable to stimulate transition to the innovative type of expanded reproduction and

to give priority to investment in high technology and intellectual capital. Foreign investors have the next expectations of the authorities: commitment, openness and accessibility of local authorities; participation of officials in problem solving, quick response to appeals; access to the necessary information, assistance in finding business partners and suppliers; “Single window”, easy registration and doing business, rules and procedures; support in obtaining benefits provided by the legislation; adaptation of proposals in the field of education to business needs (labour market); efficient feedback from companies operating in the market; absence of corruption and other abuse.

Land market openness in Ukraine has caused a surge in interest in international investment into agro-industrial complex for the last two years. Food producers have purchased and leased agricultural land in Ukraine to meet their food security strategy. This has so far attracted the most public attention. Never the less, it is only one of a variety of actual or planned investment flows having different motives.

Some developing countries seek to attract and encourage foreign investment in their agricultural sectors. For them, foreign direct investment is seen as a potentially important tool to covering investment deficit, although it is unclear whether they meet real investment needs or not. Financial advantages of asset transfer to host countries seem insignificant. For example, land rents are generally low or even equal zero, while various tax benefits, often offered to foreign investors, mean tax revenue losses. However, foreign investment is seen as potentially beneficial for the development, for example, through technology transfer, job creation and infrastructure improvement [15].

Amid land market openness, foreign investment in land procurement is controversial and entails some inherent risks. The importance of the economies of scale or infrastructure investment support explain investors’ preference of land purchase and large-scale commercial agriculture business. To protect Ukraine’s national economic interests and economic security, it is necessary to diversify the forms of investment, including joint ventures or contract management. These schemes may be better for the common value of small businesses in Ukraine’s agro-industrial complex.

International investment should bring development benefits to Ukraine in terms of technology transfer, job creation, and so on. However, these advantageous flows are not automatic: one should be careful when forming investment contracts and selecting appropriate business models, as well as appropriate legal and policy frameworks to ensure development support and minimize risks. There is an urgent need to monitor the scale, nature and implications of international investment and to catalog best practices in law and policy area for better awareness.

Conclusions

In the context of a pandemic, it is necessary to develop a new set of measures to promote a “powerful surge” of

private sector investment in SDG and strengthen trends in environmental and social management practice application. Current investment in SDG sectors in Ukraine is too small, sustainable projects funding is not sufficient, and investment policies directly related to SDG are implemented not quickly enough. The situation

is becoming more complicated under the effect of COVID-19 crisis. It concerns that economic recovery could replace the progress in achieving SDG. It is necessary to respond to the problems of mobilization, trends and return on investment, including SDG in the concepts of national investment policy.

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TRANSFORMATION OF THE IMF'S CREDIT POLICY UNDER THE INFLUENCE OF THE COVID-19 PANDEMIC

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Key words:

IMF, crediting, pandemic,
financing, unemployment.

The article discusses the credit policy of the International Monetary Fund and its changes due to the coronavirus pandemic. The main goal of cooperation between Ukraine and the IMF has been established, which is manifested in the creation of a stable Ukrainian financial system. The program of further cooperation between Ukraine and the IMF in the event of a coronavirus pandemic was also considered. The article identifies the impact of coronavirus infection on unemployment in Ukraine. The IMF has identified changes to the Trust Fund to increase funding to counter the risk of Covid-19 infection, expanding the existing lending program, providing concessional financing and increasing the number of grants. It has been established that the IMF is a very important component of the development of the world economy. Its credit programs help solve balance of payments problems, or in such difficult times as the coronavirus pandemic, allows countries to withstand the pressure of the crisis.

ТРАНСФОРМАЦІЯ КРЕДИТНОЇ ПОЛІТИКИ МВФ ПІД ВПЛИВОМ ПАНДЕМІЇ КОРОНАВІРУСУ

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Ключові слова:

МВФ, кредитування, пандемія,
фінансування, безробіття.

У статті розглянуто кредитну політику Міжнародного валютного фонду та її зміни внаслідок пандемії коронавірусної інфекції. Встановлена головна мета співпраці України та МВФ, яка виявляється в створенні стабільної української фінансової системи. Також розглянуто програму подальшої співпраці України з МВФ за умов пандемії коронавірусу. В статті визначено вплив корона вірусної інфекції на рівень безробіття в Україні. Визначено, які зміни МВФ внесло до Трастового фонду, задля збільшення коштів на протидію небезпеки від інфекції Covid-19. Проведено аналізу механізмів для надання допомоги державам в протидії економічним наслідкам розповсюдження корона вірусу, такий як здійснення фінансування, завдяки механізму прискореного кредитування та інструментам прискореного фінансування, розширення існуючої програми кредитування, надання пільгового фінансування та збільшення кількості грантів. Встановлено, що МВФ є дуже важливою складовою розвитку світової економіки. Його кредитні програми допомагають вирішити проблеми платіжного балансу, або в такий важкий час, як пандемія коронавірусу дозволяє країнам витримати натиск кризи.

Statement of the problem

Throughout 2020 the whole world was fighting the COVID-19 pandemic. At the moment there is a second wave of the disease, which has a very negative impact not only on the human condition but also on the economic condition of countries. To support weak economies the IMF Board decided to change its credit policy in relation to financing instruments to combat COVID-19 and its consequences.

Analysis of recent research and publications

Among the authors who study the activities of international financial organizations the works of scientists R. Betsma, A. Bradsma, C. Gray, T. Edison, S. Fisher, and others are worth noting. In the works of scientists V. Kuznetsov, G. Trofimov, I. Trunin the world monetary and financial system and lending activities of the IMF and the World Bank were analyzed. The problems of world monetary and financial relations were considered in the

works of Ukrainian researchers and economists such as V. Andriichuk, O. Belarus, I. Maiboroda.

Objectives of the article

Based on the above we can formulate the task of the study which is to examine the change in the IMF credit policy to counteract the economic consequences of COVID-19.

The main material of the research

The IMF was established in July 1944 at the Bretton Woods Conference of the United Nations in New Hampshire, USA. 44 countries sought to lay the groundwork for international economic cooperation and to avoid a repeat of the competitive currency devaluation that contributed to the Great Depression of the 1930s.

189 countries are currently the members of the International Monetary Fund. Mandatory contributions to the IMF are paid each year according to the country's economic potential. These funds create a fund through which countries can then seek help.

The main goals of the IMF are:

- promoting cooperation between countries by foreign exchange transactions;
- expanding international trade, reducing unemployment and improving the economic conditions of member countries;
- creation of conditions for settlements between countries on current transactions and elimination of currency restrictions;
- issuance of loans and credits in foreign currency to settle balances of payments;

– control member states' compliance with the rules of conduct in international monetary relations.

To achieve its goals the IMF carries out the following activities.

1. Observes changes in the economic and financial situation, policies in the member states at the global level and makes recommendations to member states on economic policy based on more than fifty years of its experience.

2. Provides loans to member states experiencing balance of payments problems not only for the purpose of temporary financing but also to support stabilization and reform policies aimed at solving the major problems.

3. Provides technical assistance to the governments and central banks of the member states, conducts training within its competencies [1].

Lending rules vary depending on the situation in the country. For example, a country facing a sudden drop in prices for basic export goods may need financial assistance to implement measures to strengthen its economy and expand its export base. A country suffering from a severe outflow of capital may need to solve issues that have led to a loss of investor confidence or interest rates may be too low; the budget deficit and debt are growing too fast or the banking system is inefficient or poorly regulated.

As a rule the government and the IMF must agree on an economic policy program before the IMF provides a loan to the country. Countries are required to take certain policy actions, known as conditionality policies, which are an integral part of IMF loans in most cases.

There are two types of IMF lending: soft lending, at minimal or zero interest rates for developing countries, and lending at non-preferential interest rates (Table 1). There

Table 1 – Types of IMF lending [1]

Non-preferential lending		Preferential lending	
Type		Type	
Stand-by loan	Designed to help countries overcome short-term balance of payments problems. The term is usually 12–24 months, the loan is repaid within 3–5 years from the date of actual provision.	IMF concessional arrangements for low-income countries	The mechanism is designed to support the programs of countries that aim to achieve a sustainable macroeconomic position in line with the objectives of ensuring strong and long-term poverty reduction and economic growth.
Flexible line of credit	Countries with good economic performance can turn to this mechanism to support future reforms. The maturity dates of the GCL are the same as in the stand-by.	Extended credit mechanism	Low-income countries that have difficulty adjusting their balance of payments may receive medium-term support. Financing is carried out at a zero interest rate, with a grace period of 5 years and a full maturity of 10 years.
Line of preventive support and liquidity	Designed for countries with strong core economic indicators, sound economic policies and successful experience of such policies. The duration of the LPL agreement is six months or one to two years. The maturity of LPL is the same as in the stand-by.	Stand-by credit mechanism	Countries with low incomes and short-term or potential balance of payments problems can use the credit mechanism. Financing is carried out at a zero interest rate, with a grace period of 4 years and a full maturity of 8 years.
Extended lending mechanism	This mechanism is designed to assist countries in overcoming medium- and longer-term balance of payments problems. The term of the agreements usually does not exceed 3 years at the time of approval. Maturity: 4–10 years from the date of actual provision of funds.	Accelerated lending mechanism	The mechanism is aimed at quick financial assistance with limited rules and is designed for low-income countries. Financing is currently carried out at a zero interest rate, with a grace period of 5 years and a full maturity of 10 years.
A tool for accelerated financing	Each member state may, in complying with the requirements, receive rapid financial assistance in the event of an urgent need to settle the balance of payments. Access within the framework is limited to an annual limit of 37.5 percent of the quota.		

are five types of programs of non-preferential lending and four types of soft lending [2].

According to the Law of Ukraine No. 2402-XII “On Ukraine’s Accession to the International Monetary Fund” of May 3, 1992, Ukraine became a member of the International Monetary Fund on legal terms. The IMF’s financial assistance to Ukraine currently stands at 16.61 billion taking into account all financial tranches.

The main goal of cooperation between Ukraine and the International Monetary Fund is to create a stable Ukrainian financial system, create conditions for gradual economic growth and economic reforms. Based on its experience the fund helps Ukraine to effectively implement the reform program. Cooperation with the IMF also attracts other international financial institutions to work together.

In August 2019 after the last tranche from the IMF Ukraine started negotiations with the new government on the introduction of a new Stand-By program to revitalize the financial system. And in December 2019 after discussing the program and determining the conditions for assistance an agreement was reached on a new three-year program “EFF” totaling \$ 5.5 billion.

The COVID-19 pandemic changed the IMF’s approach to credit policy creating completely new tools and changing the cooperation program to the familiar Stand-by which focuses on supporting Ukraine’s macroeconomic policy for a period of 18 months and a total of \$ 5 billion [3].

COVID-19 not only influenced Ukraine’s cooperation with the IMF but in general changed the direction of credit policy and redirected it.

The COVID-19 pandemic is a health emergency caused by a COVID-19 infection that began in 2019 and is still spreading.

As a result of the pandemic, many countries are experiencing a crisis. At the beginning of the pandemic Chinese companies lost 38% of profits, car sales fell by 92% although this market was quite developed [4].

According to the World Trade Organization, world trade is expected to fall by about 13-32% in 2020 [5].

The peculiarities of the new crisis are not only that it reduces the profits of corporations, but also that it changes the principles of production and delivery of goods, destroys

entire sectors of the economy, the most striking example is the complete collapse of the tourism sector.

The COVID-19 pandemic could also increase unemployment in the world which is currently being observed both in Ukraine and around the world and may soon lead to a record increase in the number of people, and about 500 million people will be living below the poverty line.

According to Figure 1 we can see that during the quarantine period, from 2019 to 2020, unemployment increased by 1.3 percent. This level was also observed in 2017 and was the highest in the last decade.

The IMF has two mechanisms: an accelerated lending mechanism established in 2009, and an accelerated financing instrument introduced in 2011 which can provide emergency financial assistance to member countries without the need for a full-fledged program. Funds for these loans can be provided very quickly to help member states deal with emergencies such as the spread of COVID-19 [1].

In response to the COVID-19 crisis the Executive Board of the International Monetary Fund (IMF) approved a number of changes to improve the Trust Fund for Disaster Reduction and Disaster Management to enable the Fund to help poor countries alleviate the debt burden.

The IMF Board first called on the G20 to postpone debt collection on credit agreements from the governments of the world’s poorest countries.

He also called for the replenishment of the trust fund which at the time had only \$ 200 million for the world’s poorest countries. The United Kingdom has responded to this call with a commitment to provide \$ 183 million. Other donors, including Japan and China, have also announced plans to make significant contributions.

Through these contributions the transformed IMF Trust Fund for Disaster Reduction and Disaster Recovery will be able to accelerate debt relief for the IMF to more of the poorest and most vulnerable member states [1].

The IMF has the following mechanisms to assist countries in counteracting the economic consequences of COVID-19 spreading.

Implementation of financing with help of the Rapid Credit Facility and Rapid Financing Instruments which

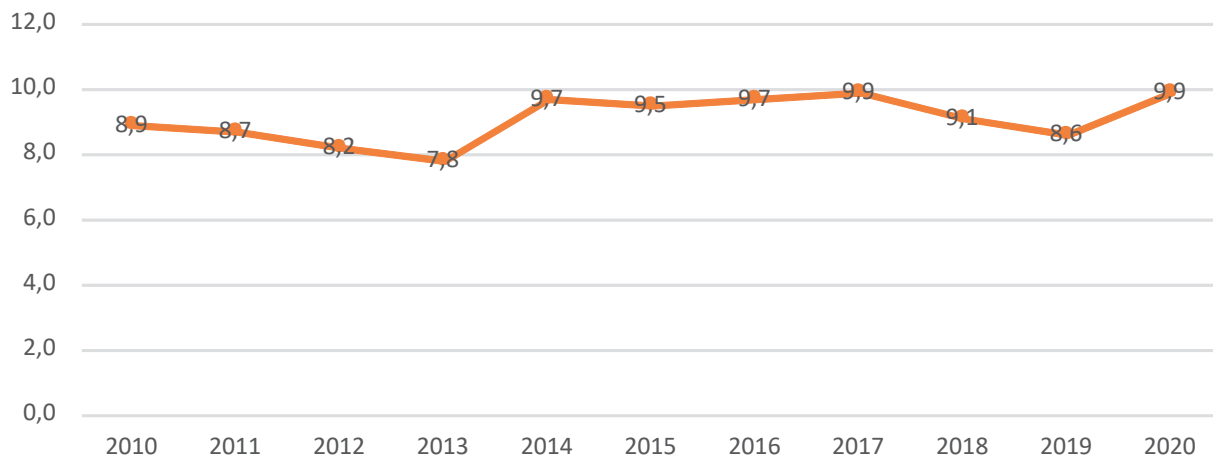


Figure 1 Unemployment rate 2010-2020 (in working age) [6]

allow to provide financial assistance to member countries in a short time without drawing up a full-fledged program.

To avoid the negative economic consequences of COVID-19 it is necessary to expand the existing lending program. The IMF has modified existing programs to meet their new needs in the fight against COVID-19 infection.

In order to contain the catastrophic consequences of a reduction in GDP growth of 10 percent or more and a minimum per capita GDP of \$ 1,175 funding shall be provided on preferential terms to member states.

In 2020 the IMF increased the number of grants to reduce the debt burden, and funding is provided by a trust fund to combat the effects of disasters for the poorest countries [7].

Since the beginning of the pandemic the IMF has provided financial support to 81 countries in the amount of 100 billion US dollars. In response to the IMF's steps to mobilize funds to meet preferential lending needs, which could triple, IMF member countries have so far pledged \$ 21 billion and in early October conducted a second round of debt servicing facilitation for the poorest countries affected by the crisis.

Despite some improvement in the outlook for the global economy the pandemic is not over and the threat of new outbreaks is still high. Therefore, the process of recovery of regions and industries is still long, uncertain and uneven. In addition, there is a threat of rising debt, unemployment and worsening inequality between people. Such an increase

in vulnerabilities therefore may increase concerns about financial stability in some countries and regions [1].

Conclusions from the study

The IMF is a very important component of the development of the world economy. Its credit programs help solve balance of payments problems, or COVID-19 allow countries to withstand the pressure of the crisis in such a difficult time as the COVID-19 pandemic.

At the moment, the IMF's credit policy has completely stopped its main activities and redirected its actions to the recovery of the world's economies, with special attention paid to the poorest countries.

This is important for achieving sustainable, sustainable, balanced and inclusive growth.

The 20 strongest countries supported the IMF's efforts to expand the resources of soft loans and contributed to the timely settlement of sovereign debt and the development of instruments to combat the crisis.

The most important area of IMF financing today is the research, development, production and distribution of COVID-19 diagnostic agents, therapeutics and vaccines.

But despite the challenges of COVID-19 the IMF's credit policy must also return to long-standing challenges such as trade recovery, information development and climate change because the incentives used to strengthen the boost could also be aimed at moving towards a green economy which is resistant to climate change.

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FEATURES OF THE REGION'S INVESTMENT CLIMATE FORMATION AMID ECONOMIC INSTABILITY

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Key words:

investment climate, region, soft factors, hard factors, institutional environment, investment attractiveness, investment policy, mechanism.

The article is devoted to the study of the peculiarities of the regional investment climate formation in the context of external challenges and higher economic instability. Based on the analysis, the factors shaping regional investment climate have been identified and grouped into two areas by the criterion of time invariance/variability delimitation: the first group of factors requires a long period to implement changes (so called "hard" factors), the second group requires short period of time ("soft" factors). It has been proved that nowadays regional investment climate is largely determined by "soft" factors affecting investment institutional environment. The assessment of regional investment climate in Ukraine has allowed to group the regions according to the criterion of investment attractiveness, namely: leading regions (the highest level of investment attractiveness); "Catching up" regions (have lower level of general economic capacity compared to the leaders, but close to them); regions at an intermediate stage of development (have an intermediate level of investment risks); outsiders (low level of investment attractiveness and activity). The authors have singled out five groups of factors shaping the investment climate: the level of productive forces development and investment market position; political will of a government and the legal environment; financial and credit system position and activities of financial intermediaries; foreign investor status; population investment activity. Based on the factors analysis, four types of environment have been formed, which are in fact components of the investment climate: political and legal environment; socio-cultural environment; economic environment; institutional and infrastructural environment.

ОСОБЛИВОСТІ ФОРМУВАННЯ ІНВЕСТИЦІЙНОГО КЛІМАТУ РЕГІОНУ В УМОВАХ ЕКОНОМІЧНОЇ НЕСТАБІЛЬНОСТІ

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Ключові слова:

інвестиційний клімат, регіон, м'які чинники, жорсткі чинники, інституційне середовище, інвестиційна привабливість, інвестиційна політика, механізм.

Стаття присвячена дослідженню особливостей формування інвестиційного клімату на регіональному рівні в умовах поглиблення зовнішніх викликів та економічної нестабільності. На основі аналізу виокремлено чинники, які формують інвестиційний клімат регіону, та згруповано їх за двома напрямками за критерієм розмежування яких є незмінність/змінність у часі: перша група чинників потребує тривалого періоду для реалізації змін – «жорсткі» чинники та друга група – зміни можливі протягом нетривалого періоду часу – «м'які» чинники. Доведено, що на сучасному етапі інвестиційний клімат у регіоні більшою мірою визначається «м'якими» чинниками, які визначають інституціональне середовище для інвестування. Оцінка інвестиційного клімату регіонів України дозволила згрупувати регіони за критерієм інвестиційної привабливості, а саме: регіони-лідери (найвищий рівень інвестиційної привабливості); «наздоганяючі» регіони (мають менший рівень загальноекономічного потенціалу порівняно з лідерами, але наближені до них); регіони середнього рівня розвитку (мають середній рівень інвестиційних ризиків); аутсайдери (низький рівень інвестиційної привабливості та активності). Автори виокремили п'ять груп факторів, які формують інвестиційний клімат: рівень розвитку продуктивних сил та стан інвестиційного ринку; політична воля влади та правове поле держави; стан

фінансово-кредитної системи і діяльність фінансових посередників; статус іноземного інвестора; інвестиційна активність населення. На основі аналізу зазначених факторів сформовано чотири типи середовищ, які є фактично складовими інвестиційного клімату: політико-правове середовище; соціально-культурне середовище; економічне середовище; інституціонально-інфраструктурне середовище.

Statement of the problem

Nowadays the impact of global trends on the development of national economies is increasing, which is reflected in the regional performance. Natural resource potential of regional systems can be fully presented, if a favourable environment for investment processes is created. The combination of these conditions and factors determines investment climate, which is designed not only to attract investment but also to support actual investors.

In Ukraine in general, and at the regional level in particular, there are a number of obstacles to the investment process implementation. Among the most important, we should figure out the imperfection of investment legislation, lack of appropriate investment climate in the country; market mechanism imperfection; political instability; low level of business and professional qualification of entrepreneurs; insufficiently attractive investment projects and, as a consequence, lack of foreign partners' interest. In addition, the intensity of investment processes is being affected by the tax system; lack of effective investment insurance system; excessive monopolization; as well as high inflation rate.

One should note that investment processes are contradictory. On the one hand, transformation processes are aimed at macroeconomic stabilization and transformation of the economic system, which theoretically contribute to improving the investment climate. On the other hand, the processes of political and economic instability are related to the global crisis, as well as to the internal problems that hinder investment processes.

Economic instability explains the growing importance of favourable investment climate at the regional level, because the reform and decentralization should cause their relative independence in decision-making and responsibility for the consequences. Given the imperfection of the regulatory framework and the decline in investment activity of economic entities, there is a deterioration of the regional investment climate. Besides, there is a need to improve the investment policy to create favourable environment.

Analysis of recent studies and publications

The issues of investment climate analysis and their improvement areas are reflected in the scientific studied. Ukrainian scholars as I. Blank [1], V. Zakhzhaii, M. Kit [2], M. Kyzym, [3], S. Petrovska [4], I.Z. Storonyanska [5], T. Umanets [6], V.V. Ushakov [7] and others have studied the issues of investment climate and investment attractiveness of different entities and regions.

Unsolved part of the problem

Despite the significant number of scientific achievements, it is necessary to detail the peculiarities of the regional investment climate formation amid economic instability.

Objectives of the article

The study objective is peculiarities of the regional investment climate formation amid economic instability in the context of socio-economic problems exacerbation and higher economic uncertainty.

The main material of the research

The significant role of investment processes in the regional is beyond doubt. Investments can solve a number of key tasks of economic development: support and stimulation of general economic growth; environmental safety support; reduction of poverty level and depth in the long run.

To address these challenges, investment in small and medium-sized businesses can have a more significant impact than large state-owned monopolies financing. This is due to the fact that about half a million of small and private-owned businesses provide almost a third of the world's population with food, but do not have access to markets, to infrastructure, unlike their competitors. Stimulation and development in this direction can have favourable economic effect.

Favourable investment environment is needed to attract investment to the regions. At the same time, research shows that now there are some problems that together form a high-risk investment environment, which hinders investment in the regions. That is, unfavourable investment climate is a consequence of investment activity in other sectors of the economy, as well as the result of long-term loss of production.

Among the reasons for the decline in investment activity should be noted:

- significant tax burden on producers and lack of benefits for industrial investment, as well as uneven taxation;
- different “game rules” in the financial market for the participants, as the most profitable areas of capital investment are transactions in securities, real estate and banking;
- low burden of previously introduced fixed assets and a high level of their depreciation, which does not allow companies to accumulate funds for the production.

The region is part of the country having a set of features: territorial, natural, economic and socio-cultural. This embodies the natural resource potential of the regional system. The investment climate is a prerequisite for potential fulfilment, which is a set of conditions that will determine the scale, volume and pace of investment and regional investment attractiveness.

Theoretical and practical analysis reveal that current investment climate and the peculiarities of economic environment significantly complicate investment activities in Ukraine in general and regions in particular, which directly affects investment attraction into the economic development. The real volume of investment does not

allow to ensure the appropriate level of economic growth and reproduction processes.

One should note that the regions of Ukraine have significant potential to attract investment, as the country has all the prerequisites for intensifying this process. Among the advantages are significant natural resource potential, skilled labour force, production facilities and large domestic market favourable for exports growth and entering international commodity and financial markets. However, nowadays the unfavourable investment climate, economic environment and the lack of appropriate regulatory framework for regulating investment processes are an obstacle to intensifying the process of investment into the economy.

It is typical to distinguish factors of investment attractiveness by the criterion of constancy / variability over time, which are divided into two groups: “hard” and “soft” (fig. 1).

The group of “hard” factors includes those which cannot be changed in the short term. However, they are the basis for medium – and long-term forecasts of national economy development in terms of investment processes. “Soft” factors, in turn, can change in a relatively short period and can create barriers to investment. In this case, if the first group of factors determines the quantitative assessment of investment, the second – qualitative.

Investment processes analysis in the post-crisis period shows that the leading role for the national economy is played by “soft factors”, which create appropriate institutional environment.

Using the ranking of the regions of Ukraine, compiled on the basis of the investment climate assessment, it is expedient to single out certain groups of regional systems according to the criterion of “investment attractiveness” and to characterize them. Regional systems are divided into the following groups [8]:

1. The group of “leading regions”, which include regions with a high level of investment attractiveness, which is a priority.

2. The group of “catching up” regions, which have a moderately high level of investment attractiveness, but in certain respects lag behind the leading regions.

3. The group of “middle level development regions” is the largest and includes regional systems that have an average level of investment attractiveness, due to underdeveloped industrial production.

4. Group of “outsiders”, which have the lowest level of investment attractiveness compared to the previous groups of regional systems and are characterized by the lowest economic potential.

Favourable investment climate can be analyzed by studying the region in the “Investment and innovation development and foreign economic cooperation of the regions of Ukraine, 2015–2019” ranking (Table 1).

Analysis of regions ranks (Table 1) shows that the city of Kyiv is the undisputed leader in terms of investment attractiveness, the second place is occupied by Volyn region, the third place – Kirovograd region. The lowest level of investment attractiveness is in Luhansk, Khmelnytsky and Rivne regions.

There are five groups of factors that shape the investment climate: the level of development of productive forces and the investment market position; government’s political will and the legal framework; financial and credit system status and the activities of financial intermediaries; foreign investor status; population investment activity.

One should note that the peculiarity of investment processes is the idea that the final result of the investment should be high level of economic well-being, quality of life, improved working conditions and personal development. After all, investments can be successful and effective only

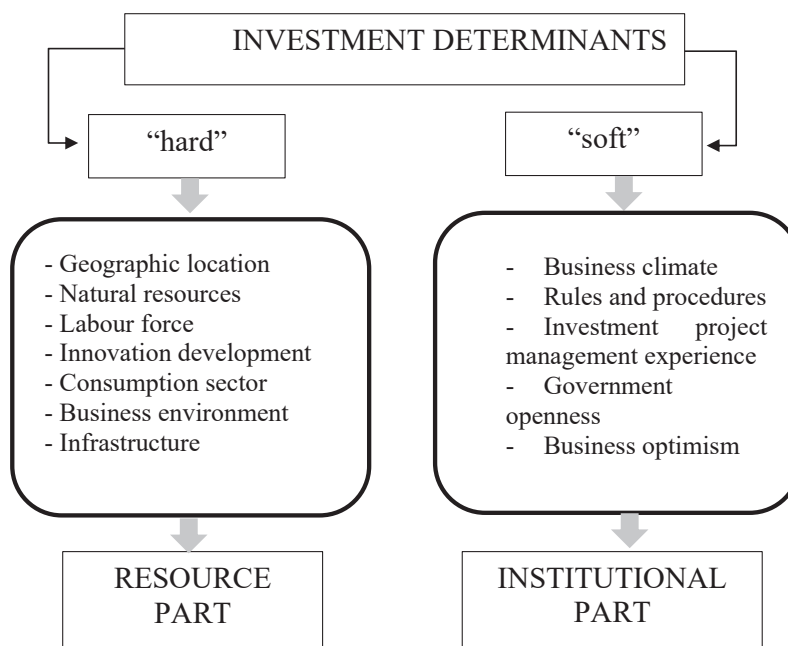


Fig. 1 – Groups of investment determinants at the regional level

Source: made by authors based on: [8, p. 37–39]

Table 1 – Investment and innovation development and foreign economic cooperation of the regions of Ukraine, 2015–2019's

Ranking	Region	Ranking	Region
1	The City of Kyiv	14	Sumy
2	Volyn	15	Donets'k Region
3	Kirovograd	16	Cherkasy
4	Kherson	17	Vinnitsya
5	Mykolayiv	18	Odesa
6	Kyiv	19	Chernivtsi
7	Dnipropetrovs'k Region	20	Zhytomyr
8	Poltava	21	Ivano-Frankivs'k
9	Zakarpattia	22	Lviv
10	Zaporizhzhia	23	Luhans'k
11	Kharkiv	24	Khmelnitsky
12	Ternopil	25	Rivne
13	Chernihiv		

Source: made on the basis of: [9]

if the principle of combining freedom of business and effective public policy is implemented in Ukraine.

Conclusions

Based on the study, one can conclude that the formation of regional favourable investment climate is important in terms of ensuring the maximum realization of natural resource potential. The created institutional environment and investment infrastructure of the regional system play an important role too. In order to attract as much investment

resources as possible, regions as independent economic systems must be constantly improved and developed in accordance with the identified priorities and strategic guidelines. At the same time, it is crucial not only to interest investors, but also to keep them, to motivate them to invest in the development of the regional system, seeing in this their own and public welfare growth. Thus, the formation of favourable investment climate in the region creates future prospects for its full development and welfare of its population, allows to make the most of all capacity.

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FORMATION OF INVESTMENT POLICY FOR THE PURPOSE OF INCREASING UKRAINIAN COMPETITIVENESS

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Key words:

competitiveness, competitiveness improvement, investment policy, investments, investment attractiveness of the enterprise.

An urgent problem facing Ukraine is the substantiation of directions of increasing competitiveness and gaining a strong position in the international market. After all, ensuring the competitiveness of the economy is a priority for any state that cares about its place in the world market and its economic growth. The level of investment depends significantly on the economic attractiveness of Ukrainian enterprises, because competitive enterprises are an important factor in the success of investors. The formation of the country's investment attractiveness is necessary to ensure its competitiveness and to solve social problems. The effective use of foreign direct investment in the national economy can be an important factor in accelerating economic growth, optimizing the reproductive structure of the economy, solving many other strategic challenges. Accumulated foreign investment is one of the indicators and reflects the level of integration of the country into the world economy, the development of its foreign economic relations and the desire to create an open, export-oriented model of the economy. Ukraine lags far behind most countries with economies in transition in this regard. The article focuses on the assessment of the current state of competitiveness of Ukraine and other countries. The state and tendencies of investments in Ukraine are analyzed. The analysis of Ukraine's competitiveness is performed. It is established that the increasing of the country's competitiveness leads, as a consequence, to the rise of the investment. It is determined that the need for sustainable economic growth, which contributes to increased productivity, remains critically important to improving living standards. The ways to improve the investment climate in Ukraine are proposed. The system of proposals to augment investment activity is the results of the work.

ФОРМУВАННЯ ІНВЕСТИЦІЙНОЇ ПОЛІТИКИ В ЦІЛІ ПІДВИЩЕННЯ КОНКУРЕНТОСПРОМОЖНОСТІ УКРАЇНИ

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Ключові слова:

конкурентоспроможність, підвищення конкурентоспроможності, інвестиційна політика, інвестиції, інвестиційна привабливість підприємства.

