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THEORETICAL BASES OF MANAGEMENT OF ENTERPRISE RISKS

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Introduction. Today, there are major problems in the study of innovation projects related to the fundamental novelty of the product, market unknown, special training of personnel, as well as business risks. Investing in capital is always at risk. It is an indispensable element of a market economy. The risk and the risk of losses are inherent in any economic activity.

The hypothesis of scientific research. Existence of business risks makes it necessary to manage them. Business risk management determines the ability to ensure enterprise sustainability. In modern economic science, identification of many types of risks is carried out subjectively on the basis of expert assessments. Risk management should be an integral part of the company's financial strategy and tactics.

Purpose: to substantiate and deepen theoretical and methodological provisions on business risk management.

Methods of research: for solving the tasks used general scientific and special methods, including observation, analysis and synthesis of information, method of expert assessments. graphical, table and schematic representation of the considered economic processes was used.

Results: the concept of "risk", "entrepreneurial risk" is investigated, risk classification in a market economy is characterized, varieties of risks in entrepreneurial activity are analyzed. As a credit risk management tool, a rating model for assessing the creditworthiness of distributors has been developed, which requires a comprehensive analysis of financial and non-financial factors that characterize the solvency and reliability of counterparties and, based on the data obtained, determine the maximum amount of output for each distributor under conditions deferred payment.

Conclusions: systematization of existing risks and the use of grounded tools for their reduction will allow enterprises to increase the efficiency of their activities. The development of methods and techniques in the field of developing an enterprise risk management system is an important aspect of entrepreneurial activity in order to ensure the development of entrepreneurial activity and the introduction of innovative mechanisms.

Keywords: risk; business risk; risk classification; risk function; risk subjects.

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ТЕОРЕТИЧНІ ОСНОВИ УПРАВЛІННЯ ПІДПРИЄМНИЦЬКИМИ РИЗИКАМИ

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Вступ. На сьогодні виникають великі проблеми в дослідженні інноваційних проектів, пов'язані з принциповою новизною продукту, невідомістю ринку, спеціальною підготовкою персоналу, а також із підприємницькими ризиками. Під час інвестування капіталу завжди присутній ризик. Він є обов'язковим елементом ринкової економіки. Ризик і небезпека втрат властиві будь – якій економічній діяльності.

Гіпотеза наукових досліджень. Існування підприємницьких ризиків робить необхідним управління ними. Управління підприємницькими ризиками визначає можливості забезпечення стійкості підприємства. В сучасній економічній науці ідентифікація багатьох видів ризиків здійснюється суб'єктивно на основі експертних оцінок. Управління ризиками повинне бути невід'ємним елементом фінансової стратегії і тактики підприємства.

Мета: обґрунтування та поглиблення теоретико-методичних положень щодо управління підприємницькими ризиками.

Методи дослідження: для вирішення поставлених завдань застосовувалися загальнонаукові та спеціальні методи, в тому числі спостереження, аналіз і синтез інформації, метод експертних оцінок. використовувалося графічне, табличне та схематичне уявлення розглянутих економічних процесів.

Результати: досліджено поняття «ризик», «підприємницький ризик», охарактеризовано класифікацію ризиків в умовах ринкової економіки, проаналізовано різновиди ризиків в підприємницькій діяльності. Як інструмент управління кредитними ризиками розроблена рейтингова модель оцінки кредитоспроможності дистриб'юторів, на основі якої необхідно проводити комплексний аналіз фінансових і нефінансових факторів, що характеризують платоспроможність і надійність контрагентів, і на підставі отриманих даних визначати максимальну величину обсягу поставки продукції кожному дистриб'ютору на умовах відстрочення платежу.

Висновки: систематизація наявних ризиків і застосування обґрунтованих інструментів для їх зниження дозволить підприємствам збільшити ефективність своєї діяльності. Розробка способів і методик у сфері розвитку системи управління підприємницькими ризиками є актуальним аспектом ведення підприємницької діяльності для забезпечення можливості розвитку підприємницької діяльності та впровадження інноваційних механізмів.

Ключові слова: ризик; підприємницький ризик; класифікація ризиків; функція ризику; суб'єкти ризиків.

Problem statement. To date, most companies have faced the problem of the impact of business risks on the efficiency of doing business, the possibility of modernization and expansion of activities. As practice shows, there is a well-founded reason for the emergence of risks in entrepreneurial activity, because of the impossibility of calculating the result and taking into account the influence on it of various factors. In order to reduce the impact of risks, it is necessary to identify possible consequences for the company in a crisis situation, to neutralize the negative effects of such an impact on the activities of the company, need to constantly update the models and modernize them, approaches to risk management at the enterprise. Therefore, this problem is relevant today.

In the conditions of increasing crisis and foreign economic restrictions, there is an increase in the number of risks and the degree of their influence on the development of entrepreneurial activity.

In particular, the risks of food industry enterprises in the process of doing business increase. A decrease in real incomes of the population, late payment for products from counterparties due to a decrease in their solvency, an increase in expenses for the purchase of imported raw materials, a decrease in the availability of credit resources are only part of the factors that have a negative impact on business development and the sustainability of the food industry. At the same time, the development of production, sustainability and success of the enterprises of this industry is not only the goal of the owners and managers of companies, but also seems to be a necessary condition for the well-being of citizens, which is due to the social importance of the food industry to ensure food security of the state.

In the current crisis conditions, enterprises need not only to systematize possible risks, but also to carry out continuous management of business risks using the developed methods. However, modern food industry enterprises, as a rule, are intuitively engaged in risk management and do not pay enough attention to the introduction of appropriate risk management tools. This is due not so much to the limited resources of companies as to the lack of currently scientifically based and universal methods for reducing risks. This problem significantly affects the efficiency of enterprises and limits the development of entrepreneurship. The situation is further complicated by the fact that business activities are carried out in constantly changing conditions, which contributes to an increase in both the quantity and the qualitative diversity of the risks themselves.

The aim of the study. The main purpose of the work is to substantiate and deepen the theoretical and methodological provisions on business risk management.

The object of the study is the process of managing business risks.

Analysis of recent research and publications. In contemporary economic literature enough attention is paid to the management of entrepreneurial risks, among them the following scientists can be distinguished: Ya.D. Vyshnyakov, V.V. Vitlinsky, V.M. Granaturov, P.V. Grabovoi, L.I. Donets, V.A. Kravchenko, N.L. Pravdyuk, N. Mashina, I. Blanka, L. Dontsa, T. Klebanova, I. Kravchenko, A. Matviychuk, S. Nakonechnyj, A. Starostina, G. Chernov, A. Shtefanich, A. Yastremsky, T. Mostenskaya, N. Skopenko, O. Nikoluk, P. Steciuk, V. Chepurka, R. Shynkarenko and others.

Research methods. The theoretical and methodological basis of the research were the modern theories of business risk management, monographs, publications and scientific and analytical developments of scientists on the issues of business risk management, as well as abstract-logical and graphical methods of research

Presentation of the main research material. Let's study the concept of "risk". The term "risk" has different interpretations in modern economic literature, which complicates the study of this phenomenon. Risk can be considered as an action, a situation of an event, uncertainty, probability. Risk is the threat of loss of part of its resources, lack of income or the appearance of additional costs, the possibility of obtaining significant benefits as a result of the business activities in conditions of uncertainty [7]. Risk can also be considered as the activity of business entities, which is related to overcoming uncertainty in the situation of inevitable choice, failure, deviation from the goals contained in the likely alternatives. The question arises as to how to correctly determine the risk as an activity. Activity – this is a human form of active attitude to the outside world, the content of which is its expedient change and transformation. Objectively, there are the following types of risk, such as the risk of "force majeure" circumstances (drought, flood, fire, etc.), systematic, periodic, random risk, etc. Ultimately, they can be linked to manifestations of human activity, but a chain of causal relationships will be very long.

Consequently, most of the definitions of entrepreneurial risk are reduced to the uncertainty of obtaining the expected return on investment. The practice of domestic legislation treats entrepreneurial activity as an independent, initiative, systematic, at its own risk, activities for the execution of works, production, provision of services and trade in order to profit. In our opinion, the best definition of entrepreneurial risk is its interpretation as the activities of economic entities, which may be associated with overcoming uncertainty in the situation of inevitable choice, in the process of which there is an opportunity to assess the probability of achieving the desired result contained in the selected alternatives of all kinds entrepreneurial activity. In the Ukrainian legislation, the notion of legality of business risk and necessary in this case, no guarantees,

which restrains its use. Table 1 presents different interpretations of the notion of risk.

Table 1

The essence of entrepreneurial risk

Source	Economic essence
Z.S. Varnalij, V.O. Sizonenko	Occurs in all areas of the entrepreneur's activity: production, financial and trade intermediation, sales of goods and services, implementation of scientific, technical and commercial projects. In each area of entrepreneurial activity, the risk is associated with the possible loss of resources available to the entrepreneur. These can be material, financial, intellectual and other resources.
Ya.D. Vishnyakov, N.N. Radayev	A quantitative measure of the ability of the entrepreneur to creatively use element of uncertainty in the reproduction process to obtain additional value.
Yu.V. Tyulenieva	The category of reproduction is connected with each stage, a link of economic activity, from the creation of conditions of production to the production of goods and services and their implementation. The entrepreneur must be very well oriented in the environment, know the prices, analyze demand and supply in different markets, monitor new developments, prevent production crashes, etc. Failure to comply with these other rules may result in unjustified damage.
O.V. Bondar	Appears in any type of activity, for example, connected with the production of products, goods and services. It can be characterized as a danger of potentially possible, probable loss of resources or not revenues compared with the option designed to rational use of resources. Thus, under the business risk it is necessary to understand the risk that arises in any type of activity associated with the production of products, services, goods, their operations, commerce, the implementation of socio-economic and scientific and technical projects.
O.V. Shepelenko	The way of managing in unforeseen conditions creates the opportunity and the necessity for the entrepreneur due to special abilities to prevent, reduce the adverse effect of negative factors and obtain entrepreneurial income in these conditions.

Source: Summarized by the author.

Investigate the concept of "business risk management". Business risk management is a special type of activity aimed at mitigating the impact of risk on the results of the company's business activities. The most important decisions to be taken by an entrepreneur are determined by the level of risk that is acceptable to the enterprise [4]. Table 2 presents the main elements of business risk management.

Table 2

Basic elements of business risk management

Title	Definition
Management objects in internal and external environments	The first ones include: financial and business operations, technologies, processes, production resources, information and communications. Among others include; the activities of partners, contractors, suppliers, consumers and customers, as well as economic, political social processes in the macro and transnational environment.
Subjects of management	Employees, officials, departments, consulting companies, who are given responsibilities and authorities for the monitoring, identification, identification and study of risks, as well as the development of measures to prevent and overcome their impact on the efficiency of financial and business activities of the enterprise as a whole.
Management tools	A set of procedures, principles, methods of preventing adverse events in the operational, and investment, financial activities of the enterprise.
Risk Indicators	The system of key indicators that characterize the level of risk of financial and economic activity.

Source: compiled by the author on the basis of [10].

Having analyzed the Table 2 it can be said that the efforts of the entrepreneur should be aimed at minimizing, compensating, preventing the negative impact of adverse factors.

Eliminating or limiting the impact of all probable threats is impossible, financial and economic activity of the enterprise is carried out in conditions of acceptable risk – achievement of conditions under which possible losses or losses due to unfavorable development of events are significantly less than possible benefits. Risk is also acceptable in a situation where inactivity is associated with greater losses or losses.

Consider the task of risk management (Table 3). The main objective is to make the management of the company more effective, taking into account risks. Some risks may need to be reduced, others take, and some, on the contrary, increase.

Table 3

Risk Management Tasks

№	Tasks
1	Formalization of a control object for a particular enterprise: the development of a "risk register", the identification of all internal and external risks of the enterprise, including information on causal links between risks and "risk maps".
2	"Line of Tolerance" or risk aversion. Characterized by the extent to which a significant risk can be accepted, sustained and optimized by an enterprise.
3	Risk-appetite is measured by qualitative methods, but as practice has shown, they can apply quantitative approaches that determine the balance between profitability and risk.
4	Formation of a system of priorities for responding to one or another risk. Understanding what risks a company is above its level of risk tolerance should encourage enterprises to prioritize exactly those risks, the loss of which is estimated as a value that exceeds the permissible risk level for an enterprise.
5	Development of risk management mechanisms.

Source: compiled by the author on the basis of [10].

At this stage, it can be said that the management of business risks includes the following main elements of the enterprise risk management program, which directly provides not only economically sound recommendations for the enterprise, but also measures, the main focus of which is to reduce the overall level of entrepreneurial risk to an acceptable level. Business risk management is a systematic approach to identifying, analyzing, minimizing and monitoring risks.

Thus, summing up all the above, we propose the following scheme of business risk management system (Fig. 1).

As can be seen from the figure, the proposed system includes five elements (Business Risk Detection, Analysis and Prioritization, Business Risk Minimization and Reporting, Monitoring and Revision, etc.), the most important of which is the Culture of Business Risk Management, is to create an environment that would contribute identifying, evaluating and reducing risks, as well as open communication about risks.

No matter how good or easy the process of managing business risks was, if employees and managers reject it, the company will not be able to manage risks well.

As a credit risk management tool, a rating model for distributors' credit rating was developed, on the basis of which it is necessary to conduct a comprehensive analysis of financial and non-financial factors characterizing

solvency and reliability of counterparties, and based on the data obtained, determine the maximum amount of products supplied to each distributor on deferred payment terms .

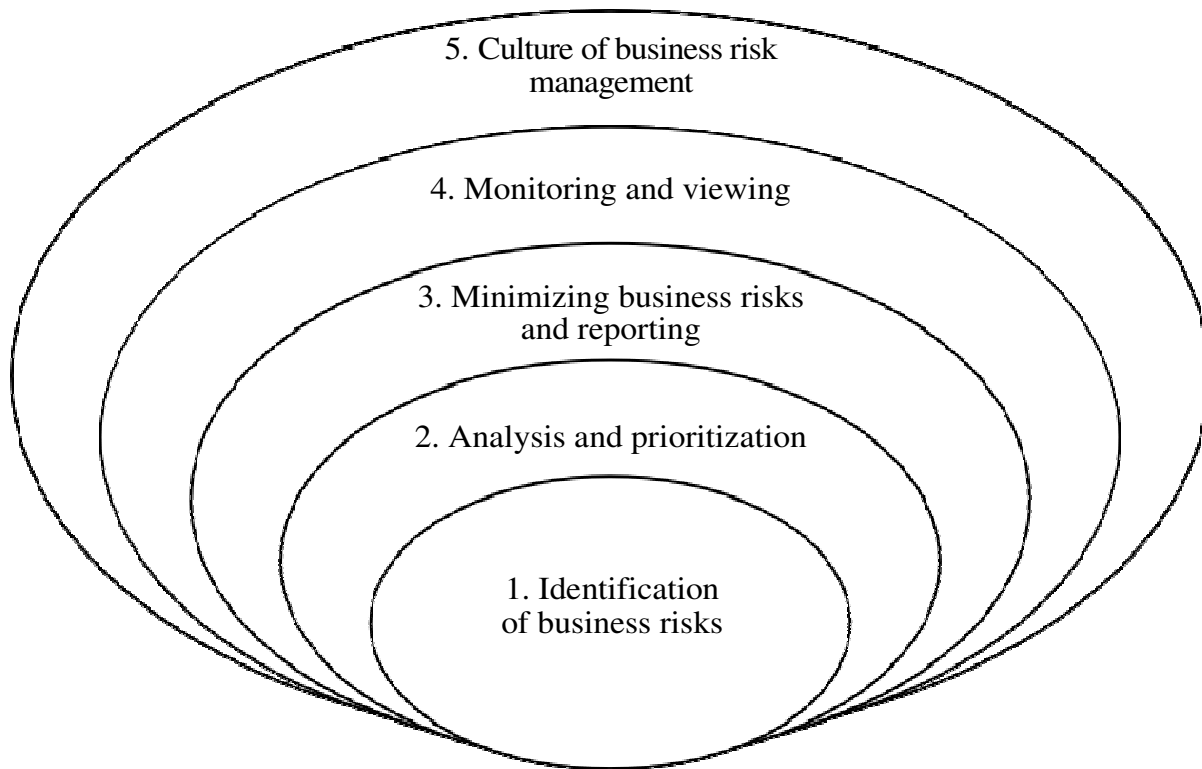


Figure 1. Enterprise risk management system

In cooperation with distributors on the terms of deferred payment, it is necessary to conduct a comprehensive assessment of the solvency of each counterparty. As a tool for establishing a unified approach to assessing the solvency of counterparties, a developed rating model for assessing the solvency of distributors is proposed, which allows expressing the level of solvency using a rating measure.

In order to develop a rating model for distributor creditworthiness and conduct a comprehensive analysis of financial and non-financial factors determining the solvency of counterparties, quantitative and qualitative indicators were selected and structured, the assessment of which can give the most complete and comprehensive picture of the current financial position of distributors (Table 4).

To enable comparative analysis, each indicator within the model is estimated on a 100-point scale.

The basis of the developed rating model of distributors' credit rating is a point (scoring) system, which is a simulated rating process that systematizes all the information necessary for analysis. The model includes a comprehensive

analysis of financial and non-financial factors that determine the solvency and reliability of the counterparty by assigning a rating, expressed as a percentage. The credit rating is a complex indicator characterizing the creditworthiness (solvency) of the counterparty and calculated on the basis of risk factors.

Table 4

**The scorecard for assessing the factors determining
the solvency of distributors**

Group 1. Industry risks and dependence on market factors Industry / market prospects, competition, change in demand, counterparty position in the main market, dependence on customers and sales diversification, dependence on suppliers, dependence from price risks	Group 2. Risk factors associated with corporate governance and business reputation Management experience and management efficiency, reputation of the counterparty (including possible cases of non-fulfillment / delay in fulfillment of obligations to creditors), informational openness
Group 3. Risk factors associated with the ownership structure and the reliability of the company Transparency of the ownership structure and reputation of shareholders, financial support from the main owners, legal form of the company, duration of cooperation	Group 4. Risk factors associated with the company's financial situation Liquidity analysis and fin. Sustainability (current liquidity ratio, total solvency ratio, ratio of borrowed and own funds, the ratio of debt to revenue for 1 month.); Profitability analysis (sales profitability, ROA); Turnover analysis (receivables and payables turnover, inventory)

In general, the developed rating model of distributors' credit rating is as follows:

$$R = G1 \times 0.25 + G2 \times 0.20 + G3 \times 0.20 + G4 \times 0.35, \quad (1)$$

where R is the total value of the internal credit rating (in percent);

$G1$ – assessment of risk factors of Group 1 “Industry risks and dependence on market factors” (as a percentage);

$G2$ – assessment of Group 2 indicators “Risk factors associated with corporate governance and business reputation” (as a percentage);

$G3$ – evaluation of Group 3 indicators "Risk factors associated with the ownership structure and the reliability of the company" (as a percentage);

$G4$ – assessment of the Group 4 indicators "Risk factors associated with the financial position of the company" (as a percentage).

Assessment of risk factors in each of the four groups is expressed as a percentage and represents the proportion of points scored to its maximum possible value. The coefficients of 0.25, 0.20, 0.20, 0.35 represent the proportion

of each group of factors that determines the significance of the group in the overall assessment of the final rating. These coefficients are assigned using the method of expert assessments. With the help of the developed rating model, it will be possible to calculate the distributor's credit rating, which is a reflection of the solvency and credit quality of the counterparty. The lower it is, the higher the likelihood of incomplete or untimely performance by the distributor of its obligations to the enterprise. Based on the rating data, it is proposed not only to rank their counterparties based on their financial sustainability, but also to consciously decide how much cooperation is possible with one or another distributor on deferred payment terms. In accordance with the scale indicated in Table 5, the credit quality ratio is proportionally determined for the seven enlarged groups, distributed by risk level, based on the credit rating.

Table 5

The ratio of credit rating and risk level

Credit rating	Risk level	Credit quality ratio
More than 90%	Low	1
From 80% to 90%	Insignificant	0.85
From 60% to 80%	Below the average	0.7
From 40% to 60%	Average	0.5
From 20% to 40%	Elevated	0.3
From 10% to 20%	High	0.15
Less than 10%	Very high	0

The maximum delivery of products with deferred payment is proposed to be calculated as the product of the value of the estimated sales of the company's products and the Credit Quality Ratio, determined proportionally to the seven enlarged groups, distributed by risk level:

$$Lim_i = Q_i \times K_i, \quad (2)$$

where Lim_i is the maximum amount of product delivery to the i -th distributor with a deferred payment (in monetary units);

Q_i – total sales of the i -th distributor (in monetary units);

K_i – Credit factor of the i -th distributor (numerical value).

Consequently, on the basis of the above it is stated that the program of risk management for business risk management includes such approaches: system, process, situational, and along with methods used in practice, the method of analysis of hierarchies. It is not always possible to take into account all the conditions in which the enterprise operates, with simultaneous influence on the reduction of risks [10].

Conclusions. Regarding the study of entrepreneurial risk, it was possible to identify the main components of its essence, allowing us to comprehensively characterize this concept: arises in all areas of the entrepreneur's activity: production, financial and trading intermediation, sales of goods and services; quantitative measure of the ability of the entrepreneur creatively to use element of uncertainty in the process of reproduction to obtain additional value; the category of reproduction is connected with each stage, a link of economic activity, starting from the creation of conditions of production and ending with the production of goods and services and their implementation; a way of managing in unforeseen conditions, in which the opportunity and need to be prevented for an entrepreneur are created due to special abilities. Most importantly, you need to understand how you can identify and manage the risk. Risk management can be divided into five stages: The first stage – Detection of business risks, Second – Analysis and prioritization; Third – Minimization of business risks and accountability; Fourth – Monitoring and review; Fifth – The Culture of Business Risk Management.

A rating model for distributors 'credit rating has been developed, which allows a unified approach to be used when analyzing the level of counterparties' solvency. Using the model allows you to express the creditworthiness (solvency) of counterparty distributors through the assignment of credit ratings expressed as a percentage. The developed rating model of distributors' credit rating will allow for a systematic analysis of the financial sustainability of each counterparty and, based on the information received, calculate the maximum amount of product delivery on deferred payment terms. Testing the results of the study confirms the possibility of using the developed rating model for assessing the creditworthiness of distributors in the implementation of marketing activities by food industry enterprises and justifies its significant role in risk management to ensure the development and effectiveness of business activities.

To manage risks, you need to take the following steps: identification and installation; Creation of a team of experts, which will help to develop a plan of measures for minimization or elimination of risk; risk assessment using special tools and methods (matrix of risk assessment, decision tree, SWOT analysis, etc.); development of a plan of measures and the last, final step – is the implementation of plans and measures with constant correction in accordance with changing conditions.

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CLUSTER ENTERPRISES AS INTERACTIVE FORM FOR IMPLEMENTATION OF BUSINESS IDEAS WITH SOCIALLY IMPORTANT POPULATION REPRESENTATIONS

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Introduction. The article clarifies that the problem of creating conditions for the entrepreneurial activity of socially vulnerable sections of the population is now becoming particularly relevant. Possibilities to reach a certain level of entrepreneurship development on the basis of a cluster organization show that the internal contradictions of the entrepreneurial process and the increased risk for its participants – socially vulnerable segments of the population are twice reflected in the behavior and activity of the latter. Therefore, the development of a new approach to activating and obtaining entrepreneurial skills allows us to formulate this new way of raising our standard of living.

The hypothesis of scientific research is to determine the attractiveness of cluster entrepreneurship for socially vulnerable populations. The use of this form of entrepreneurship allows us to derive undeniable advantages of entrepreneurial activity, to define one of the most appropriate models of cluster business realization: "pushing", "pulling" or mixing. **The purpose** of the study is to substantiate the most appropriate model of cluster entrepreneurship for socially vulnerable groups of the population and to determine the specifics of its application.

The theoretical and methodical basis - the position and conclusions of modern economic theory, methodological and methodological developments of domestic and foreign scientists on cluster entrepreneurship issues, legislative acts and institutional principles of entrepreneurial activity. Methods of economic statistics, logical analysis – to determine the factors of influence on the dynamics of entrepreneurial activity, cluster and regression analysis – to determine the most optimal models of cluster business of socially vulnerable segments of the population.

Results. The scientific-methodical approach of determination of the most optimal models of entrepreneurship development on the basis of cluster organization of socially vulnerable groups of population is proposed.

Conclusions. The research of the conceptual aspects of cluster entrepreneurship has made it possible to find out the theoretical understanding of the features of this toolkit and to identify the possibilities of its use for activating the entrepreneurial activity of socially vulnerable groups of the population.

Keywords: cluster entrepreneurship; socially vulnerable strata of the population; business ideas.

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КЛАСТЕРНЕ ПІДПРИЄМНИЦТВО ЯК ІНТЕРАКТИВНА ФОРМА РЕАЛІЗАЦІЇ БІЗНЕС-ІДЕЙ СОЦІАЛЬНО ВРАЗЛИВИМИ ВЕРСТВАМИ НАСЕЛЕННЯ

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Вступ. В статті з'ясовано, що проблема створення умов для здійснення підприємницької діяльності соціально вразливих верств населення стає в даний час особливо актуальною. Можливості досягнення певного рівня розвитку підприємництва на засадах кластерної організації показують, що внутрішня суперечливість підприємницького процесу й підвищений ризик для його учасників – соціально вразливих верств населення подвійно відбиваються на поведінці й активності останніх. Тому розробка нового підходу активізації та отримання підприємницьких навичок дозволяє сформулювати у цих новий спосіб підвищення рівня свого життя.

Гіпотеза наукового дослідження полягає у визначенні привабливості кластерного підприємництва для соціально вразливих верств населення. Використання такої форми підприємництва дозволяє отримати незаперечні переваги підприємницької діяльності, визначити одну із найбільш доцільних моделей реалізації кластерного підприємництва: «вштовхуючу», «втягуючу» або змішану.

Мета дослідження – обґрунтувати найбільш доцільну модель кластерного підприємництва для соціально вразливих верств населення і визначити специфіку її застосування.

Теоретична та методична основа – положення і висновки сучасної економічної теорії, методологічні і методичні розробки вітчизняних та зарубіжних вчених з проблем кластерного підприємства, законодавчі акти та інституціональні засади забезпечення підприємницької діяльності. Використано **методи** економічної статистики, логічного аналізу – для визначення факторів впливу на динаміку підприємницької діяльності, кластерний та регресійний аналізи – для визначення найбільш оптимальних моделей кластерного підприємництва соціально вразливих верств населення.

Результати. Запропоновано науково-методичний підхід визначення найбільш оптимальних моделей розвитку підприємництва на засадах кластерної організації соціально вразливих верств населення.

Висновки. Проведене дослідження концептуальних аспектів кластерного підприємництва дозволило з'ясувати теоретичне розуміння особливостей цього інструментарію та виявити можливості його використання для активізації підприємницької активності соціально вразливих верств населення.

Ключові слова: кластерне підприємство, соціально вразливі верстви населення, бізнес-ідеї.

Formulation of the problem. Each country has a certain socio-economic structure of the economy and society, the ratio of its components which characterizes the trends of social and economic development, and allows you to find out the socio-economic situation, identify the most likely ways of its transformation.

Entrepreneurship of socially vulnerable segments of the population as a socio-economic and organizational phenomenon in recent years increasingly attracts the attention of scientists, business and government. Under social entrepreneurship refers to the type of economic activity, aimed at solving problems of certain groups of people who have limited access to vital goods. Social entrepreneurship is difficult to call a new phenomenon, but in recent years it has experienced an unprecedented rise all over the world, including in Ukraine, with both the practice of social entrepreneurship and its scientific conceptualization developing.

One of the ways of implementing such a scenario is the formation of an appropriate infrastructure of entrepreneurship of socially vulnerable segments of the population on the basis of cluster interaction [10], the synergistic effect of which is the expansion of the capabilities of the functioning of individual business structures through the efficient combination of new knowledge with new business technologies.

In the world, the cluster concept of economic growth and increasing the competitiveness of economic systems has long been known and intensified by the growing processes of globalization, the development of means of communication, the active formation and development of network transnational structures. For the conditions of our country, a cluster association of business entities should be implemented in the form of a network organization of complementary, territorially and technologically interconnected cooperation between enterprises. Cluster Entrepreneurship is a technological chain of specialization, co-operation and technological combination of enterprises united around a certain scientific and educational center. The presence of a research and organizational-institutional core allows us to obtain a fundamentally new result – the interaction of all the participants in the cluster education.

Analysis of recent research and unresolved part of the problem. The founders of the theory of entrepreneurship and their foreign and domestic followers are J. Galbraith [1], M. Gerber [2], A. Marshall [5], V. Zbarsky [4], M. Kaninsky [4], and others. Innovations in production and entrepreneurial activity were investigated in well-known foreign and domestic schools: P. Drucker [3], B. Santo [6], R. Fathutdinova [7], J. Schumpeter [8], and others.

Analysis of literature has shown that in most cases, researchers are exploring either the issue of entrepreneurial activity separately, while there is a lack of holistic integrated approach to the search for a fundamentally new

scenario of the development of cluster interaction of business entities, especially for socially vulnerable segments of the population.

The purpose of the article is theoretical substantiation of the provisions and definition of methodological approaches to the formation of infrastructure support for cluster business of socially vulnerable groups of the population.

Research results. To determine the most effective directions for the development of cluster business of socially vulnerable populations, the existing state of entrepreneurial activity in the Kharkiv region was analyzed. In this region, during the period 2014–2018, the proportion of displaced people as a result of the military conflict with Russia is one of the largest, accounting for up to 80% of all socially vulnerable segments of the population.

According to statistics at the end of 2018, there are about 13,000 business entities in the Kharkiv region, of which 52.8% are large, 27.6% are medium-sized, and 19.6% are small enterprises. According to the organizational, economic and legal form of ownership of the private enterprise, the majority (72.4%), state and municipal – 13.4%, mixed – 14.2%. During the period under study, the dynamics of entrepreneurial activity indicators of the Kharkiv region is shown in the Table 1.

Table 1

**Entrepreneurship activity of the Kharkiv region
for the period from 2014 to 2018**

Indicators	Year					The pace of change 2018 to 2014, %
	2014	2015	2016	2017	2018	
Number of enterprises by types of entrepreneurship, total	12633	12529	13117	12554	13008	102,9
of them:						
- industrial entrepreneurship, including construction, agriculture	4722	4522	4414	4393	4292	90,9
- trade entrepreneurship	6623	6741	6456	6276	6771	102,2
- credit business, including banking, consumer lending	1011	1222	1633	1786	1888	186,7
- intellectual enterprise, including research and development	47	55	51	47	55	117,0
Industrial production index, %	117,7	113,1	109,1	85,2	112,3	-
Index of physical volume of retail trade turnover, %	78,1	111,0	123,5	132,4	142,0	-
Share of unprofitable enterprises, %						
- production	38,4	24,7	37,8	33,9	27,2	-
- trading	19,6	17,8	22,0	21,5	23,8	-
- credit	33,5	27,9	28,5	31,7	32,8	-
- research and development	11,2	9,7	13,3	14,2	12,8	-
Share of enterprises engaged in innovation activity, %	13,6	14,6	15,4	17,1	18,7	-

It is based on [9; 10].