Актуальним завданням, що стоїть перед Україною, є обґрунтування напрямів підвищення конкурентоспроможності та завоювання міцних позицій на міжнародному ринку. Адже забезпечення конкурентоспроможності економіки є пріоритетом для будь-якої держави, яка піклується про своє місце на світовому ринку і своєму економічному зростанні. Рівень інвестицій в значній мірі залежить від економічної привабливості українських підприємств, оскільки конкурентоспроможні підприємства є важливим фактором успіху інвесторів. Формування інвестиційної привабливості країни необхідно для забезпечення її конкурентоспроможності та вирішення соціальних проблем. Ефективне використання прямих іноземних інвестицій в національну економіку може стати важливим фактором прискорення економічного зростання, оптимізації відтворювальної структури економіки, вирішення

багатьох інших стратегічних завдань. Накопичені іноземні інвестиції є одним з показників і відображають рівень інтеграції країни в світову економіку, розвиток її зовнішньоекономічних зв'язків і прагнення до створення відкритої експортно-орієнтованої моделі економіки. В цьому відношенні Україна значно відстає від більшості країн з перехідною економікою. Стаття присвячена оцінці поточного стану конкурентоспроможності України та інших країн. Проаналізовано стан і тенденції інвестування в Україну. Проведено аналіз конкурентоспроможності України. Встановлено, що підвищення конкурентоспроможності країни призводить, як наслідок, до збільшення інвестицій. Визначено, що потреба в стійкому економічному зростанні, який сприяє підвищенню продуктивності, залишається критично важливою для підвищення рівня життя. Пропонуються шляхи поліпшення інвестиційного клімату в Україні. Результатом роботи є система пропозицій по збільшенню інвестиційної активності.

Formulation of the problem

The world is at a turning stage in the social, environmental and economic spheres. Slow growth, increasing inequality and accelerated climate change are creating the conditions for an appropriate response against capitalism, globalization, technology and elites. There is a stalemate in the system of international governance, and growing geopolitical and trade tensions are exacerbating the uncertainty. This constrains investment and increases the risk of supply shocks: disruptions in global supply chains, sudden price spikes or interruptions in the availability of key resources.

Foreign investment is important for the development of the country, because it intensifies investment and innovation processes, promotes the development of small and medium-sized businesses, which, in turn, raises productivity and ultimately increases the welfare of the population.

Analysis of recent researches and publications

Such scientists as Schwab K. [1], Koval N., Terpel L. [3], Popovych P. [4] paid in-depth attention to the study of the problem of investment policy of enterprises.

Scientists note that increasing the country's competitiveness will lead to raised investment in Ukraine. Most researchers believe that the state's corruption, the unfair competition and the imperfect legislation has a negative impact on investment policy.

The issues need attention are the forming an effective state strategy on priority areas of growth and attracting investments for the development of enterprises.

Forming the goals of the article

The purposes of the article are to study the current state of investment activity in Ukraine, to identify the strengths and weaknesses of the investment climate in Ukraine and to provide suggestions for its improvement.

Presentation of the main research material

The goals of rational investment policy are: stimulating entrepreneurship; minimization of business risk in the state; support for the implementation of projects necessary for the intensive economic development of the state; creating a favorable business climate; simplification of the procedure for entering the state economy for foreign investors; improvement of the social and humanitarian sphere.

For those enterprises and organizations that are relatively independent of the investment policy of the state, the formation of its areas is based on the goals of the company. For example: enhancement of working conditions or other measures that will increase the profits of enterprises and organizations, improving the technical equipment of production or enterprise management system [1].

The most important prerequisite for the country's competitiveness is the efficient activity of the state, which determines and implements the competitiveness strategy, establishes the rules of market relations. Since competitiveness is an integral part of global development, we propose to consider it as a process of gaining benefits in macroeconomic indicators, improving the welfare of the population, freedom of doing business in the modern economic space, which allows having economic growth in terms of international integration. This growth is aimed at ensuring the socio-economic development of society.

The level of investment depends significantly on the economic attractiveness of Ukrainian enterprises, because competitive enterprises are an important factor in the success of investors. According to the Founder and Executive Chairman of the World Economic Forum, Klaus Schwab: "Those countries that integrate into their economic policies an emphasis on infrastructure, skills, research and development, and support those left behind, are more successful compared to those which focus only on traditional factors of growth." [2]. Data on the assessment of Ukraine's competitiveness are given in Table 1.

Indicators of macroeconomic stability and innovation opportunities decreased by 2 positions, and the indicator of ICT adoption - by 1.

Ukraine's position improved in pillars "product market" – from 73rd to 57th place, "labor market" – from 68th to 59th, institutional development – from 110th to 104th place.

The volume of the domestic market and infrastructure has not changed.

Ukraine also rose to 2nd place in the field of education and 1st place in terms of business development.

Singapore became the leader, overtaking the United States, the leader of the previous ranking, which took second place. Hong Kong (7th position in 2018), the Netherlands and Switzerland (ranked 1st in 2012–2017) were among the top five (Table 2).

Table 1 – Assessment of Ukraine's competitiveness in 2019

	Competitive positions	Score 2018	Rank 2018	Score 2019	Rank 2019	The best country in 2019
1	Institutions	46,3	110	47,9	104	Finland
2	Infrastructure	70,3	57	70,3	57	Singapore
3	Adoption of information and communication technologies	51,0	77	51,9	78	Republic of Korea
4	Macroeconomic stability	55,9	131	57,9	133	Several countries (33)
5	Health	72,0	94	65,6	101	Several countries (4)
6	Skills	68,9	46	69,9	44	Switzerland
7	Product market	55,3	73	56,5	57	Hong Kong
8	Labor market	59,5	68	61,4	59	Singapore
9	Financial system	48,7	117	42,3	136	Hong Kong
10	Market size	62,7	47	63,0	47	China
11	Business dynamism	55,3	86	57,2	85	The USA
12	Innovation capability	39,0	58	40,1	60	Germany

Source: generalized by the author based on [2]

Table 2 – Assessment of the competitiveness of the world in 2019

	Leading country	Score 2018	Score 2019
1	Singapore	83,5	84,8
2	The USA	85,6	83,7
3	Hong Kong	82,3	83,1
4	Netherlands	82,4	82,4
5	Switzerland	82,6	82,3
6	Japan	82,5	82,3
7	Germany	82,8	81,8
8	Sweden	81,7	81,2
9	United Kingdom	82	81,2
10	Denmark	80,6	81,2

Source: Generalized by the author based on [2]

The index explores the relationship between competitiveness and two other dimensions of sustainable development – social cohesion and environmental sustainability. This shows that there is no internal compromise between competitiveness and sustainability, as well as between competitiveness and social cohesion. This implies a “win-win” political space where a productive, low-carbon, inclusive economy is possible, and this is the only viable option in the future.

According to the annual Global Competitiveness Report of the World Economic Forum, the worst performance in the financial systems and health care, where 19 and 9 positions were lost, respectively.

The report of the World Economic Forum is a reminder of the need to take a holistic approach and better balance short-term considerations with factors that are felt beyond quarterly results and election cycles. For example, the results of the Competitiveness Index show that labor and education policies lag behind the pace of innovation in most countries, including some of the largest and most innovative economies [2].

The greatest demand from investors is industries where you can make money quickly, especially without risking losing investment. Also popular are industries that do not require long-term investment and development of new technologies: the financial sector and the real estate sector (Fig. 1).

In 2019 Ukraine received the largest investment inflows from Cyprus, as in the previous year. During the year, these

revenues decreased significantly. In 2015-2017, the largest contribution was made by the Russian Federation, although in 2017 revenues were much lower (Fig. 2).

The main national measures to improve investment activity can be identified as follows to:

- eliminate negative legal factors at the legislative and executive levels of government, which make it impossible to regulate business activities effectively in attracting and developing investments;
- optimize the fiscal system and minimize advance payments, apply the cash method of collecting the revenue side of budgets;
- provide flexible tax policy in order to increase investor interest; it will be expedient to exempt investments of taxation during the first year;
- improve the procedure for payment of duties and fees upon receipt of foreign investments in Ukraine;
- introduce the judicial reform so that everyone is equal before the law and not selectively;
- create a system of legal protection of foreign investors from debtors and unscrupulous partners, guarantee investment protection in accordance with the World Economic Forum;
- simplify the procedures for execution of documents required for the implementation of investment projects;
- dismiss close people from management positions and involve professional managers in order to increase the investment level of enterprises, firms, organizations;

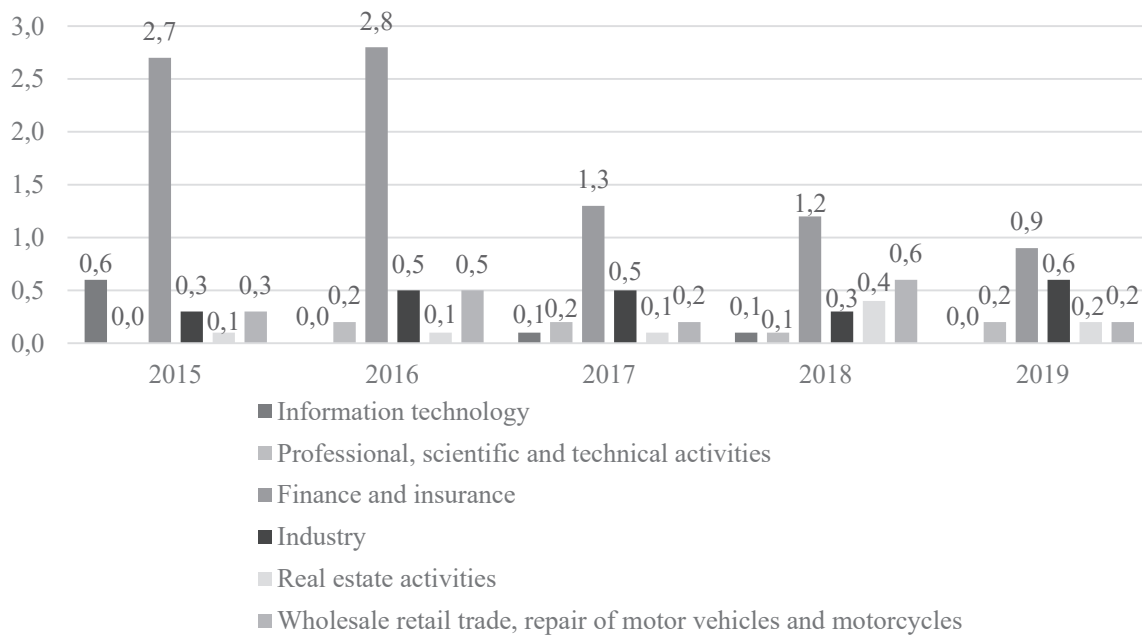


Figure 1. The largest amounts of foreign investment inflows by type of economic activity in 2015–2019, billion dollars. Source: generalized by the author based on [3]

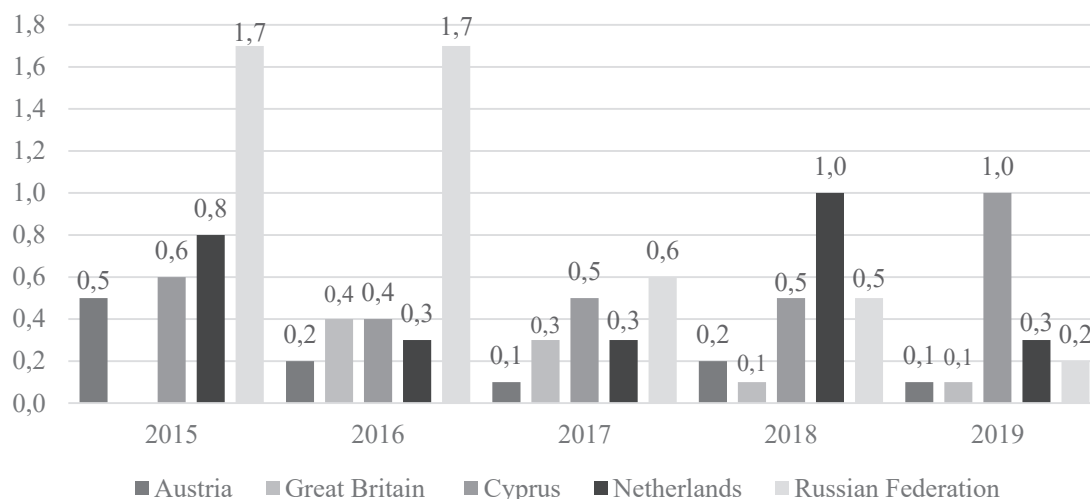


Figure 2. The largest inflows of foreign investment by investor countries in 2016–2017, billion dollars. Source: generalized by the author based on [3]

– create a favorable environment for the development of scientists to stop their outflow abroad and realize the intellectual potential within the country.

The following ways have been further developed: ways to implement the investment policy of the state, which are related to improving competitiveness; enhancement of advisory and analytical work in the field of investment; improving the functioning of investment market infrastructure; elimination of antitrust law violations; guaranteeing the rights of all participants in the investment process; abolition of contradictions in the existing investment legislation; simplification of the procedure for execution the documents required for the implementation of investment projects; promoting fair competition between investors [4].

The fragile economic base of the least developed countries and developing countries makes them very vulnerable to shocks. The report from the World Economic Forum states that the need for sustainable economic growth, that strengthens productivity, remains critical to improving living standards, taking into account the slowdown in extreme poverty scale reduction and the fact that almost half of humanity is still struggling to meet basic needs.

At the same time, the climate crisis is unfolding, which requires urgent, decisive and coordinated action by politicians. Supporting economic growth at all costs cannot be the single goal.

Sustainable economic growth remains the surest path from poverty and the main driver of human development. Over the last decade, growth has been restrained and still

below potential in most developing countries, hampering severely the progress towards several UN Sustainable Development Goals by 2030. The situation with competitiveness does not promise anything good in 2019. Individual countries, the humanitarian community and all stakeholders must intensify urgently their efforts.

The Global Competitiveness Index shows that in the current volatile geopolitical environment and with a likely future downturn, increasing economic resilience by increasing competitiveness is crucial, especially for low-income countries.

Therefore, as monetary policy begins to exhale, it is critical for the economy to rely on fiscal policy and government incentives to stimulate the research and development, improve the skills of current and future labor force, develop new infrastructure and integrate new technologies [2].

The investment strategy in Ukraine should focus on increasing the share of investment in GDP, improving the structure of investment sources and optimizing the directions of their investments. Investments should be directed to the reproduction of capital in the real sector of the economy, to innovative development that would help Ukraine integrate into the world community. At the same time, it is necessary to ensure equal investment conditions for domestic and foreign investors with the simultaneous provision of state (regional) guarantees and compensation for the risk of possible losses. As the experience of recent global financial crises shows, investment in the

manufacturing sector (industry and agriculture) is a more stable form of investment of money and resources than bank loans and portfolio investment [5].

Conclusions

Ukraine both attracts and repels investors. The country's significant potential can provide a large inflow of investment, but the existing problems stop this process. First of all, vanquishing corruption, changing the legislation, tax reforms and removing business from the shadow sector will attract investors. With a lack of investment resources in the real sector of the economy, limited investment opportunities by the state and a number of risks to continue growing trends in investment activity, the state investment policy should be aimed at implementing effective incentives to attract domestic and foreign capital and create an effective investment management system. The state is already taking steps to reform the legislation; the main thing is not to stop in order to show clear intentions to improve for potential investors. Therefore, the main goal of the government should be to create an investment-attractive climate for Ukraine.

Ukraine needs a prudent policy of stimulating investors, which will provide them with guarantees and other measures to support investment activities, as well as the availability of the necessary infrastructure to attract resources for innovation. This would allow the state to integrate most successfully into the world economy, expand opportunities for innovative projects and partnerships.

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FINANCE AND MONEY TURNOVER

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THE CHOICE OF THE MODEL OF DIAGNOSTIC THE PROBABILITY OF BANKRUPTCY OF THE ENTERPRISE ON THE BASIS OF ADDITIVE CONVOLUTION IN THE CONTEXT OF ASSESSMENT ITS SANITATION CAPACITY

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Key words:

sanitation, sanitation capacity, sanitation potential, financial management of sanitation capacity, models of diagnostic the probability of bankruptcy, crisis, multicriteria choice, additive convolution.

In the article the essence of the concept of “crisis” is revealed. Researchers’ scientific works are analyzed and the most thorough interpretation of such economic category as “enterprise sanitation” is determined: a set of consistent, interrelated measures of financial and economic, production and technical, organizational and social nature aimed at bringing the business entity out of crisis and recovery or achieving its profitability and competitiveness in the long term. The purpose of the enterprise sanitation is highlighted. It is noted that the main criterion for deciding of the sanitation or liquidation of the enterprise is its sanitation capacity and this definition is described. The general preconditions of sanitation capacity are indicated. A broader view of the preconditions for the sanitation capacity of the enterprise is presented, according to which they are divided into legal, general and economic, resource, financial and economic. It is established that successful sanitation of the enterprise is not possible without effective management of sanitation capacity. Two approaches to the interpretation of the concept are indicated. The structural and logical scheme of the process of managing the sanitation capacity of the enterprise is proposed, which is focused on timely diagnostic of the level of sanitation capacity of the enterprise, identification of strategic gaps between existing and desired levels and development of a program of measures to improve sanitation capacity, using the appropriate sanitation strategy and appropriate tools for its recovery. It is determined that the assessment of sanitation capacity is an effective tool to determine the insolvency of the enterprise and its ability not only to overcome the crisis, to determine the factors that led to lower levels of its individual elements, but also to prevent crises. It is noted that the diagnostic of the probability of bankruptcy of the enterprise has a significant impact on the assessment of sanitation capacity. A multicriteria choice of models of diagnostic the probability of bankruptcy of domestic enterprises on the basis of additive convolution is made.

ВИБІР МОДЕЛІ ДІАГНОСТИКИ ЙМОВІРНОСТІ БАНКРУТСТВА ПІДПРИЄМСТВА НА ОСНОВІ АДТИВНОЇ ЗГОРТКИ В КОНТЕКСТІ ОЦІНКИ ЙОГО САНАЦІЙНОЇ СПРОМОЖНОСТІ

Череп О.Г., Рєпка К.Р.*Запорізький національний університет**Україна, 69063, м. Запоріжжя, просп. Соборний, 74***Ключові слова:**

санация, санаційна спроможність, санаційний потенціал, фінансове управління санаційною спроможністю, моделі діагностики ймовірності банкрутства, криза, багатокритеріальний вибір, адитивна згортка.

У статті розкрито сутність поняття «криза». Проаналізовано наукові роботи дослідників та визначено найбільш ґрунтовне тлумачення такої економічної категорії як «санация підприємства». Висвітлено мету проведення санації підприємства. Зазначено, що головним критерієм прийняття рішення щодо санації чи ліквідації підприємства є його санаційна спроможність та охарактеризовано дане визначення. Вказано загальні передумови санаційної спроможності. Також представлено більш розширений погляд на передумови санаційної спроможності підприємства, відповідно до якого вони поділяються нормативно-правові, загальноекономічні, ресурсні та фінансово-економічні.

Встановлено, що вдале проведення санації підприємства не можливе без ефективного управління санаційною спроможністю. Зазначено два підходи до трактування поняття. Запропоновано структурно-логічну схему процесу управління санаційною спроможністю підприємства, яка орієнтована на здійснення своєчасної діагностики рівня санаційної спроможності підприємства, виявлення стратегічних розривів між наявним і бажаним рівнями та розробці програми заходів з метою підвищення санаційної спроможності, використовуючи при цьому відповідну санаційну стратегію та відповідні інструменти її відновлення. Визначено, що оцінка санаційної спроможності є дієвим інструментом, за допомогою якого можна визначити стан неплатоспроможності підприємства та його здатність не лише подолати кризу, визначити фактори впливу, що призвели до зниження рівня його окремих елементів, а й запобігати настанню кризових явищ. Відзначено, що неабиякий вплив на оцінку санаційної спроможності має діагностика ймовірності банкрутства підприємства. Здійснено багатокритеріальний вибір моделей діагностики ймовірності банкрутства вітчизняних підприємств на основі адитивної згортки.

Statement of the problem

Modern market conditions have not only caused negative changes in the Ukrainian economy, but also led to the fact that most domestic enterprises have become insolvent and unprofitable, there has been an increase in their debt dependence, deterioration of key financial performance. One of the most important guarantees of profitable activity of the enterprise is timely detection of crisis tendencies and their operative elimination without harm to the business entity. In such conditions, the issues of the effectiveness of the sanitation of the enterprise and the study of its sanitation capacity become actual.

Analysis of recent studies and publications

The following domestic scientists paid considerable attention in their scientific achievements to the theoretical aspects of sanitation and the management of the sanitation capacity of the enterprise: O. Bilousova [1], O. Bulovych [2], L. Verbyvska [3], A. Danylenko [1], V. Zymovets. [1], N. Karvatska [4], I. Kushnir [3], O. Lisnichuk [5], N. Pigul [6], A. Romanyuk [3], O. Romanovich [7], L. Svistun [7], V. Semenets [6], O. Tereshchenko [8], A. Cherep [9, 10], O. Cherep [11] and others. As for foreign scientists, E. Altman [12], M. Golder [13], J. Conan [13], G. Springgate [14], J. Taffler and D. Chesser [15] were engaged in the development of models of diagnostic the probability of bankruptcy.

Highlighting previously unsolved parts of the general problem to which this article is devoted

In the scientific space, much of the research is currently devoted to the development and analysis of a large number of models of diagnostic the probability of bankruptcy. In the conditions of such diversity, it is quite difficult for enterprises to choose the model of diagnostic they need, which would take into account the specifics of their activities, industry or type of national economy. Therefore, it is important is study the choice of models of diagnostic the probability of bankruptcy on the basis of additive convolution, taking into account the criteria inherent in the functioning of domestic enterprises.

Objectives of the article

The purpose of the article is a choice of models of diagnostic the probability of bankruptcy of domestic enterprises on the basis of additive convolution.

The main material of the research

The current unstable state of Ukraine's economy has a negative impact on the work of many domestic enterprises. In the conditions of sharp fluctuations of political, social, economic processes, growing competition the number of insolvent enterprises which are in a crisis situation increases.

The crisis contributes to the fact that most companies do not have enough of their own financial resources, have difficulty in borrowing, accumulate significant amounts of accounts payable, which leads to a deterioration of their solvency or even bankruptcy [7, p. 1295].

The crisis should be understood as a complex, integrated in many aspects characteristics of the enterprise in a given period, which reflects its degree of own and borrowed resources, working capital for timely settlement of liabilities and effective economic activity in the future [3, p. 251].

In many developed countries, sanitation of the enterprise is an integral part of enterprise crisis management.

Nowadays, many researchers dedicate their research to the essence of sanitation. After analyzing their work, we came to the conclusion that the most thorough interpretation of this concept was proposed by Professor A.M. Podderogin: «sanitation is a set of consistent, interconnected measures of financial and economic, production and technical, organizational and social nature, aimed at bringing the business entity out of crisis and restoring or achieving its profitability and competitiveness in the long term» [6, p. 360–361].

The purpose of enterprise sanitation is to eliminate or prevent the threat of bankruptcy, ensure the most efficient use of potential in order to adapt to new business conditions and create preconditions for restoring competitiveness in the long term [4, p. 8].

The main criterion for deciding of the sanitation or liquidation of the enterprise is its sanitation capacity.

The modern scientific literature presents different points of view of scientists on the interpretation of the concept of “sanitation capacity”. However, the study of domestic economic literature has shown that in Ukraine the variability of approaches to understanding sanitation capacity is significantly limited, and most researchers in their works refer to the definition of O. Tereshchenko [5, p. 17].

Thus, the sanitation capacity is the presence of an enterprise that is in financial crisis, financial, organizational, technical and legal capabilities that determine its ability to successfully conduct financial sanitation [8, p. 75–76].

The sanitation capacity of the enterprise acts as a kind of “economic immunity” of the business entity and creates

the preconditions for its survival in a changing external environment.

The general prerequisites for sanitation capacity include the company's effective sanitation concept and potential for future successful activity, namely: stable market positions, real opportunities to increase sales, competitive advantages of production and human resources [9, p. 187–188; 2, p. 174].

A more expanded view of the prerequisites for the sanitation capacity of the enterprise is presented in the work of A. Cherep and O. Romanenko. The authors systematized four groups of prerequisites that can make the company capable for sanitation: normative and legal, general economic, resource, financial and economic [10, p. 106].

Successful sanitation of the enterprise is not possible without effective management of sanitation capacity. At one point, it is a separate component of the overall management system of the business entity, the formation of which is influenced by factors of both external and internal environment, as well as the industry orientation of the enterprise.

If we consider the management of sanitation capacity on the other hand, it is a repetitive process that results from the interconnection of certain management functions, namely: monitoring, planning, design, implementation and control.

Summarizing the theoretical material on the nature and components of such concepts as sanitation and sanitation capacity of the enterprise, taking into account the results of substantiation of their methodological support, scientists have proposed such a structural and logical scheme of the process of managing the sanitation capacity of the enterprise, which is shown in fig. 1 [5, p. 39].

The structural and logical scheme of the process of managing the sanitation capacity of the enterprise reflects a set of financial, organizational and economic tools through which the regulation of economic processes and relations in the overall management system of the enterprise.

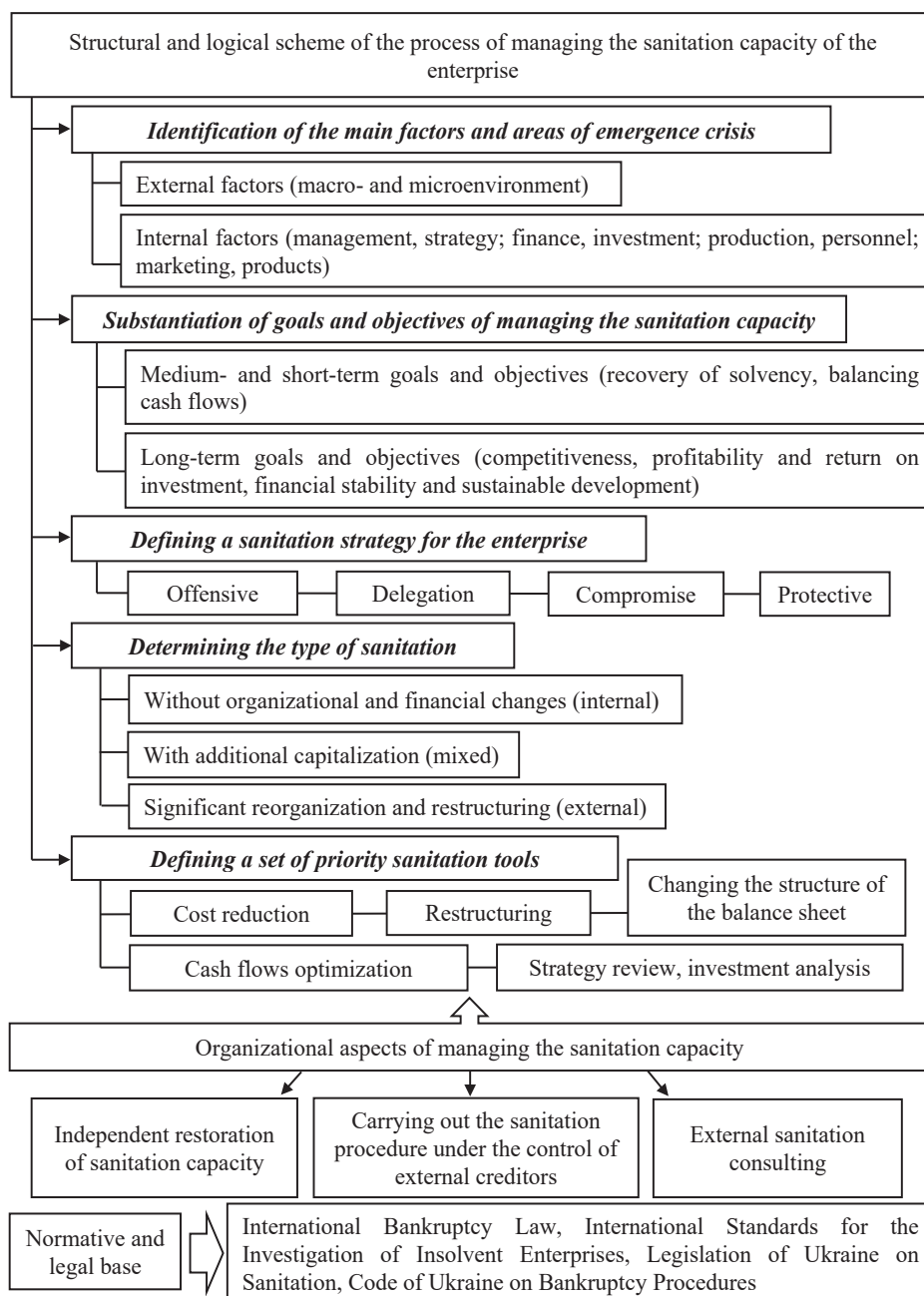


Fig. 1 – Structural and logical scheme of the process of managing the sanitation capacity of the enterprise

Source: developed by the authors based on [5]

This scheme is focused on the timely diagnostic of the level of sanitation capacity of the enterprise (not only actual but also prospective or forecast), identifying strategic gaps between existing and desired (normative or established by management) levels and developing a program of measures to improve sanitation capacity, using this appropriate sanitation strategy and appropriate tools to restore sanitation capacity [5, p. 39].

Assessment of sanitation capacity is an effective tool to determine the insolvency of the enterprise and its ability not only to overcome the crisis, to identify the factors that led to a decrease its individual elements, but also to prevent crises. Assessing the level of sanitation capacity, the company's management will be able to make effective and efficient management decisions either to implement sanitation measures and determine the optimal strategic directions of sanitation of the enterprise, or to eliminate it [11, p. 74].

In our opinion, the diagnostic of the probability of bankruptcy of the enterprise has a significant impact on the assessment of sanitation capacity. Currently, there are a large number of diagnostic models developed by both domestic and foreign scientists. All of them were created taking into account the peculiarities of the country of origin of their authors.

In such a variety, domestic enterprises may have difficulty in choosing the most reliable diagnostic model and one that takes into account the specifics of the enterprise and the type of national economy. That is, in other words, the chosen model must be adapted to the Ukrainian market.

Therefore, to improve the assessment of the sanitation capacity of the enterprise, we propose to make a multi-criteria choice of models of diagnostic the probability of bankruptcy on the basis of additive convolution.

The first step in multi-criteria choice is to identify the alternatives from which the best option will be chosen. In our case, such alternatives are models of diagnostic the probability of bankruptcy of the enterprise, namely: a_1 – five-factor model of Altman; a_2 – model of Springgate; a_3 – model of Taffler and Tishaw; a_4 – model of Lis; a_5 – model of Conan and Golder; a_6 – model of Fulmer; a_7 – model of Tereshchenko.

The criteria according to which the model will be chosen include: c_1 – the possibility of application to different types of national economies; c_2 – the possibility of application to all organizational and legal forms of enterprise activity; c_3 – taking into account the size of the enterprise; c_4 – taking into account the field of activity of the enterprise; c_5 – model reliability; c_6 – simplicity of model calculation.

The second step aims to determine the membership functions of the evaluation of alternatives by criteria, ie the satisfaction of the models with the selected criteria (tab. 1).

Table 1 – The membership functions of the evaluation of alternatives by criteria

Satisfaction	0	1	0
Very low (VL)	0	0	0
Low (L)	0	0,2	0,4
High (H)	0,6	0,8	1
Very high (VH)	0,8	1	1

Source: developed by the authors

The third step is manifested in determining linguistic assessments of the relative importance of the criteria (tab. 2).

Table 2 – Linguistic assessments of the relative importance of the criteria

Importance	0	1	0
Important enough (IE)	0,3	0,5	0,7
Important (I)	0,5	0,7	0,9
Very important (VI)	0,8	1	1

Source: developed by the authors

According to the fourth step, it is necessary to assess the satisfaction of alternatives to the criteria (tab. 3).