According to the data of the table 1 number of enterprises in the Kharkiv region, which carried out innovative activity is growing at a rather high rate (by 37.5% for the period under investigation). One of the main reasons for this is the availability of a network of developed innovative research, organizational and advisory and informational and analytical mediation infrastructure for the transfer of knowledge between research institutions and production structures (techno-polises, technology parks, business incubators, information-analytical centers, etc.), the development of which testifies to the gradual "germination" of existing industrial and post-industrial structures of the elements of the sixth technological structure (knowledge economy).

The presence of these processes is evidenced by the following: 56% of the main means of scientific and technical activity, 15% of all research institutes of Ukraine, 20% of design organizations, and more than 16% of scientific employees are concentrated in the Kharkiv region. By the number of scientific organizations, the Kharkiv region ranks second in the country after Kyiv and the first among the regions of Ukraine. There are 55 business centers and business incubators, 294 investment and innovation funds and companies, 183 audit firms, and 60 exchanges in the region. Work is underway to create new infrastructure objects for entrepreneurship support (business centers) in Chuguev, Lozova, Pechenizk, Kupyansk and Kharkiv districts. Listed in Table 2–3 data clearly demonstrate the effectiveness of this process.

Table 2

Innovative activity of industrial enterprises of Kharkiv region

Innovative activity of industrial enterprises								
	share of enterprises engaged in innovations	total cost	Including directions					
			research and development	of them		acquisition of new technologies	the acquisition of machines and equipment is associated with the introduction of innovations	other expenses
				internal R & D	external R & D			
	%	thousand UAH						
2014	18.4	805957	93737	84678	9059	12250	669874	30095
2015	22.1	738232	99568	90332	9236	5571	590336	42755
2016	23.2	642287	125265	105337	19928	22618	471944	22458
2017	22.4	711133	146160	119853	26306	18974	509517	36482
2018	28.6	667008	191779	177535	14244	20249	449469	5509

It is based on [9; 10].

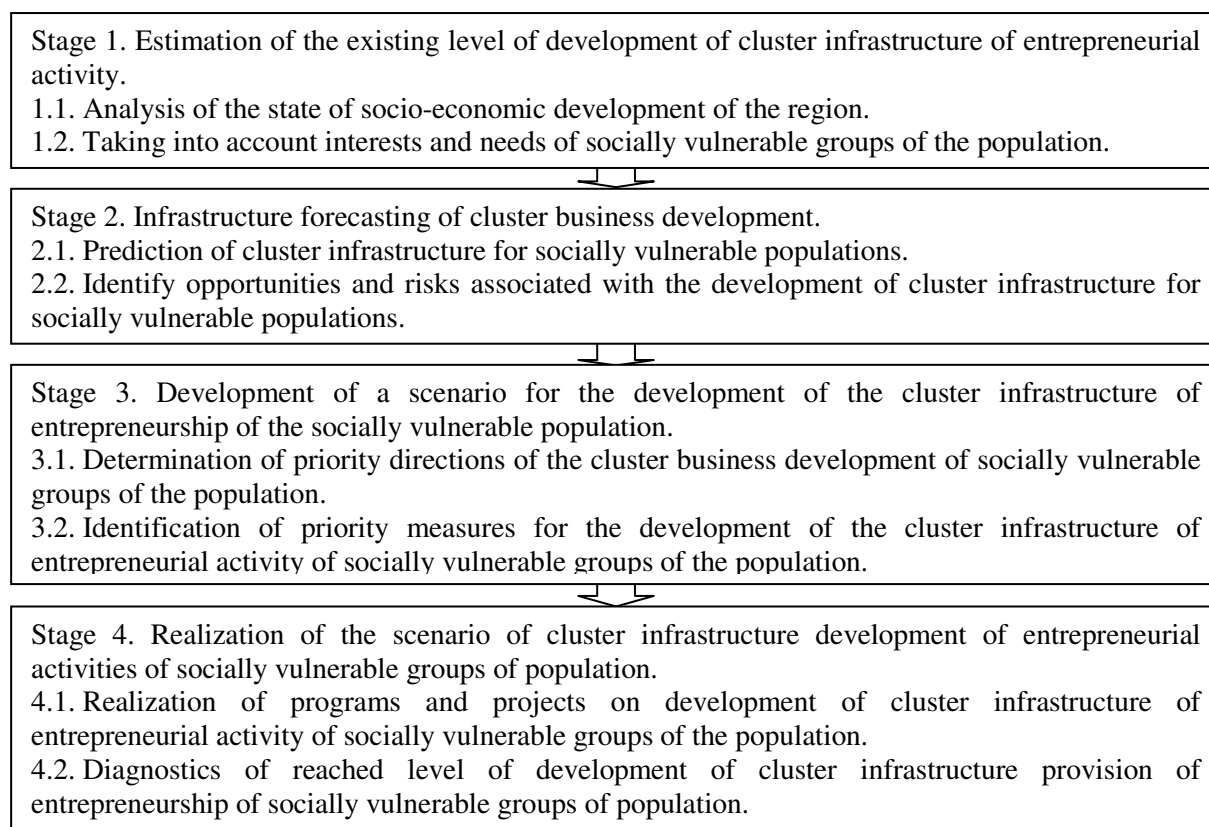
Table 3

Implementation of innovations at the industrial enterprises of the Kharkiv region

Implementation of innovations at industrial enterprises						
Years	Specific gravity of enterprises that implemented innovations, %	Introduced new technological processes and processes	incl. low-waste, resource-saving	Mastered the innovative types of products, names	Of these, new types of technology	Share of realized innovative products in volume of industrial %
2014	17,5	708	45	169	83	2,4
2015	20,8	943	70	276	115	4,8
2016	21,4	375	62	246	89	4,8
2017	21,0	273	70	394	112	3,8
2018	23,7	212	85	208	74	5,1

It is based on [9; 10].

Based on the analysis of the state of the socio-economic state of the Kharkiv region, the following scenario is proposed for the development of cluster support of entrepreneurial activities of socially vulnerable populations (Figure 1).



Offered by authors.

Figure 1. Scenario for the development of cluster support of entrepreneurial activity of socially vulnerable groups of the population

An analysis of the current state of entrepreneurial activity of enterprises of the Kharkiv region made it possible to identify certain trends and suggest possible scenarios for the development of cluster infrastructure support. These scenarios can be implemented using the developed models of possible directions for the development of cluster entities, the practical use of which will increase the demand for specific categories of innovative products, build the optimal structure of the cluster business formation with the distribution of their roles regarding the level of specialization, cooperation and a combination of elements and components of the technological chain. Depending on the degree of entrepreneurial activity in the Kharkiv region, it became clear that there are three clusters of enterprises according to the intensity of the implementation of the results of the NTP (Table 4, Figure 3).

Table 4

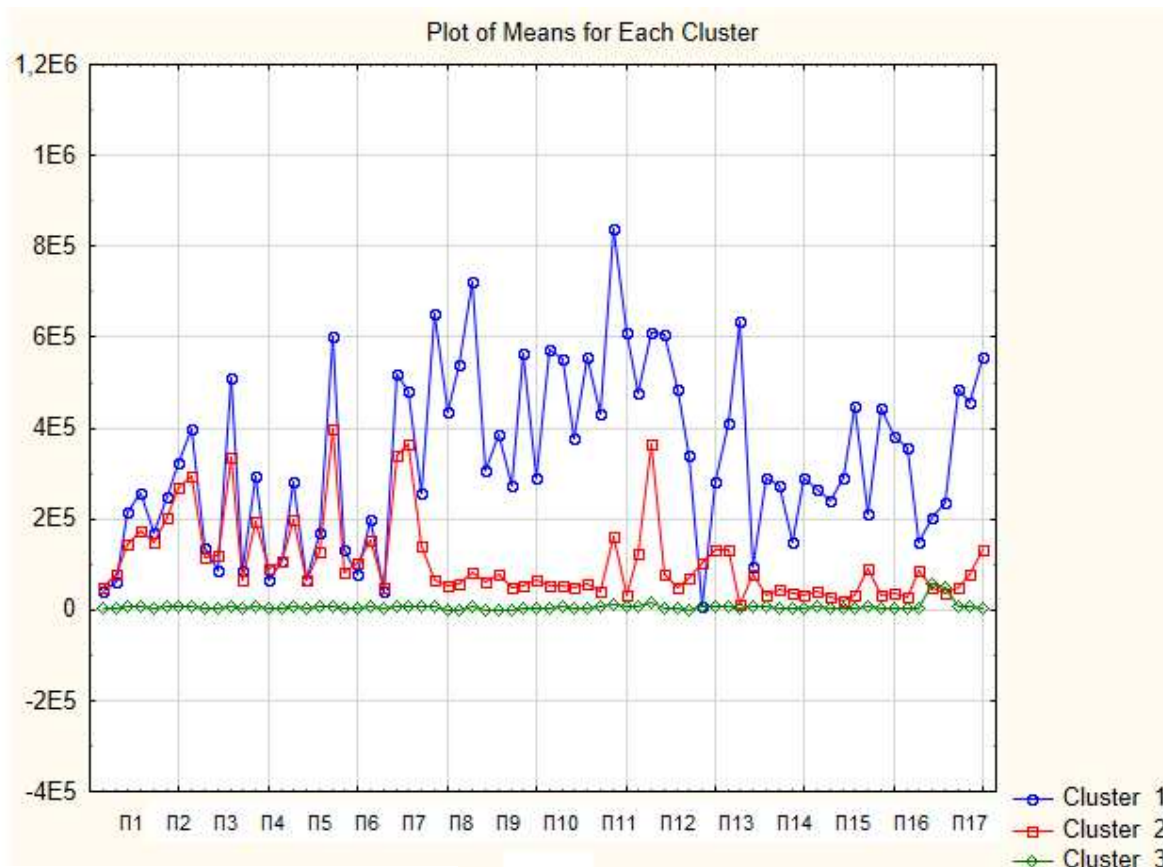
The intensity of business activity in clusters

Indexes	Conditional marks	Cluster		
		1	2	3
Acquiring new technologies	Π1	79,5	56,8	77,2
Preparation of production for introduction of innovations	Π2	72,4	67,2	59,0
Research and development costs	Π3	57,1	49,9	51,0
Acquisition of machinery and equipment related to the introduction of innovations	Π4	57,0	48,1	62,4
Mastered production of the principle of new products	Π5	47,0	73,8	49,5
Conduct internal GDR	Π6	49,0	52,9	61,7
Expenditures on external GDR	Π7	52,7	53,3	68,3
Mastered the innovative types of products	Π8	72,7	58,7	69,0
Introduced new technological processes and processes	Π9	71,7	67,7	58,7
incl. low-waste, resource-saving	Π10	32,0	27,7	23,3
Of these, new types of technology	Π11	13,0	19,9	15,9
Implemented innovation products in the total volume of sales	Π12	33,9	22,2	31,4
Use of innovative types of advertising	Π13	13,9	14,3	16,0
Innovative forms of personnel training are introduced	Π14	27,9	21,3	26,0
Introduced innovative forms of management information management	Π15	17,6	19,8	14,7
Invited consultants on business process reengineering	Π16	16,8	18,4	18,5
New forms of specialization, co-operation and a combination of business activity and technological cluster interaction have been mastered	Π17	20,4	26,6	31,3

Calculated according to data [9; 10].

The results of entrepreneurial activity presented in Table 4 in the average of each of the clusters show that the general directions of action coincide and are directed in most cases to improve the quality of products, the level of customer service (consumers), and the containment of costs. This is evidenced by the data

in Table 4, which compares the intensity of high-tech and high-tech in terms of received clusters.



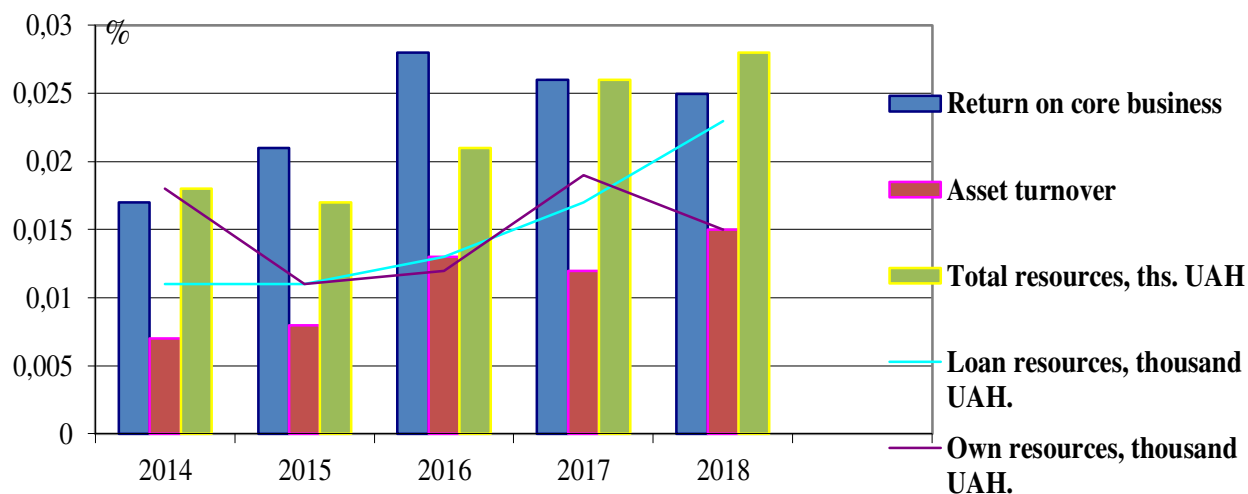
Calculated according to data [9; 10].

Figure 3. Results of clusterization of objects of cluster business in the Kharkiv region

The clustering of business objects showed the existence of 3 models of cluster business infrastructure, representing "pushing" (cluster 1), "retracing" (cluster 2) and mixed systems (cluster 3). This typology of models is based on the results of comparative analysis of the effectiveness of the management system of resource support activities of research objects. The predictive values of innovation development programs for the three revealed clusterization types indicate that there are certain trends in the use of resources for forming cluster entities, financial sustainability of entrepreneurial activity (Figure 4–6).

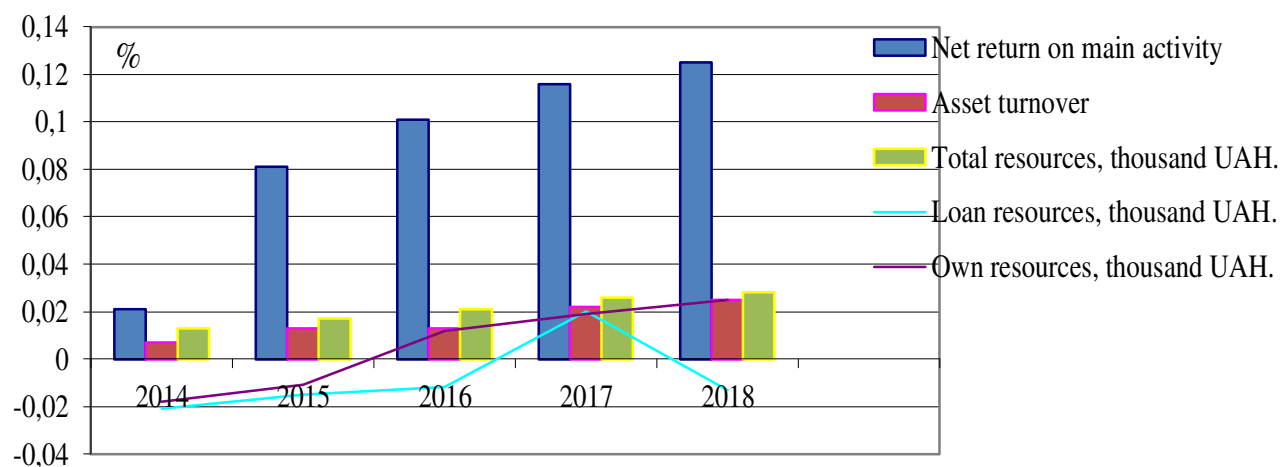
According to Figure 3, cluster 1 surpasses clusters 2 and 3 according to the degree of intensity of product innovations, the level of development of new or changes in the principles of work in traditional markets, as evidenced by the high level of return on the main activities and aggregate expenditures (mainly loans) to "insulting" entrepreneurial activity, that is, the need for certain efforts

(organizational, managerial, financial) to actively stimulate the entrepreneurial activity of members of the cluster.



Calculated according to data [9; 10].

Figure 4. Dynamics of returns of spent resources (efficiency of use) cluster 1



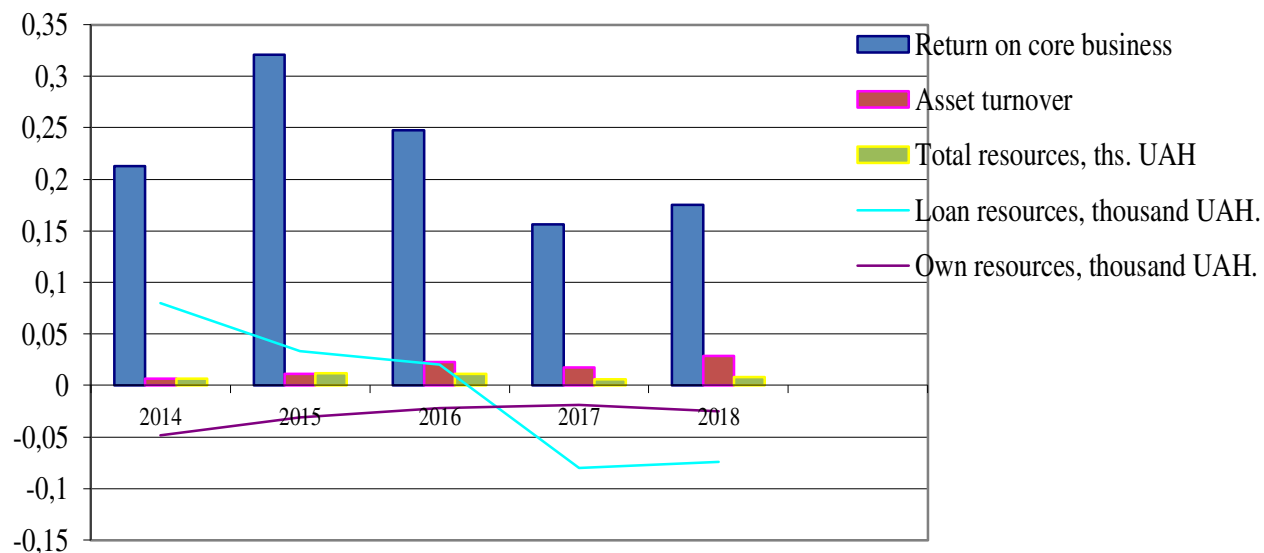
Calculated according to data [9; 10].

Figure 5. Dynamics of returns of own resources (efficiency of use) of investigated cluster enterprises 2

Cluster 2 (Figure 5) also differs significantly from all other clusters by the intensity of business processes – in three quarters of the enterprises of this cluster retraining of employees as one of the pulling (actually passive) methods, which allows to save significantly on spent own resources, took place.

The use of mixed business initiation systems (cluster 3 enterprises) of socially vulnerable populations can significantly reduce borrowing costs due to the emergence of synergistic effects from the combined use of intrusive (active) methods (for example, the launch of new innovative products on the market) and

retractable (passive) methods (raising the level of competence of the personnel, quality of products, etc.).



Calculated according to data [9; 10].

Figure 6. Dynamics of returns of spent resources (efficiency of use) of investigated cluster enterprises 3

In the developed forecast model, the objective function should be to assess the impact of the cluster business entity on the growth of the gross domestic product in the region and the level of competitiveness of products – the location of the cluster, which can be obtained due to the advance development of high-tech, high-tech sector of the economy; its influence by other sectors of the economy at the expense of cooperative chains; the use of the results of the development of high-tech industries in other sectors of the national economy, that is, due to the "diffusion" of advanced technologies and the production culture of high-tech industries (the effect of spin-off); an increase in the multiplier effect in different segments of the real sector of the economy (Table 5).

The obtained model has allowed to establish statistically significant connections between increasing the progressiveness of production with the competitive advantages of cluster entities by means of multiple regression analysis, to find out the overall share of variation in the evaluation of individual manifestations of competitive advantages, determined both by the use of all possible product and process innovations, and by the presence of statistically Significant links between individual scientific and technological innovations in production and competitiveness and to justify the past stubs of addiction.

Table 5

Results of regression analysis of competitive advantages of cluster enterprises and the level of introduction of high technologies into production

Competitive parameter (general level of the explained variation on R^2)	Significant variables	The level of significance of the variable
Cost level ($R^2 = 0,073$)	Computer processing of management information	0,001
	Improving customer service	0,005
	Invitation of management consultants	0,086
	Reduced cost	0,097
Price level ($R^2 = 0,043$)	Improving customer service	0,024
Effectiveness of the system of discounts ($R^2 = 0,069$)	Improving customer service	0,000
	Retraining staff	0,059
	Cooperation with manufacturers of similar products	0,095
Production quality ($R^2 = 0,102$)	Mastering the principle of new products	0,002
	Improving customer service	0,035
	Mastering new sales channels on traditional markets	0,042
	Improving product quality	0,054
	Staff retraining	0,071
	Staff qualification improvement	0,073
Quality of customer service ($R^2 = 0,098$)	Improving customer service	0,000
	Mastering the principle of new products	0,025
Disclosure trademark ($R^2 = 0,075$)	Mastering new sales channels	0,005
	Mastering the principle of new products	0,063
	Computerization of management information processing	0,090
Settlement of the sales system ($R^2 = 0,073$)	Mastering new sales channels	0,016
	Improving customer service	0,056

Calculated according to data [9; 10].

In the field of business expenses, the most important were not measures to reduce resource and other costs, through the introduction of computerized systems of managerial accounting and valuation of costs for ordinary production and economic activity.

In the area of pricing, implementing measures to optimize the quality / price ratio, and thus helping to reduce the "tangible price" to stimulate demand for products.

In the area of unlocking the trademark – increasing the strength of links between promotional actions (increased costs and / or changes in forms of advertising) and awareness of consumers of the brand.

In the field of the establishment of the sales system – the introduction of innovations in the structure of sales networks and forms of marketing strategies

of enterprises through the development and use of various methods of adequate assessment of the scientific and technological potential of innovation cluster education, its competitive advantages, differentiated by such features as the scope of application, the number of elements, innovative sales potential.

Conclusions and suggestions. The calculations of the possibility of achieving a certain level of entrepreneurship development on the basis of the cluster organization show that the internal contradictions of the entrepreneurial process and the increased risk for its participants – socially vulnerable segments of the population are twice reflected in the behavior and activity of the latter.

An in-depth analysis of the innovative process of cluster entrepreneurship in the Kharkiv region made it possible to identify weak links and problems in the chain of "state fundamental science – applied science – production – consumption", whose chronic preservation constrains entrepreneurial development and reduces its efficiency. At the same time, despite the fact that at each stage there are opportunities and reserves for the activation of entrepreneurial activity of socially vulnerable groups of population, the use of necessary institutions, mechanisms and creation of conditions for the mobilization of subjects of cluster business depends on the system they choose to implement development priorities: "pushing", "pulling" or mixing.

Thus, strategic management from the point of view of the investigated aspects of expanding the competitive advantages of the development of cluster business entities of socially vulnerable segments of the population is the use of the revealed patterns of the formation and multiplication of new interdisciplinary clusters in the implementation of subjective actions in choosing the optimal logistic curve of technology and in implementing the stages of this a full life cycle in order to meet promising economic interests. The meaning of the strategy of focusing on the development of competitive advantages is the timely concentration of efforts on the creation and use of scientific achievements and the provision of resources for the dynamics of advanced technologies in the interests of strategic goals, creating conditions for long-term effectiveness of the activity. This change in developmental mode is of a fundamental nature. It means that virtually the whole GDP growth in the medium term can be achieved only by increasing the competitiveness of internally oriented cluster-organized productions and increasing the level of social protection of the population.

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CREATION OF AN INTEGRATED OPEN COWORKING CENTER FOR INNOVATION ENTREPRENEURSHIP IN HIGHER EDUCATION INSTITUTIONS

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Introduction. The transition to an innovative development model requires a dramatic increase in the share of innovative products and services by activating innovative entrepreneurship, introducing organizational innovations. One of the effective ways of modernizing the economy is the implementation of the attractor of integrated development of innovation infrastructure at four levels: macro level (national innovation system, free economic zones, venture financing); meso-level (creation of business incubators, technoparks, hacking, coworkings); micro-level (funds attraction, outsourcing, intrapreneurship) and nano-level (freelancing; crowdsourcing).

The hypothesis of scientific research is based on the assumption that a new understanding of the priorities of educational and innovation policy and the creation of an appropriate institutional environment for the development of the ecosystem "education – science – business" will promote the establishment of equivalent relations between market actors in accordance with national priorities and world trends in scientific and technological development.

The purpose of the research is to provide a comprehensive substantiation of the theoretical and methodological foundations of the formation of a management system of cluster interaction of interactive tools of the innovation chain of knowledge on a new basis, providing the attractor of innovative development of innovation and technological

centers of coworking as a platform for the development of educational clusters.

The methodology of the research is based on the general scientific methodology – philosophy and system approach, as well as on interdisciplinary methodological approaches – institutional, resource, network and cluster, used in socio-economic sciences.

Results. A new approach to the formation of institutional forms of the implementation of innovative entrepreneurship, as well as mechanisms for the formation and functioning of small cluster business structures on the basis (with participation) of university units, allows to provide an efficient transfer of knowledge from the system of education to entrepreneurship in order to provide innovative development as the most entrepreneurial institution of higher education, and cluster action zone.

Conclusions. An integrated combination of the proposed approaches to business organization provides introduction of innovative directions of economic activity, creation of additional workplaces, reduction of unemployment, poverty reduction and formation of a stratum of potentially innovative-active people who can create their own business for improving the quality and standard of living of the population.

Keywords: integrated open coworking center; innovative entrepreneurship; institutions of higher education; triangle of knowledge; traineeships; innovation training chain.

JEL Classification: F 43; M 21; R 15

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СТВОРЕННЯ ІНТЕГРОВАНОГО ВІДКРИТОГО КОВОРКІНГ-ЦЕНТРУ ІННОВАЦІЙНОГО ПІДПРИЄМНИЦТВА У ЗАКЛАДАХ ВИЩОЇ ОСВІТИ

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Вступ. Перехід на інноваційну модель розвитку вимагає кардинального збільшення частки інноваційної продукції та послуг шляхом активізації інноваційного підприємництва, введення організаційних інновацій. Одним із ефективних шляхів модернізації економіки є реалізація атрактору комплексного розвитку інноваційної інфраструктури на чотирьох рівнях: макrorівні (національної інноваційної системи; вільних економічних зон, венчурного фінансування); мезорівні (створення бізнес-інкубаторів, технопарків, хакерспейсів, коворкінг); мікрорівнях (залучення коштів; аутсорсинг; інтрапренерство) та нанорівнях (фрілансінг; краудсорсинг).

Гіпотеза наукового дослідження ґрунтується на припущенні, що нове осмислення пріоритетів освітньо-інноваційної політики та створення відповідного інституціонального середовища розвитку екосистеми «освіта – наука – бізнес» сприятиме налагодженню еквівалентних відносин між суб'єктами ринку відповідно до національних пріоритетів та світових тенденцій науково-технічного розвитку.

Мета дослідження – комплексне обґрунтування теоретичних і методичних засад формування системи управління кластерною взаємодією інтерактивних інструментаріїв інноваційного ланцюжка знань на новій основі, забезпечення атрактору інноваційного розвитку інноваційно-технологічних центрів коворкінгу як платформи для розвитку освітніх кластерів.

Методологія дослідження базується на загальнонауковій методології – філософії і системному підході, а також на міждисциплінарних методологічних підходах – інституціональному, ресурсному, мережевому і кластерному, що використовуються в соціально-економічних науках.

Результати. Запропоновано новий підхід до формування інституційних форм реалізації інноваційного підприємництва, а також механізмів формування і функціонування малих кластерних підприємницьких структур на базі (за участю) підрозділів університетів дозволяє забезпечити ефективний трансфер знань від системи освіти в підприємство для забезпечення інноваційного розвитку як самого підприємницького закладу вищої освіти, так і зоні дії кластеру.

Висновки. Комплексне поєднання запропонованих підходів до організації бізнесу забезпечує впровадження інноваційних напрямів економічної діяльності, створення додаткових робочих місць, скорочення безробіття, подолання бідності та формування прошарку потенційно інноваційно-активних людей, здатних створювати власний бізнес для покращення якості та рівня життя населення.

Ключові слова: інтегрований відкритий коворкінг-центр; інноваційне підприємництво; заклади вищої освіти; трикутник знань; стажерські майданчики; інноваційний ланцюжок навчання.

Problem statement and its connection with important scientific and practical tasks. Challenges of the 21st century require an interdisciplinary approach and coordinated action to address them. In the search for alternative sources of energy, environmental protection, green transport, sustainable consumption and development of energy, resource and ecologically efficient production, improvement of the health care system and education, improvement of living standards and employment, in most cases existing institutes are involved. and the systemic actions of individual states.

The current state of education in the countries of the Eastern region shows that most governments are gradually modernizing the existing systems of higher education in these countries, and higher education institutions take certain steps towards training highly skilled personnel, branching out scientific innovation activities, introducing a system of interactive relationships with enterprises in order to taking into account the requirements of the market regarding the new contemporary content of competences of the future graduate. In recent years, many conditions have been created in the countries of the Eastern region for the development of educational and innovation activities. The basis of the legal basis for the reform of higher education and the mechanism of innovation policy has been formed, the conditions for the development of the corresponding infrastructure have been created. But, despite the high innovation potential of these countries, which remained even in Soviet times, the innovative component of ensuring the development of higher education is almost not used. In addition, recent official statistics indicate a gradual decline in the innovation activity of universities in these countries.

The need to find fundamentally new methods for solving this problem has become an impetus for identifying new areas of modernization, reengineering and development of all components of higher education institutions. In addition, the analysis shows that in most cases the existing gaps in the training of future specialists are of a common nature. Namely: ineffective use of the synergistic possibilities of the "triangle of knowledge" taking into account local needs of the economy, dissatisfied with the use of the benefits of an interactive change management system in higher education, increasing the degree of openness, transparency, and dynamism of knowledge both in the EU and in the countries of the Eastern region.