Table 3 – Assessment of the satisfaction of alternatives to the criteria

Criterion	Assessment of alternatives							Importance
	a_1	a_2	a_3	a_4	a_5	a_6	a_7	
c_1	L	VL	L	VL	VL	VL	H	VI
c_2	VL	VL	VL	VL	L	VL	H	VI
c_3	VH	L	VL	L	L	VL	L	IE
c_4	VH	H	VL	L	VL	VL	H	I
c_5	VH	H	H	H	L	VL	H	VI
c_6	VL	H	VH	H	L	VL	L	IE

Source: developed by the authors

The fifth step is characterized by determining the vertex and limits of the fuzzy number of each alternative by multiplying the corresponding value of the membership functions of the evaluation of alternatives by criteria and the corresponding value of linguistic estimates of the relative importance of criteria based on tab. 3 (tab. 4).

Table 4 – Determining of the vertex and limits of the fuzzy number of each alternative

Criterion	0						
	Alternative						
	a_1	a_2	a_3	a_4	a_5	a_6	a_7
c_1	0	0	0	0	0	0	0,48
c_2	0	0	0	0	0	0	0,48
c_3	0,24	0	0	0	0	0	0
c_4	0,4	0,3	0	0	0	0	0,3
c_5	0,64	0,48	0,48	0,48	0	0	0,48
c_6	0	0,18	0,24	0,18	0	0	0
Sum	1,28	0,96	0,72	0,66	0	0	1,74
Criterion	1						
	Alternative						
	a_1	a_2	a_3	a_4	a_5	a_6	a_7
c_1	0,2	0	0,2	0	0	0	0,8
c_2	0	0	0	0	0,2	0	0,8
c_3	0,5	0,1	0	0,1	0,1	0	0,1
c_4	0,7	0,56	0	0,14	0	0	0,56
c_5	1	0,8	0,8	0,8	0,2	0	0,8
c_6	0	0,4	0,5	0,4	0,1	0	0,1
Sum	2,4	1,86	1,5	1,44	0,6	0	3,16

End of Table 4

Criterion	0						
	Alternative						
	a_1	a_2	a_3	a_4	a_5	a_6	a_7
c ₁	0,4	0	0,4	0	0	0	1
c ₂	0	0	0	0	0,4	0	1
c ₃	0,7	0,28	0	0,28	0,28	0	0,28
c ₄	0,9	0,9	0	0,36	0	0	0,9
c ₅	1	1	1	1	0,4	0	1
c ₆	0	0,7	0,7	0,7	0,28	0	0,28
Sum	3	2,88	2,1	2,34	1,36	0	4,46

Source: developed by the authors

As a result, we obtained the following membership functions of weighted estimates of alternatives: R1 = {0/1.28; 1/2.4; 0/3}; R2 = {0/0.96; 1/1.86; 0/2.88}; R3 = {0/0.72; 1/1.5; 0/2.1}; R4 = {0/0.66; 1/1.44; 0/2.34}; R5 = {0/0; 1/0.6; 0/1.36}; R6 = {0/0; 1/0; 0/0}; R7 = {0/1.74; 1/3.16; 0/4.46}.

Based on the membership functions of weighted estimates of alternatives, a graph of alternatives is constructed (fig. 2).

Ranking of alternatives using the obtained weighted estimates can be carried out on the basis of their fuzzy composition, according to which the alternative is considered the best, that has the biggest number.

The priority of each alternative is determined by choosing the minimum among the points of intersection of the right limits of the corresponding fuzzy number with the limits of fuzzy numbers representing weighted estimates of the alternatives located to the right of the numerical axis. It is assumed that the right limit of the area of determining

of fuzzy numbers corresponds to the best estimates, and the left – the worst.

Thus, we obtained the following estimates of the benefits of alternatives: a₁ – 0.62; a₂ – 0.44; a₃ – 0.18; a₄ – 0.23; a₅ – 0.02; a₆ – 0; a₇ – 1.

According to the calculations, the best model of diagnostic the probability of bankruptcy of domestic enterprises is the model of Tereshchenko, and the worst – the model of Fulmer.

Conclusions

In today's reality, many domestic enterprises suffer from crisis trends, which are reflected in the insolvency of the entity, lack of liquid working capital, low financial stability, the presence of receivables and payables, reduced competitiveness and etc. The continued operation of the enterprise in such conditions can lead to undesirable consequences, in particular, its bankruptcy. It is possible to prevent this only by timely sanitation, the main guarantee of which is the presence of the enterprise's sanitation capacity, which determines its ability to recover. It is possible to assess whether a company is capable of sanitation by calculating financial ratios, but we must also not forget about the diagnostic of the probability of bankruptcy, which, in our opinion, should be done in the context of assessing the sanitation capacity. In the modern scientific space, there are a large number of models of diagnostic the probability of bankruptcy, which complicates the choice of the most acceptable for the company. Therefore, we propose to make this choice on the basis of additive convolution, analyzing different types of models for a certain set of criteria. This approach will take into account the specifics of the enterprise, its industry focus, type of national economy and will provide the most accurate and reliable results.

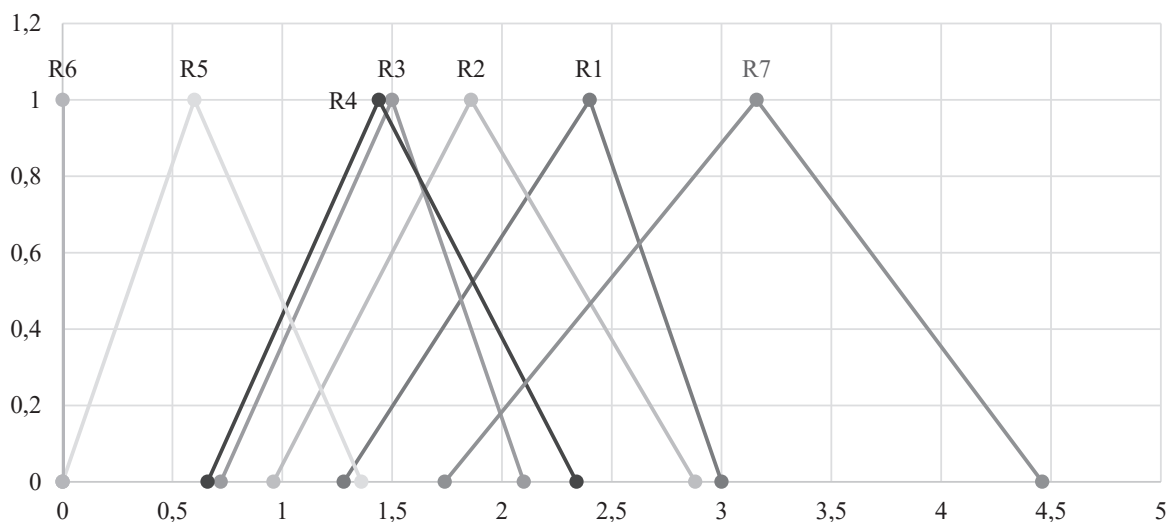


Fig. 2 – A graph of alternatives

Source: developed by the authors

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INNOVATIVE ENTREPRENEURSHIP AS A FACTOR OF REGIONAL COMPETITIVENESS: MANAGEMENT CONTENT

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Key words:

regional economy,
competitiveness, regional
management, interactive
management, proactive
management.

Complicating relations, increasing turbulence, the novelty of the challenges facing the regional economy determine the feasibility of finding new factors to increase regional competitiveness. The article shows the role of innovative entrepreneurship in the process of forming regional competitiveness. It is proposed to consider innovation as an economic value in its economic significance: it creates fundamentally new resources that the region's economy needs for its intensive, high-quality growth. It is proved that the activation of innovative entrepreneurship occurs in the presence of political, economic, cultural and managerial conditions. The importance of management as a basic consignment of successful strategic development of innovative entrepreneurship in the region is revealed. The elements of the mechanism of innovation development management are described, as a part of which proactive and interactive components are allocated. Proactive management is future-oriented and is part of strategic management, includes strategy, strategic infrastructure, education. Interactive management ensures compliance with the interests of all participants in regional life and is a component of current management, forms a coherence of interests in the implementation of regional development tactics. Interactive management, as it is manifested in the article, consists, for example, in the following: consulting startups on choosing the most optimal legal form of business, financial support of current shares of innovative entrepreneurs, regional targeted programs to support innovative business. Managerial efforts and conditions include a combination of proactive component of management with interactive, which allows regional administrations to coordinate strategic decisions with the tactics.

ІННОВАЦІЙНЕ ПІДПРИЄМНИЦТВО ЯК ФАКТОР РЕГІОНАЛЬНОЇ КОНКУРЕНТОСПРОМОЖНОСТІ: УПРАВЛІНСЬКИЙ КОНТЕНТ

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Ключові слова:

регіональна економіка,
конкурентоспроможність,
регіональне управління,
преактивне управління,
реактивне управління.

Ускладнення відносин, посилення турбулентності, новизна викликів, що виникають перед регіональною економікою обумовлюють доцільність пошуку нових чинників підвищення регіональної конкурентоспроможності, одним з яких виступає інноваційне підприємництво. Метою публікації є обґрунтування пропозицій щодо застосування сучасних управлінських технологій активізації інноваційного підприємництва як фактору підвищення конкурентоспроможності регіону. В статті показана роль інноваційного підприємництва в процесі формування регіональної конкурентоздатності. Запропоновано розглядати інновації як економічну цінність в її економічному значінні: вона створює принципово нові ресурси, які потрібні економіці регіону для її інтенсивного, якісного зростання. Доведено, що активізація інноваційного підприємництва відбувається за наявності політичних, економічних, культурних та управлінських умов. Розкрито значення управління як базової консігнації успішного розвитку інноваційного підприємництва в регіоні. Регіональний менеджмент

є умовою, коли рішення сприятимуть підтримці інноваційного підприємництва, яке буде створювати інновації, і перетворюватися на детермінантну конкурентну перевагу регіонального розвитку. Описані елементи механізму управління інноваційним розвитком, у складі якого виділені преативні та інтерактивні складові. Преативне управління спрямоване на майбутнє і є частиною стратегічного менеджменту, включає стратегію, стратегічну інфраструктуру, освіту. Інтерактивне управління забезпечує дотримання інтересів всіх учасників регіональної життєдіяльності і виступає складовою поточного менеджменту, формує узгодженість інтересів в процесі здійснення тактики регіонального розвитку. Інтерактив, крім застосування на етапі розробки стратегії розвитку регіону та його інноваційного підприємництва, проявляється, наприклад, в наступному: консалтинг стартапів стосовно вибору найбільш оптимальної організаційно-правової форми бізнесу, фінансова підтримка поточних акцій інноваційних підприємств, регіональні цільові програми підтримки інноваційного бізнесу. Управлінські умови перетворення інноваційного підприємництва на чинник регіональної конкурентоздатності передбачають поєднання преативної компоненти управління з інтерактивною, що надає можливості регіональній адміністрації стратегічні рішення погоджувати з тактикою розвитку території, здійснити в процесі підтримки інноваційного підприємництва адекватні фінансові, кредитні, консалтингові та інші заходи.

Statement of the problem

Complicating institutional and political relations, increasing turbulence of the regional economy external and internal environment, increasing the unpredictability of territorial and national business-players, strengthening the manufacturability of management processes necessitate the search for new ways of regional development and the formation of strategic advantages. The competitiveness of the regional economy is the result of a set of concerted actions of all participants in regional life. However, world experience shows that the most effective factor in building a strategic system of regional competitiveness is innovative entrepreneurship.

The value of innovation as a strategic competitive advantage of regional development lies in its economic significance: it creates fundamentally new resources that the region's economy needs for its intensive, high-quality growth. Innovative entrepreneurship, turning novation into innovation [5], implementing them for the benefit of the regional society or individual consumers, is an important factor in shaping a competitive economic system. The importance of innovative entrepreneurship, especially in small business, [12] becomes higher at the stages of crises. The meaning of innovative entrepreneurship as the main generator of innovation is growing due to the transition of the economy to an informational and at the same time innovative basis.

All said above determine the theoretical analysis feasibility of opportunities and mechanisms of regional management aimed at boosting innovative entrepreneurship.

Analysis of recent studies and publications

The issue of the economic systems strategic competitiveness is in the center of attention of

a wide range of researchers, who distinguish two main perspectives: resource and factor. Porter M., in contrast to the resource approach, identifies the most important factors that are not inherited (as resources), but are created within the region (country) through various process-specific processes [14]. Among such factors the world scientific thought allocates innovative business. Thus, Bratislava researchers (Kroslakova M., Kubichkova V. and others, 2015) highlight the importance of innovative entrepreneurship for the so-called "gazelles" - companies that have high speeds of economic development and which «make up an important part of enterprises of all compared countries, and they contribute significantly to competitiveness of given economies» [3]. The interdependence of innovative entrepreneurship and the knowledge economy was noted by Roger R. Stough (2016), who proves that «the huge growth of knowledge has also created expanded opportunities for innovation and entrepreneurship and related growth at a seemingly ever increasing rate» [6]. Transcarpathian apologists of theories of innovative development (Moshak S.M., Miklovda V.P., etc., 2017) emphasize strategic entrepreneurship and management of innovative venture business, emphasizing its prospects and from the standpoint of human potential: "Development of innovative entrepreneurship that creates labor market for creative, mobile, innovation-oriented workers» [13]. Innovation activity as a basic element of competitiveness and theoretical aspects of the management by competitiveness are described by O. Gamova (2020) [8], [9]. Kubinbiy N., Kosovilka T., Marhitich V. (2019) emphasize the need to motivate innovation activity in the region, argue that «the development and implementation of a motivation system for creative-innovative activity ... forms the creative class as the personnel base of a competitive regional society» [4].

With all the breadth of these views, the problem of conditions, the presence of which allows innovative entrepreneurship to become a factor of regional development, is ignored. In addition, the issue of types of management of innovative entrepreneurship in the region, which creates obstacles in the very system of strategic management of regional development, is not covered.

Objectives of the article

The purpose of the study is to substantiate proposals for the use of modern management technologies to enhance innovative entrepreneurship as a factor in increasing the competitiveness of the region. To achieve this goal, the tasks are solved: the conditions of transformation of innovative entrepreneurship into a factor of strategic development of the territory are highlighted; the essence of management of innovative entrepreneurship, which leads to the development is described.

The main material of the research

One of the main ways to achieve long-term goals of building a competitive organizational and economic system of the region is to diversify innovation activity while increasing its efficiency. Innovative entrepreneurship is a system that combines innovation, business and regional components, which interact on the basis of technological, product, resource, business and management convergence, which occurs through the combination of creativity and its product, which implements innovation in the commercial plane, and through development systems of innovative entrepreneurship and its management on the basis of convergence of forms and methods of doing business.

The condition for intensifying innovation in the region, among others, is the support of innovative entrepreneurship, which allows the region to gain benefits such as attracting highly developed, creative and mobile human resources, additional highly intelligent jobs, “Smart” financial support, image enhancement. region, etc. Thus, innovative entrepreneurship is a strategic factor in the development, the study of theoretical aspects of which and the justification of practical measures is the task of regional governance. Innovative entrepreneurship acquires substances of

competitive advantage in the presence of the following conditions (Fig. 1).

Management conditions play a leading role in transforming innovative entrepreneurship into a competitive advantage. The importance of creating a proper system of administration for regional development (follows from the statement of S. Dokholyan, V. Petrosjanc, 2007) is “the ability of local authorities through the use of management and regulatory functions to create conditions for the rational use of the economic potential of the region to better meet the needs of society” [10].

At the same time, regional management, adequate to modern challenges, is a condition when decisions will help support regional innovative entrepreneurship, which will create innovations that are a determinant of the competitive advantage of regional development.

The mechanism of strategic management of innovative entrepreneurship in the region determines the dominance of proactive [2] and interactive [1] types (levers) of management in the process of strategic decision-making. The significance of various types of behavior in the process of strategic management was revealed by S. Moshak, who notes that “the proactive type of behavior in the process of strategic management is future-oriented and determines different options for economic system development and its potential... Interactive type of behavior in the process of strategic management ensures the participation of all components of the economic system in the development of goals, objectives and methods for their solution, capacity building» [13].

Thus, the decisions of the regional administration should be proactive, although there should be constant interaction between the regional environment and business. This shows the unity between the strategic actions of regional governance and the current ones. Although the interactive component is present in the early stages of strategic management (in the process of preparing a draft regional development strategy), this lever is mainly related to the current management – the management of the direct implementation of certain decisions.

An important example of proactive decisions is the innovation strategy of the region, which should consist

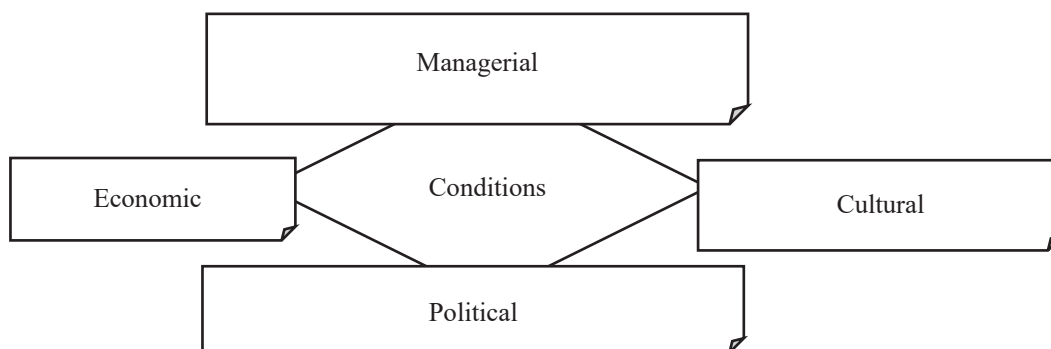


Fig.1. Conditions for transforming innovative entrepreneurship into a competitive advantage

Source: developed by the author

of several priority areas, based on which the planning of specific activities to implement the innovation strategy: 1) “stimulating the use of innovation, increasing attention to the effective component of the innovation process; 2) development of small and medium business; 3) increase of investment attractiveness (mainly high-tech sphere); 4) creation of an effective infrastructure of the national economy; 5) increasing the level of innovation activity and innovation culture in the region. A key element of the mechanism for managing innovation processes at the regional level is the coordination of various strategic directions and initiatives (state, regional programs and projects) implemented by different participants in the innovation strategy, use and simultaneous capacity building, concentration of resources on priority area” [16].

The next element of proactive solutions is the construction of regional infrastructure of the market of innovative products. “The innovation market, like any other market – is an economic system in which there is a coordination and realization of economic interests between sellers and buyers through the mechanism of market prices” [11], therefore, its role in transforming innovative entrepreneurship into a competitive advantage is as follows: market demand and, consequently, business performance depend on it. The market infrastructure is supported by the system of strengthening innovative entrepreneurship, the system of accelerating the transfer of innovations in innovation

An important example of the proactive elements of the management mechanism for the development of innovative entrepreneurship in the region is education, which provides the strategic needs of business in the formation of adequate, capable of working in the innovation sphere of human resources.

Interactive is the basic rule of interaction between the regional environment and innovative entrepreneurship, which ensures social, cultural, economic coherence of the interests of different participants in regional development. Interactive, in addition to application at the stage of development strategy of the region and its innovative entrepreneurship, is manifested, for example, in the following: consulting startups on choosing the most optimal legal form of business, financial support of current shares of innovative entrepreneurs, regional targeted programs to support innovative business.

The combination of the proactive component of management with the interactive one enables the regional

administration to implement benefits in the system of income taxation in the process of supporting innovative entrepreneurship in the world (in the part coming to local budgets); anticipation of a similar opportunity for investors; cooperation with financial and credit institutions – by establishing credit bureaus to establish the reliability of potential borrowers and develop methods of direct influence in order to develop industries in the industrial sector [7]. In addition, regional management, taking into account local characteristics, contributes to the staffing of innovative entrepreneurship, the influx of highly skilled labor, creates institutions to support innovative business and so on.

Conclusions

The value of innovation as a strategic competitive advantage of regional development lies in its economic significance: it creates fundamentally new resources that the region's economy needs for its intensive, high-quality growth. Innovative entrepreneurship, turning innovations into innovations, implementing them for the benefit of the regional society or individual consumers, is an important factor in shaping a competitive economic system. At the same time, the intensification of innovative entrepreneurship takes place in the presence of political, economic, cultural and managerial conditions. Regional management as a condition for successful innovative entrepreneurship in the region through strategic and current levers (fiscal, financial and credit, institutional, consulting, demographic and migration, etc.) creates a systematic support for innovative entrepreneurship. It is proposed to introduce a mechanism of strategic management of innovative entrepreneurship in the region, which provides for the interaction of proactive and interactive types of management in the strategic decision-making process. Proactive management is future-oriented and is part of strategic management. It allows you to make decisions that have long-term positive value and support innovative entrepreneurship as a factor in building regional competitiveness. Proactive administration is complemented by interactive, which ensures compliance with the interests of all participants in regional life.

In the future it is planned to determine the importance of culture, political and other conditions for the transformation of innovative entrepreneurship into a competitive advantage of the regional economy.

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DOI <https://doi.org/10.26661/2414-0287-2021-2-50-19>**ASSESSMENT OF THE ATTRACTIVENESS OF INVESTMENT PROJECTS****Kushchik A.P., Zhuravleva A.K.***Zaporizhzhia National University
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ORCID: 0000-0003-0627-2296***Key words:**

investment project, investment analysis, attractiveness, methods, idea, indicators.

The article actualizes the problem of defining the concept of “investment attractiveness of the project”, in connection with which a number of authors’ approaches to this category is given. The article accumulates a set of existing methods for assessing the economic efficiency of projects in order to select tools for determining the concept of investment attractiveness. By comparing the existing groups of methods for assessing investment attractiveness, it is concluded that the most successful combination is their comprehensive application in the process of investment analysis. The article considers topical issues of application of methods for assessing the attractiveness of investment projects. It is noted that today the development of many enterprises depends on the effective organization of investment activities, as many of them are already participants in the investment process, and even more eager to join it. Attracting investment is an opportunity for companies to provide competitive advantages in both domestic and foreign markets. The article highlights the problem of defining the concept of “investment attractiveness of the project”, in connection with which a number of views of the authors on this category. The article accumulates a set of existing methods for assessing the economic efficiency of projects in order to select tools for determining the concept of investment attractiveness. By comparing the currently existing groups of methods for assessing investment attractiveness, it is concluded that the most successful combination is their comprehensive application in the process of investment analysis.

ОЦІНКА ПРИВАБЛИВОСТІ ІНВЕСТИЦІЙНИХ ПРОЄКТІВ**Кущик А.П., Журавльова А.К.***Запорізький національний університет
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інвестиційний проєкт, інвестиційний аналіз, привабливість, методи, ідея, показники.

У статті розглянуто актуальні питання застосування методик оцінки привабливості інвестиційних проєктів. Зазначено, що на сьогодні розвиток багатьох підприємств залежить від ефективної організації інвестиційної діяльності, оскільки значна їх частина вже є учасниками інвестиційного процесу, а ще більше прагне долучитися до нього. Залучення інвестицій є можливістю для підприємств забезпечити конкурентні переваги як на внутрішньому, так і на зовнішньому ринках. У статті актуалізується проблема визначення поняття «інвестиційна привабливість проєкту», в зв'язку, з чим наведено ряд поглядів авторів на дану категорію. Стаття акумулює сукупність існуючих методів оцінки економічної ефективності проєктів з метою вибору інструментарію для визначення поняття інвестиційної привабливості. За допомогою порівняння існуючих на сьогоднішній день груп методів оцінки інвестиційної привабливості, зроблено висновок про те, що найбільш вдалою комбінацією є комплексне їх застосування в процесі інвестиційного аналізу.

Formulation of the problem

The urgency of studying the problems of analyzing the attractiveness of investment projects for domestic enterprises is due primarily to two reasons. The first is that the modern economy directs social production to constant innovative development, which requires appropriate

investment. The second reason is related to the search for ways to survive the company, new factors of its success in a competitive environment and further sustainable development. To assess the investment attractiveness of the project, there are certain principles and methods for assessing its effectiveness. This assessment allows the entrepreneur to

determine whether it is profitable or unprofitable to invest in a particular project and determine which of the submitted projects is a priority for implementation.

The relevance of methods of assessing investment attractiveness is due to their choice in determining the set of different objective features, properties, means, opportunities that determine the solvency potential of investment in fixed assets of the enterprise, where the key concept is its financial stability, which characterizes investment attractiveness. However, all this requires a single, comprehensive approach to the choice of method for assessing investment attractiveness.

Analysis of recent research and publications

Investment attractiveness as an economic category has been studied in great detail and many scientific papers have been devoted to its consideration. Various aspects of investment attractiveness have been considered in the works of many researchers. In particular, the definitions of “investment attractiveness” are devoted to the works of N. Gavrilenko [1], T. Romanova, J. Kucher [4]; A. Yakovlev [5]; T. Yankovets, A. Prokofiev [6] and others covered the investment attractiveness in the innovation sphere in their works. Despite the availability of existing scientific developments, it should be noted that a significant number of problems in the study of this topic remains unresolved, so in particular it is advisable to develop a methodology for comprehensive assessment of investment attractiveness of projects.

Thus, the study to some extent fills these gaps and determines its relevance.

Formulation of goals

The purpose of the article is to determine the essence of the category “investment attractiveness of the project”, to get acquainted with qualitative and quantitative approaches to the analysis of investment risks and to develop a methodology for selecting the assessment of the attractiveness of investment projects.

Presentation of the main research material

The idea of a new product or project should convince the owners, managers or financial institutions (when attracting external financing) of the uniqueness of the project, of the need to invest. Namely, it requires substantiation of the investment attractiveness of the project. Today, attracting investment in the real sector of the economy is a matter of its survival. The adequacy of practical decisions made at different stages of investment activity depends on how the process of investment activity is understood. One of the important and responsible stages of the investment process is the selection of the enterprise and the development of a project in which certain resources will be invested.

Most entrepreneurs, top managers and line managers face the need to promote their ideas to the owners, to attract investment to implement their projects. Deciding to find investment in a project, you need to understand that no one, not even the friendliest investor, will give money just because he liked the idea. One of the tools to convince investors is the well-known business plan of the project.

There is no single point of view on the concept of “investment attractiveness” in the scientific literature. The most common view is the comparison of investment attractiveness with the feasibility of investing in the enterprise, which depends on a number of factors that characterize the activities of the entity. The definition is correct, but vague, which does not allow us to talk about the very assessment of investment attractiveness. The economic essence of investment attractiveness is specified in the definition of A. Yakovlev, who understands this term as a set of objective features, properties, means and opportunities that determine the potential solvent demand for investment. This definition is more capacious and allows to take into account all the interests of any participant in the investment process [5, p. 250]. Romanova T. and Kucher J. understand investment attractiveness as an assessment of the efficiency of equity and debt capital, analysis of solvency and liquidity, which corresponds to a similar definition - the structure of equity and debt capital and its location between different types of property, as well as the efficiency of their use [4, p. 11].

In this study, we will adhere to the generally accepted interpretation of the assessment of investment attractiveness of the project - this is a comprehensive indicator that characterizes the feasibility of investing in this project. It reflects the ratio of investment potential to the risks associated with the project. That is, it is necessary to understand the relationship between the level of expected income, payback period, future prospects of the investment project to the risks of non-return of capital, non-receipt of income from the project. The expected efficiency of the investment should reflect the true investment attractiveness. Analysis of investment attractiveness should convince decision makers that:

- the best of the alternatives is selected;
- the project is aimed at maximizing the market value of the enterprise;
- identified the main risks in its implementation;
- an assessment of the impact of such risks on the progress of the project and developed a strategy for managing such risks;
- determined the amount of necessary resources and how to attract them on the most favorable terms.

Let's consider in more details the volume of foreign direct investment in Ukraine in terms of economic activity in 2020 in the table 1.

The analysis showed that in 2020, 32,291.9 million US dollars were invested in the economy of Ukraine [3]. Among the countries that have invested the most in the domestic economy, the leader is Cyprus, the volume of investment in which in 2020 amounted to 8,879.5 million US dollars, or 27.5% of total foreign direct investment, the Netherlands – 7,060.9 million USD (%), Great Britain – USD 1,955.9 million (%), Germany – USD 1,668.2 million (%) [7]. The main priority economic activities for foreign investors, as the analysis showed, are trade, food production, information and telecommunications, financial and insurance activities and metallurgy.

Taking into account the statistics, it can be argued that the general principle of assessing the attractiveness of an

Table 1 – Volumes of foreign direct investment in Ukraine in terms of economic activities in 2020

Types of economic activity	Cyprus		Netherlands		Great Britain		Germany	
	million dollars USA	in % to the total	million dollars USA	in % to the total	million dollars USA	in % to the total	million dollars USA	in % to the total
Food production	584,8	6,6	725,9	10,3	454,1	23,2	10,1	0,6
Trade	937,6	10,6	1 007,9	14,3	258,4	13,2	208,7	12,5
Financial and insurance activities	918,9	10,3	294,2	4,2	256,7	13,1	121,8	7,3
Metallurgy	544,2	6,1	212,4	3,0	8,3	0,4	574,9	34,5
Information and telecommunications	244,4	2,8	1 783,9	25,3	25,9	1,3	2,9	0,2
Other	5 649,6	63,6	3 036,6	42,9	992,5	48,8	749,8	44,9
Total	8 879,5	100	7 060,9	100	1 955,9	100	1 668,2	100

Source: based on [3].

investment project is the ratio of the result obtained and costs incurred, which can be expressed in both physical and monetary terms and the efficiency of these measurement methods may be different for the same situation. The financial and economic condition of the enterprise is decisive in assessing investment attractiveness, because profits and risks are reflected through figures. We believe that statistical methods are crucial, because before the entrepreneur decides to start investing in the project, he must have the necessary and reliable information about the investment attractiveness of the business unit, based on the assessment of financial statements, environmental research, tax, banking and other indicators.

There are several methods of assessing the attractiveness of investment projects based on a single methodological framework, which can be divided into two main groups: including and not including discounting. Economic literature and international practice to justify the attractiveness of

investment projects also uses two groups of indicators, which are determined both on the basis of the use of the concept of discounting, and exclude the use of discounting (Fig. 1).

The definition of efficiency for creditors and investors is based on various indicators and their combination. These factors are the criteria for a positive or negative decision to adopt an investment project. Methods of investment project efficiency are used for calculations: statistical / dynamic. Calculations are made both for the project as a whole and to determine the effectiveness of participation in a particular project.

Stages of project examination include:

1. Designation of purposes of investment of financial resources.
2. Calculation of costs, determining profitability, estimating investment and production costs.
3. Calculation of indicators of evaluation of investment projects, payback period from the moment of investment to

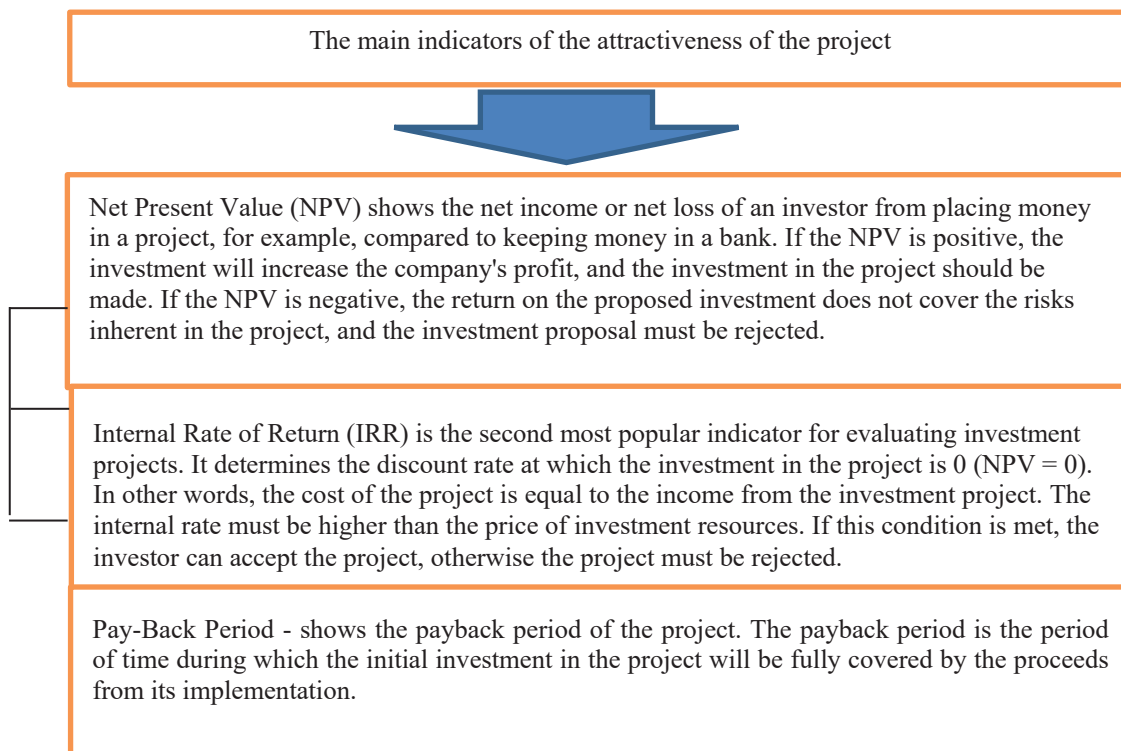


Fig. 1. The main indicators of the attractiveness of the project

the period when the profitability of the project will exceed the size of the investment and the cost of its implementation.