Analysis of recent publications on the problem. In modern literature, in most cases, the issue of creating the necessary conditions for the generation and exploitation of knowledge in the field of creative industries, as well as the construction of mutually beneficial sustainable partnerships between academic and business partnerships through the offer of internships with the aim of employment of graduates. Thus, studies on the issues of training of competitive specialists in higher education institutions of Ukraine have been devoted to the

research of I. Babin [1], Ya. Bolyubash [1], A.A. Garmash [1], V. Kremin [1], D. Tabachnik [1], V. Ponomarenko [2] et al. In some works (A. Shiyan, L. Nikaforov [3, 4]) it is proposed to use the theory-game model for the introduction of innovations as a mechanism for the integration of science and economics.

Scientists (I. Gryshchenko, T. Vlasyuk, D. Macatyora, O. Ovcharuk [6]) believe that the problem of transformation of inefficient innovation institutes into a developed state at the level of changes in the functioning of universities can be solved not only due to their image appeal attractiveness at the expense of the introduction of a competent approach in the provision of educational services, but also mainly due to the creation of an educational-production cluster at the institutional level of a synergistic combination of a high school with production. T. Zhurko, Liu Lijian, and A. Shiyan [7] consider the methods of supporting innovation in the higher education system in countries such as the United States, Japan, China and India, but the most appropriate mechanisms for interaction between higher education and business, which can be implemented to the conditions of functioning native universities are not offered [8].

Some aspects of commercialization of innovative developments of universities are considered in the articles by N. Vanina [9], V. Shcherbak, L. Ganushchak-Efimenko, O. Nifatov [10, 11]. These authors believe that business will be motivated to collaborate with universities to design and implement an innovative product only if the university has its own intellectual and financial resources in the process. At the same time, in these works, the problem of the combination of education, science and business to stimulate the innovation process and the effective use of capital brand integration of universities with real business is not considered sufficiently widely. Thus, research in this area remains open and relevant.

Unresolved parts of the study. The analysis of literature has shown that in most cases, scientists are investigating either the question of the formation of innovation policy, innovation processes at the practical level (business), or features of innovation at the theoretical level (science), while there is a lack of holistic integrated approach to the search for a fundamentally new scenario of cluster development the interaction of science and business through the creation of a new integration essence of the innovation training chain, the formation of skills for conducting research and entrepreneurship vein activities to improve educational opportunities and innovative university post-socialist space.

The purpose of the research: to theoretically substantiate the situation and propose approaches to the formation of infrastructure support for the cluster interaction of science and business through the use of tools of an educational and innovative interactive platform for obtaining business knowledge - an integrated open coworking center for innovative entrepreneurship.

Presentation of the main results and their justification. In the integrated economy of the Soviet Union of the planned type, Ukrainian research institutes, research and development organizations and higher educational institutions played the role of locomotives of progress. The existence in large cities of powerful industrial complexes of a cluster type allowed to perform not only the integrative function of combining academic research institutes, universities, research and development bureaus and industrial enterprises in the educational and production chain, but also to provide students with the necessary professional skills for work at high-tech enterprises and in the field of research, to develop the material base of universities.

The current disgraceful state of the level of realization of the potential advantages of the functioning of the knowledge triangle is due to the collapse of the USSR, the decline of high-tech sectors of the economy, the destruction of the material base for scientific research. In part, this situation is smoothed out by the funding received by domestic universities for scientific research at the expense of international grants and infrastructure support in centers of collective use (business incubators, technopolises, technology parks). The third component of the triangle of knowledge (business) is also inadequate, since domestic enterprises are not interested in innovation development, and their efforts are aimed primarily at improving existing processes and products.

The statistics show that the financing of scientific research in Ukraine is now almost 20 times lower than the average in the European Union [9], and is mainly carried out at own expense (97.2% as of 2018), where the state budget funds and foreign investors make up a shallow part – almost less than 1% (Table 1).

Table 1

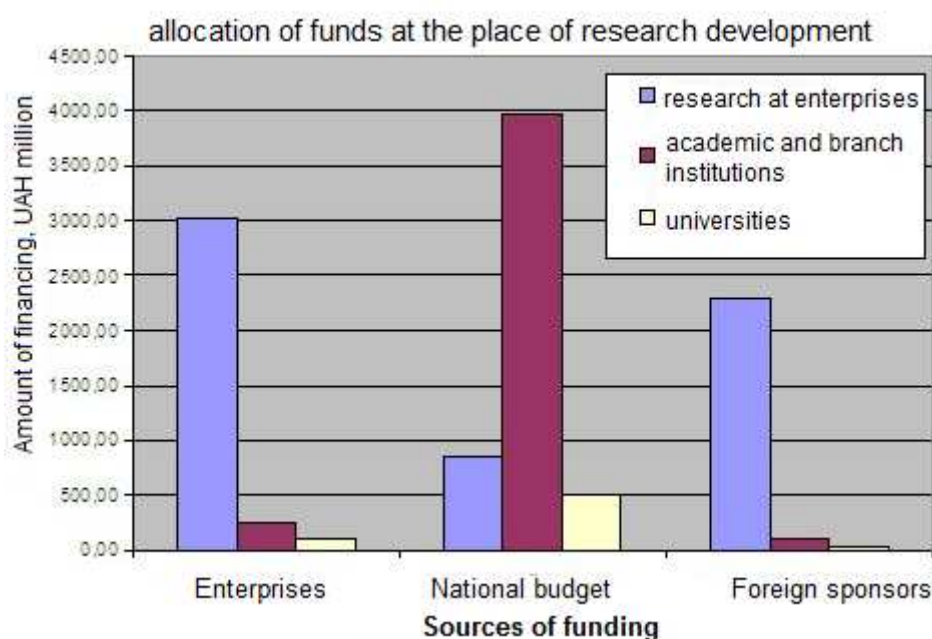
Sources of Innovation Financing

Years	Total costs	Including at the expense of funds			
		own	state budget	foreign investors	other sources
million UAH					
2014	14333,9	7585,6	149,2	56,9	6542,2
2015	11480,6	7335,9	224,3	994,8	2925,6
2016	9562,6	6973,4	24,7	1253,2	1311,3
2017	7695,9	6540,3	344,1	138,7	672,8
2018	13813,7	13427,0	55,1	58,6	273,0

It is compiled according to the data [12; 13].

In such conditions, strict regulation of the economy for universities remains virtually the only source: self-financing research, at the expense of local budgets or sponsoring enterprises and non-profit non-governmental organizations.

The unbalance of the knowledge triangle is also evidenced by an analysis of the distribution of finance for research by institutions (Figure 1). That receive them. In addition, the situation is exacerbated by the fact that the received state funds are not evenly distributed, which is carried out mainly in enterprises than in academic institutions. At the same time, every tenth Ukrainian company acquired external researches related to technological innovations (conclusion of agreements on implementation of research and development projects with other enterprises, research organizations). As a result of this situation – the low level of innovation (13% of domestic enterprises, implemented 3.3%, 1.5% – abroad).



It is compiled according to the data [12; 13].

Figure 1. Distribution of research funding for recipient institutions in 2018

The low activity of the research activity of the Ukrainian economy is explained, according to experts of the European Union, for four reasons:

1. Domination of traditional, non-scientific intensive industries (metallurgy, energy, basic chemistry, mining industry) in the national economy.
2. Banking support of traditional rather than innovation activity, enterprises, at a high level of inflation and fluctuation of the exchange rate.
3. Low technical level of resource support for innovation by such tools as technology parks, technology transfer centers, business incubators).
4. A shift of focus of financial support to other types of business activities (trade operations, construction, real estate transactions).

All these factors of the imperfection of the policy of intensifying the scientific research of the higher education system lead to practically complete

copying of the main mistakes in financing the research field of universities in EU countries [13]:

1. Insufficient funding of the scientific base of the system of higher education leads to a decrease in the level of scientific results on the criteria of the quality of publications, patent activity; washing of personnel intellectual and innovative composition of national universities; decrease the degree of attractiveness for entrants engineering and technical specialties; complication and inefficiency of cooperation with business in the sphere of introduction of academic innovations into production.

2. The ineffectiveness of state grant selective support for certain industries and types of enterprises, which creates the preconditions for corruption and the emergence of shadow schemes, leads to bureaucratization and the destruction of systemic influence on the development of the GDR.

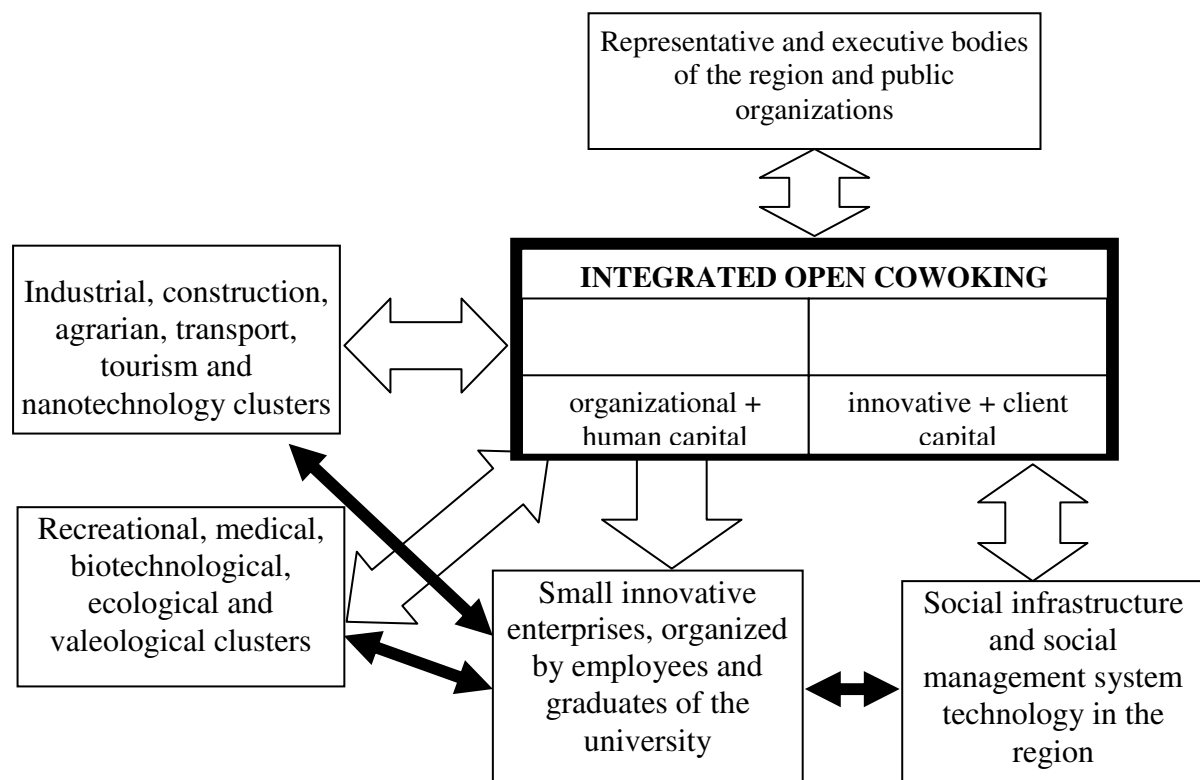
3. The weak correspondence between the state attempts to balance the proposal of university research with the demand from the enterprises of the innovation sector for scientific and technological achievements [13].

This situation reveals the need to find a new approach to the reorganization of the modern knowledge triangle, where the main criterion for development should be the ability of an educational institution to be the link between the university and the programs and projects of innovative development of the country at the macro level, the dissemination of new knowledge in society and serve as a regional realization scene. Academic innovations on meso-level (Figure 2).

The purpose of such platforms is to create a new integration essence of the innovation training chain, to develop skills for conducting research and entrepreneurship activities in order to enhance the educational and innovative capacities of post-socialist universities. This will allow interactive learning based on this center to find new, innovative ways to address global or social problems. Such an integrated approach can help to understand the nature and scale of regional and local challenges, identify possible means, technologies and processes necessary for their solution to the benefit of society, and, as a result of the emergence of new products and services demanded by the market, to identify specific problems for each individual a call; ways of their solution by increasing coordination between different levels of management.

The details of changes and refinement of the modern essence of all three components of the "knowledge triangle", their mutual influence on the educational process is as follows. A new look at the first component of the knowledge triangle represents an increase in the degree of openness, transparency, and dynamism of knowledge both in the EU and in the countries of the Eastern region, the acquisition of skills for effective independent learning using a fundamentally new approach: the use of the theory-applied approach to

knowledge acquisition, skills building creative thinking that increases the efficiency of youth employment and creates a knowledge base for opening a business. The technology of functioning of the integrated open coworking center is embodied in the possibility of using an innovative approach to the learning process, the formation of methods of creative thinking.



Offered by authors.

Figure 2. Scheme of interaction of the integrated open coworking center of innovation entrepreneurship with leading clusters, management and social sphere on meso-level

The synergy of the functioning of an integrated open coworking center is manifested in the use of opportunities for self-knowledge acquisition and the application of an innovative approach to supporting youth employment; in creating interactive conditions for the implementation of creative ideas in life: the search for entrepreneurial segments of the market for youth, taking into account local needs of the economy. The use of this approach will allow a new look at the modernization of the education system, where the new quality of the knowledge gained will form the youth leadership qualities, raise the level of intelligence and allow the realization of existing abilities.

An integrated open coworking center is an effective new tool for identifying areas of research and the development of priorities, timelines and action plans for a number of strategically important issues where achieving

future growth goals, competitiveness and sustainability of universities depends on how the new approach to the educational process allows for capacity development. a synergistic combination of the educational process, research achievements and their practical business implementation. They are potentially powerful tools for achieving better structuring of activities at the European level and will contribute to the achievement of the European Research Area.

To organize the activities of the integrated open coworking center, it is expedient to study and use the experience of European partner universities: holding open presentations, shop-shops, a fair of vacancies, open lectures with participation of representatives of enterprises, which, based on student presentations, select potential employees or advise students on practical realization of their projects. Using this experience will allow developing an interactive tool for implementing ideas in action through the development of entrepreneurship skills among young people: the creation of Centers of Startups, Spin-Offs as development points and promotion of student innovations.

Involvement in the formation and implementation of the integrated open coworking center of the universities of the countries that have already passed the higher education system according to the EU standards will allow the universities of the Eastern regions to adopt and implement the experience of the development of innovation and educational infrastructure of universities through the support of processes of dynamic interaction between large and small companies, universities, financial structures based on cluster strategies. It is realized, first of all, at the regional level. There is an opportunity to add dynamics of the country's economy as a whole; to introduce cluster approaches - new managerial technologies, to increase competitiveness as a separate region or industry, and the state in general.

The organization of an integrated open coworking center can be introduced in order to gain experience in reengineering the innovation and educational infrastructure of the universities of the EU by introducing a new quality; professional management of intangible assets; allocation of technological transfer into an autonomous organized educational process. Creating such an infrastructure in the form of an educational and innovative platform will enable the creation of an effective machine for transfer of ideas to society, increase the competitiveness of the university as a producer of scientific developments through the intensification of participation in various specialized training programs and projects. The participation of universities in such events offers many advantages and opportunities, among which are: to familiarize foreign and domestic investors, potential buyers, customers with scientific developments, which are conducted by scientists and students, commercialization of scientific developments; to get direct contacts with representatives of innovation centers of other universities, to promote the development of innovative projects,

products and technologies; gain experience from the leading universities in Europe, which can be used to address the issues facing the university at this stage.

Involvement in the organization of an integrated open coworking center of partners (enterprises and organizations engaged in practical innovation activities) is a necessary 3rd component of the knowledge triangle. Thanks to the functioning of innovative traineeships on the basis of these enterprises, the opportunity to improve access to new technologies that can be realized; co-ordination of efforts and financial resources for the creation of a new product and technologies and their entry into the market.

Conclusions and recommendations for further research. It was determined the characteristics and differences between modern interpretation of "knowledge triangle" for the EU and the Eastern region, how to implement the European experience, defined a new approach to the use of interactive learning tools innovation chain as innovative stazherski grounds. The synergetic content of all three components of the knowledge triangle as the basis of the proposed integrated open coworking center was specified as the use of opportunities for independent knowledge acquisition, the creation of interactive conditions for the implementation of creative ideas in life, which increases the efficiency of youth employment and allows a new look at the modernization of the education system of post-socialist countries.

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MODELING OF THE ORGANIZATION OF INTERACTION OF PARTICIPANTS OF THE MANAGEMENT PROCESS OF CLUSTER COOPERATION DEVELOPMENT

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Introduction. Globalization has led to a change in the role of cluster cooperation in economic development. The impact of globalization on regional development of cluster cooperation primarily manifests itself in the fact that it gives regional clusters a new status of subjects of the world economic system and world competitive processes. In the context of globalization, there is a deepening gap in the levels of economic development of regional clusters and an increase in the social vulnerability of the population.

Research hypothesis: the concept of regional cluster cooperation covers both a variety of qualitative factors and conditions (informal knowledge networks, trust, image), and a quantitative assessment of attributes and processes (for example, interfirm trade, patenting rates, labor supply, cost of resources used). Regional cluster cooperation consists of the interaction of individual subjects of the region, the social, economic, institutional and social attributes of the region itself. This creates the effect of a combination of factors, increases the competitiveness of the region, creates and (or) uses innovations.

The purpose of the study is to substantiate a system of criteria for

classifying the forms of spatially localized systems of cluster cooperation, to identify the comparative characteristics of cluster policy models.

The research methodology is based on the fundamental principles of a number of scientific fields – the theory of national and regional competitiveness, cluster economic theory, the concept of regional archetypes, theories of spatial proximity, the general theory of systems.

Results. The features of the clustering of the Ukrainian economy are identified, the main ones are identified: the formation of bottom-up clusters, discrepancies in the interpretation of the concept of cluster policy, the lack of interest of the cluster members in the interaction.

Findings. Analysis of cluster policy in the regions of the EU and Ukraine allowed us to distinguish several types of cluster policy depending on various classification criteria. Depending on the stage of cluster development, the features of cluster policy are highlighted and an effective system of cluster cooperation for the Dnipropetrovsk region is proposed.

Keywords: cluster policy; spatially localized cluster collaboration systems; regional cluster, cluster regional competition.

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**МОДЕЛЮВАННЯ ОРГАНІЗАЦІЙ
ВЗАЄМОДІЇ УЧАСНИКІВ ПРОЦЕСУ
УПРАВЛІННЯ РОЗВИТКОМ
КЛАСТЕРНОГО СПІВРОБІТНИЦТВА**

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Вступ. Глобалізація призвела до зміни ролі кластерного співробітництва в економічному розвитку. Вплив глобалізації на регіональний розвиток кластерного співробітництва насамперед виявляє себе в тому, що вона надає регіональним кластерам новий статус суб'єктів світогосподарської системи і світових конкурентних процесів. В умовах глобалізації відбувається поглиблення розриву в рівнях економічного розвитку регіональних кластерів та зростання соціальної вразливості населення.

Гіпотеза дослідження: поняття регіонального кластерного співробітництва охоплює як безліч якісних факторів і умов (мережі неформального знання, довіру, імідж), так і кількісну оцінку атрибутів і процесів (наприклад, торгівлі між фірмами, ставки патентування, пропозиції праці, вартості використовуваних ресурсів). Регіональне кластерне співробітництво складається як з взаємодії окремих суб'єктів регіону, соціальних, економічних, інституційних і громадських атрибутів самого регіону. При цьому створюється ефект впливу сукупності факторів, підвищується конкурентоспроможність регіону, створюються і (або) використовуються інновації.

Мета дослідження – обґрунтувати систему критеріїв для класифікації форм

просторово-локалізованих систем кластерного співробітництва, виявити порівняльні характеристики моделей кластерної політики.

Методологія дослідження базується на фундаментальних положеннях ряду наукових напрямків – теорії національної та регіональної конкурентоспроможності, кластерної економічної теорії, концепції регіональних архетипів, теорій просторової близькості, загальної теорії систем.

Результати. Виявлено особливості кластеризації української економіки, основними з яких визначені: формування кластерів «знизу–вгору», різночитання в тлумаченні поняття «кластерна політика», відсутність зацікавленості членів кластера у взаємодії.

Висновки. Аналіз кластерної політики в регіонах ЄС та України дозволив виділити кілька типів кластерної політики в залежності від різних класифікаційних ознак. Залежно від етапу розвитку кластера, виділені особливості кластерної політики і запропоновано ефективну систему кластерного співробітництва для Дніпропетровського регіону.

Ключові слова: кластерна політика; просторово-локалізовані системи кластерного співробітництва; регіональний кластер, кластерна регіональна конкуренція.

Formulation of the problem. One of the areas of search for new ways to improve the efficiency of economic complexes of individual regions, overcome the negative trends in the functioning of the national economy and increase the country's competitiveness is the transformation of the traditional economic space and the transition to the agglomerative (cluster) type.

State initiatives for the development of cluster-type territorial structures can be not only a stimulating factor for the business climate, but also an effective way to increase the competitiveness of regions. However, the existing capabilities for managing competitiveness are limited, since there is no comprehensive assessment of the impact of clusters on competitiveness and comparability of management decision-making factors, which necessitates the addition and development of theoretical studies and methodological developments in this subject area. Of particular importance are the issues of operationalization of cluster theories, the creation of an effective arsenal of methodological and regulatory documents for solving the tasks of improving the competitiveness of domestic industrial production, as well as the creative use of the experience of other countries (USA, EU countries, China, Singapore, India, etc.) since the 90s of the twentieth century, they successfully use the tool of clusterization of the economy in the context of increasing globalization and increase competitiveness.

Analysis of the current state of research in the field of theories of territorial organization of production, concepts of competitiveness, patterns of formation of cluster structures, the development of new methodological tools for identifying clusters, cluster effects, determining criteria and performance indicators make it possible to update the areas of cluster policy, to offer strategies to improve the competitiveness of regions and the quality of life of the population.

Analysis of recent publications and the unresolved part of the problem. The study is based on the conceptual – categorical apparatus and theoretical concepts of cluster entrepreneurship, spatial economics, cluster theory, as described in domestic and foreign publications. To solve research problems related to the development of theoretical ideas about the competitiveness of the national and regional economy, the authors used the classical theories of W. Petty and D. Ricardo, the concept of learning regions M. Enright [1], the theory of the "quality index" of economic activity K. Blois [2], the eclectic paradigm of T. Eggertsson [3], the cluster theory of M. Porter [4], the theory of "region-economy", W. Powell, L. Smith-Doerr [5]. The use of the theory of economic clusters, described in the works of A. Marshal [6], H. Itami [7], T. Roehl [7], made it possible to study the spatial aspect of economic activity and to highlight such a phenomenon as "accumulation of economic units". Works of the French school of spatial economics Ö. Sölvell, G. Lindqvist,

Ch. Ketels [8], devoted to the study of the polarization of economic development of regions, served as the starting point for establishing the patterns of interrelated functioning of the aggregate of regional clusters within the national economy. The contribution to the development of cluster theory at the present stage, a comprehensive understanding of the economic nature and essence of clusters, the formation of the theoretical foundations of the functioning of cluster structures have been studied using the works of Ukrainian scientists I. Gryshchenko [9], V. Fedorenko [9], L. Ganushchak-Efimenko [10], V. Shcherbak [11], S. Sokolenko [12].

Despite the large number of publications in this field of research, many theoretical, methodological and practical aspects are far from being resolved and require updating as applied to the current situation. This also applies to the problems of assessing the contribution of clusters to improving the competitiveness of regions, and questions of the Ukrainian specifics of cluster formation, and filling regional cluster policy. All this actualizes the need to model the organization of interaction of participants in the management of the development of cluster cooperation, taking into account new forms and methods of conducting economic activity on the basis of cluster policy.

The purpose of the study is to improve the methodological support of ways to assess the cluster interaction of business entities, the development of scientific and practical recommendations for improving cluster policy in the context of globalization.

The results of the study. The most important backbone property of a region in the context of globalization is becoming competitiveness, which is formed as a result of competitive interaction between regions of different levels. In a global economy, the value of unique local characteristics of the region grows, which provide their competitive advantages that are not found in other regions: the image of the region, human capital, unique knowledge, economic and geographical position, allowing to preserve the identity of the region.

An important feature of the modern development of the regions was the deepening gap in the levels of their economic development, the growth of social vulnerability of the population in certain regions, manifested in in-country and inter-country disparities, people's exposure to certain types of risk. Vulnerability types evolve, they are related to gender or ethnicity, region of residence, stage of the individual's life cycle. Disproportions in income and inequality in education are growing. One of the characteristic processes of our time is to increase the role of regions in the economic development of national economies and the development of inter-regional competition. The basis of inter-regional competition is increasing the independence of the regions, as well as the development of competitive processes in the context of globalization.

A new form of competition – network – appears in the context of the globalization of the world economy and the "new regionalization". The area of regional competition goes beyond national boundaries, and networks of authorities (supranational authorities, for example, within the EU), networks of business structures (clusters), networks of partnerships (public-private partnerships) [12] become subjects of network competition. Within the framework of networks, the formation and movement of financial, informational, commodity flows takes place. In the context of globalization and innovation economy, the competitiveness of regions is determined by their ability to link and direct flows, including virtual, financial, emerging in the global financial market.

One of the factors of competitiveness is "soft factors of spatial organization" and local spatial systems are network structures of economic agents. Social networks are becoming the main feature of local (regional) spatial systems.

We believe that local (regional) regional spaces should be regarded as economic regions, the main feature of which is the presence of social networks. It is precisely the concepts of agglomeration and M. Porter's cluster theory that allow the system analysis to be carried out within the framework of the ER-regions (economic regions), to identify systemic effects and achieve social equilibrium.

There is no single theoretical concept that would cover the whole complexity of the concept "regional competitiveness"; there are three concepts that differ significantly from each other – regions as centers of knowledge; regions as centers of export specialization (production sites); regions as a source of increased profits (efficiency centers).

On the basis of the three selected concepts of regional competitiveness and their unification in the author's approach, we suggest examining the competitiveness of the region through the prism of three aspects: the need to achieve a high standard of living for the population (competitiveness provided by the population); the efficiency of the functioning of the economic mechanism of the region (competitiveness provided by production); the need for effective interaction between the subjects within the network structures (competitiveness provided by clusters).

A cluster is a set of independent, innovation-active, related by territorial proximity and functional dependence of organizations. We believe that the main cluster characteristics are: proximity (localization); interaction; innovation. Based on these features, we propose a three-dimensional matrix with the separation of 8 forms of spatially localized systems and the location of clusters in it (Figure 1).

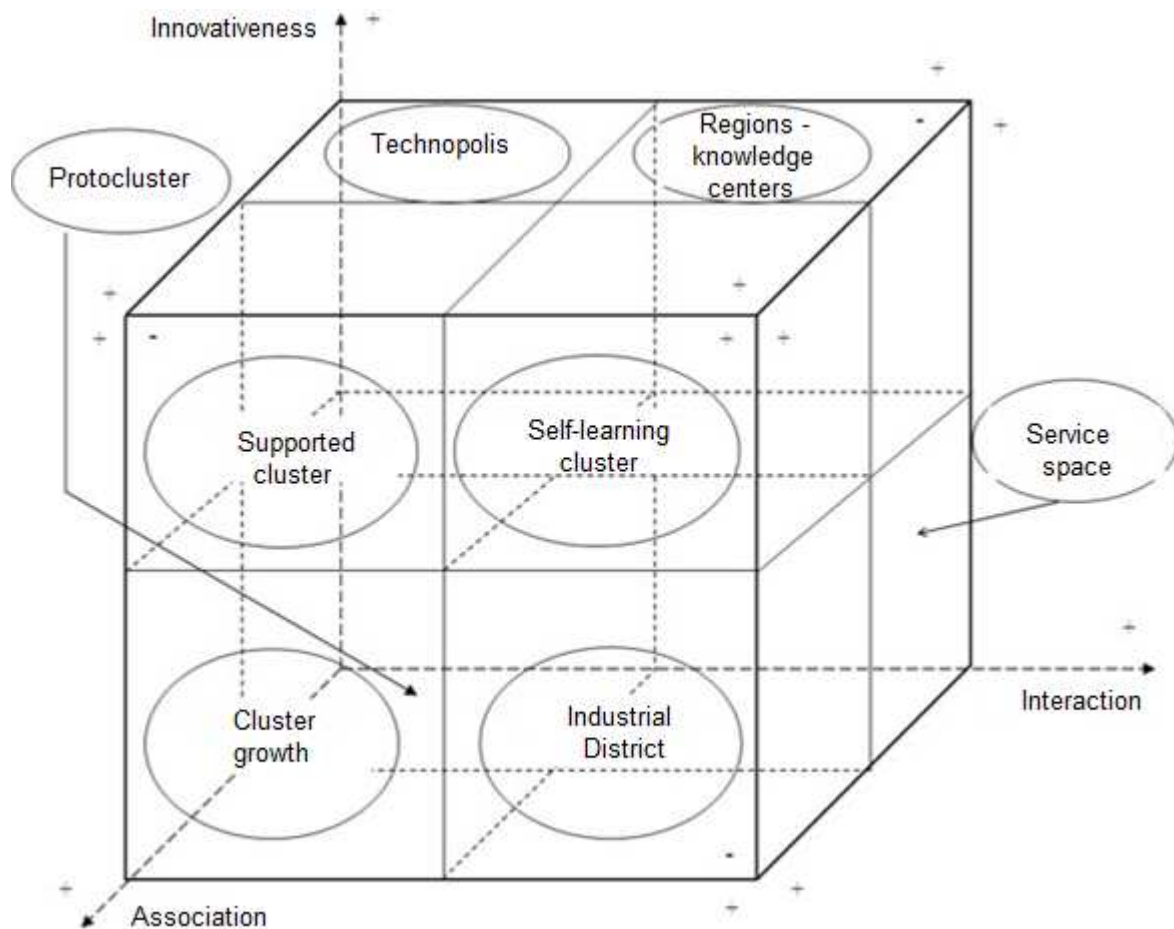


Figure 1. Three-dimensional matrix of spatially localized systems and the place of clusters in it