Drawing up an investment strategy based on all types of funding sources, ways to attract investors, capital allocation schemes. The result of this work is the analysis of all methods of evaluation of investment projects and providing the customer with an expert opinion with a comprehensive assessment of the detailed project report. Based on the conclusion, clients make informed, competent decisions that guarantee the success of the investment.

Conclusions

Stable development of the enterprise and achievement of strategic advantages in the conditions of competition largely depends on management and efficiency of innovation and

investment processes. In the developed world, a relatively high level of investment attractiveness is maintained through large investments in radical reconstruction of production and development of new sectors of the economy. It should be noted that the approaches presented in the article to assess the investment attractiveness of the project contain only general concepts about the data production system for management decisions. However, its practical use depends on the extent to which the investor is focused on a detailed analysis of the business in which he intends to invest. A significant role here is played by the economic policy of the state, which with the help of tax levers, and especially accelerated depreciation, encourages firms and companies to increase investment. In the main developed countries of the world, 30–40 percent of investments are made by the state itself.

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DOI <https://doi.org/10.26661/2414-0287-2021-2-50-20>**INVESTMENT IN AGRICULTURE OF UKRAINE****Kushnir S.O., Karmazina V.S.***Zaporizhzhya National University**Ukraine, 69600, Zaporizhzhya, Zhukovsky str., 66**SvetlanaAK@ukr.net, viktorija240401@gmail.com**ORCID: 0000-0002-1410-1887, 0000-0002-2176-4080***Key words:**agro-industrial complex,
agriculture, agribusiness,
investing, investment project,
export.

The development of agriculture and its investment support is one of the strategic tasks for Ukraine. The article considers the efficiency of agribusiness in recent years. Statistical data on the dynamics of the share of agriculture in the structure of Ukrainian GDP in actual prices, the amount of direct investment in agriculture and the dynamics of the share of agro-industry in the overall structure of direct investment are studied. World rankings for the production and export of agricultural products are analyzed. Statistics on changes in the amount of financing of the agro-industrial complex within the framework of state support programs, as well as foreign investors are summarized. Particular attention is paid to a detailed acquaintance with the investment projects of 2020–2021, and the research of investment attractiveness for foreign countries. Problems and prospects of improving the investment climate in Ukraine are highlighted.

ІНВЕСТИВАННЯ В СІЛЬСЬКЕ ГОСПОДАРСТВО УКРАЇНИ**Кушнір С.О., Кармазіна В.С.***Запорізький національний університет**Україна, 69600, м. Запоріжжя, вул. Жуковського, 66***Ключові слова:**агропромисловий комплекс,
сільське господарство,
агробізнес, інвестування,
інвестиційний проект, експорт.

Розвиток сільського господарства та його інвестиційна підтримка є одним з стратегічних завдань для України. У статті розглянуто ефективність діяльності агробізнесу за останні роки. Досліджено статистичні дані щодо динаміки частки сільського господарства у структурі українського ВВП у фактичних цінах, суми прямих інвестицій у сільське господарство та динаміку частки агропромисловості у загальній структурі прямих інвестицій. Проаналізовано світові рейтинги щодо виробництва та експорту сільськогосподарської продукції. Узагальнено статистичні дані щодо зміни сум фінансування АПК у рамках державних програм підтримки, а також іноземних інвесторів. Особливу увагу приділено детальному ознайомленню з інвестиційними проектами 2020-2021 рр., і дослідженню інвестиційної привабливості для іноземних держав. Виокремлено проблеми й перспективи покращення інвестиційного клімату в Україні.

Statement of the problem

Nowadays, agricultural production can be considered one of the most powerful engines of the economy. Ukraine has favorable natural conditions for active agriculture, and 25% of the world's chernozem soils are located in our country. This helps to take a leading position in the world in terms of production, as well as the number of foreign trade operations in this area.

With the start of hostilities in the East and the signing of the Association Agreement with the EU, the number of foreign trade operations and investment projects by the post-Soviet countries and Russia has decreased, and new opportunities have opened up on the part of the West. Farmers are trying to adapt to modern conditions, to adjust their work effectively, as evidenced by the positive

dynamics of the agro-industrial complex of Ukraine. However, the lack of financial resources emphasizes the importance of investment support from both the state and foreigners.

Analysis of recent studies and publications

An important contribution to the study of the development of the agro-industrial complex of Ukraine was made by such scientists as T. Matsyhora, who covered the approaches to agricultural reform through state funding and constant monitoring of the current state of agro-industrial complex development. Analysis of the current state of agricultural development and investment are actively engaged analysts and economists as Chkan I. Hovorostyanyy V., Sofiyenko N. etc.

Objectives of the article

And, given the difficult conditions of functioning, including those associated with the coronavirus pandemic, it is worth exploring the state of the industry and future prospects.

The purpose of the study is to analyze the state of development of agriculture in Ukraine in modern conditions and the importance of attracting investment.

The main material of the research

The question of the attractiveness of agribusiness investment depends entirely on the real state of development of the industry.

Since the article considers the development of agriculture, it is necessary to understand who can be considered an agricultural producer. According to Article 2.15 of the Law of Ukraine № 1877-IV of 24.06.2004 “On state support of agriculture of Ukraine”, agricultural producer – a legal entity or a natural person – entrepreneur, whose main activity is the production of agricultural products and/or breeding, cultivation, fishing in inland waters and its processing at its own or leased capacity, as well as the implementation of operations for its supply, and the share of the value of agricultural goods/services is not less than 75 percent of the value of all goods/services, delivered during the previous 12 consecutive reporting tax periods [1].

Ukraine occupies a leading position among countries exporting agricultural products. The share of agricultural exports in total exports of Ukraine was 45,1% at the end of 2020, and only 39,7% in January-February 2021.

Our country has 1st place in the international arena for the export of sunflower oil, 2nd place for the export of barley, 4th place for the export of corn, as well as leadership in the export of wheat, butter, oilseeds, 7th place for poultry. In general, according to the results of 2020, Ukraine exported agricultural products worth

22200 million US dollars, which is 100,3% more than in the same period of 2019. Most bought in countries such as China (16%), India (6,7%), the Netherlands (6,4%), Egypt (6,2%), Turkey (4,8%), Spain (4,4%) [2].

It should be noted that Ukraine is considered the largest exporter of honey in the world in the last two years. Honey exports for 11 months of 2020 broke the record and amounted to 69839 tons with a total value of 1117,5 million dollars. The greatest demand was observed from the EU. Active buyers of Ukrainian products were Poland (25%), Germany (20%), Belgium (11%), USA (10%) [3].

Analytical Index Mundi agency predicted that Ukraine for 2020 belongs to world leadership in terms of growth of poultry meat production, this figure increased by almost 9% per year [2].

Ukraine was also included in the TOP-5 international walnut producers for the first time. In 2020, 126000 tons were harvested [4].

The share of agribusiness in Ukraine’s GDP is quite significant. Thus, in the overall structure, agriculture accounted for 9,27% in 2020, compared to 2019, when the agro-industrial complex accounted for 8,97%. This indicates a positive result of the industry, although compared to 2018 (the share of agriculture was 10,14%), there is a slight decrease in the share by 0,88% (Fig. 1).

Particularly notable for agribusiness are constant fluctuations in the amount of direct investment. The analysis shows a gradual increase in investment in agriculture, but at the same time there is a decrease in 2019 by 126,7 million dollars USA. However, the situation is improving according to the results at the end of 2019, which indicates an augmentation in direct investment. It should be noted that a similar situation is observed in the dynamics of the share of investment in agriculture in total direct investment. At the beginning of 2020, the share was approximately 1,51% (Table 1, Fig. 2).

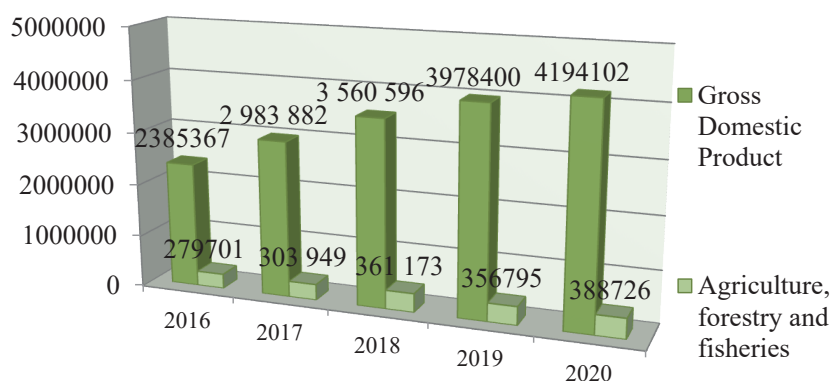


Figure 1 – Dynamics of the share of agriculture in the structure of GDP in actual prices, UAH million

Source: compiled by the author on the basis [5]

Table 1 – Direct investments (share capital) in the economy of Ukraine for 2016-2019, UAH million

	2016	2017	2018	2019	As of December 31, 2019
Total	32 122,5	31 230,3	31 606,4	32 905,1	35 809,6
Agriculture, forestry and fisheries	502,2	586,2	578,6	451,9	542,1

Source: compiled by the author on the basis [5]

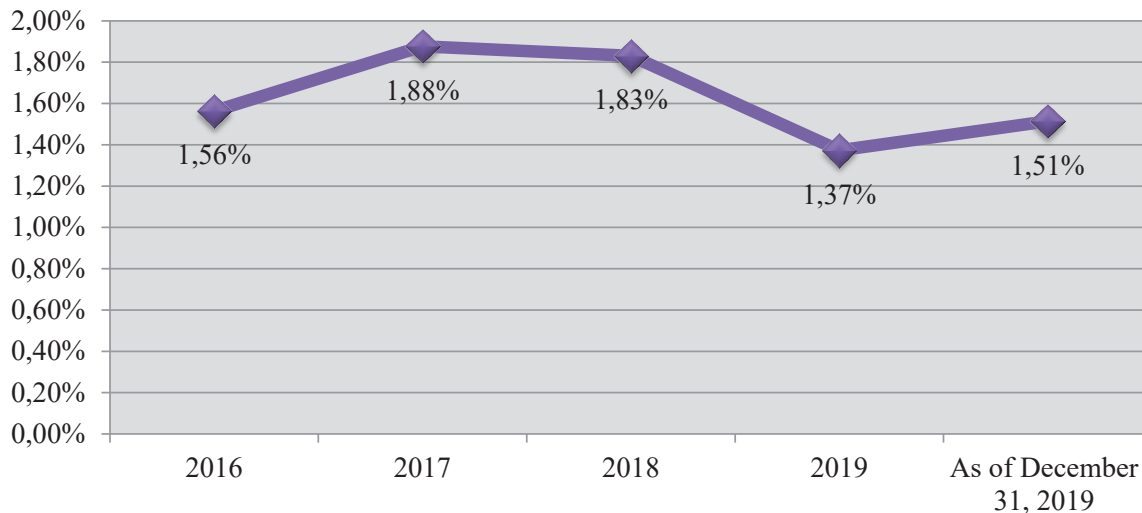


Figure 2 – Dynamics of the share of agriculture in the amount of direct investment in Ukraine

Source: compiled by the author on the basis [5]

Thus, considering the statistics, it becomes clear that the agro-industrial complex of Ukraine is developing unstable. And the coordinated active work of the authorities, together with the state regulation of investment attractiveness is a priority step to strengthen the leading positions of agricultural enterprises in the world market.

At the beginning of 2020, agricultural producers used UAH 4,34 billion of state support. In total, 1667 business entities and 230025 individuals, about 10000 farmers and 2 agricultural cooperatives benefited from investment assistance [6].

The Ministry of Economic Development, Trade and Agriculture of Ukraine has developed a program to support AIC 2020, therefore, in accordance with the “Procedure for the use of funds provided in the state budget for financial support of measures in the agro-industrial complex by reducing the cost of loans”, approved by the Cabinet of Ministers of Ukraine dated November 15, 2019 № 954, where it was stipulated that in the framework of land reform an effective tool should be created in the form of the Partial Credit Guarantee Fund to facilitate access of small and medium enterprises (up to 500 hectares) to bank loans [2].

In total, UAH 4,24 billion was allocated from the budget for the AIC 2020 support program, of which UAH 240 million was allocated for the formation of the authorized capital of the Guarantee Fund, and UAH 4 billion was allocated in various areas, including livestock, farming and horticulture, viticulture, hop growing was allocated a total of 1,8 billion UAH [6].

Domestic investment projects related to direct assistance from the state are also planned for 2021. Comparing the amount of financial resources in 2021 with last year, allocated to the program investigated there is a clear increase in most directions (Fig. 3).

In addition, the program “Affordable loans 5-7-9%” is effective today. The state is most interested in preferential lending to crop production. The first discoverer of the program was a farmer A. Vecheruk from Vinnytsia region, who grows grain, legumes, oilseeds [6].

According to the latest information provided by the agro-industrial development departments of regional state administrations, as of July 1, 2019, 444 investment projects worth over UAH 40,6 billion have been prepared and implemented in all regions of Ukraine (Fig. 4).

The largest actual number of investment projects consistently covers Cherkasy, Vinnytsia, Poltava, Kherson, Lviv, Mykolaiv, Zhytomyr and Kyiv regions. The most expensive project in our country in recent years is the project to build a brigade complex “Vinnytsia Broiler” with a capacity of 700 thousand tons of meat per year, which costs 9,6 billion UAH. The state of project implementation is estimated at 76% at the beginning of 2020 [2].

According to the Department of Information and Public Relations, Ukraine raised its investment rating in Doing Business 2020 by 7 positions at once, improved 6 indicators out of 10 indicators that are taken into account by World Bank experts in compiling the rating. Doing Business Ease of Doing Business Index is an important marker for investors when deciding to invest in a country. The rise in world rankings increases the confidence of foreign investors in making investment decisions [8].

It should be noted that according to the law “On Amendments to Certain Legislative Acts of Ukraine Concerning the Conditions of Circulation of Agricultural Lands” dated 31.03.2020 № 552-IX, the land reform comes into force. According to paragraph 1 of this law, amendments are made to the Land Code of Ukraine under Articles 130 and 131, from July 1, 2021 to January 1, 2025 ownership of agricultural land up to 100 hectares can be purchased only by citizens of Ukraine. And already from January 1, 2024 the opportunity to buy plots up to 10 thousand hectares will be given to domestic legal entities. According to the signed law, the question of whether to give foreigners the right to buy Ukrainian land will be decided after the all-Ukrainian referendum [9].

In general, the budget for 2021 includes the possibility of attracting 1 billion 176 million UAH of foreign

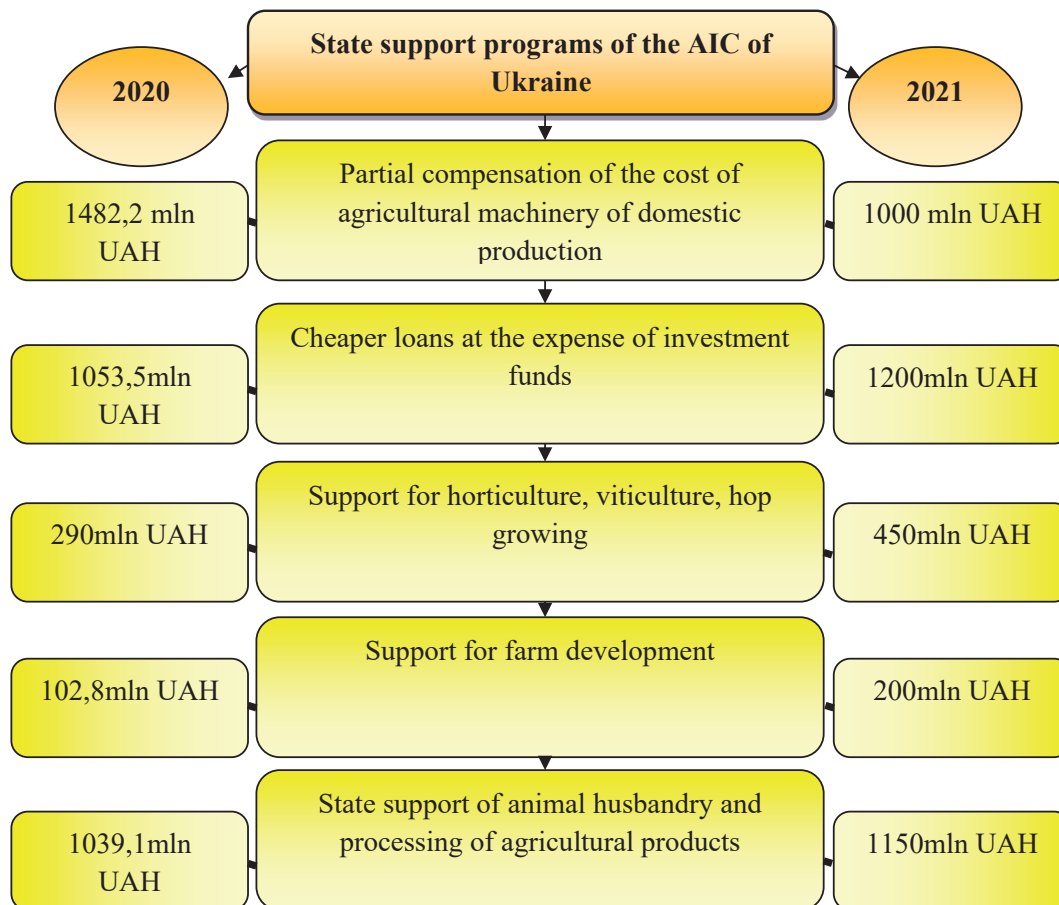


Figure 3 – State support programs of the agro-industrial complex of Ukraine

Source: compiled by the author on the basis [7]

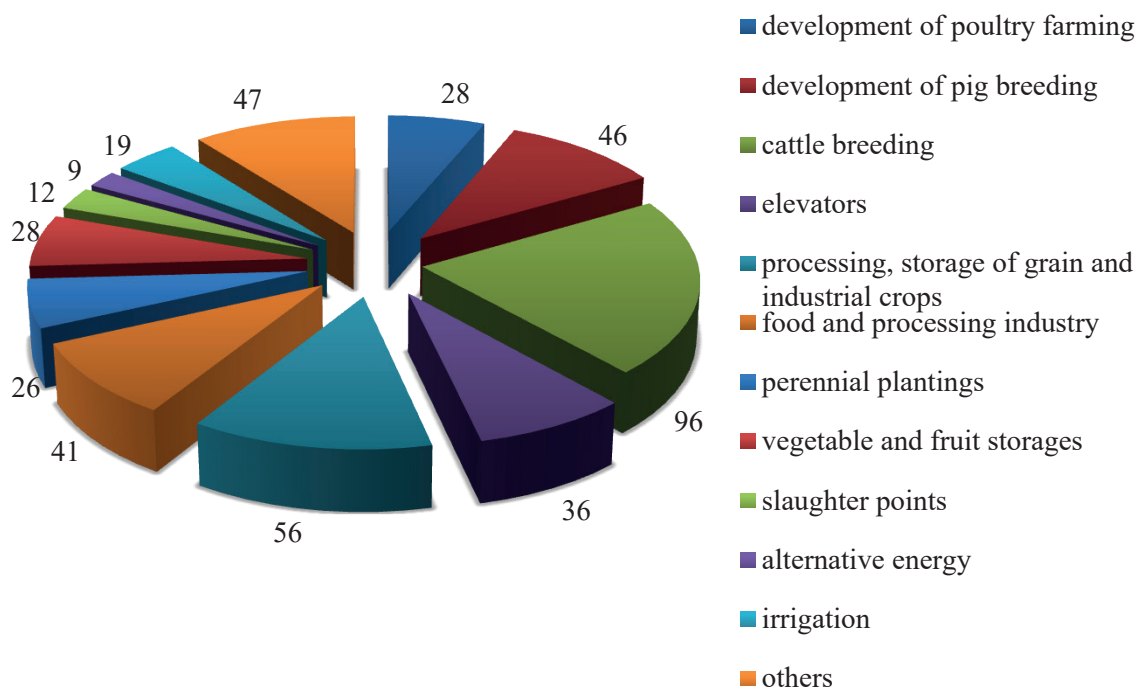


Figure 4 – Distribution of the number of investment projects in the agro-industrial complex of Ukraine at the beginning of 2020, units

Source: compiled by the author on the basis [2]

investment in agriculture. According to the draft law № 4000 of 14.09.2020, Ukraine seeks to attract funds from the European Investment Bank and the Government of the French Republic and send them to the modernization of the agricultural sector of rail transport and drinking water supply project [2].

In February 2021, a memorandum was signed with the world's largest international investment fund, the United Arab Emirates's Mubadala Investment Company, which has assets of more than 850 billion dollars. The UAE plans to increase the trade turnover of agro-industrial products with Ukraine 10 times and bring this figure to 2 billion dollars for a year.

This agreement provides for:

1. Allocation of funds and exchange of experience in the use and protection of agricultural land.
2. Increasing soil fertility through the use of innovations.

3. Introduction and improvement of electronic services in the field of land management.

4. Monitoring of the ecological condition of lands due to the impact of climate change and negative processes [6; 10].

It should be noted that in order to create favorable conditions for investors and further development of agriculture, the government has developed a "Strategy to promote private investment in agriculture until 2023". The main goals are to increase exports of agricultural products, food security and environmentally balanced growth of agriculture [8].

The ecological aspect of agricultural development is problematic in Ukraine. An example of the lack of attention was the mass death of Red Book birds (more than 2,000 animals) in the Kherson region near the Askania-Nova Biosphere Reserve. The reason was poisoned grain, which farmers scatter in the fields to kill rodents. And the result is losses of more than UAH 9 million [11].

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LABOUR ECONOMICS, PERSONNEL MANAGEMENT AND MARKETING

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MECHANISM FOR PROVIDING INNOVATIVE DEVELOPMENT OF THE SINGLE STATE MECHANISM OF REGULATION AND IMPROVEMENT OF PROACTIVE MANAGEMENT GENERAL PROBLEM RESOLUTION

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Key words:

labor resources, innovative development, digital economy, digital technologies, online work, personnel management, remote control, labor management mechanism.

The article analyzes the current areas of human resource management. The problems arising from the introduction of a new format of management and proactive management are identified, the advantages and disadvantages of the digital economy and the use of Smart working in human resource management are identified, it is proposed to create a digital institutional environment of the economy which would regulate remote relations. The basic elements of the mechanism of state regulation of the national labor market are studied. The mechanism of the single state mechanism of regulation and improvement of proactive management of labor resources is offered and efficiency from application of means of digitalization is defined.

МЕХАНІЗМ ЗАБЕЗПЕЧЕННЯ ІННОВАЦІЙНОГО РОЗВИТКУ ЄДИНОГО ДЕРЖАВНОГО МЕХАНІЗМУ РЕГУЛЮВАННЯ ТА УДОСКОНАЛЕННЯ ПРОАКТИВНОГО УПРАВЛІННЯ ТРУДОВИМИ РЕСУРСАМИ

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Ключові слова:

трудові ресурси, інноваційний розвиток, цифрова економіка, цифрові технології, он-лайн робота, управління персоналом, дистанційне управління, механізм управління трудовими ресурсами.

У статті проаналізовано сучасні напрями управління трудовими ресурсами. Визначено проблеми, що виникають при впровадженні нового формату управління та проактивного управління, виявлено переваги і недоліки у результаті впровадження цифрової економіки та застосуванні Smart working в управлінні трудовими ресурсами, запропоновано створити цифрове інституційне середовище економіки у вигляді стандартів, законів, норм і правил, які б регулювали дистанційні відносини. Досліджено базові елементи механізму державного регулювання національним ринком праці. Запропоновано механізм забезпечення інноваційного розвитку єдиного державного механізму регулювання та удосконалення проактивного управління трудовими ресурсами та визначено ефективність від застосування засобів цифровізації.

General problem resolution

The research issue is extremely relevant because companies start to move to Smart working due to the rapid digitalization. New technologies and improvements in existing technologies are a key factor in the development of Smart working, which includes a wide range of tools such as the Internet, smartphones, social networks or any application designed to facilitate the flexibility and mobility of staff.

Considering the new format of management and the introduction of proactive management, companies have

faced a number of problems that need to be studied in the light of modern conditions. Moreover, there is a need for new systems, controls, management mechanisms that would determine the conditions and standards of business entities in a modern format. In addition, it should be noted that during digitalization, it is important to create a digital institutional environment of the economy in the form of standards, laws, norms and rules.

Given the peculiarities of the economy and society digitalization and taking into account the risks that may be faced by key industries and the economy as a whole it is

worth highlighting the digital capabilities of the mechanism of state regulation. The effective functioning of the labor market depends on it and it is important to create a single state mechanism for regulating and improving proactive management of labor resources.

Analysis of last researches and publications

Analyzing the works of scientists and economists, in the sphere of proactive management and management of labor resources in terms of digitalization, we should highlight the works of O. Pankova, O. Kasperovich [1], O. Myronenko [2], L. Gorodyanskaya [3]. However, it should be noted that the analyzed works do not take into account the current conditions of economic entities, the current state of the economy and the pandemic respectively but there are debatable aspects that need further studying.

Formation of research purpose

The aim of the article is to identify current areas of labor management, classify advantages and disadvantages of digital economy and the use of Smart working in labor management, explore the basic elements of the mechanism of state regulation of the national labor market and propose a mechanism for innovative development of a single state mechanism.

Study results

Labor management relations are governed by rules established on digital platforms, which primarily protect the interests of customers and ensure the safety and profitability of the platform itself.

Questions of online work need a separate study, but we will briefly dwell on this issue. The fact is that online work on digital platforms can improve the financial situation of employees, for 25% of those employed on Internet platforms it is the only source of income. Job shortages in the region and low wages are the main reasons for the growth of informal employment on digital platforms.

The emergence of new forms of employment is a positive phenomenon. In conditions when the state cannot overcome the high level of unemployment and offer decent wages in all regions and spheres of activity, the informal labor market provides financial support to the population. Social protection in the form of protection against non-payment of work performed, high commissions and abuse on digital platforms should be provided regardless of whether social security contributions and taxes are paid by the employee or not. Digital platforms independently determine the rules of work, the mechanism of payment for the opportunity to work on the platform, registration and protection of the employee's account, and these rules do not always comply with the provisions of labor law. There is no state control and protection of labor relations on digital platforms, but it must appear to comply with labor rights and minimum state guarantees in the field of labor. These and other issues should be researched as a separate scientific study.

In connection with the restructuring of the labor market and the emergence of new "digital jobs" models of human resource management are changing, shifting the focus

towards the formation of HR-brand, the introduction of HR-analytics and recruitment marketing etc.

An important place is occupied by the HR-brand, thanks to which it is possible to attract professional staff, retain the best employees and increase their involvement. According to different researches, most candidates study a company's reputation before sending CV.

Paying attention to the fact that most new job in the global economy is going to be created through "digital professions", much of the top managers attention is focused on smart recruitment. This means constant monitoring of trends in the labor market, changes in the desires and preferences of potential candidates, the formation of personalized proposals etc.

In this context, the outflow of skilled labor resources from the country is becoming threatening for Ukraine, especially given the growing global competition of companies for highly intelligent professionals. According to official data, the number of employed people in the country is steadily declining and, accordingly, the quantity and quality of labor resources, too. One of the main reasons for this situation is the dissatisfaction of Ukrainians with the level of wages. These and other reasons provoked an increase in the flow of labor abroad.

According to various estimates, at least 3% of Ukrainians plan to work abroad and do not want to return. Also, about 9% of the population intend to work abroad, but with further return to Ukraine [1].

The study of a specialist portrait in 2019 characterizes different migratory moods. The leading countries in terms of emigration are the United States, Canada, Poland, Germany, the Netherlands, and the United Kingdom. The average age of emigrants is 29 years. Among those who left, 19% of respondents will not definitely return to their country, 42% – most likely will not return.

Among the main reasons that may affect the desire to return to Ukraine, respondents named the increase in living standards in the country, family reasons, the end of hostilities, the offer of high-paying jobs and interesting work from a professional point of view.

According to O. Pankova and O. Kasperovych, the system of structural transformations of employment in Ukraine at the present stage is determined by a large number of factors, the main of which are globalization, transition from market economy to digital economy, European integration, introduction of new technologies, technology and informatization of labor (Industry 4.0.), change in property relations, the effectiveness of socio-economic and educational reforms, the transition from industrial to information and digital technologies (digitalization as a global trend that radically changes approaches to labor organization and leads to radical transformations of the labor market worldwide), the growing importance of the quality of human capital as a factor in the competitiveness of the economy [2].

Under the influence of these factors, the formation of new sectorial, department proportions in employment takes place, as well as the expansion of the scope of highly skilled intellectual work. These processes significantly affect the social protection of workers and require the

development and implementation of flexible social protection mechanisms, suitable to the new conditions.

It should be noted that one of the most important stages of the enterprises transition to digital format is the remote management of human resources, so proactive management could be defined as one of the tools for effective staff management.

Modern world trends in the field of labor management are primarily due to the globalization of the national economy and the convergence of labor standards, rights and guarantees determine a number of modern areas of labor resources (Table 1).

All modern types of work listed in the table can be combined in one term under the name Smart working. Smart working is a contract that gives the entrepreneur more flexibility in managing the workforce (labor resources) due to a flexible work schedule; workplace flexibility; creation of a system of remuneration based on the results of work, etc.

Also, due to the rapid digitalization, companies are beginning to move to Smart working. New technologies and improvements in existing technologies are a key factor in the development of Smart working, which includes a wide range of tools such as the Internet, smartphones, social networks or any application designed to facilitate the flexibility and mobility of staff.

But given the new format of management and implementation of proactive management, companies faced lack of rules, regulations, standards for data collection, classification, storage and use (national, regional, industry and other levels), problems of intellectual property protection, data protection problems, risks of cybersecurity, lack of citizens with sufficient competencies to work with data (digital skills), relevant education, professions, etc.

Thus, there is a need for new systems, controls, management mechanisms that would determine the conditions and standards of business entities in a modern format.

Smart working has become more common in recent years in the private and public sectors, which can play a key role in addressing cost reduction. This step towards Smart Work is supported by new technologies that increase work mobility and legislation encourages flexibility and new design trends in the workplace [1].

Smart working is known as a work model that uses new technologies and the development of existing technologies to improve productivity and job satisfaction, in particular through remote access. But the analysis showed that the introduction of the digital economy in human resource management has a number of not only advantages but also disadvantages.

Advantages in the introduction of digital economy and the use of Smart working in human resource management are increased efficiency, efficient use of limited resources, cost savings, increased productivity due to flexibility of personnel policy, individual regulations, increased time for effective management, increased investment attractiveness to attract additional investment, mobility in space and time, saving time, the ability to work several jobs simultaneously, improving the quality of life through a rational distribution of free time / weekends / holidays, the ability to attract people with disabilities, mobility, automate part of the work, choose a convenient schedule and days for work, the ability to work at night with the consent of the parties.

Disadvantages in the introduction of digital economy and the use of Smart working in human resource management for modern enterprises may be the growth of cybercrime in terms of increasing the number of information systems that use personal data, reducing employment among the population, problems with personnel control, reduced productivity. due to the fact that remote work is not planned or not performed and, as a consequence – reduced quality of results, the dependence of efficiency on the quality of communication, the Internet, limiting live communication and lack of contact with colleagues, partners, reduced mobility, which affects negatively on the state of health, etc.

Analyzing the above, it should be noted that Smart working has more advantages and is more adapted to the conditions of the modern economy, and therefore are relevant in today's labor market, in particular in staff management.

In addition, when examining the features of the new Labor Law, it should be borne in mind that its main aspects are based on the introduction of digital technologies (digital workbooks, work on remote access, etc.), jobs are no longer tied to physical places. They become “digital”, virtual, mobile, those that do not require a permanent presence of the employee in the workplace. The concept

Table 1 – Modern areas of labor resources activity

№	Name	Definition
1.	Cloudworking	Work with services and systems that the company receives from outside. They do not need to install the program on a computer. The simplest example is the cloud email services we use every day such as Google.
2.	Teleworking	Like remote employment, work is performed in a remote location from the use of its results.
3.	Remote employment	Work process that is carried out outside the traditional place of work and involves interaction with the employer through telecommunications and information technology. From the first sight, for many people this kind of work is just a dream.
4.	Crowdsourcing	Practice of getting the services, ideas, or content you need by asking for interactions from large groups of people, especially the online community. In simple words, crowdsourcing is the use of crowd resources
5.	Freelance	Remote work, the essence of which is that a freelancer is the leader and subordinate for oneself.
6.	Coworking	Equipped with all the necessary things for work place, which is given to anyone for the necessary period for practical courses, training online and offline.
7.	Outstaffing	Withdrawal of the employee from the staff of the customer company and its registration in the staff of the contractor company. Thus, the employee continues to work on the former place and to carry out the former duties usually remotely, but duties of the employer are already carried out by the contractor company.

of “digital workplaces” is spreading extremely fast in the business environment and is positively perceived by the vast majority of employees, who are impressed by flexible ways of working, the opportunity to work at home and on vacation. Thus, Smart working is becoming extremely relevant today, but requires a thorough study and creation of a well-established system of management and control over all management processes.

Also, it should be noted that during digitalization, it is important to create a digital institutional environment of the economy in the form of standards, laws, norms and rules, one of which is the decision that digital forms of official interaction should be the first and analogue should be the second, including at the interstate level, as well as at the levels of interaction between states and business, citizens and business, suppliers and customers of goods and services. After all, digitalization allows reducing the amount of initial capital costs for the deployment of the necessary digital infrastructure, through the use of “cloud” technologies and software-defined architecture (“software-defined architecture”) [3].

The combination of market competition and state regulation of the economy is extremely important for the formation of a management system that can be integrated into the world economy in the era of digitalization on a partnership basis. In regulating the economy, it is necessary to strengthen the role of the state, which should take the initiative to develop an economic strategy to stimulate the reproduction of economic resources and moderate its implementation. Therefore, the system of indicative planning that dominates in a country should be effective.

The institutional support for the digitalization of the economy should be based on pragmatism of organizational and institutional action along with social responsibility. Institutionalization of the economic order in the direction of formation and development of the digital economy must take into account the evolution of social values that dominate the economic order of today and is based on quality institutions and creative innovators.

In the near future in connection with digitalization and automation in labor markets there may be revolutionary transformations comparable to the historical transition from agricultural to industrial production by 2030 from 75 to 375 million workers (from 3 to 14% of the global workforce) will be forced to change professions. Economic dividends from digitalization, automation, robotics are likely to go to the owners and producers of the latest technologies, digital business, and a highly skilled competitive workforce. Periods of transition to a new level of social, technological development, European integration processes actualize the demand for active state (and now interstate) policy, which would be able to coordinate and organize the main trends (megatrends) of radical structural, technological, institutional changes.

Given the peculiarities of the digitalization of the economy and society and taking into account the risks that may face key industries and the economy as a whole, it is worth highlighting the digital capabilities of the mechanism of state regulation which depends on the effective functioning of the labor market.

The effective functioning of the labor market at all levels depends on the existing mechanism of state regulation. Such management is an opportunity to take into account European development trends and historical and cultural features of the territories as well as trends in the movement of labor and labor resources etc.

The creation of a single state mechanism for regulating and improving the proactive management of labor resources is a key condition for the sustainable development of the national labor market. At the same time the use of actual labor, local resources and the relationship between supply and demand for labor makes it possible to develop proposals for improving the proactive management of labor resources. It should be noted that the choice of tools and methods to improve proactive management of human resources is one of the strategic directions of public policy.

It is possible to allocate conditions which are necessary for improvement of proactive management of labor resources. They can include functioning of the market system relations, analysis of cause-and-effect results of the dynamics of socio-labor and economic indicators, compliance with regulations, interaction between state and regional authorities, coherence of economic entities, globalization of the labor market, clearness of economic system.

Identification of components that ensure the implementation of a single state mechanism of regulation and improvement of proactive management of labor resources that is a priority in the study of the mechanism of state regulation of the national labor market (Fig. 1).

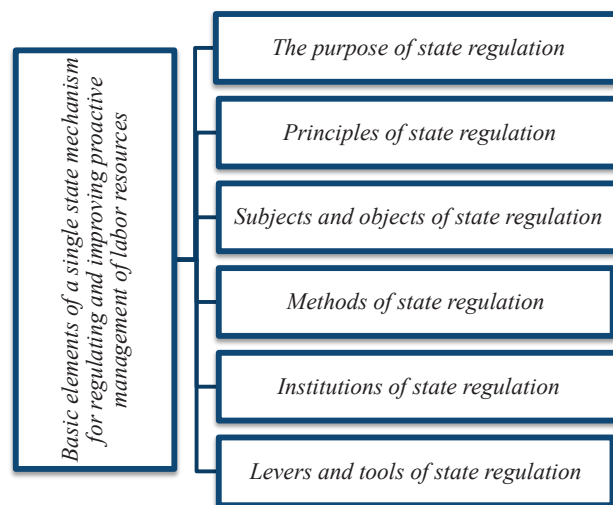


Figure 1 – Basic elements of the mechanism of state regulation of the national labor market

Source: formed by the author

In modeling a single state mechanism for regulating and improving proactive management of human resources such components are the basis that ensures its integrity.

Particular attention needs to be paid to the introduction and support of innovations in the formation of a single state mechanism for regulating and improving proactive management of labor resources. This issue requires a certain state mechanism to ensure the innovative development of the national labor market. With its help, a certain part of

the continuous process of forming integrative management approaches to ensuring human resource management is determined.

Construction of a single state mechanism for regulating and improving proactive management of labor resources is shown in Figure 2.

Thus, the unified state mechanism of regulation and improvement of proactive management of labor resources should be understood as a coherent concept of imperatives, measures and actions that determine the direction of the national labor market. The use of digitization tools will allow:

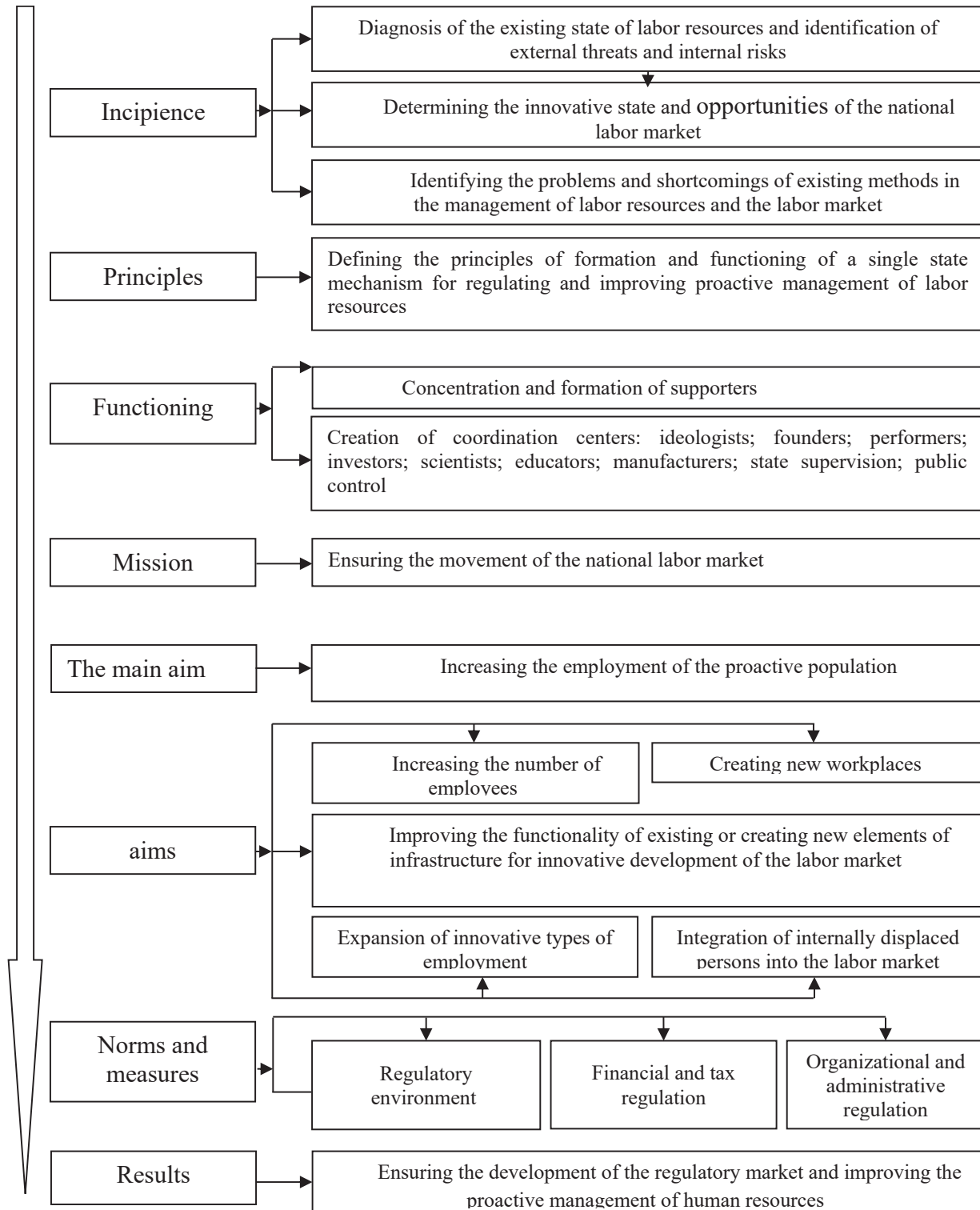


Figure 2 – The mechanism of providing innovative development of the uniform state mechanism of regulation and improvement of proactive management of labor resources

Source: developed by the author

– firstly, to process large arrays of statistical information;

– secondly, to manage the process of their reproduction effectively at the micro and macro levels in order to revive innovation, increase the competitiveness of enterprises and strengthen the potential of the state;

– thirdly, to forecast the directions of high-tech economy development and business.

The priority of changes in the field of labor resources and their management due to digitalization is to shift the knowledge, skills and abilities of employees required by employers. The answer to this fact should be the adaptation of domestic education and vocational training systems to the conditions of the labor market and technological development in the context of digitalization.

A separate challenge for the domestic social and labor sphere, which arises in connection with the digitalization of the economy, are the inevitable changes in the ratio of forms of employment, working conditions in the direction of increasing the share of temporary, part-time employment, employment through digital platforms, outsourcing and more. The new conditions require the development of new approaches to the protection of workers' rights, balancing areas for stimulating economic activity and ensuring social protection.

Today, the prospects given the economic, social and socio-demographic situation in Ukraine look threatening due to the dynamics of the volume and quality of labor potential, external labor migration, the state of science, education, quality of public administration, the country risks of not being able to take advantage of digitalization and ensure its competitiveness. Moreover, the level of threats and current trends in Ukraine transform the issues of the sphere of labor in the conditions of digital transformation to the category of critical for national security.

An indicator of the inefficiency of Ukraine public administration system in the field of labor and related fields is the lack of relevant strategies, but the existence of

still valid concepts of state programs and state programs, the duration of which coincided and the degree of implementation is uncertain.

In order to streamline management imperatives, measures and actions within the implementation of a single state mechanism for regulating and improving proactive management of human resources, it is advisable to create a Coordination Center. The coordination center of the unified state mechanism of regulation and improvement of proactive management of labor resources is a consultative and advisory body. Its main activities are formation, principles, functioning, mission, main purpose, goals, norms and measures, and, of course, the results of market development regulation and improvement of proactive management of human resources.

Conclusions

Thus, the development of labor and employment in Ukraine in the context of digitalization of the economy and society and the transition to Industry 4.0. should take into account social priorities, adherence to the principles of social justice and the development of social and labor potential of the country, and the achievement of economic effect should not lead to increased social threats and negative social effects. Thus, it can be noted that the decision of the enterprise on the application of modern technologies in improving the proactive management of labor resources will have a positive impact on the economic activity of the enterprise. The risks associated with it should be considered separately.

Obtaining the desired effect is possible only after careful planning, implementation and development of promising features of enterprise management in the context of digitalization.

Thus, the use of digitalization will improve the proactive management of human resources in the field of financial transactions and transactions with tangible and intangible assets.

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ECONOMIC LIFE OF UKRAINIAN EMIGRANTS IN THE CAMPS FOR DISPLACED PERSONS OF GERMANY AND AUSTRIA IN 1945-1952

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Key words:

refugees, displaced persons, World War II, third wave of Ukrainian emigration, cooperative movement, secondary emigration, economic life.

Economic life of Ukrainian emigrants in the camps for displaced persons of Germany and Austria in 1945–1952 is analyzed the article. After the World War II millions of Ukrainians found themselves in the territory of Germany and Austria. According to the agreement between the USSR, USA and Great Britain, Soviet citizens should have been repatriated to the USSR. The secret agreement also envisaged forced repatriation. A significant group of displaced persons were Ukrainians. They were prisoners, ostarbeiters, members of collaboration groups, refugees. Many Ukrainians did not want to return to the USSR due to political and national reasons. Despite forced repatriation, about 450,000 Ukrainians did not return to the USSR. They formed the so-called third wave of Ukrainian emigration. Statistical data from documents of that time, memoirs and periodicals of 1945–1952 formed the source base of the article. The historiography of the problem has been considered. The problem of repatriation, activity of internment camps, resettlement to new host countries, socio-political activities of the new wave of emigration have become the subject of researchers' studies. It should be noted that the acute politicization of the topic and the lack of access to archival sources did not facilitate its study by Soviet historians until the late 1980s. However, individual Soviet historians studied the repatriation of Soviet citizens after the war and the emergence of new emigration. The collection on Soviet-French relations also mentioned the agreement with France on repatriation and the problems of its implementation [1]. Soviet scientists, while studying the fate of war prisoners and ostarbeiters, paid attention to their return to the USSR [2]. Attempts have been made to refute the research of Western historians. For example, an article devoted to the research of Mykola Tolstoy, which repeated propaganda allegations of voluntary repatriation, absence of repressions against repatriates, obstruction from Western allies [3]. The attention of researchers is attracted to M. Pavlenko's monograph, which despite the involvement not only examines the repatriation policy of the USSR and the allied states, but also describes the new wave of Ukrainian emigration [4]. Thus, Soviet historians did not make a significant contribution to investigation of the “third wave” of Ukrainian emigration. But emigrant historians began to study the history of the new wave of Ukrainian emigration in the 1950s–1980s. Being the direct participants of the events they tried to estimate number, social composition, countries of settlement and features of this wave of Ukrainian emigration [5]. The activities of Ukrainian political parties in 1945–1952 and their influence on emigration and relations with foreign governments were studied in detail [6]. The monograph of Volodymyr Marunyak [7] was the most fundamental and thorough work. Western historiography, analyzing the fate of collaborationist armed groups after the war, drew attention to the problems of repatriation, life in the camps of displaced persons, the formation of a new wave of anti-Soviet emigration [8]. Thus, foreign Ukrainian and Western historiographies have made some progress in studying the problem, although they have had shortcomings, including a limited source base and ideological restrictions. Previously closed archives became available to researchers in the late 1980s. Documents from Soviet repatriation bodies, diplomatic missions and state security agencies became available. Russian historian Viktor Zemskov was among the first to study the problem [9–12].

He not only carefully analyzed the statistics and directions of Soviet policy on repatriation, but also paid attention to the emergence of the new wave of emigration. Although the scholar acknowledged the violation of human rights by the USSR against repatriates and repressions against them, he noted their limitations and compulsions in the conditions of that time. V. Zemskov proved the violation of agreements by the Western allies of the USSR and their obstacles to repatriation. The author was one of the first to disclose the number, composition, and countries of residence of emigrants after the World War II. He highlighted interesting statistical material about Ukrainian emigration in his works. We find a different position in the works of Pavel Polyak, who unequivocally condemns forced repatriation and repressions, identifies the causes of the new wave of emigration and considers the actions of the Soviet leadership as a brutal violation of human rights [13–15]. The statistics given by him do not coincide with the data of V. Zemskov in some figures. The definitions, in addition, also differ. In conclusion, Russian historiography has paid much attention to the repatriation of Soviet citizens and much less to the emergence of the new wave of emigration. There are also no comprehensive studies of postwar emigration from the USSR. Ukrainian researchers studied the “third wave” of Ukrainian emigration in the 1990s based on new archival sources. Special researches on the repatriation of Ukrainian refugees and displaced persons, their residence in camps, and resettlement to the countries of America and Australia appeared only at the turn of the 20-th – 21-st centuries. Lyudmyla Strilchuk in her dissertation and articles identified the number, composition, features of the new wave of Ukrainian emigration and the activities of international organizations in work with them [16–18]. Serhiy Rudyk considered the policy of Western countries regarding the resettlement of Ukrainian emigrants to the USA and Canada in his dissertation [19]. Mikhail Kunitsky’s dissertation analyzes the causes, procedure and consequences of forced repatriation of the USSR citizens [20]. The historian studies the struggle between countries of the anti-Hitler coalition over the repatriation problem. He investigates further fate of repatriates in the USSR and abroad. In our view, the “third wave” of Ukrainian emigration needs further careful study by Ukrainian historians, especially after the resettlement of displaced persons had been completed. After examining the sources, the author in the article came to the following conclusions. In the camps for displaced persons Ukrainian emigrants revived the traditions of cooperative movement in Ukraine and the cooperatives played a significant role in financing the cultural and educational life of the camps and providing social assistance. Handicrafts and folk crafts found further development among emigrants and helped them not only to survive physically but also to develop spiritually. After the departure of the most emigrants from Germany and Austria and the transfer of the camps to the German government, economic life in the camps declined. The experience that Ukrainian emigrants gained in economic activities in the camps for displaced persons they transferred to the new countries of their settlement.

ГОСПОДАРСЬКЕ ЖИТТЯ УКРАЇНСЬКИХ ЕМІГРАНТІВ У ТАБОРАХ ПЕРЕМІЩЕНИХ ОСІБ НІМЕЧЧИНИ ТА АВСТРІЇ У 1945–1952 РР.

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Ключові слова:

біженці, переміщені особи, третя хвиля української еміграції, Друга світова війна, кооперативний рух, вторинна еміграція, господарське життя.

У статті аналізується господарське життя українських емігрантів у таборах переміщених осіб Німеччини та Австрії у 1945–1952 рр. Після Другої світової війни мільйони українців опинилися на території Німеччини та Австрії. Згідно до угоди між СРСР, США та Великою Британією. Радянські громадяни підпадали під репатріацію СРСР. Таємна угода передбачала і примусову репатріацію. Значну групу переміщених осіб

складали українці. Це були полонені, оstarбайтери, учасники колабораціоніських формувань, біженці. З політичних та національних причин багато українців не бажали повертатися до СРСР. Незважаючи на примусову репатріацію біля 450 тис. українців не повернулися до СРСР. Вони склали так звану третю хвилю української еміграції. Джерельною базою статті стали статистичні дані з документів того часу, спогади, періодична преса 1945–1952 років. Розглядається історіографія проблеми. Проблема репатріації діяльності таборів інтернованих, переселення в нові країни перебування, громадсько-політична діяльність нової хвилі еміграції стали предметом вивчення дослідниками. Зазначимо, що гостра заполітизованість теми й відсутність доступу до архівних джерел не сприяли вивченню її радянськими істориками до кінця 1980-х рр. Усе ж таки, окремі радянські історики вивчали репатріацію радянських громадян після війни та виникнення нової еміграції. У збірнику, присвяченому радянсько-французьким відносинам, згадувалося й про угоду із Францією про репатріацію і проблеми її проведення [1]. Радянські вчені, досліджуючи долю військовополонених і оstarбайтерів, приділяли увагу і їхньому поверненню до СРСР [2]. Робилися спроби спростувати дослідження західних істориків, прикладом є стаття, присвячена дослідженню Миколи Толстого, у якій повторювалися пропагандистські твердження про добровільність репатріації, відсутність репресій щодо репатріантів, перешкоди західних союзників [3]. Незважаючи на заангажованість, увагу дослідників привертає монографія М. Павленка, у якій не тільки розглядається політика СРСР і союзних держав щодо репатріації, але й дається характеристика нової хвилі української еміграції [4]. Отже, радянські історики не зробили значного внеску у вивчення «третьої хвилі» української еміграції. У 1950–1980-х рр. історію нової хвилі української еміграції почали досліджувати історики-емігранти. Безпосередні учасники подій намагалися оцінити чисельність, соціальний склад, країни поселення й особливості цієї хвилі української еміграції [5]. Детально вивчалася діяльність українських політичних партій у 1945–1952 рр. і їхній вплив на еміграцію та стосунки з урядами зарубіжних країн [6]. Найбільш фундаментальною й ретельною працею була монографія Володимира Маруняка [7]. Західна історіографія, аналізуючи долю колабораціоністських збройних формувань після війни, звертала увагу на проблеми репатріації, життя в таборах переміщених осіб, утворення нової хвилі антирадянської еміграції [8]. Отже, зарубіжна українська і західна історіографії зробили певний поступ у дослідженні проблеми, хоча мали недоліки, серед яких обмежена джерельна база й заідеологізованість. Наприкінці 1980-х рр. для дослідників стали доступними раніше закриті архіви. З'явився доступ до документів радянських репатріаційних органів, дипломатичних установ та органів державної безпеки. Одним із перших, проблему почав досліджувати російський історик Віктор Земськов [9–12]. Він не тільки ретельно проаналізував статистичні дані та напрями радянської політики щодо репатріації, але й звернув увагу на зародження нової хвилі еміграції. Науковець хоча й визнавав порушення прав людини з боку СРСР щодо репатріантів і репресії проти них, але зазначав їхню обмеженість і вимушеність в умовах того часу. В. Земськов доводив порушення угод з боку західних союзників СРСР і їхні перешкоди в репатріації. Автор одним з перших висвітлив чисельність, склад, країни перебування емігрантів після Другої світової війни. Цікавий статистичний матеріал у його працях є і про українську еміграцію. Іншу позицію ми знаходимо у працях Павла Поляна, який безумовно засуджує примусову репатріацію й репресії, визначає причини нової хвилі еміграції, і вважає дії радянського керівництва brutальним порушенням прав людини [13–15]. Наведені ним статистичні дані не збігаються з даними В. Земськова в деяких цифрах до того ж відрізняються й дефініції. Підсумовуючи, зазначимо, що російська історіографія багато уваги приділила репатріації радянських громадян і значно менше зародженню нової хвилі еміграції. Відсутні комплексні дослідження післявоєнної еміграції

із СРСР. У 1990-х рр. українські дослідники вивчали «третю хвилю» української еміграції на основі нових архівних джерел. Спеціальні дослідження з проблеми репатріації українських біженців і переміщених осіб, їхнього проживання в таборах, переселення у країни Америки і Австралії з'явилися тільки на зламі ХХ–ХХІ ст. Людмила Стрільчук у дисертації і статтях визначила чисельність, склад, особливості нової хвилі української еміграції та діяльність міжнародних організацій щодо роботи з ними [16–18]. Політику західних країн щодо переселення українських емігрантів до США і Канади розглянув в дисертації Сергій Рудик [19]. У дисертації Михайла Куницького проаналізовані причини, порядок та наслідки примусової репатріації громадян СРСР [20]. Історик вивчає боротьбу між країнами антигітлерівської коаліції щодо проблеми репатріації. Він досліджує подальшу долю репатріантів у СРСР та за її межами. На наш погляд, «третя хвиля» української еміграції потребує подальшого ретельного вивчення українськими істориками, особливо після завершення переселення з таборів переміщених осіб. Дослідивши джерела автор у статті дійшов до наступних висновків. Що у таборах переміщених осіб українські емігранти відродили традиції кооперативного руху в Україні при чому кооперативи відіграли значну роль у фінансуванні культурно-освітнього життя таборів та наданні соціальної допомоги. Кустарні та народні промисли знайшли подальший розвиток серед емігрантів і допомогли не тільки вижити їм фізично але і розвиватися духовно. Після від'їзду більшості емігрантів з Німеччини та Австрії та передачі таборів до управління владою ФРН, господарське життя в таборах занепадає. Досвід який українські емігранти набули у господарській діяльності у таборах переміщених осіб вони перенесли до нових країн свого поселення.

Statement of the problem

Having analyzed the historiography of the problem, it should be noted that the main attention of researchers was focused on the study of socio-political problems in the camps for displaced persons. Scientists have also paid considerable attention to resettlement in North and South America and Australia. Aspects of the problem of US, British and French resettlement and forced repatriation to the USSR policies remain poorly studied. Scientists have paid insufficient attention to the adaptation of displaced persons in the countries of the settlement. Among the aspects of the problem that remain insufficiently investigated is the economic life of displaced persons in the camps in Germany and Austria.

After the World War II millions of Ukrainians found themselves in the territory of Germany and Austria. According to the agreement between the USSR, USA and Great Britain, Soviet citizens should have been repatriated to the USSR. The secret agreement also envisaged forced repatriation. A significant group of displaced persons were Ukrainians. They were prisoners, ostarbeiters, members of collaboration groups, refugees. Many Ukrainians did not want to return to the USSR due to political and national reasons. Despite forced repatriation, about 450,000 Ukrainians did not return to the USSR. They formed the so-called third wave of Ukrainian emigration [16; 19]. They found themselves in so-called camps for displaced persons located in the western occupation zones of Germany and Austria. There were cultural and educational organizations in the camps, political parties and Ukrainian newspapers. It is clear that

Ukrainian emigrants had to support their families and provide certain living standards. Despite international charitable assistance, the camps lacked food, clothing, and household items. Therefore, displaced persons were forced to participate in the economic life of the camps or work outside them. Our article is devoted to this aspect of the problem.

The aim of the article is to analyze economic life of Ukrainians, representatives of the third wave of emigration in the camps for displaced persons in Germany and Austria in 1945–1952.

Analysis of recent studies and publications

Ukrainian historians began to research the third wave in the second half of the 1950s. The first researchers were representatives of the Ukrainian emigration. V. Marunyak paid considerable attention to the life of Ukrainian emigrants in the camps for displaced persons in his work [7]. Investigations of M. Dychok should be noted among other researchers [21]. Contemporary Ukrainian historians have continued the studies of Ukrainian emigration representatives. The dissertation work of Russian historian O. Kosovan is among the latest researches [22].

The main material of the research

During the World War II, the Nazi occupation policy forcibly relocated large masses of the Ukrainian population to Germany. These were prisoners of war, ostarbeiters, refugees and evacuated by German authorities. Under the influence of military events, armed collaborationist formations retreated with German troops and found themselves in Germany and Austria. Interwar Ukrainian

emigrants, trying to avoid repressions by Soviet state security agencies and communist regimes in Eastern Europe, also retreated with the Nazis to Germany. OUN and UPA members after the defeat in their struggle were forced to emigrate to avoid repressions. Thus, a set of reasons caused the new wave of Ukrainian emigration. In contrast to the interwar period, it was purely political in nature and forced. As in the 1920s and 1930s it had national-political character.

The number of emigrants from the USSR after the World War II is controversial. P. Polyani estimates the number of Soviet citizens who found themselves on the territory of Germany and its occupied countries at the end of the war as 8.7 million people. Ostarbeiters in quantity of 3.2 million people from the territories of the USSR before September 1, 1939, the so-called "Easterners", were the main groups of which. Forced workers from the Baltic States, Western Belarus, Western Ukraine and Bessarabia constituted 850,000 people. "Refugees" and "evacuated" during the retreat of German troops were up to 1 million people. Prisoners of war, both those who remained in the camps and those who served in collaborationist formations reached up to 2.3 million people. And 3/5 of them were in the western occupation zones. There were 3 million people in the zones of Soviet occupation. This accounted for 56% of all repatriates to the USSR, including 2,135,000 civilians (60.5%) and 866,000 prisoners of war (47.4%). It is clear that only a few from the Soviet zones were able to pave their way to the west and avoid repatriation. According to the researcher, only 2,353,000 people were repatriated from the western zones, 960,000 of which were prisoners of war (44.0%) and 1,393,000 civilians (39.5%). Thus, according to P. Polyani, 61.5% of the total number were repatriated to the USSR, 8.1% avoided repatriation. Internal repatriates and repatriates from allies of Nazi Germany were those who made up the remainder to 100% of those who found themselves in Germany and other countries after the war. According to Soviet data provided by P. Polyani in 1952, 411,561 people became emigrants. The author himself estimates that the number of emigrants who did not return to the USSR was 700,000 people [15; 24]. V. Zemskov gives slightly different figures, and he specifies them in each of his subsequent works. The historian gives a total figure of 5 million people, of whom 4,199,488 returned to the Soviet Union by March 1, 1946. And in one of his works he gives a figure of 2,654,185 civilians among them and 2,660,013 persons in another work. The same is repeated with prisoners of war. The first figure is 1,545,303 people, and the second is 1,539,475 people. The division into zones from which repatriates returned is as follows: 1,846,802 people from the Soviet zone and 2,352,686 people from the western zones.

550,000 Soviet citizens had not returned to the Soviet Union by March 1946, but 29,074 Soviet citizens, including 20,386 from the western zones, were repatriated between 1946 and 1952. V. Zemskov estimates the total number of those who did not return to the USSR as 620,000 people [10; 11].

The number of Ukrainians in the postwar emigration was a peculiar feature of the "third wave" of Ukrainian

emigration. This problem remains debatable. V. Zemskov presented the total number of repatriated Ukrainians by March 1, 1946 again in different ways. The first link provides only 1,650,135 Ukrainians, and the second about 1,650,343. They accounted 37.16% from the total number of repatriates. By groups it consisted of 1,190,135 civilians and 460,208 prisoners of war [10; 11]. Soviet repatriation authorities provided a figure of Ukrainians who did not return to the USSR as 144,934 people. P. Polyani, considering the ethnic composition of new emigrants, gave the following figures: 144,934 (32.1%) Ukrainians, 109,214 (24.2%) Latvians, 63,401 (14.0%) Lithuanians, 58,924 (13.0%) Estonians, 9,856 (2.2%) Belarusians, 31,704 (7.0%) Russians [15; 24]. Thus, in contrast to the 1920s and 1930s, Ukrainians were the largest ethnic group in the new wave of emigration from the USSR, and Russians were much inferior not only in comparison with them but also with the Baltic peoples.