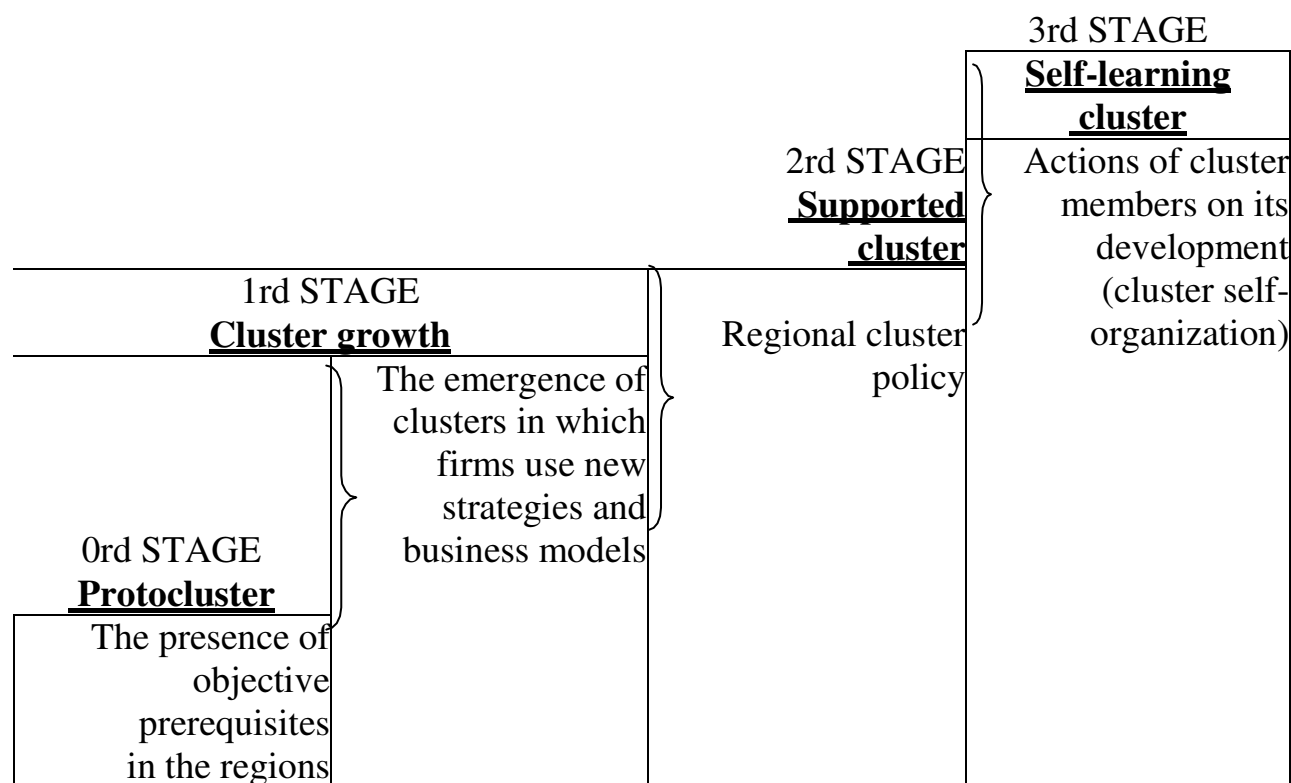
Cluster types do not occur simultaneously; they evolve. The evolution of the development of clusters can be represented as follows (Figure 2).

Stage 0 – prerequisites for the formation of clusters: evolutionary forces (traditions, culture, geographic location, natural resources, macroeconomic environment) are in place, prerequisites for the formation of a region's specialization, the protocluster, appear.

Stage 1 – the emergence of clusters, in which firms use new strategies and business models, their actions are not yet coordinated, are part of the normal market mechanism – cluster growth.

Stage 2 – the efforts of the region to create a regional microenvironment: the region's policy in the field of science, education, small and medium-sized businesses, the creation of an innovation infrastructure is a supported cluster.

Stage 3 – cluster initiatives: actions of cluster members on its development (training human capital, creating associations, developing the business environment, innovations and technologies) – a self-learning cluster.



Proposed by the authors.

Figure 2. Cluster evolution

Cluster policy instruments should correspond to the stage of cluster development. Cluster policy is a set of measures for: 1) creating conditions (including business environment, developing competition, creating infrastructure) for the development of a cluster; 2) support cluster initiatives. The disadvantages of modern cluster policies both at the level of the European Union and Ukraine are: lack of attention to non-technological innovations (for example, in the service sector); weak consideration of international relations in the development of clusters – national development programs dominate; lack of coordination between different areas of cluster policies; past experience is not taken into account; a huge number of initiatives and support programs for clusters with poor coordination between them. The study revealed the following features of the clustering of the Ukrainian economy (Table 1).

A higher level of cluster development of the regions leads to a decrease in the level of social vulnerability of the inhabitants of the region, which can be measured as the proportion of the population at risk of poverty and social exclusion. Among the regions with strong clusters, experts from the European Cluster Observatory included the so-called three-star clusters located in the EU regions with the highest level of innovation activity. It was revealed that the share of socially vulnerable population in regions where there are strong

innovation clusters is lower than in the EU as a whole and lower than in other regions of the EU (Figure 3).

Table 1

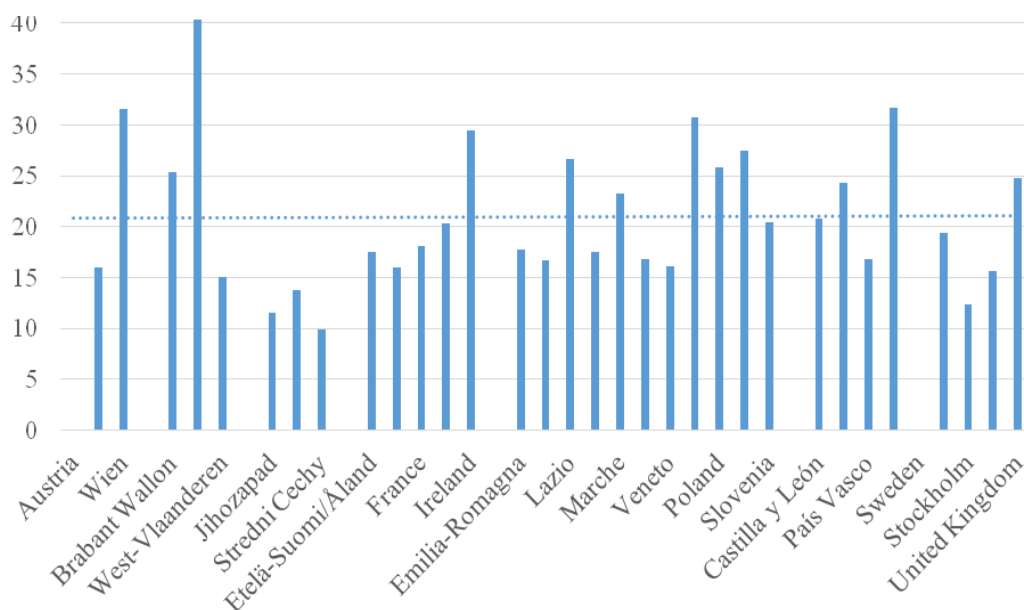
Features of Ukrainian clustering

Features	Manifestations at the cluster policy level
Cluster selection mechanism, mainly "top-down"	The use of administrative resources in the formation of cluster policy
Different interpretations of the concept "Cluster policy"	The presence of such terms as: "innovation cluster", "territorial cluster", "cluster"
Lack of interest of cluster members in cooperation and collaboration	One of the main tools of cluster policy should be a mechanism for encouraging participants to cooperate
Lack of cluster infrastructure in general	Lack of coordination between different cluster policy directions
Imperfect business climate and lack of cluster interaction culture	The use of mainly catalytic cluster policy
Cluster – as a tribute to fashion	Methodological support of regional cluster policy
Lack of serious motivation to develop innovations	The focus of cluster policy on the promotion of research and development and the creation of innovative infrastructure
Ukrainian clusters are mainly at the stage of their formation (protoclusters)	Cluster policy should be aimed at stimulating competition between cluster members improving the investment climate
Specialization in narrow industries	No clusters related industries
Mostly large companies are present in clusters	Difficult to match corporate development goals with regional development goals

Proposed by the authors

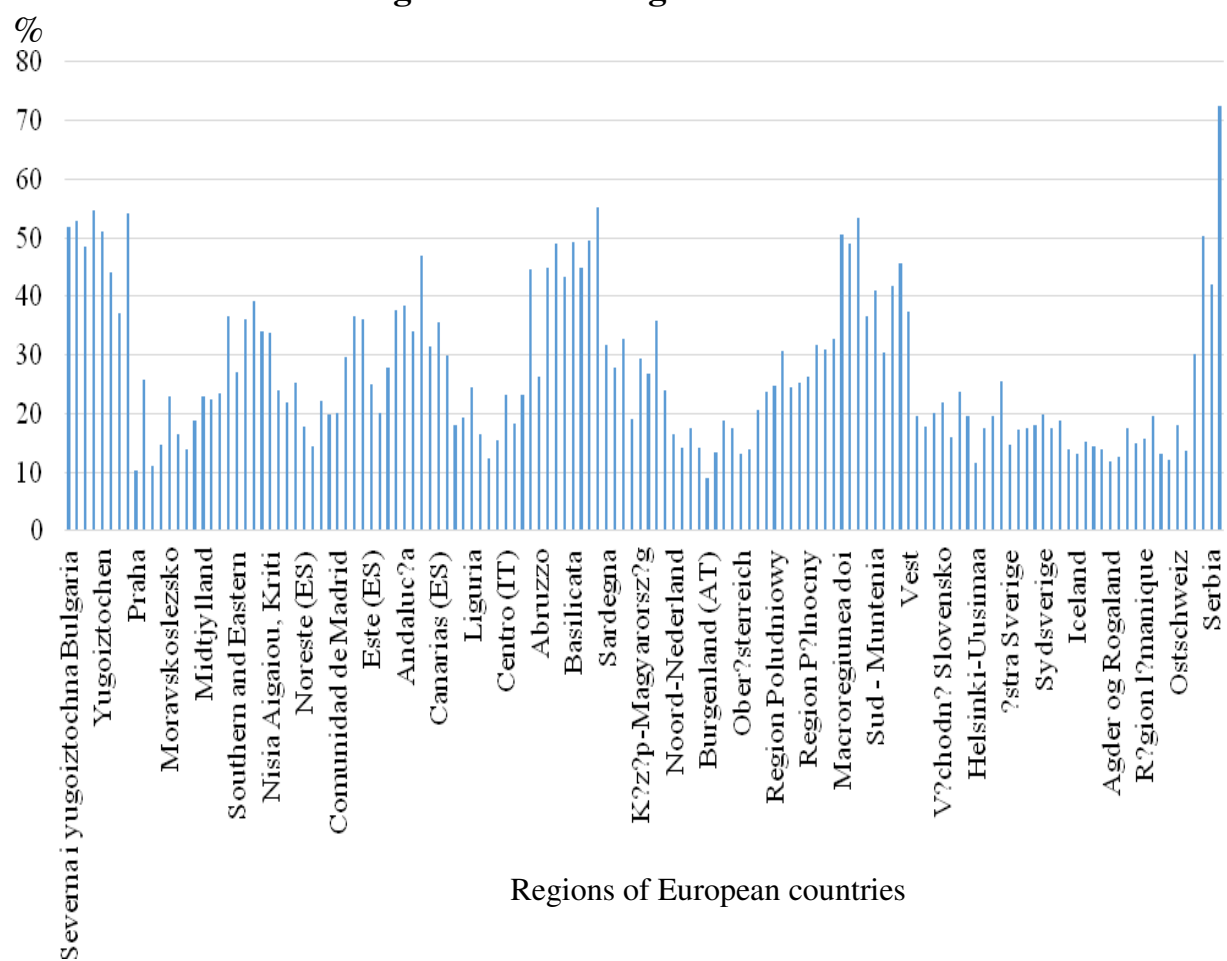
The average share of the population at risk of poverty and social exclusion in the EU regions with strong innovation clusters is 20.94%. Moreover, if we do not take into account in the calculations the capital regions, which, due to their peculiarities, are always characterized by a higher level of income inequality, then the average value is 19.94%. The calculation of the same indicator as a whole in the EU regions and in the rest of the EU regions shows that the value of the level of social vulnerability is higher than in the cluster regions (Figure 4).

In the EU as a whole, the share of socially vulnerable population is 25.79%. In the EU regions, in whose territories there are no strong clusters, the proportion of such a population is even higher – 27.23%. Moreover, it should be noted that the standard deviation of the indicator in strong cluster territories is significantly lower (6.95) than in regions that do not have strong clusters (12.85). All of the above leads to the conclusion that the use of cluster policies aimed at creating strong clusters reduces the level of social vulnerability of the population of the EU regions and their susceptibility to various types of risks.



Source: [13–15].

Figure 3. Proportion of population at risk of poverty and social exclusion in EU regions with strong innovation clusters



Source: [13–15].

Figure 4. Proportion of population at risk of poverty and social exclusion in EU regions without strong clusters

The model allows us to identify the basic conditions of competitiveness, to which we assign the location, natural resources, historical features, cultural values. This is followed by the determinants (drivers) of competitiveness: a reasonable specialization of the region, clusters, innovation infrastructure. We consider the next determinant to be the regional authorities in stimulating innovative demand (for example, tax incentives for enterprises introducing innovations; subsidizing measures to protect property rights; encouraging the import of technology, government support for small innovative enterprises). Innovative performance of a region is an intermediate indicator of a region's competitiveness, such variables as "Share of innovative goods, works, services in the total volume of goods shipped, completed works, services", "Created advanced technologies" and "Technology exports" can be observed variables for its assessment". The economic well-being of the region's population is the resultant, final indicator of the region's competitiveness and three variables can be used to measure it: GRP per capita, unemployment rate, proportion of long-term unemployed.

In the course of the study, a methodological approach was developed to assess the competitiveness of the regional economy, which involves dividing the assessment process into several stages: assessment of the final result of the state of the region, which is characterized by the standard of living; assessment of the effectiveness of innovation activities in the region, which characterizes the capabilities of the region in the conditions of intensifying competitive struggle; assessment of the determinants of competitiveness, of which the main one is the level of development of clusters in the region. The proposed method has a number of advantages in comparison with the existing assessments of regional competitiveness, since: it contains a scientifically-based selection of indicators included in the composition of the integral index of competitiveness, previously interpreted; characterized by the absence of a correlation relationship between the indicators in the system of indicators selected to calculate the competitiveness of regions (sub-indices); involves the procedure of smoothing the extreme values of the indicators on the final result of the calculations; differs in availability and objectivity of initial data; is simple in its execution, as it is based on a small number of indicators (16).

The algorithm of the author's methodology for assessing the competitiveness of the regions of Ukraine was presented by the sequential execution of the following stages:

1. Collected data of official statistics for each indicator for the last year.
2. The degree of symmetry of the distribution of data for each indicator was evaluated. A data smoothing procedure was applied to the indicator when the asymmetry coefficient exceeded 0.5, based on the extraction of a root of degree N from regional data.

3. The smoothed data was normalized by the linear scaling method to bring their values to a range from zero to one using the following formula:

$$\widetilde{X}_i^j = \frac{X_i^j - X_{min}^j}{X_{max}^j - X_{min}^j}$$

$\widetilde{X}_i^j$ – smoothed value of j for region i;

X_{min}^j – the minimum value of j for the year in question;

X_{max}^j – the maximum value of j for the year in question.