Representatives of the Ukrainian emigration gave other figures for the number of the "third wave" emigration in Germany and Austria. According to the statistical department of the Central Representation of Ukrainian Emigration in the Western Occupation Zones (CRUE) by the end of March 1946: 104,024 people in the American zone in Germany; 54,580 in British, 19,026 in French zones respectively. Totally – 177,630 people. There were 29,241 people in all zones of Austria. In total – 206,871 people [25].

Many of them, fearing repatriation, did not register in Ukrainian organizations. Therefore, most researchers believe that the figure of 250,000 emigrants of the "third wave" is real, which significantly exceeded the number of emigrants in the interwar period. The educational level of new emigrants was higher than in the interwar period, and therefore it may be called intellectual emigration. Only 3.2% were illiterate, and 13% were people with higher and secondary special education. For example, there were 136 journalists; more than 300 teachers of higher education schools; 1,103 secondary school teachers; 266 medicine doctors; 900 engineers [25]. This allowed to have significant intellectual resources for socio-political activities.

The number of Ukrainians in the camps in Germany and Austria began to decline from 1946 to 1952, and by the end of this period no more than 25,000 persons left there. They were mainly disabled, sick, women with children. Most of the emigrants were relocated and a small portion of postwar Ukrainian emigrants remained in Western Europe. According to Soviet data, 31,774 Ukrainians remained in Germany; 39,971 in Great Britain; 5,385 in France and 5,238 in Belgium. Thus, Great Britain was the center of Ukrainian emigration in Europe. Much more of them were accepted by the United States, according to various estimates from 80,000 to 120,000 people, 40,000 by Canada, 30,000-40,000 by Australia. In fact, the center of Ukrainian emigration was moved from Europe to North America, and Australia became one of the new centers. Resettlement of Ukrainian emigrants from Europe and secondary emigration from Latin America were very difficult [23].

The factors that shaped political life in the camps of displaced persons and countries of new stay after resettlement from the camps were among the most important that influenced the peculiarities of economic life after the World War II. First, the concentration of the most active and politically engaged emigrants in the camps, the sharp struggle during the recent war between political groups, the danger of forced repatriation, and attempts to continue the anti-communist struggle contributed to active political activity in displaced persons' camps. From 9,000 to 10,000 party activists and more than 15,000 supporters were a clear manifestation of this activity. This political affiliation affected economic life in the camps. Political organizations and parties tried to provide source of livelihood for themselves. Therefore, they tried to create various private enterprises and cooperatives. In addition, taking over the leadership of the camps into their own hands, certain political parties tried to subjugate any economic life. At the same time, various methods were used from convictions and agitation to racketeering. Physical massacres were not uncommon. Therefore, economic entities were forced to participate in political life in one or another way.

In our opinion, the report of the American diplomat Landref Harrison "The Ukrainian people as a factor in the struggle against the Soviet regime", which was prepared in the summer of 1952 in Paris for the American government, is interesting. The author devoted one of the chapters to the state of Ukrainian emigration, its opportunities and tasks in the fight against communism. The American diplomat believed that emigration had absorbed historical problems and confusion in the international situation of Ukraine in the past. On the one hand, the pre-war division of Ukraine and the emigration of formally different countries – Poland, Romania, Czechoslovakia, the USSR – imparted the problem of Ukrainian emigration an international character. On the other hand, emigrants contested both from anti-communist and anti-Russian positions, and also against Poles. A significant problem, according to the American's opinion, were differences between Western and Eastern Ukrainians in their interpretations of the essence of the communist regime, the main enemies, the purpose of the struggle. L. Harrison denoted internecine struggle, inconsistency in tactics, lack of clear programs and ideological institutions, conflicts with Russian emigration and Poles among the shortcomings of Ukrainian emigration. He mainly focused on Western Ukrainian emigration and recognized it as the most influential and one that subjugated the natives of Over-Dnieper Ukraine. The American diplomat considered the attempts to transfer the methods of struggle against the Polish government in the interwar period to the opposition to the regime in the USSR as the great problem of Western Ukrainian emigration. Concentration of attention of Western Ukrainian emigration representatives only on the western regions was also incorrect. The author further emphasized on the differences in views of Over-Dnieper and Western Ukrainians on problems of the essence of the Soviet regime and building of an independent state, but saw no contradictions in social issues. L. Harrison called chauvinism, nationalism and

the idea of the great power as unifying ideas for the entire Ukrainian emigration. These ideas, in his opinion, repelled other peoples of the USSR from the Ukrainian movement, but on the other hand, helped to consolidate it and support the people's faith in their own victory. A separate section of the report was devoted to the possibilities of emigration in the struggle on the territory of the USSR [26].

The camps for displaced persons in postwar Germany and Austria existed in the conditions of destroyed economy and black market. There was a lack of raw materials and equipment. The camps also had the status of extraterritoriality. Under these conditions, economic life in the camps in 1945–1946 had many obstacles and developed gradually. In addition, the emigrants themselves were not interested in economic activities because they received food and medicine in the camps, and charities provided clothing and footwear. That's why many people didn't want to work. And even considered it offensive to themselves.

The situation began to change in 1947, when nutrition deteriorated significantly and the help of philanthropists was severely limited. Ukrainian emigrants started to work. Some of them worked in camps and were paid for it. Others worked outside the camps. Ukrainians worked in international organizations, in the institutions of the occupying armies and in the enterprises of the German economy. The situation was also aggravated by the fact that there was inflation, and monetary reform was carried out.

Ukrainian emigration moved to the planned development of economic activity. Vegetable gardens and farms appeared in the camps. Trade was also developed, private and cooperative shops were appeared. Ukrainians established production workshops that belonged to private capital and cooperatives. Each camp began to specialize in certain economic spheres and pursued its own financial policy. There were more than 80 Ukrainian camps. Unfortunately, their economic activities were not coordinated and they did not want to be subordinated to any central international or Ukrainian institutions.

Most production workshops did not go beyond the camp economy. Their products were distributed among emigrants. Only a few companies were able to set up manufacturing, mainly applied art products, for sale on the German or international market.

Cooperation played the greatest role in economic activity. It was based on the experience that Ukrainians gained in cooperatives during 1920s and 1930s, both in Western Ukraine and within the USSR. Cooperatives had many obstacles, including low profitability, currency devaluation, lack of regulations and the refusal of German courts to register their Statutes. Nevertheless, since September 1945, Ukrainian cooperation has acquired organizational forms. On June 9, 1946, at the first congress of Ukrainian cooperators in Munich the Central Union of Ukrainian Cooperatives in Emigration – the Central Union – was founded. Unfortunately, the Central Union remained only a representative and advisory body and was unable to establish trade and advertising for the products of cooperatives abroad including the United States and Canada. Cooperative centers: the Society of Ukrainian

Table 1 – Numerical State of Ukrainian Cooperation in Germany

	1945	1946	1947	1948	1950
American zone	7	24	29	30	15
British zone	–	1	6	11	4
French zone	–	–	2	2	–
Total	7	25	37	43	19

Source: [7, p. 315–316]

Cooperatives and the Farmer's Association, were also established in Austria.

Private shops also played a significant role in late 1947, with their number of 47 in Germany: 37 in the United States and 10 in the United Kingdom zones respectively. Sometimes they belonged to individuals, sometimes to public associations or even political parties. Financially, these institutions can be described on the example of the KOS cooperative in Munich for the period from September 1945 to June 1947. According to disposable data, turnover of the cooperative with 922 members and 63 retained employees for 2 years amounted to 2.7 million Reichsmarks.

Handicrafts played an important role in economic activity. They mainly focused on applied arts and folk art. Well-known crafts were embroidery, doll making, wood carving and others. Handicrafts were exhibited both in camps and intercamp and also international exhibitions. Women played a significant role in these crafts, especially in embroidery. Famous folk masters of the Ukrainian diaspora were brought up in the camp handicrafts. Among them are such masters of embroidery and Hutsul carving as M. Dzyndra, P. Klaschuk, S. Shvedkzh, S. Lutsyk, Rydash. Their products can be seen in museums and private collections in the United States, Canada, France and the United Kingdom. 3,347 workers worked in 513 workshops during 1947–1948.

The enterprises were small from 2 to 10 people. 62% of those Ukrainian emigrants who were able to work worked in the camps [7, p. 316–317]. If we define the areas of activity, most enterprises specialized in the field of soap production, carving, construction, publishing, light industry, repair of household appliances. Outside the Ukrainian camps, Ukrainians found work in agriculture and industrial enterprises. Unfortunately, their working conditions were terrible and the attitude of German

workers hostile. They received low wages, unlimited working hours, lack of control over labor protection. All these did not stimulate the employment of Ukrainian emigrants outside the camps. The best situation was only in the British-occupied zone, where the leadership promoted employment, controlled working conditions and even issued rations in addition to wages. Moreover, it was provided in addition to the camp ration and doubled it. Therefore, in 1948–1950 unemployment among Ukrainian emigrants was high.

Since 1948 displaced persons began to emigrate to the United States, Canada, Latin America, and Australia. As a result, the economy began to degrade as the number of workers began to decline. Ukrainians left the camps en masse. Ukrainian companies were deprived of financial resources due to monetary reform in West Germany. After the transfer of the camps to the social security services of Germany in 1951–1952, any economic activity declined. Only single mothers with children, disabled people and pensioners remained in Germany.

Conclusions

It is necessary to note that Ukrainian emigrants in the camps for displaced persons revived the traditions of the cooperative movement in Ukraine, with cooperatives playing a significant role in financing cultural and educational life of the camps and providing social assistance. Handicrafts and folk crafts found further development among emigrants and helped them not only to survive physically but also to develop spiritually. After the departure of most emigrants from Germany and Austria and the transfer of the camps to the German government, economic life in the camps declined. The experience that Ukrainian emigrants gained in economic activities in the camps for displaced persons they transferred to the new countries of their settlement.

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INTERNET MARKETING AS AN INSTRUMENT FOR DEVELOPING INSURANCE SERVICES

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Key words:

insurance, internet-marketing, digital strategy, marketing potential, insurance marketing, online insurance, social media.

The features of the development of internet marketing in the field of insurance services are investigated. It is determined that the main advantages of using Internet marketing (Marketing 4.0) is the convenience and saving of time by the subjects of the insurance market, an increase in the information security of the subjects of the insurance market, reducing the cost of doing business and expand the geographical boundaries of the company's activities, simplifying communications with customers. It has been established that an increase in the number of Internet users and social networks changes the process of making insuring solutions over the Internet. Therefore, insurers must adjust their marketing strategies and gradually introduce a digital strategy to preserve competitive advantages. The first analysis of the use of the Internet and communication channels by the population of Ukraine was carried out. Key factors affecting an increase in online sales of insurance services are identified. The dynamics of the conclusion of electronic auto insurance contracts from the moment the e-policy appears in the Ukrainian market is shown. The article shows how the change in customer behavior affects the change in the business processes of the insurance company. The stages of the introduction of a digital strategy in the insurance company are allocated.

ІНТЕРНЕТ-МАРКЕТИНГ ЯК ІНСТРУМЕНТ РОЗВИТКУ СФЕРИ СТРАХОВИХ ПОСЛУГ

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Ключові слова:

інтернет-маркетинг, інтернет-страхування, онлайн-страхування, соціальні мережі, діджитал-стратегія.

Досліджено особливості розвитку Інтернет-маркетингу в галузі страхових послуг. Визначено, що основними перевагами використання Інтернет-маркетингу (Marketing 4.0) є зручність та економія часу, підвищення інформаційної забезпеченості суб'єктів страхового ринку, зниження витрат на ведення бізнесу та розширення географічних меж діяльності страхових компаній, спрощення комунікацій з клієнтами. Встановлено, що збільшення кількості користувачів Інтернету і соціальних мереж змінює процес ухвалення рішень щодо страхування через Інтернет. Через це страховики повинні коригувати свої маркетингові стратегії та поступово запроваджувати цифрову стратегію для збереження конкурентних переваг. Проведено перший аналіз використання Інтернету та каналів зв'язку населенням України. Визначено ключові фактори, що впливають на збільшення онлайн-продажів страхових послуг. Наведена динаміка укладення електронних договорів обов'язкового страхування цивільної відповідальності автовласників з моменту появи Е-полісу на українському ринку. Стаття показує, як зміна поведінки клієнтів впливає на зміну бізнес-процесів страхової компанії.

Statement of the problem

The features of the development of internet marketing in the field of insurance services are investigated. It is determined that the main advantages of using Internet marketing (Marketing 4.0) is the convenience and saving of time by the subjects of the insurance market, an increase in the information security of the subjects of the insurance market, reducing the cost of doing business and expand

the geographical boundaries of the company's activities, simplifying communications with customers. It has been established that an increase in the number of Internet users and social networks changes the process of making insuring solutions over the Internet. Therefore, insurers must adjust their marketing strategies and gradually introduce a digital strategy to preserve competitive advantages. The first analysis of the use of the Internet and communication channels by

the population of Ukraine was carried out. Key factors affecting an increase in online sales of insurance services are identified. The dynamics of the conclusion of electronic auto insurance contracts from the moment the e-policy appears in the Ukrainian market is shown. The article shows how the change in customer behavior affects the change in the business processes of the insurance company.

Analysis of recent studies and publications

Bill Gates in the book “Business at the rate of thought” in 1999 expressed the idea of how technology could contribute to business improvement and how this will change the nature of the company in the future. He stressed that “if the company is not on the Internet, then it does not exist at all.” K. Smith after 10 years has suggested that by 2010 the number of Internet users in the world will exceed 2 billion and as a result of the rapid development of the Internet will increase the use of digital marketing, which is considered as the strategic goal of any company. J. Ruintage confirmed in 2015 that the digital strategy should be the main direction of the market strategy of any company and the development of technologies will lead to new business forms [1]. D.Longo in 2016 put forward a hypothesis that Internet marketing strategy should be a priority and be an additional way of doing business in the company [2]. In the course of its research in 2017 S. Kingsnort expressed the opinion that digital marketing is widespread and is a relevant direction [3]. Ph. Kotler in 2017 expressed the opinion that digital innovations can bring the country to prosperity and the appearance of a new concept – Marketing 4.0. [4].

The prospects for the development of Internet marketing in insurance in Ukraine, such Ukrainian scientists were engaged in such as N.M. Spitzina, I.M. Mikhailovskaya, Tolstie, V. Yeerstov [5; 6; 7]. Thus, in domestic scientific publications, the main scientific approaches to the establishment of the essence and principles of Internet insurance, advantages and disadvantages are identified. In 2020 M. Ivanov investigated the use of intelligent data analysis in the management of economic objects. Its studies led to theoretical and practical developments in the field of marketing research [8].

Objectives of the article

The number of communication channels is growing annually, which means that the possibilities of interaction with the audience increase. According to the study of the sociological company INMIND on requesting Internews and USAID among the population of Ukraine in 2019, television was not first recognized as the most popular source of information. Only 66% percent of Ukrainian will find out the latest news on television. The indicator fell by 11% compared with the previous year (77%).

According to Figure 1, the first place is now occupied by social networks – 68%. Interest in them in 2019 increased by 15% compared with rates 2018. There is also a prevalence of social networks as the media, they are used by 56% of the population. 85% Ukrainian enter the Internet at least once a day, and the most popular today are messaging applications (Viber, Telegram, YouTube). The

third place in popularity is occupied by Internet media – 59%. More traditional channels of information – radio and printed press – occupy the last positions – 18% and 15%, respectively. Their indicators, as well as the television, decreased over the year – by about 7%.

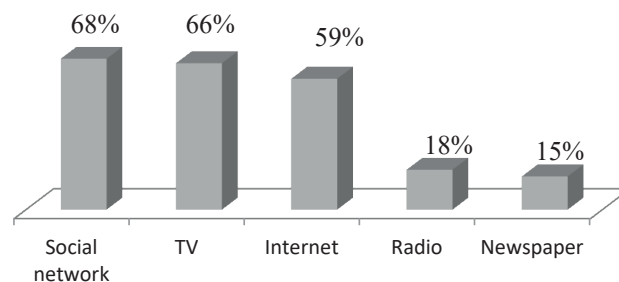


Fig.1. Channels to the population of Ukraine for 2019

Source: created by the author on the basis of Media Consumption Report by USAID

In the past few years, the transition from traditional sources of information to mobile messaging is a global trend that is only gaining momentum. This is caused not only to the fact that through mobile devices it is easier to constantly stay in touch and be aware of the events of 24/7.

Today, without the Internet, we do not present our lives. He flooded all the spheres of our activity. In the Internet we buy and sell goods, paying for utilities, learn what is happening in the world. And although the word “marketing” for a simple person is not entirely clear, even few specialists can give an accurate definition, but he also firmly entered our lives. And to be more accurate – in our subconscious. When we believe that we independently choose one or another product or service, they are deeply mistaken. We buy the goods that are properly proposed by marketers.

According to the results of the research holding Factum Group Ukraine (the study was conducted in August – September 2019, by Face-to-Face interviews at the residence of the respondent) 71% of Ukrainian (almost 23 mln.) Ukrainian regularly use the Internet. A mobile phone or smartphone for network access is used by 66% of Ukrainians, and 21 mln. people have internet at home (65%).

In cities with a population of more than 100,000 people, the number of users in 2019. Grew by 3% (74%) than in 2018 (71%). They make up 42% of all Internet users in Ukraine. Cities with a population less than 100 000 people regularly use a network by 7% (70%) more than in 2018 (63%). They make up 29% of the total number of users, also 29% are residents of the village (Figure 2).

The growth in the use of the Internet is also observed in the villages, so in 2019 the figure rose by 5% (58%). The greatest number of users among people aged 25–34 years (25%). The second place is occupied by users aged from 35 to 44 years – 21%. 18% – persons aged from 45 to 54, adolescents and young people aged 15 to 24 are only 15%. 12% – aged 55 to 64 years and 8% of the face over 65 years.

In the modern world it is difficult to submit a financial institution that would not use the possibilities of the worldwide network to provide its services. The banks were actively involved in the first to introduce its capabilities, later insurance companies were also joined. It is on the

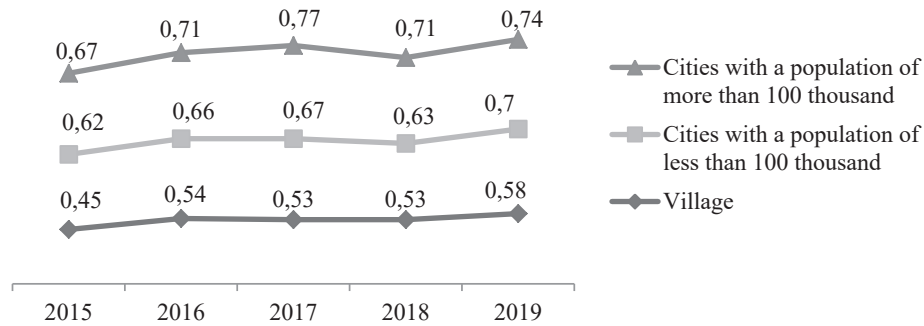


Fig. 2. Dynamics of Internet use in Ukraine

Source: created by the author on the basis of Research of Factum Group Ukraine Research Holding

Internet that the necessary information is being searched for, decisions are made to buy goods and services, the potential consumer actively rests and communicates in the network. Such high involvement becomes the reason for the transition of business structures in the sphere of Digital. Thus, Internet marketing becomes the most efficient tool for attracting consumers, promoting goods and is a convenient basis for the implementation of various studies [6].

The main advantages of Internet marketing are:

1. Saving time for the consumer and simplify the interaction between the insurer and the insured.
2. No boundaries. Any Internet user can enter the site from any point of the planet.
3. Season of obtaining information and the possibility of its use to study proposals and analysis of pricing policy.
4. Speed and ease of addition or change information.
5. A variety of promotion channels.
6. Timization of business processes.

Thanks to the development of digital advertising, information on insurance services in the form of banners can be placed on different sites using a huge amount of formats [11].

The global pandemic showed that in conditions of coronavirus there is a certain trend in the development of the IT-industry. Many insurance companies are now experiencing difficult times: the remote work of the team, the refusal of potential and existing customers from cooperation, the crisis in the economy. Under conditions, when people moved to remote work, online products are becoming relevant and in demand. At the same time, the transition of many offline companies in the online segment created the need to compete with experienced market players, which developed an Internet marketing system and there is a Digital strategy. And this leads to the need to be operational and inventive. The main channels for distributing information and interaction with the audience in the current conditions are: sites, social networks, Internet media, television.

Insurance is a business that requires constant communications. Communications with customers, partners, employees. Insurance companies become the subjects of the global electronic market. They get access to the customer base and have the opportunity to offer their services at any time anywhere in the world. The main task of the insurance company is to convince the client to acquire

the insurance policy, draw attention to its product line and form the client's commitment to the company. One way to solve this problem is the planning and implementation of the Digital Strategy within the overall promotion strategy.

In our dynamic world, there are important issues of service and time: the quality of service, the rate of execution of the policy and the period of receipt of compensation, that is, the resolution rate in the event of a risk. The client wants to quickly and just get a service, preferably not taking off from the smartphone. Obvious trends – the introduction of European service standards, which largely depend on the chosen strategy, from the team, its level of qualifications, skills, knowledge and experience. And on degree of digitalization of the company. To satisfy the needs of the client, operating activities are not submitted without the use of business processes automation. Progress does not stand still. The Internet allows us to reduce the level of exposure to the consumer, that is, there is no need for direct communication with the employees of the insurance company. The most significant advantage for the insured is the convenience and saving time.

Today, insurance policies are sold in the market of Ukraine online through sites of insurance companies, assets-aggregators, online platforms of partners, including banks. At the same time, there is both full-fledged online sales - the client chooses, contributes its data, pays, signs a contract via SMS and receives a policy to its email address and work with customer applications left on the site (online sales are difficult, rather – direct Sales through a contact center or other division in the company). Online selling express insurance policies providing for standardized insurance conditions, a limited set of risks covered, a fixed amount of insurance coverage, as well as a clear and unified pricing algorithm.

Starting from 07.02.2018, it is possible to conclude internal agreements of compulsory insurance of civil liability of the owners of land vehicles (which are valid solely on the territory of Ukraine) in electronic form. Statistics speaks for itself. In just all the time of operation of the electronic policy system (since February 2018), the number of electronic contracts amounted to more than 3,8 mln (Figure 3).

The number of electronic contracts in Ukraine in 2020 amounted to 3,05 mln. which is 2.5 times more than in 2019. The amount of insurance payments for such agreements is 260 000 000. UAH (+ 176%) [8].

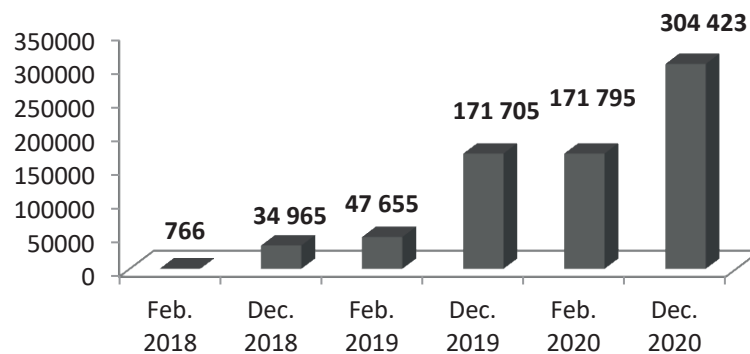


Fig. 3. Statistics of the number of concluded electronic policies 2018–2020

Source: created by the author on the basis for insurer

If a few years ago, conversations about online insurance prospects were only abstract forecasts, today we can safely say that in the field of Internet insurance in Ukraine there was a breakthrough. Migration of insurers in the Internet is not just a marketing stroke, but a necessary step that will allow the insurance market of Ukraine to become much more civilized and to enter the level of developed countries in Europe and the United States.

Insurance business is fully built on reputation. Before buying an insurance policy, a potential client will surely ask the reliability of the insurance company, the quality of service and the efficiency of settlement. The population receives information reading reviews on specialized portals and forums. Many insurance companies perfectly understand this and work independently on the forums, placing both positive feedback and giving official answers to unhappy customers.

Today there is no insurance company that did not have a corporate site. Therefore, the web site is a business card of the insurer. Such a simple truth, but many insurers ignore it. The modern level of use of various Internet marketing tools on the part of Ukrainian insurance companies is significantly different. So, most efforts are sent to the creation and support of the company's website. Insurers improve the structure of sites, are saturated with information, optimize them for the requirements of leading search network algorithms to provide the company's first positions of search engines. Such activities increase the likelihood of transition to the site of representatives of the target audience, and, as a result, increases sales. The successful website of the insurance company must have saturated content and constantly update, not be static. At the moment, this requirement is very rarely performed by Ukrainian insurers, and the update is reduced only to the company's news feed.

Insurance is a special scope of a business in which marketing and advertising has its own specifics, including in promoting social networks. The task of social networks is to attract the client's attention, show the benefits of insurance, explain the nuances and the most important thing to convince the policy. This is done with the help of tools such as SEO articles, forums, viral posts, e-mail mailing, chat bots, videos, etc. Internet marketing executes one of the main functions of the insurance company. It helps to promote, sell and popularize insurance services.

Internet marketing has its own toolkit, namely:

SEO (Search Engine Optimization) – Internal resource optimization for search networks, improved site work, work with content.

SMM (Social Media Marketing) – Marketing on social networks, blogs, forums.

SMO (Social Media Optimization) – Site Optimization for Social Media.

SEA (Search Engine Advertising) – contextual advertising.

Change in the behavior of the consumer of insurance services in the digital age, respectively, changes the business approaches. The presence of a digital strategy turns into a vast necessity for the subjects of the Insurance market of Ukraine. Its implementation allows you to expand the markets and sales channels of insurance services, speeding up this process, reduces the cost of insurance services and attracts more customers.

The phased application of the Digital strategy shows a simple and orderly approach to the planning of the company's activities in the digital sphere:

1. When developing any strategy, first of all, goals should be defined. Objectives should be put on the Smart principle and be: specific, measurable, agreeable, realistic, defined in time.

The following important step is the analysis of the external environment, which is carried out to the definition of advertising channels. Each insurance company is in a competitive environment and occupies a certain place in the insurance services market. For proper identification, you must select 2–3 competitors in the segment (similar insurance portfolio, price positioning, promotion channels) and compare the following parameters: strong/weaknesses of competitors; key differences and similarities in the market positioning; Marketing tools that are used.

2. Definition of the target audience. Personalization of customers helps see existing customers and understand their motives when buying. Creating a portrait of the buyer helps to understand what kind of insurance product is needed in the market, as it will be used, what customer needs will satisfy.

3. Select communication channels. It will help to establish a connection with a potential client at every stage of the decision to make them a purchase and effectively and timely affect the client with relevant information.

4. After all communication channels are defined, it will be necessary to arrange priorities between them (from more important to less important), prepare the media plan and calculate the budget.

5. Staging KPI. For each advertising channel, their key performance indicators are prescribed (since each tool they have different). The execution of KPI in aggregate leads to the achievement of the main goal of the campaign. This result will be a confirmation of a properly planned and implemented Digital strategy.

6. Forecast of results. The main averaged indicators of the entire campaign (total traffic, % of conversion, the cost of one “contact”, etc.) is derived.

Thus, Digital is a strategy – the work plan is specified for each Internet marketing tool. The strategy is developed for a period of 6 months to 2 years. For a longer period, the strategy is inappropriate since even with a stable situation in the market and a minimum of external factors, the strategy must be reviewed and, if necessary, to make adjustments at least 1 time per quarter.

Findings. Global digitalization of business occurs, respectively, and marketing becomes another. Modern users are confident that advertising must take into account individual needs. Studying the peculiarities of customer behavior, the insurance company may contact them at the right moment with the current proposal. This will make it possible to occupy niche markets with minimal cost and receive an instant response to suggestions.

Today, the insurance market of Ukraine did not simply have a tendency to use modern technologies in the field of business management organization, as well as new

information technologies, and they are the driving force that allows you to successfully interact with increasingly demanding and impatient customers. Consumers, perfectly dealt with technological innovations and actively using them in everyday life, expect a corresponding technological level of service and from insurers.

The use of Internet marketing tools is expanding the possibilities of communications between the subjects of the insurance market and improves the efficiency of business processes. The development of the Digital strategy and its implementation is an inevitable step for the sustainable development of insurance bands in Ukraine. The phased application of the Digital strategy shows a simple and orderly approach to planning the company's activities in the digital sphere. Development and application of Digital – Insurance Strategies will allow insurance companies to create insurance products adapted to customer needs that are uniquely suitable for each client.

To achieve success in the market, domestic insurance companies must meet the requirements of this and modern social trends, and therefore, comprehensively use all Internet marketing tools. The Internet has become a simple means of informing customers into an interactive system in which the priority appears “feedback” - the consumer's response to the actions of the company.

The modern situation with Coronavirus showed that the use of Internet marketing is extremely favorable both on the results of the activities of individual companies and in the state of the market as a whole. The use of Internet marketing is one of the most promising directions for the development of Ukrainian insurance in the near future.

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METHOD OF FORECASTING IN THE EPOCH - INDUSTRY 4.0

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Key words:

Big Data, MapReduce model, neural network, forecasting, matrix.

To increase the speed of data transfer while providing access to multidimensional data there is the use of Big Data as a tool due to the epoch - industry 4.0. On the base of the MapReduce model you can use modern tools for working with big data. Therefore, in the paper researched Big Data as a single centralized source of information for the entire subject area. In addition, in this paper the structure of a neural network forecasting system is proposed, which include many databases, where transactions are processed in real time. For neural network forecasting of multidimensional data, a network in Matlab is considered and built. A matrix of input data and a matrix of target data, which determine the input statistical information, are used to teach the neural network. The application of the Levenberg-Marquardt algorithm for training a neural network is considered. Also, the results of the training process of neural network in Matlab are presented. The obtained forecasting results are presented, which allows to conclude about the advantages of a neural network in multivariate forecasting.

МЕТОД ПРОГНОЗУВАННЯ В ЕПОХІ - ПРОМИСЛОВІСТІ 4.0

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Ключові слова:

Великі дані, модель MapReduce, нейронна мережа, прогнозування, матриця.

Для збільшення швидкості передачі даних, забезпечуючи доступ до багатовимірних даних, використовується Big Data як інструмент в умовах промисловості 4.0. На основі моделі MapReduce ви можете використовувати сучасні інструменти для роботи з великими даними. Тому в роботі досліджуються великі дані як єдине централізоване джерело інформації для всієї предметної області. Крім того, у цій роботі пропонується структура системи прогнозування нейронної мережі, яка включає багато баз даних, де транзакції обробляються в режимі реального часу. Для прогнозування багатовимірних даних нейронної мережі розглядається і будується мережа в Matlab. Матриця вхідних даних та матриця цільових даних, які визначають вхідну статистичну інформацію, використовуються для навчання нейронної мережі. Розглянуто застосування алгоритму Левенберга-Марквардта для навчання нейронної мережі. Також представлені результати тренувального процесу нейронної мережі в Matlab. Представлені отримані результати прогнозування, що дозволяє зробити висновок про переваги нейронної мережі у багатовимірному прогнозуванні.

Statement of the problem

As Laurent Flores explained [1], the success of the use of information technology is determined by the success of digital economic, thus how they are measured and used. However, attention is paid to forecasting in the digital economy, taking into account intelligent systems.

Intelligent systems and the use of multidimensional communication determined the emergence of a new concept by the German economist Klaus Schwab, his economic forum

in Davos [2]. According to this concept, it is argued that we are in the era of the fourth industrial revolution (Industry 4.0), when the virtual world is combined with the physical world using information technology. The fourth industrial revolution is characterized by a change in economic relations and the widespread use of intelligent technologies (general technologies, big data, artificial neural networks, and others).

It should be noted that with the use of digital technologies, D2C models have come to be used. The D2C

(Direct to Consumer) model represents a direct selling system, where companies themselves manufacture, promote, sell and deliver their product without the involvement of intermediaries. So in the above paper (<https://www.emarketer.com/content/nikes-d2c-sales-will-comprise-third-of-its-business>) it is established that, in contrast to traditional promotion through retail chains, companies using D2C model develop their own distribution channels. Thanks to their good positioning, these companies not only have a competitive advantage in the market, but also have their own structure on the Internet. These companies have changed the producer-consumer relationship and are reducing the distance between them. Today, any customer can contact the manufacturer directly, ask their question and make a purchase, avoiding extra charges and saving time. Renowned manufacturers have recognized the need to develop their own D2C strategies based on analytics. The authors of the paper acknowledge that the use of D2C opens up additional opportunities for companies. According to the authors, Nike is a prime example, with D2C sales accounting for a third of total revenues by the end of 2020 based on its Consumer Direct strategy.

Given the widespread use of digital marketing, author Rimma Katz in paper [3] explored social commerce, which fostered development along the D2C model. Today, social commerce is used to increase the reach of consumers, those who may know about direct contact with the manufacturer.

So in the presented report by Jasmine Enberg (Updating social networks for the 4th quarter of 2020 – <https://www.emarketer.com/content/social-media-update-q4-2020>), a summary of the main events, their analysis for marketing management, solving problems strategic development of companies. Report author Jasmine Enberg determines that the global forecast for monthly social media users in 2020 has increased due to the effects of the pandemic. However, no platform will be able to maintain the growth it picked up at the beginning of the year. Therefore, in 2021, the growth rate will begin to normalize. Recent product launches, including Facebook live shopping and Instagram shopping tags, show that e-commerce continues to be a priority for the two platforms. Snapchat and Twitter focused more on effective marketing, namely the release of new sets of promotional offers with direct consumer response and others.

Therefore, the modern companies are based on direct selling (D2C) models. That allows you to get images of buyers and segment them. In addition to these tasks, it is necessary to solve forecasting the market, which changes every year.

It should be noted that worldwide targeted statistics for the entire sales system. This information is stored in cloud storage (Big Data). The information used includes data from the time of attracting a new consumer to the required resource information about the number, including repeated ones.

In this paper, we propose a neural network analytics method to forecast the main parameters for companies.

The innovation in the application of neural networks is the formation and application of neural network learning matrices. The peculiarity of these matrices is that their values have a random relationship with each other. For example, each family buys a conditional loaf of bread a day. This sales process has a pattern and can be attributed to a

deterministic process. The next day, the family buys 0.5 white and 0.5 gray, and so on in different proportions. This sales process is random and belongs to a stochastic process.

Making forecasts is part of any firm's overall analytics. An important role in the forecasting method is paid by the multidimensionality of information and methods of their processing. The use of Big Data with OLAP technologies requires new approaches to processing and applying large amounts of data. This is due to the wide range of communication systems used in the novated companies.

Therefore, neural network forecasting based on Big Data is an urgent task, which is discussed in this paper.

Analysis of recent studies and publications

Modern companies use many available forecasting methods, they not only improve the quality of their products, but also get information about the needs of customers. Neural network forecasting models are a great way to predict customer preferences and apply new ways to stand out from the competition. Using practical forecasting models today is the best way to get the most effective and complete data to improve decisions. In this case, forecasting methods in digital economy should include not only customer surveys, their age, interests and price, but also the characteristics of the product, brand, logistics and others.

In the work of B. Yonathan [4], the problem of fitting mathematical models to numerical data was considered. Such a fit is often performed by the least squares method, regardless of previous knowledge of parameter values or the statistical nature of measurement errors.

According to the results of a study of the opinions of experts, A. Ashton [5] considered a scenario in which the results of the opinions of experts differ significantly from the polls of intentions. For this case, the author considered the problem of predicting market behavior.

Further development of the principle of intentions was found in the work of V. Morwitz [6]. The author proposed the principles of using intentions when solving the forecasting problem. In this paper is included research people behavior and how they would solve problems in different situations. For this, the method of polling the intentions of people was used. Intent surveys are widely used in marketing when sales data is unknown, for example, to forecast new products.

A continuation of these works found themselves in the work of J. S. Armstrong [7], where the role of a person as a dominant factor was considered. This task was solved as a role-playing game for making predictions of the behavior of people who interact with others. A key tenet of this approach is to provide realistic simulation of interactions.

This forecasting method is currently rarely used. G. Rowe and G. Wright [8] considered the application of the Delphi method as a procedure. The authors found that the accuracy of expert predictions can be improved through the use of Delphi structured methods. One of the principles of the method is that experts' forecasts should not depend on each other. Expert groups sometimes violate this principle; as a result, the data should not be used in forecasting.

D. Wittink and T. Bergestuen [9] considered the problem about "Intentions" in their work. This paper examines the

intention as an indicator of a consumer to purchase a product under the influence of various factors. The consumer can declare his intentions to make a purchase of various goods. This method is based on the following principles, namely, using a new design to create an acceptable situation.

The formation of a digital marketing strategy was considered in the work of P. Mandal and N. Joshi [10]. The authors of the paper emphasize that digital technologies make marketing more effective, since it allows to identify individual consumer interests and how to make better manage campaigns and improve the product. In this paper, the authors propose a flowchart for developing marketing strategies.

M. Ivanov [11] discusses the analysis of the state of the digital economy and digital marketing in his paper. The author in the paper shows that the dynamics of processes in the economy is quite high and requires a quick analysis of multidimensional data. The author proposes a conceptual model and a method for assessing consumer demand in the target market, aimed at the prospective management of trading floors using Big Data.

Objectives of the article

The paper is devoted to neural network forecasting based on the use of neural networks. The information base of neural network forecasting is Big Data. The process of constructing training matrices, training a neural network and making the predictions are presented in the result of paper.

The main material of the research

The modern economy is characterized by the rapid dynamics of economic processes. Under these conditions, forecasting models of neural networks acquire new significance in the process of making managerial decisions. The process of the importance of making management decisions in digital marketing systems is shown in Figure 1.

In this Fig. 1 in the field of traditional marketing analytics (MTA), which is based on the use of classical approaches and forecasting methods. MTA is aimed at solving economic forecasting problems, where the time for processing and obtaining forecast results takes a long time. This time for solving forecasting problems can range from several days to a month or a year, which is incommensurate with the dynamic processes in the digital economy. Therefore, the forecast results become outdated, lose their relevance and can lead to negative results.

Therefore, decisions related to forecasting processes for a short period of time are an urgent task. The scope of this problem is depicted in Figure 1 as Marketing Actual Analytics (MRA). Marketing Actual Analytics (MRA) and is aimed at solving the problem of predicting fast processes, namely from the moment information appears up to several hours.

Today the number of information sources of data in the world is growing rapidly.

Therefore, storage technologies and their processing of information are becoming more and more in demand. By storing information, one can single out the use of Big Data for which the basic principles of work can be formulated:

1. Horizontal scalability, which takes into account that the data can be arbitrarily large from any system. They have the ability to handle big data.

2. Tolerance to failures, which use the principles of horizontal scalability and apply methods of clustering systems; locality of data, which allows in large distributed systems to separate data from a large number of data centers. All modern tools for working with big data, one way or another, follow these three principles. The first principle is based on the MapReduce model. The MapReduce model provides for distributed data processing proposed by Google and is shown in Fig. 2.

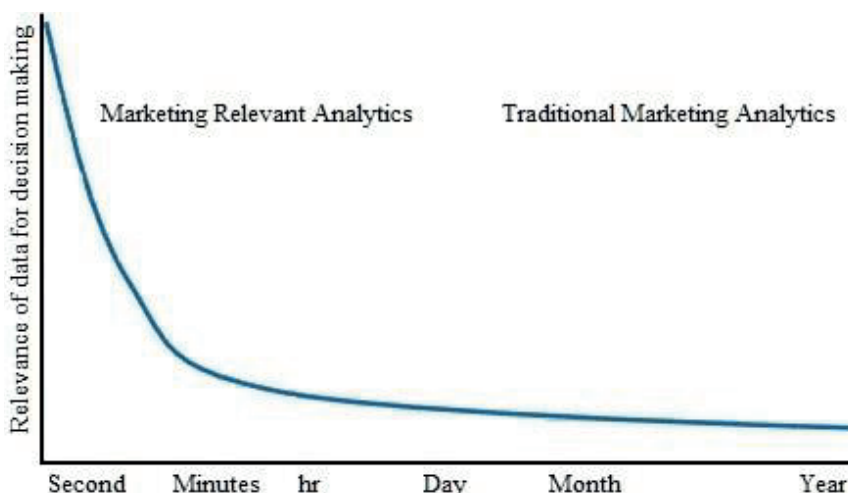


Fig. 1. The importance of management decision making in digital marketing

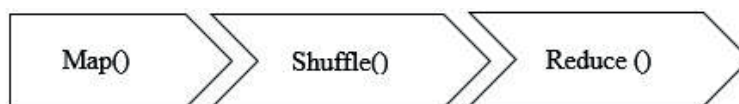


Fig. 2. Data processing according to the MapReduce model

MapReduce provides that data is organized as relational or multidimensional data (OLAP). The data processing method takes place in three stages. The first stage is aimed at executing the Map () function. At this stage, the data is preprocessed using the Map () function, which is defined by the user. The work of this stage is to preprocess and filter the data. The second stage of the model is performed by the Shuffle () function. This stage goes unnoticed by the user. At this stage, the Map () function performs the data immersion procedure similarly to the formation of data marts (Data Mart), that is, one Map () data output corresponds to each mart. In the future, these showcases will serve as an input for the Reduce () function. The third stage of the model is aimed at executing the Reduce () function. Each data mart, which is formed in the second stage, transfers information to the input of the Reduce () function. The Reduce () function is user defined and calculates the result for individual storefronts. The set of all values returned by Reduce () is the result in this method. Therefore, Big Data technology is consider as a tool that allows you to increase the speed of data transfer while providing a large capacity of information carriers. In addition, this technology can improve the availability of cloud applications and data services. Thus, digital marketing is shape around the mainstream e-commerce models. The interconnection of the main models (B2B, B2A, D2C, C2A and C2C) of e-commerce systems based on the systems for collecting, storing and analyzing information in real time. Which based on subsequent storage in historical data layers. For the implementation of systems that perform Marketing Relevant Analytical tasks using data, OLAP data systems are used, which are structured according to the principle of multidimensional information presentation [11]. Reducing the cost of creating multidimensional warehouses can be achieve by using Data Mart. A data mart can only contain thematically aggregated data. Big Data is today a single, centralized source of information for the entire subject area. The structure of the marketing analytical system can be represent as follows (Fig. 3).

In a marketing analytical system, there are many databases. where transaction processing is done in real time. Therefore, online data source systems (ODS) provide information for processing in OLTP. OLTP systems provide storage and processing of information in real time. The processed data in OLTP is transferred to the

Data Mart systems with the subsequent construction of multidimensional OLAP data cubes.

This multidimensional data is aimed at presenting information on thematic sections both on marketing information and other information from different areas of the economy.

The marketer has the ability to access multidimensional data in the repository, as well as complete economic information for conducting an MRA. The advantages of this approach are:

- simplicity of creating and filling OLAP, since filling comes from reliable sources of data marts;

- Reducing the load on working with multidimensional data, namely, one multidimensional query processes multiple OLAP layers.

The data coming from the OID is transferred to the OLTP and the data marts are moved. OLAP stores data as multidimensional layers of measures and dimensions [11]. For neural network forecasting, a multidimensional query is formed to multidimensional data, which allows obtaining the following information input stream (Inflow) – formed by data from OLTP and DMN subsystems:

$$I = \{p_j = (g_j, in_j, mi_j)\}, j = \overline{1, N}, \tag{1}$$

where g_j is the product included in the analyzed sets of N – the object of research; in_j – indicator of income j of the product; mi_j – product indicators j .

Datasets from set I stored in OLAP and on demand allow you to obtain and conduct analysis with the subsequent storage of data, which are called transactions. Description of a transaction to set I as follows:

$$T = \{in_j | in_N \in I\}. \tag{2}$$

Such transactions for retail outlets on the Internet correspond to the nomenclature of goods that the consumer buys and the data stored in OLAP as multidimensional data cubes (OLAP).

Then solving the problem of neural network forecasting, data arrays of its training are formed. The forecasting technique using a neural network is formalized through the problem of pattern recognition. Data on the predicted economic indicators of a product for a certain period of time form an image, the class of which is determined by the values of the predicted indicators.

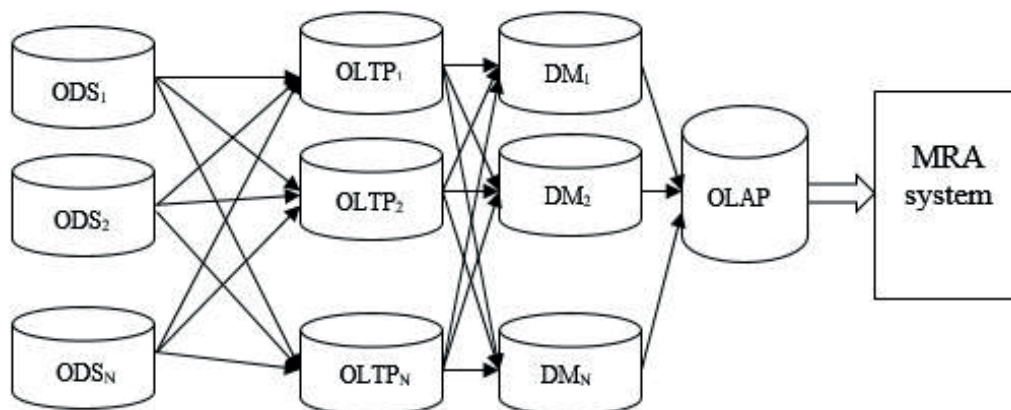


Fig. 3. The structure of the marketing analytical system

In the proposed methodology, the dimension of the multidimensional array will determine both the forecasting interval and the number of predicted indicators. Each next line of the array is formed as a result of a shift by one interval equal to the prediction interval.

The neural network is trained on the generated training array of product indicators and adjusts its weights accordingly. As a result, the neural network is trained to solve the forecasting problem for a certain forecasting horizon. It should be noted that two forecasting approaches are used: one-step and multi-step. One-step forecasting is used for short-term forecasts and multistep forecasting is used for long-term forecasting.

In general, the forecasting model can be represented as follows. Let the time interval $[t_0, t_k]$ be given, the indicators g_j, in_j, pr_j of the product are defined, where t_0 is the initial time value, t_k is the current time value. To find the predicted values on the prediction interval Δ , a method is proposed that includes the following stages:

1. Analytical analysis of indicators and the formation of a learning matrix from selected values from historical slices of multidimensional databases (OLAP technology).

A learning matrix (ML - matrix learning) can be written as input data for representation in a neural network:

$$ML_{input} = \begin{bmatrix} in_{01} = f_{01}(t_0) & in_{02} = f_{02}(t_0 + \Delta) & \dots \\ \dots & in_{0m} = f_{0m}(t_0 + (m-1)\Delta) \\ in_{11} = f_{11}(t_0) & in_{12} = f_{12}(t_0 + \Delta) & \dots \\ \dots & in_{1m} = f_{1m}(t_0 + (m-1)\Delta) \\ \dots & \dots & \dots \\ in_{N1} = f_{N1}(t_0) & in_{N2} = f_{N2}(t_0 + \Delta) & \dots \\ \dots & in_{Nm} = f_{Nm}(t_0 + (m-1)\Delta) \end{bmatrix}, m = \overline{1, k}, (3)$$

where Δ – is the horizon (time interval) of forecasting.

The input data in the neural network in Matlab is presented in the form of a 5x10 matrix, which represents static information on 10 products for five days of the week and has the following form (Fig. 4):

Target data that determine the output statistical information for the neural output can be represented in the form of learning value matrix (MVM_{Output}):

$$MVM_{Output} = \begin{bmatrix} in_{01} = f_{01}(t_0 + \Delta) & in_{02} = f_{02}(t_0 + (k+1)\Delta) & \dots \\ \dots & in_{0m} = f_{0m}(t_0 + m\Delta) \\ in_{11} = f_{11}(t_0 + \Delta) & in_{12} = f_{12}(t_0 + (k+1)\Delta) & \dots \\ \dots & in_{1m} = f_{1m}(t_0 + m\Delta) \\ \dots & \dots & \dots \\ in_{N1} = f_{N1}(t_0 + \Delta) & in_{N2} = f_{N2}(t_0 + (k+1)\Delta) & \dots \\ \dots & in_{Nm} = f_{Nm}(t_0 + m\Delta) \end{bmatrix}. (4)$$

The target data, which determines the output statistical information in Matlab for neural output, is presented in Fig. 5.

2. NS training. The process of training a neural network is to match to each ML_{input} element the value of the MVM_{Output} matrix corresponding to the mapping in the value of the elements of the weight matrix w_j :

$$w_j : ML_{input} \rightarrow MVM_{Output}. (5)$$

In the process of training the neural network, the task of minimizing the objective function is solved. With this approach, an algorithm is used for training, which is the most efficient not only in terms of errors, but also in time. The neural network in Matlab is trained using the Levenberg-Marquardt error backpropagation algorithm. The Levenberg-Marquardt algorithm uses a scalable conjugate gradient backpropagation.

Therefore, the training of the neural network is represented in time, and the network is tuned in accordance with its error. The magnitude parameter is used to measure

	1	2	3	4	5	6	7	8	9	10
1	123654	635345	135604	125149	82954	18335	20700	99954	119200	26509
2	124546	640234	149526	122305	84201	23654	20700	11048	113405	28079
3	154321	643121	142989	120203	85601	15187	20700	75419	114036	27517
4	142352	639432	145902	129785	84302	22443	20700	98621	114483	28153
5	124567	645354	140923	127115	85106	22950	20700	121815	118207	27546

Fig. 4. “BataInp” matrix view

	1	2	3	4	5	6	7	8	9	10
1	124546	640234	149526	122305	84201	23654	20700	11048	113405	28079
2	154321	643121	142989	120203	85601	15187	20700	75419	114036	27517
3	142352	639432	145902	129785	84302	22443	20700	98621	114483	28153
4	124567	645354	140923	127115	85106	22950	20700	121815	118207	27546
5	173876	647811	142989	121069	83241	23154	20650	97103	119905	27561

Fig. 5. Target Output Matrix “DataOut”

the generalization of the neural network and stop learning when the generalization stops improving. The test score itself does not affect training and provides an independent assessment of the performance of the neural network during and after training.

The choice of the algorithm, as well as the learning process of the neural network, is shown in Fig. 6–7.

The number of neural network training epochs can be written as follows:

$$epochs = \left\lceil \frac{t_k - t_0}{\Delta} \right\rceil. \quad (6)$$

In the process of forecasting by a neural network, it is necessary to take into account the forecasting horizon. In the Matlab system, the `sim(net,[:;])` function is implemented, which allows you to supply a variety of input values and get a solution at the output of a neural network. The forecast results for the sale of 10 goods are shown in Fig. 8.

Therefore, the created neural network does indeed make multiple predictive decisions. It allows you to solve the sales function of marketing and consider the dynamics of the sale of many products in real time. Neural network forecasting looks at the number of future periods that the forecast will cover. That is, you may need a forecast 7 days ahead, with data for every day. In this case, the period is a day, and the horizon is 7 days.

Finally, the prediction interval is the frequency with which a new prediction is made. Often the prediction interval coincides with the prediction period. The choice of the forecasting period and horizon is usually dictated by the conditions for making decisions.

Choosing these two parameters is one of the hardest parts of neural network forecasting. For forecasting to be meaningful, the forecasting horizon must be no less than the time required to implement the decision made on the basis of the forecast.

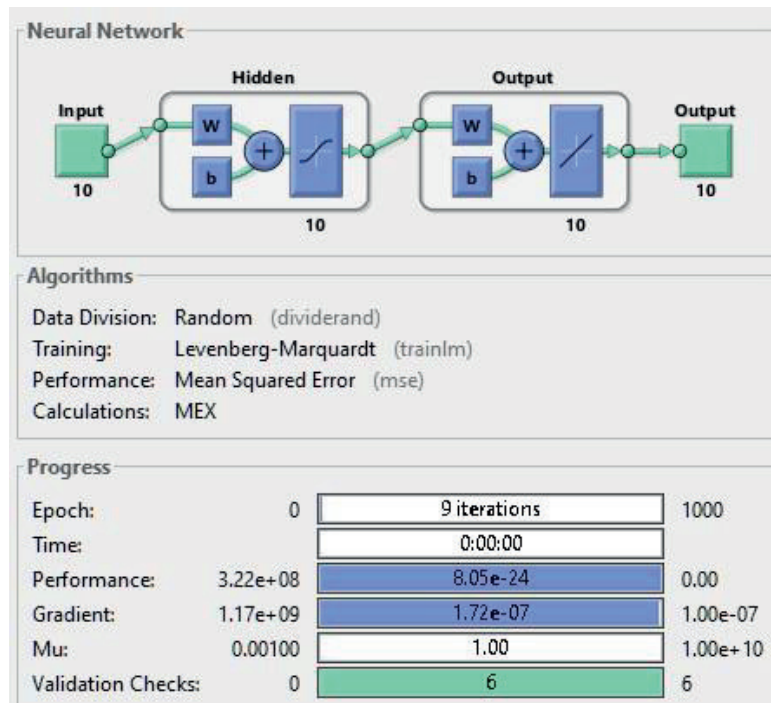


Fig. 6. The process of learning the neural network

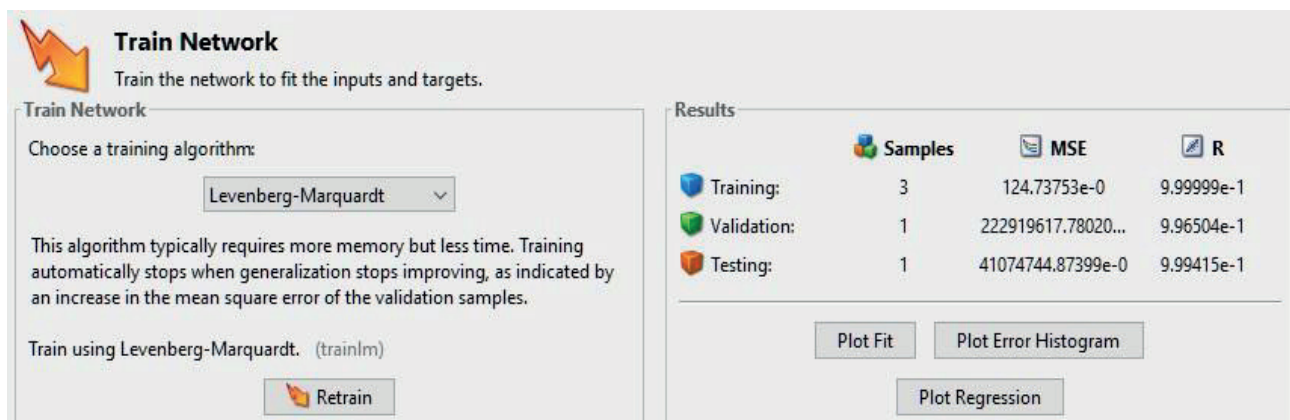


Fig. 7. The choice of the learning algorithm

```
>> sim(net, [ 173876;647811;142989;121069;83241;23154;20650;97103;119905;27561])

ans =

1.0e+05 *
|
2.0724
6.3957
1.4526
1.4247
0.8347
0.2607
0.2067
0.7470
1.1261
0.2859

fx >> |
```

Fig. 8. The result of forecasting the sale of 10 products

Thus, forecasting is highly dependent on the nature of the decision being made.

Conclusions

In this paper, the authors consider the solution to the problem of forecasting a neural network and the use of Big Data as a tool to increase the data transfer rate while providing access to multidimensional data (OLAP). The paper proposes the structure of a neural network for solving the forecasting problem, which uses the training matrices of this network. Matrix data can be built from data that provides information in OLAP.

The paper proposes the use of a neural network for predicting multidimensional data, which is built in the Matlab system. To solve the forecasting problem, the authors proposed the construction of the input and target data matrices for training a neural network. The paper also

presents the construction procedures and the results of the neural network training process in Matlab.

The obtained forecasting results allow us to conclude about the advantages of a neural network for multivariate data prediction. Multidimensional data and their level of detail are important for solving the forecasting problem.

The wider use of digital systems makes it possible to apply the proposed approach to forecasting. It should be noted that the use of neural networks in forecasting could have the following disadvantages. So, in the process of forming training matrices, if there are no data in the initial information or data presented in an indistinct form (a linguistic variable, the appearance of a new product or there is no demand for a product), then an error may appear.

Therefore, this drawback in solving the forecasting problem can be eliminated if systems with fuzzy sets are used, which will allow to formalize fuzzy variables.

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DOI <https://doi.org/10.26661/2414-0287-2021-2-50-25>**ANALYSIS OF THE MORTGAGE LENDING MARKET OF UKRAINE
FOR THE PRESENCE OF SIGNS OF A PRICE BUBBLE FORMATION****Kozin I.V., Makarenko O.I.***Zaporizhzhia National University**Ukraine, 69600, Zaporizhzhia, Zhukovsky str., 66*

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Key words:

Ukraine, mortgage lending, real estate, fundamental price, price bubble.

The article is devoted to the study of the mortgage lending market in Ukraine in terms of the presence of signs of price bubble formation. The dynamics of the mortgage lending market in Ukraine is analyzed. Mortgage lending in Ukraine in 2019 increased 2.9 times compared to 2006, that is the demand for mortgage lending among non-financial corporations in Ukraine is growing in contrast to the demand for mortgage lending to households. Thus, until 2008 there was an increase in demand, 7.2 times compared to 2006, and then a gradual decrease. The mortgage market is a complex economic system, which is characterized by cyclical development. An inevitable component of any economic cycle is a crisis, so it is important to be able to identify and prevent processes that accelerate the onset of crisis economic phenomena. Research of the mortgage lending market of Ukraine on the presence of signs of price bubble formation should be carried out in four stages: determination of the fundamental price; comparison of actual and fundamental prices; analysis of the rate of change in real estate prices and the rate of change in mortgage lending; conclusions on the presence of a financial bubble in the mortgage market. It is proposed to determine the fundamental price of real estate, assuming that the current discount rate of the NBU affects the value of real estate in the next period, ie has a lag of one period. As a result of the research, it was concluded that in the market of mortgage lending in Ukraine for the period from 2003 to 2019, the formation of a financial bubble did not occur.

**АНАЛІЗ РИНКУ ІПОТЕЧНОГО КРЕДИТУВАННЯ УКРАЇНИ
НА НАЯВНІСТЬ ОЗНАК ФОРМУВАННЯ ЦІНОВОЇ БУЛЬБАШКИ****Козін І.В., Макаренко О.І.***Запорізький національний університет**Україна, 69600, м. Запоріжжя, вул. Жуковського, 66***Ключові слова:**

динаміка, іпотечне кредитування, нерухомість, фундаментальна ціна, цінова бульбашка.

Стаття присвячена дослідженню ринку іпотечного кредитування в Україні з точки зору наявності ознак формування цінової бульбашки. Проаналізовано динаміку ринку іпотечного кредитування України. Обсяги іпотечного кредитування в Україні у 2019 р. зросли у 2,9 рази у порівнянні з 2006 р., тобто, що попит на іпотечне кредитування серед нефінансових корпорацій в Україні зростає на відміну від попиту на іпотечне кредитування домашніх господарств. Так, до 2008 р. спостерігалось зростання попиту, у 7,2 рази у порівнянні з 2006 р., а потім поступове зменшення. Ринок іпотечного кредитування є складною економічною системою, якій притаманна циклічність розвитку. Невіддільним складником будь-якого економічного циклу є криза, тому важливо вміти визначати та попереджати процеси, які прискорюють настання кризових економічних явищ. Дослідження ринку іпотечного кредитування України щодо наявності ознак формування цінової бульбашки проводити у чотири етапи: визначення фундаментальної ціни; порівняння фактичної та фундаментальної цін; аналіз темпів зміни цін нерухомості та темпів зміни обсягів іпотечного кредитування; висновки щодо наявності фінансової бульбашки на ринку іпотечного кредитування. Фундаментальну ціну на нерухомість запропоновано визначати, з припущення, що поточна облікова ставка НБУ впливає на вартість нерухомості у наступному періоді, тобто має лаг один період. У результаті проведених досліджень дійшли висновку, що на ринку іпотечного кредитування України за період з 2003 р. по 2019 р. формування фінансової бульбашки не відбувалося.

Statement of the problem

The relevance of consumer lending is growing every year, due to the desire of individuals to increase living standards, because it is a bank consumer loan provides consumer needs with the necessary financial resources. Mortgage lending is a type of consumer lending. The situation on the mortgage lending market in Ukraine is changing with the reduction of the NBU discount rate, because mortgage loans are becoming more affordable for the population, and the demand for them is growing. Thus, according to the National Bank of Ukraine [1], the volume of mortgage lending to non-financial corporations in Ukraine is increasing, if at the end of 2006 mortgage loans in the national currency amounted to UAH 10,507 million, then at the end of 2019. the amount of issued mortgage loans amounted to UAH 152,323 million, ie it increased 14.5 times. If we consider the same dynamics in terms of the dollar equivalent, the volume of mortgage lending in Ukraine at the end of 2006 amounted to 1910.4 million dollars. US dollars, and at the end of 2019 5440.1 million dollars. US, which is 2.9 times more than in 2006. Thus, we can conclude that the demand for mortgage lending among non-financial corporations in Ukraine is growing in contrast to the demand for mortgage lending to households. Thus, until 2008 there was an increase in demand, 7.2 times compared to 2006, and then a gradual decrease.

Thus, the mortgage market is a complex economic system, which is characterized by cyclical development. An inevitable component of any economic cycle is a crisis, so it is important to be able to identify and prevent processes that accelerate the onset of crisis economic phenomena. One of the factors that signals the existence of crisis economic processes is the emergence of "bubbles". "Bubble" in the scientific literature has the following names: economic, market, financial, price, speculative, exchange and others. In domestic and foreign scientific literature, these definitions are often identified and used as synonyms. An economic bubble or price bubble in the general sense is a trade in assets, in large amounts, at a price that is significantly different from the fundamental (fair) price of assets [2]. The fundamental (fair) price of an asset is the price that reflects the available information about the asset and its properties [3]. But market participants do not have information on such a price, in most cases. The fundamental price is not probabilistic and is objective in nature, unlike the market price. The market price of an asset may be higher or lower than the fundamental price, because due to the asymmetry (limitation) of information, the market may overestimate or underestimate its price.

The phenomenon of bubbles in financial markets has been an important topic of economic research in recent decades. Interest in this phenomenon became even greater when the financial bubbles that burst in the summer of 2008 triggered the mechanism of the global financial crisis. Researchers have focused on why bubbles appear in the economy, how they can be identified, what signs or indicators can be used to determine the presence of the process of formation and development of bubbles, how bubbles are associated with the financial crisis, and others.

Like any process, the price bubble goes through certain stages of development. The American economist H. Minsky identified five stages of bubble development: substitution, boom, euphoria, profit, panic [4]. The financial bubble is the result of a set of factors that, together with time, lead to a significant increase in prices for goods or assets. There is no reason to believe that the appearance of the bubble was due to a specific reason. It is always a set of factors, but scientists believe that there are factors that activate the accumulated over time, but unrealized potential.

As JM Keynes wrote: "During a boom, the overall assessment of the degree of risk on the part of both the debtor and the creditor, as a rule, becomes extremely and unreasonably low" [5]. As a result, market participants are actively moving to external financing of investments. As a result, most participants are able to repay interest on debts from their cash receipts, but not the debt itself, and then they are forced to take out new loans to avoid bankruptcy.

H. Minsky called this situation speculative financing [6]. If the situation begins to deteriorate (rising interest rates, falling cash flows, etc.), there is a "Ponzi scheme", the participant cannot pay even interest on the loan. There is only one way out of this situation by increasing the amount of debt to repay old loans. And if the boom phase is characterized by speculative financing, the recession phase is the Ponzi scheme. This is due to the fact that over time, participants will either not be able to obtain new loans, or because of the general lack of financial resources in the economy, or because of too high a risk for the lender. If participants try to sell their assets, it will lead to an overall reduction in price and demand for them and a reduction in investment, which in turn will lead to an economic crisis.

From the above we can conclude that: first, financial crises can be caused not only by adverse changes in the expectations of economic agents, but also the inability of most market participants to repay their debt, and secondly, this hypothesis is called not just "hypothesis of financial fragility", is a characteristic of the fact that during the business cycle the financial system becomes increasingly fragile [7].

Analysis of latest research and publications

The main methods of detecting bubbles study this phenomenon through the prism of a single science. Most research belongs to economists. Among the latest works are the studies of R. Schiller, P. Krugman, J. Stiglitz, D. Sornette, H. Minsky and many others. Psychologists and sociologists have addressed the issue of financial bubbles, including the works of C. McKay, G. Tard, B. Baruch, M. Clark, J. Cato, S. Moskovichi and others.

Peculiarities of economic development in the event of crises, the impact of crisis phenomena on the emergence and formation of price bubbles in the financial and real sectors have been studied by many foreign and domestic scientists, such as D. Sornette, O. Baranovsky, S. Thor, G. Fetisov, O. Shapovalov and others. Scientists, studying the stages of birth and flaking of the bubble, identify the factors that cause the creation and inflation of speculative mechanisms: the rapid growth of asset values; growth of business and economic activity; stable growth of money and credit supply; herd, irrational behavior of individual

market participants; imperfect regulation of the market and market relations; financial liberalization; dissemination of financial innovations; lack of information about the object, etc. [8; 9; 10].

According to J. Stiglitz [11], an important problem in the formation of bubbles is to determine the “fundamental” value of assets. If asset prices do not reflect the fundamentals well, and if these deviated asset prices have a significant impact on resource allocation, economists' confidence in the efficient allocation of investment resources in the market is at least weakened. According to J. Stiglitz, the problem of determining the basic value of an asset that will be held for an extended period of time consists of three parts: first, the problem of estimating the profit received over time (rent for land, dividends on stock); second, the problem of estimating the final value that the asset will have at the end of the period; and third, the problem of deciding on the discount rates that will be used to translate future profits into current values. If investors' expectations change in such a way that they believe that in the future they will be able to sell the asset at a higher price than expected, then the current price of the asset will increase. J. Stiglitz notes that if the reason the price of an asset is high today is simply that investors believe that the sale price of the asset will be high tomorrow when “fundamental” factors do not “justify” such a price, then the bubble already exists.

Many scientists are working to develop effective methods for predicting, identifying, measuring bubbles. Sharing the point of view on the need for an interdisciplinary approach, we can note the controversial idea of the possibility of creating a single theory of financial bubbles, because the process of formation and development of bubbles has a synergistic effect on many economic, social, psychological factors.

The scientific discussion on the interpretation of the sources of bubbles becomes especially acute. Some economists link the existence of economic bubbles with inflation [12; 13], others believe that there is a certain fundamental value of each asset, which is why bubbles are nothing more than an increase in this value [2].

The researchers looked at the development of bubbles, the relationship between the process of bubbles and the onset of crises in the economy, methods of identifying bubbles. Despite the significant number of scientific developments, the issue of identification of bubbles remains relevant. The urgency of this issue is due to the fact that the economic environment is constantly changing, there are other factors that trigger the process of bubble formation, the need to take into account many components requires the use of various mathematical methods and approaches.

Goals formulation

The purpose of the article is to analyze the presence of signs of a price bubble in the mortgage lending market of Ukraine, provided the formation of a rational bubble.

Presentation of the main research material

Before examining the mortgage lending market in Ukraine for signs of financial bubble formation, we provide a brief overview of the origin and formation of the 2007 mortgage bubble in the United States.

A characteristic feature of the US mortgage bubble is the emergence of “cheap money” due to lower interest rates and easier access to credit for borrowers who previously could not get a loan (for example, the unemployed, low-income borrowers and bad credit history). In the United States, separate special purpose subsidiaries were created, on the balance of which the mortgaged property was transferred, the idea was to redistribute risks, but in fact, the risks only accumulated. By issuing mortgage bonds, subsidiaries sold them and received money for long-term loans. The buyers of the bonds were investment funds or state mortgage companies. The growing demand for housing has led to the fact that many private companies have entered the mortgage market. The availability of mortgages, rising house prices in the United States by almost 20% annually, have made the mortgage market attractive to Americans. Banking competition intensified, as a result of which the amount of the down payment decreased and the term of the loan increased. Which led to the fact that Americans began to take even more loans. However, when housing prices stopped, many borrowers stopped repaying loans and went bankrupt. Thus, the insufficient assessment of American banks' own risks of consumer lending led to the emergence of the global financial crisis.

The mortgage crisis in the United States has affected the development of mortgage markets around the world, there is a problem of borrowing in international markets. Western banks have begun curtailing lending programs for developing countries.

As to Ukraine, due to the poorly developed mortgage lending at that time, the mortgage crisis did not have a strong impact on the Ukrainian mortgage market. According to analytical studies of the Ukrainian National Mortgage Association [14], less than 2% of Ukrainians buy real estate on credit. In 2007, mortgage lending to non-financial corporations and households accounted for less than 17% of GDP, while in the United States and the United Kingdom this figure exceeds 70% [15]. The dynamics of mortgage lending to non-financial corporations and households as a percentage of GDP [16] for the period from 2006 to 2019 is presented in Fig. 1.

As we can see, in 2008 the volume of mortgage lending to non-financial corporations and households in Ukraine was the highest from 2006 to 2019 and amounted to 22.5% of GDP. Then there is a steady decline in this indicator. However, this situation is explained by the fact that since 2009 GDP in actual prices has grown from 5% to 20% annually, and the volume of mortgage lending to non-financial corporations and households has not changed from year to year and remains at an average of 180 million UAH. Thus, the volume of mortgage lending in Ukraine compared to countries with developed mortgage lending markets is not so large.

The financial bubble in the mortgage lending market will be considered a rapid rise in real estate prices, due to high demand and the availability of mortgage loans. Deviations from the basic price by more than 15% will be considered a rapid increase in real estate prices.

The study of the mortgage lending market of Ukraine on the presence of signs of financial bubble formation will be conducted in four stages (Fig. 2).

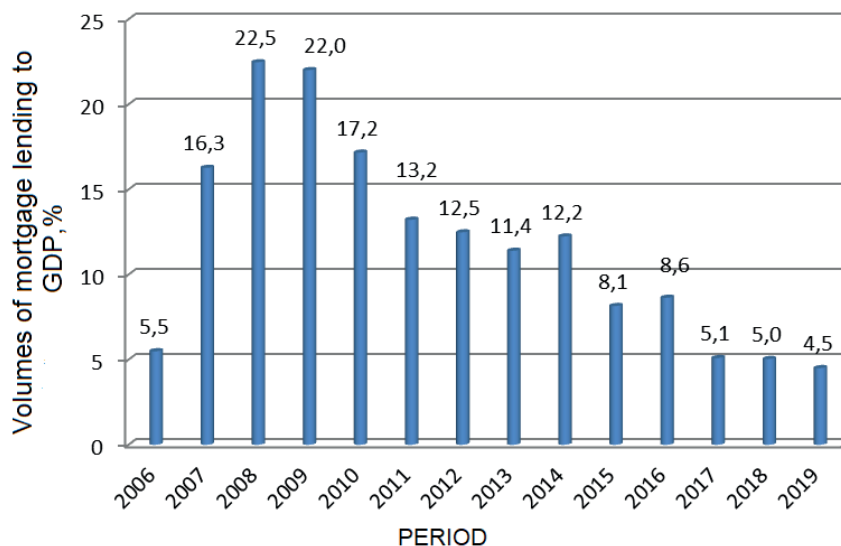


Figure 1 – Dynamics of mortgage lending to non-financial corporations and households in Ukraine as a percentage of GDP (2006–2019)

Source: calculated on the basis of [1; 16].

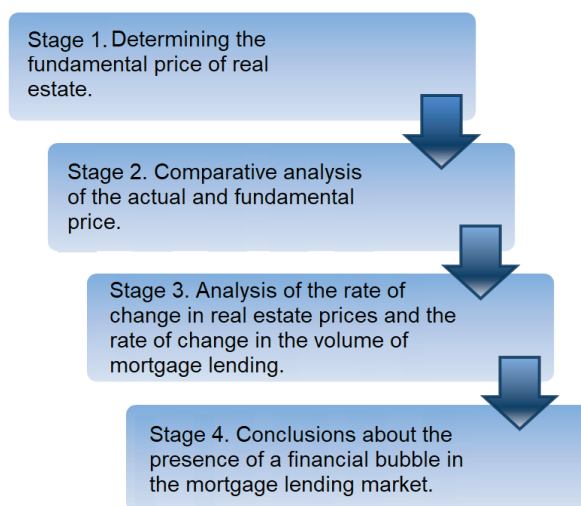


Figure 2 – Stages of research of the mortgage lending market of Ukraine for the presence of signs of financial bubble formation

At the first stage of the study of the mortgage lending market of Ukraine on the presence of signs of financial bubble formation, we determine the fundamental price of real estate, considering the simplest case that the rational bubble changes deterministically over time.

It is proposed to determine the fundamental price of real estate, assuming that the current discount rate of the NBU affects the value of real estate in the next period, ie has a lag of one period. Given this assumption, the fundamental price is determined by the equation:

$$p_{t+1}^* = (1 + d_t) \cdot p_t^*, \tag{1}$$

where p_t^* – fundamental price of real estate in time period t ; p_{t+1}^* – fundamental price of real estate in time period $t+1$; d_t – NBU discount rate in time period t .

We will assume that the first value of the fundamental price p_1^* is equal to the first actual value of the price.

Since the official statistics on the value of real estate in Ukraine began to be collected in 2015, and such statistics are provided by real estate companies or consulting companies, the study used information from the real estate market of Kyiv and statistics from the consulting company SV Development [17]. The company has been operating in the real estate market since 2003 and provides real estate appraisal and sales services, conducts marketing research and real estate market analysis. The company's specialists develop and draw up business plans for investment projects, etc.

To study the mortgage lending market, it was assumed that the real estate market in Kyiv reflects the general trends in the real estate market of Ukraine. The input data for estimating the fundamental price of real estate and calculated for (1) the value of the fundamental price are presented in table 1.

Table 1 – Input data for estimating the fundamental price of real estate and calculated values of the fundamental price (Kyiv)

Period	Average price per 1 sq.m, USD [18]	NBU discount rate, % [19]	Fundamental price per 1 sq.m., USD
01.01.2003	568	7	568,00
01.01.2004	969	7,5	607,76
01.01.2005	1800	9,5	653,34
01.01.2006	1804	9,5	715,41
01.01.2007	3281	8	783,37
01.01.2008	2594	12	846,04
01.01.2009	1535	10,25	947,57
01.01.2010	1810	9,5	1044,69
01.01.2011	1828	7,75	1143,94
01.01.2012	1857	7,5	1232,60
01.01.2013	1967	7	1325,04
01.01.2014	1208	14	1417,79
01.01.2015	1180	22	1616,28
01.01.2016	1169	18	1971,87
01.01.2017	1091	13,5	2326,80
01.01.2018	1030	17,5	2640,92
01.01.2019	1061	6	3103,08

Here is an example of calculating the basic price by formula (1). The first value of the fundamental price p_1^* is equal to the first actual value of the price, that is $p_1^* = 568$. The second value of the fundamental price is determined as follows: $p_2^* = (1 + 0,07) \cdot 568 = 607,76$. The third value of the fundamental price is determined as follows: $p_3^* = (1 + 0,075) \cdot 607,76 = 653,34$. The following values are defined in a similar way.

In fig. 3 presents the dynamics of the average and fundamental price per 1 sq.m., USD.

In the second stage of the study of the mortgage lending market of Ukraine on the presence of signs of financial bubble formation, we compare the average and fundamental price.

As you can see, the fundamental price, calculated taking into account changes in the discount rate of the NBU is gradually increasing, and the trend of changes in the average real estate price is quite different. That is, it increases until 2007, decreases in the crisis year of 2008, this trend continues in 2009. In the period from 2010 to 2013 there is an increase in real estate prices by 30% compared to 2009. The period from 2014 by 2019 is characterized by a decrease in the average real estate price compared to 2013 by almost 50% from 1967 USD per 1 sq. m. in 2013 to 1061 USD per 1 sq m in 2019.

At the third stage of the study of the mortgage lending market of Ukraine on the presence of signs of financial bubble formation, we will analyze the rate of change in

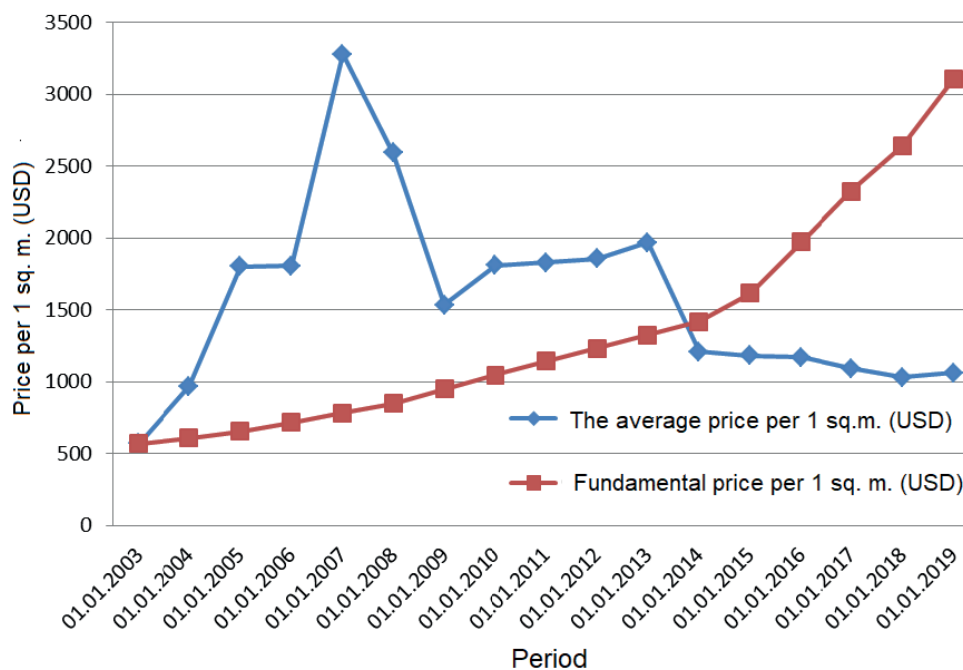


Figure 3 – Average and fundamental price for 1 sq. m. (USD), Kyiv, 2003–2019

prices and the rate of change in the volume of mortgage lending. The problem of comparing the rate of change of these indicators is that the NBU provides information on the volume of mortgage lending since 2006, until this period the information was provided by the volume of consumer lending. Thus, the comparison of the rate of change can be carried out only in 2007. The calculated rate of change in the average real estate price per 1 sq.m. (USD) and the rate of change in mortgage lending to non-financial corporations and households for the period from 2007 to 2019 are presented in Fig. 4.

As we can see, the rate of change in the average real estate price per 1 sq.m. (USD) and the rate of change in mortgage lending to non-financial corporations and households have similar trends. However, the events of 2008 and 2014 affected the mortgage market differently. Thus, the reduction in mortgage lending in 2010 by 11% compared to 2009 was accompanied by an increase in real estate prices by 18%. A similar situation was observed in the period from 2014 to 2015. The opposite situation was observed in the period from 2013 to 2014, ie an increase in mortgage lending by 16% in 2014 compared to 2013 was accompanied by a decrease in property prices in 2014 by almost 39% compared to 2013.

At the fourth stage of the study of Ukraine, we will try to draw a conclusion about the presence of signs of price bubble formation.

Signs of the formation of a price bubble in the mortgage lending market, we will consider:

- exponentially increasing deviation of real estate prices from basic values;
- the growth of real estate prices due to the growth of mortgage lending volume;

– increase in demand for real estate due to the growth of mortgage lending volume.

Thus, the analysis of the average and fundamental price for 1 sq.m. allowed us to conclude that in the period from 2003 to 2008 there was an exponentially increasing deviation of real estate prices from fundamental values. This period is characterized by the formation of the mortgage lending market and rather strict conditions for mortgage lending. However, after 2008, the opposite trend was observed: a sharp decline in the average price and a gradual increase in the fundamental price. Therefore, this assumption in the time interval from 2003 to 2019 is not fulfilled. Therefore, we conclude that the increase in real estate prices is not due to an increase in mortgage lending.

Another sign of the formation of a price bubble in the mortgage market is the growth of demand for real estate due to the growth of mortgage lending. A correlation coefficient was calculated to analyze the relationship between demand and mortgage lending. Demand for real estate was estimated by the indicator “Number of transactions of purchase and sale of apartments and individual houses in Ukraine, pcs.”. The correlation coefficient between the number of purchase and sale agreements of apartments and individual houses in Ukraine and the volume of mortgage lending to non-financial corporations and households is equal to 0.43. Which indicates a weak feedback, ie an increase in lending leads to a reduction in the number of transactions. In our opinion, such a conclusion is not economically justified, because world practice shows that “credit money” contributes to sales growth. Therefore, we believe that the volume of mortgage lending in Ukraine does not affect the number of transactions of purchase and sale of apartments and individual houses.

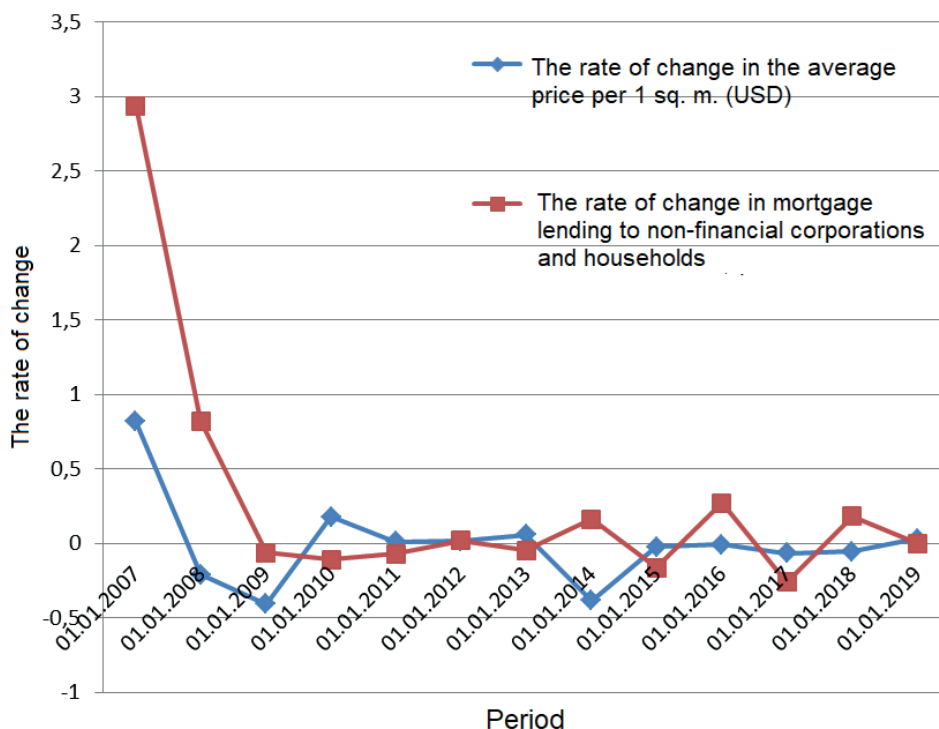


Figure 4 – The rate of change in the average real estate price per 1 sq. m. (USD) and the rate of change in mortgage lending to non-financial corporations and households, 2007–2019

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**REVIEW OF THE MONOGRAPH
«FORMATION OF STRATEGY IN ANTI-CRISIS MANAGEMENT OF OPERATIONAL
ACTIVITY OF INDUSTRIAL ENTERPRISES»,**

**prepared by the Candidate of Economic Sciences (Ph. D. in Economics), Associate Professor,
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Shvets Yu.O., Zaporizhzhia, 2020¹**

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Monograph “Formation of strategy in anti-crisis management of operational activity of industrial enterprises” Shvets Yu.O. reveals theoretical and methodological, methodological issues related to the implementation of crisis management, the use of strategy in industrial enterprises to improve the efficiency of production and marketing activities.

In the first section the author investigates theoretical issues on defining the essence of the concepts “crisis”, “crisis management”, “crisis management of industrial enterprises”, “crisis management of operational activities of industrial enterprises”, and analyzes scientific and practical aspects of system formation identification of factors influencing the effectiveness of crisis management of operating activities of industrial enterprises.

The second section is devoted to the study and characterization of the concept of crisis management of operating activities of industrial enterprises; the mechanism of anti-crisis management of operational activity is formed; the system of anti-crisis management of operational activity is investigated; the mechanism of formation of strategy of anti-crisis management of operational activity of industrial enterprises is developed.

In the third section of the monograph the thorough analysis of efficiency of operational activity is carried out; the state of financial activity of industrial enterprises is analyzed; the probability of bankruptcy at machine-building enterprises is investigated.

In the fourth section of the monograph, the author evaluates the effectiveness of the use of the mechanism and system of crisis management of operational activities on the example of machine-building enterprises; the approach to determining the effectiveness of crisis management tools for the operational activities of enterprises has been improved; the influence of internal factors on the use of the mechanism of crisis management strategy of operating activities of enterprises is assessed.

In the fifth section of the monograph, the author proposes a scientific and methodological approach to assessing the effectiveness of anti-crisis management strategy of operating activities of industrial enterprises; forecasting of use of the mechanism of formation of strategy of anti-crisis management of operational activity of the industrial enterprises is carried out and offers to improvement of work of the enterprises are offered.

All material is presented in accessible language, full of statistical data and analysis on the study of the effectiveness of operational activities, the possibility of threats of crisis. The monograph is of interest not only to economists and financiers, but also to managers, as well as to teachers and students of advanced training and retraining programs and can be recommended for publication.

Monograph “Formation of strategy in anti-crisis management of operational activity of industrial enterprises” Shvets Yu.O. is a scientific work that reveals the theoretical, methodological, methodological and practical foundations of crisis management of the operational activities of industrial enterprises, the selection and use of effective strategies. I consider this scientific work complete and recommend it for publication.

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¹ Швець Ю.О. Формування стратегії антикризового управління операційною діяльністю промислових підприємств : монографія. Запоріжжя : видавець ФОП Мокшанов В.В., 2020. 591 с.

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REVIEW OF THE MONOGRAPH
«FORMATION OF STRATEGY IN ANTI-CRISIS MANAGEMENT
OF OPERATIONAL ACTIVITY OF INDUSTRIAL ENTERPRISES»,
prepared by the Candidate of Economic Sciences (Ph. D. in Economics), Associate Professor,
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Shvets Yu.O., Zaporizhzhia, 2020¹

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The operation of industrial enterprises is subject to the constant influence of internal and external factors, which affects the efficiency of operation. In this case, the main purpose of any enterprise is to make a profit, which is achieved through successful operating activities. Sales and production activities of enterprises are under the constant influence of crisis phenomena, which can lead to a decrease in sales, loss of customers, reduced sales revenue and profitability. Decreased efficiency of operating activities can affect the level of financial stability, solvency and depends on quality management decisions, timely study of the likelihood of crises.

Accordingly, there is a need for anti-crisis management of operational activities, which will allow timely detection, study of the negative impact of market factors, the possibility of crisis phenomena, diagnose their impact, take measures to neutralize and overcome the crisis. It will also increase the efficiency of sales, supply, production activities, which will affect the results of activities. In addition, there is a need for enterprises to develop and further use the strategy of crisis management of operational activities, which will allow timely detection of crises in both short-term and long-term periods. The urgency of this problem is explained by the fact that industrial enterprises do not carry out anti-crisis management of operational activities, which will identify weaknesses, shortcomings in this type of activity. enterprise. However, unfortunately, it should be noted that the lack of a clear definition of the strategy of crisis management, mechanism, system of crisis management of operational activities causes the inefficiency of the process of crisis detection and sales, production, supply activities. That is why these problems deserve detailed study.

The monograph “Formation of strategy in anti-crisis management of operational activity of industrial enterprises” contains five main sections: theoretical and methodical bases of anti-crisis management of operational activity at industrial enterprises; methodical bases of formation of strategy of anti-crisis management of operational activity of industrial enterprises; the current state of industrial enterprises; theoretical and methodological approaches to assessing the effectiveness of crisis management of operational activities at industrial enterprises; methodological approaches to forecasting crisis management of operating activities of industrial enterprises.

In the first section the author has formed a conceptual and categorical apparatus “anti-crisis management of industrial enterprises”; the definition of “anti-crisis management of operational activities of industrial enterprises” is proposed; scientific and practical aspects of building a system for determining the factors influencing the effectiveness of crisis management of industrial enterprises through the use of system, process, functional, factorial approaches, which allowed to form groups of factors.

In the second section the concept of anti-crisis management of operational activity of industrial enterprises is improved, in which the system, mechanism, strategy of anti-crisis management of operational activity of enterprises, group of factors are resulted; the mechanism of anti-crisis management of operational activity of industrial enterprises which will allow to increase efficiency of sales, production activity in the short-term period is improved; the system of anti-crisis management of operational activity of industrial enterprises which creates conditions for normal functioning of the mechanism is formed; the mechanism of formation of strategy of anti-crisis management of operational activity of the industrial enterprises by observance of strategic, innovative, synergetic, system, marketing approaches is developed.

The third section analyzes the current state of operating activities of industrial enterprises; the efficiency of financial activity of enterprises is investigated and the type of financial stability is determined; the probability of bankruptcy

¹ Швець Ю.О. Формування стратегії антикризового управління операційною діяльністю промислових підприємств : монографія. Запоріжжя : видавець ФОП Мокшанов В.В., 2020. 591 с.

at industrial enterprises is determined and the expediency of anti-crisis management of operational activities is substantiated.

The fourth section improves the scientific and methodological approach to assessing the effectiveness of the mechanism and system of crisis management of the operational activities of machine-building enterprises, which will form recommendations for further use of crisis management tools; improved theoretical and methodological approach to determining the effectiveness of anti-crisis management tools for the operational activities of machine-building enterprises, which will establish the effectiveness of their use; The scientific and methodological approach to assessing the impact of internal factors on the use of the mechanism of crisis management strategy of industrial enterprises, which will determine the list of factors influencing the application of the mechanism.

The fifth section discusses the development of methodological principles for forecasting crisis management of operational activities: developed a scientific and methodological approach to selecting and evaluating the effectiveness of crisis management strategy of machine-building enterprises, which will form anti-crisis measures and improve operational and financial activities; the model of forecasting of use of the mechanism of formation of strategy of anti-crisis management of operational activity of the industrial enterprises which provides calculation of the general and special indicators of activity, realization of the forecast will promote reduction of probability of occurrence of the crisis phenomena, improvement.

Monograph of Shvets Yu.O. maker is presented at a high scientific and theoretical level, research results and presented material are reasonable, logical and reliable, made on a topical topic, contains elements of scientific novelty, has theoretical and methodological and practical significance and is recommended for publication.

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Industrial enterprises operate under the negative influence of environmental factors, which affects the efficiency of their work. Along with this, the main activity of enterprises is operating activities that affect the level of profitability. There is a need for constant research of external (economic, political, social, legislative factors) and internal (adequacy of financial resources, staffing, personnel policy, organization of production activities, marketing department, motivation system) environment, which can lead to crises. First of all, the crisis phenomena have a negative impact on the state of operating activities, which can lead to reduced efficiency, deterioration of industrial development. Accordingly, there is a need to implement a set of measures for the ongoing study of the possibility of crisis phenomena and the development of effective measures.

There is a need for crisis management of operational activities in order to identify threats and risks in a timely manner. However, there are no tools to carry out such operational management. That is, there is a need to form a strategy, tools for crisis management in the field of production, marketing, supply of industrial enterprises. This will allow to make effective decisions, to define strategic goals, to analyze the impact of the market environment, to identify the possibility of threats of crisis phenomena, to develop ways to increase the efficiency of operational and financial activities in the long run. Thus, improving the situation of industrial enterprises, increasing the level of profitability is possible only if the efficiency of operational activities, which requires crisis management and confirms the relevance of the research topic.

The monograph “Formation of strategy in anti-crisis management of operational activity of industrial enterprises” contains five main sections, in particular: theoretical and methodological principles of anti-crisis management of operational activities at industrial enterprises; methodical bases of formation of strategy of anti-crisis management of operational activity of industrial enterprises; the current state of industrial enterprises; theoretical and methodological approaches to assessing the effectiveness of crisis management of operational activities at industrial enterprises; methodological approaches to forecasting crisis management of operating activities of industrial enterprises.

The educational-methodical and practical value of the monograph development lies in the following aspects:

the conceptual-categorical apparatus “crisis management of industrial enterprises” is proposed; industrial enterprises; scientific and practical aspects of forming a system for determining the factors influencing the effectiveness of crisis management of industrial enterprises, which allow to identify three groups of factors;

improved the concept of crisis management of industrial enterprises, which allows to determine set of crisis management tools,

expanded the mechanism of anti-crisis management of operational activities of industrial enterprises, which will form anti-crisis measures and improve the performance of enterprises in the short term,

formed a crisis management system normal functioning of the mechanism, implementation of the accepted decisions;

the mechanism of formation of strategy of anti-crisis management of operational activity of the industrial enterprises which allowed to form some variants of strategy depending on a condition of operational activity, emergence of threats of crisis phenomena is developed;

improved scientific and methodological approach to assessing the effectiveness of the mechanism and system of crisis management of operational activities of machine-building enterprises, which allowed to assess the effectiveness of their use and make decisions for further implementation of the strategy; the effectiveness of crisis management tools for the operational activities of machine-building enterprises, which includes a universal scale;

¹ Швець Ю.О. Формування стратегії антикризового управління операційною діяльністю промислових підприємств : монографія. Запоріжжя : видавець ФОП Мокшанов В.В., 2020. 591 с.

improved scientific and methodological approach to assessing the impact of internal factors on the use of the mechanism of formation of the strategy of crisis management of operating activities of industrial enterprises, which allowed to choose.

It should be noted that the material of the monograph "Formation of strategy in anti-crisis management of operational activity of industrial enterprises" is characterized by structure, content, logic of presentation of the material and it is made on a topical topic, contains elements of scientific novelty, has theoretical, methodological and methodological significance.

Monograph of Candidate of Economic Sciences (Ph. D. in Economics), Associate Professor of Department of Finance, Banking and Insurance Zaporizhzhia National University Shvets Yu.O. "Formation of strategy in anti-crisis management of operational activity of industrial enterprises" can be recommended for publication.

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ВИМОГИ ДО ОФОРМЛЕННЯ СТАТЕЙ У «ВІСНИК ЗАПОРІЗЬКОГО НАЦІОНАЛЬНОГО УНІВЕРСИТЕТУ» ЗА ФАХОМ ЕКОНОМІЧНІ НАУКИ

З № 2(42) 2019 року збірник наукових праць «Вісник Запорізького національного університету. Економічні науки» **виходить лише англійською мовою. Стаття подається до розгляду в редакцію українською або російською мовами. 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 або російською мовою, 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 ВНЗ (по центру, Times New Roman, 14 пт., курсив);
 - повна адреса ВНЗ 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/ російською 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 англomовної статті аналогічна українському/російському 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 ВНЗ (по центру, Times New Roman, 14 пт., курсив);
- повна адреса ВНЗ 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);

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V. Conclusions (Висновки);

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