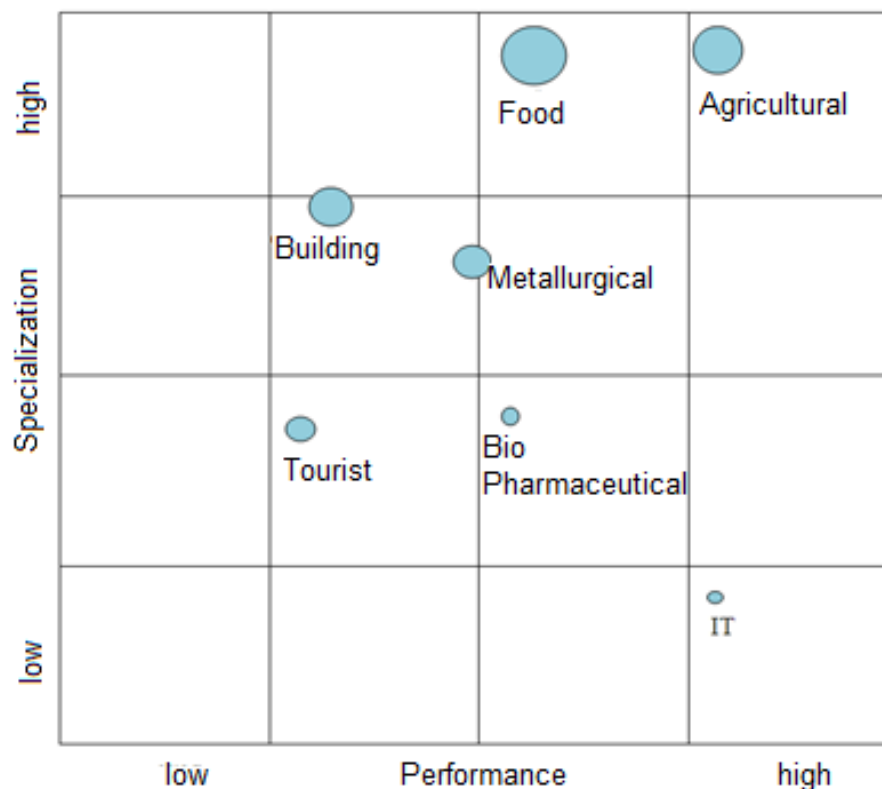
4. The normalized values of indicators collapsed into subindexes (total, innovation result, determinants of competitiveness) as a simple arithmetic average.

5. The calculation of the composite index of competitiveness of a region is carried out by folding the previously obtained subindexes into a final indicator using the arithmetic average formula.

The main directions of the formation of a competitive economy of the Dnipropetrovsk region should be: the adoption of the law “On innovation activities in the territory of the Dnipropetrovsk region; development of a cluster development strategy in the territory of the Dnipropetrovsk region based on the principle of "smart specialization"; reorienting the focus of cluster infrastructure objects towards development institutions: a cluster development center; stimulation of innovative activity of regions through the provision of preferences of various kinds to participants of innovation activity: the presence in the subject of Ukraine of a share of expenditures of a consolidated budget aimed at supporting innovation activity that exceeds the average regional level; availability of a mechanism for the provision of an investment tax credit and tax incentives for taxes credited to the budget of the region of Ukraine.

The "Cluster Portfolio of the Region" diagram (Figure 5) is a matrix with the designations of the main clusters of the region.

Clusters are positioned depending on their relative level of performance (in comparison with the average value in Ukraine) and specialization, i.e. shares employed in the cluster (also a comparison with the average Ukrainian indicators). The sizes of the circles denoting clusters reflect the number of people employed in the clusters. On the basis of the proposed methodological approach to cluster identification, systematization of clusters of the Dnipropetrovsk region by types was carried out, cluster policy tools were developed for each of the clusters, and recommendations for managing innovative clusters were proposed (Table 2).



Justified by the authors.

Figure 5. Cluster portfolio of the Dnipropetrovsk region

Table 2

Cluster policy tools for clusters of Dnepropetrovsk region

Cluster name	Cluster development stage	Proposed cluster policy measures
1	2	3
Tourist	Supported	- Attraction to the "Dnepropetrovsk Association of Tourist Organizations", travel agencies in the region, enterprises of accommodation facilities, museums, universities; - ensuring their effective interaction, in particular, the joint preparation of curricula and work programs for universities; - development of joint innovation projects; - organization of work on certification and licensing in the field of tourism; - creation of favorable tax and credit and financial conditions for stimulating the tourist and recreational sphere of the district; - search and attraction of extra-budgetary sources, including foreign investments.
Pharmaceutical	Protocluster	- analysis of the prerequisites for creating a cluster; - encouragement of links between existing enterprises; - investment promotion; - establishing the functioning of all links in the value chain; - improving the investment climate.

End of Table 2

1	2	3
Building	Cluster growth	- a set of measures for the organizational development of the cluster, in particular, the creation of the Dnepropetrovsk Association of the Construction Industry, in which, in addition to the producers of building materials and construction companies, scientific organizations and specialized universities should be included.
Agrarian-industrial complex (agricultural, food)	Cluster growth	- a set of measures for the organizational development of the cluster, in particular, the creation of the Dnepropetrovsk Association of Meat Producers, which, in addition to meat producers, should include scientific organizations and specialized universities; - development of its own breeding and hybrid base to improve the competitiveness of products – adoption; - decisions on the regulation of meat production by regional quotas.
IT	Protocluster	- analysis of the prerequisites for creating a cluster; - encouragement of links between existing enterprises; - investment promotion; - establishing the functioning of all links in the value chain; - improving the investment climate.

Conclusions and offers. For the Dnipropetrovsk region, it is possible to offer a set of measures for the cluster policy of the region, the features of which should be the transition to cluster portfolio management. The region should develop a cluster development strategy focused on "smart specialization" (highlighting priority development areas of innovation in the territorial planning scheme), based on benchmarking, searching for structurally similar regions of the world for transferring knowledge and successful practices and choosing a market niche, taking into account the region's uniqueness in the global technological trends. The principles for the implementation of cluster policy should be: differentiated, taking into account the stages of cluster evolution, an approach to the composition of activities; priority in the composition of the objects of the cluster infrastructure of development institutions (cluster development center, specialized organizations), focused not on supporting subjects, but on creating conditions for activities; reliance on tools to shape and stimulate demand for innovation; activation of new players – subjects of cluster initiatives (civil society, local government, experts).

It seems that the regional cluster infrastructure, regional and city organizations of infrastructure support and development of small and medium-sized businesses in the Dnipropetrovsk region, cluster development organizations, business incubators, technology parks, industrial design centers, certification bodies, consulting organizations, centers should become elements

of the cluster infrastructure of the region. collective use of equipment, prototyping centers, technology transfer centers, marketing and research centers try, educational institutions, venture capital funds.

Based on the above, we can conclude that the Dnipro region has all the necessary conditions to improve competitiveness: developed engineering, transport and market structures, extensive foreign economic relations, a tendency to increase the volume of small innovative businesses, labor and scientific and technical potential, investment attractiveness. The further development of clusters will provide the region with increased competitiveness based on synergistic effect and innovative approaches, which will result in the optimal use of the territory's available resources, as well as its economic, environmental, social and demographic sustainability.

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ASSESSMENT OF CLUSTER TEXTILE ENTREPRENEURSHIP EFFICIENCY

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Introduction. In modern world not only the certain producer, but also the country in general has to be competitive. Strengthening of competition on the global market causes the necessity in creation of new forms of business which provide survival and prosperity of national producers and the state in general. Rather effective solution of a problem of ensuring competitiveness on the national and global markets is the concept of national economy clustering. Creation of a territorial cluster does not guarantee its high efficiency at all. While implementing each of the cluster project developers face with an issue of efficiency assessment of its functioning.

Hypothesis. The research of cluster entrepreneurship effectiveness helps to identify the most influential factors of its realization, directions of cluster initiatives contribution through the changes of the development vector.

The aim of the research is to develop methodical justification of efficiency assessment of certain industry sector cluster functioning.

Methodology of the research is based on the Michael Porter's concept of territorial clusters development.

Results: The features of cluster development in different regions of Ukraine have been analyzed. The approaches of efficiency assessment of economic clusters activity existing in scientific literature have been studied. The method of efficiency assessment of entrepreneurial activity of textile industry clusters taking into account sectoral features of business has been offered.

Conclusions: The necessity of taking into account the industrial sectors of clusters helps to identify priority directions of clustering in many regions of Ukraine, the biggest potential of clustering and inter-industrial cooperative links. Using the results of the research in Ukrainian practice will contribute to the improvement of territorial policy in the sphere of cluster entrepreneurial development of economy. It will give an opportunity to increase the competitiveness of national economy on the global market.

Keywords: entrepreneurship; textile and industrial clusters; efficiency assessment; clustering; agglomeration map; cluster initiatives.

JEL Classification: L 22; F 23; G 34

УДК 332.056

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ОЦІНКА ЕФЕКТИВНОСТІ КЛАСТЕРНОГО ТЕКСТИЛЬНОГО ПІДПРИЄМНИЦТВА

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Вступ. У сучасному світі конкурентоспроможними повинен бути не тільки окремих виробник, але і країна в цілому. Посилення конкуренції на глобальному ринку викликає необхідність у створенні нових форм ведення бізнесу, які забезпечують виживання і процвітання національних виробників і держави в цілому. Досить ефективним вирішенням проблеми забезпечення конкурентоспроможності на національному і глобальному ринках є концепція кластеризації національної економіки. Створення територіального кластера аж ніяк не гарантує його високу ефективність. При реалізації кожного кластерного проекту перед розробниками постає питання про оцінку ефективності його функціонування.

Гіпотеза. Дослідження ефективності кластерного підприємництва дозволяє визначити найвпливовіші чинники його реалізації, напрями сприяння кластерним ініціативам через зміну вектору розвитку.

Мета дослідження полягає в розробці методичного обґрунтування оцінки ефективності функціонування кластера певної галузевої приналежності.

Методологія дослідження базується на концепції кластерного розвитку територій М. Портера.

Результати: Проаналізовано особливості кластероутворення у регіонах України, існуючі в літературі підходи до оцінки ефективності діяльності економічних кластерів. Запропоновано методику для оцінки ефективності підприємницької діяльності текстильно-промислових кластерів, що враховує галузеву специфіку бізнесу.

Висновки: Необхідність врахування галузевої приналежності кластерів дозволяє визначити пріоритетні напрями кластеризації у багатьох регіонах України, найбільший потенціалом кластеризації та міжгалузеві кооперативні зв'язки. Застосування результатів дослідження в українській практиці сприятиме вдосконаленню територіальної політики в області кластерного підприємницького розвитку економіки і дозволить підвищити конкурентоспроможність національної економіки на глобальному ринку.

Ключові слова: підприємництво; текстильно-промислові кластери; оцінка ефективності; кластероутворення; агломераційна карта; кластерні ініціативи.

Problem statement. The analysis of international experience shows that textile and light industries are the most adapted ones for the market conditions. These industries have the highest turnover of capital and production of essential social-oriented goods, the demand for which is never limited. Modern social and economic development of Ukraine is going on in accordance with the intensive influence of global economy, rigid strengthening of competition and the increase of the role of transnational factors of development. Therefore, the use of clusters, which are the elements of territorial structure of economy, allows to develop the group of geographically localized objects of different functions, including objects of innovative infrastructure, multilateral links, which complement each other and, thereby, to increase competitive advantages of separate organizations and the system in general.

The analysis of recent publications and the unsolved part of the problem.

In economics the issues, connected with the development, peculiarities of creation and functioning of clusters, are widely covered both in domestic and foreign scientific literature. Among domestic scientists we should mention I. Gryshchenko [1], L. Ganushchak-Yefimenko [2], S. Mochernyi, V. Fedorenko [1], T. Voronkova [1], V. Shcherbak [2] and others. The most famous foreign researches in the sphere of clustering are M. Porter [3], A. Marshal [4], R. Keech [5], M. Munger [5], C. Simon [5], M. Ketels [6], O. Memedovic [6].

The issue of the development of methodological framework for the efficiency assessment of economic clusters is covered in scientific works of M. Buianov, L. Dmytryev [7], H. Volkovska, P. Yanovskyi [8], Ye. Velykaia, A. Papian [9]. Analysis of publications on this issue gives an opportunity to name several basic approaches to the efficiency assessment of industrial clusters: method, based on the measuring of partial effects, caused by clusters (assessment of the synergetic effect; assessment of the effect, caused by the decrease of transactional losses; synergy of infrastructure; effect, caused by the diffusion of innovations); methods of clusters efficiency assessment as the investment projects (NPV; Real option approach); parametric methods of clusters efficiency assessment (key indicators of clusters activity; multiparametric approach); methods based on the assessment of clusters competitiveness (assessment of different aspects of clusters competitiveness: market position, technological leadership and capacity to renewal; assessment of factors of current and strategic competitiveness of clusters). All the given methods have one common advantage – universality of their use, because the authors don't limit the sphere of their usage. But at the same time, such kind of multifunctionality can be considered as a disadvantage, because the correction of indicators and effects according to the sectoral affiliation of clusters is not provided in their works. In real circumstances it may lead to incorrect results of

efficiency assessment. In our opinion, the specificity of industry should be taken into account while forming the economic clusters. Consideration of industrial features will provide the clear understanding, in which directions the competitive advantages should be formed, which aspects should be taken into account while estimating clusters effectiveness, what is the comparative basis according to separate estimating criteria.

The aim of the research is to ground the features of clustering in different regions of Ukraine and to define the most reasonable approach on efficiency assessment of textile and industrial cluster functioning.

The results of the research. Positive experience of economically developed countries has influenced on the Ukrainian business and resulted in formation of cluster initiatives. Clusters functioning promised the rapid and significant income, market stability, favorable competitive positions and strengthening of its members as a result of synergetic effect. In Ukraine the idea of clustering was developed by the initiative of the economist Wolfgang Preis (USA) by the end of the 1990`s. It was implemented in Khmelnytsky Region in several clusters at once: tailoring, building materials and agricultural. The new governmental public organization ‘The Podillya Pershyi Association’ (PPA) was formed to develop these clusters [10].

The Concept of the Cabinet of Ministers of Ukraine on the National Program on Small and Medium-sized Enterprises for years 2014-2024 (Order №641-p; August 28, 2013), The Concept of the Cabinet of Ministers of Ukraine on the National Target Economic Program on Industry Development for the period till 2020 (Order №603-p; July 17, 2013), The Concept of the Cabinet of Ministers of Ukraine on Reforming the State Policy in Innovative Area (Order №691-p; September 10, 2012) provide the development and implementation of the programs of small and medium-sized enterprises integration into the national and international innovational and technological clusters; definition of the notion “clustering” on the legislative level and the order of clusters financing; creation of scientific, innovational and industrial clusters in high-technological spheres; simplification of the innovational clusters forming procedures. Several examples of clusters initiatives implementation in Ukraine are given in Table 1.

In our state legal bases of the economic cluster formation have not been created yet, though its essence and purpose are well-known. Actually clusters in Ukraine began to develop as a unification of enterprises on the basis of economic interests and on any contractual form between participants of a cluster. Let's consider peculiar features of clustering in different regions of Ukraine on the basis of short characteristics of cluster initiatives embodied in them for identification of dependence between clustering development and harmonious development of the region.

Table 1

Examples of clusters initiatives implementation in Ukraine					
	1998	2006	2008	2008	2008
Events	“PPA” First cluster events (tours with local and international companies, trainings etc.). In clusters: tailoring; building materials; building; food; animal husbandry and farming; tourism.	Industrial park “Solomonovo” Logistics cluster “Bereg-Karpaty” Legislation on local levels on the contribution to the development of clustering (for example, the decision of the regional council from April 24, 2009 “On the creation of cross-border centers of transportation services and logistics”).	Cluster associations in IT sphere and wood industry Inclusion of the cluster concept into the strategy of city development, conducting of research on the creation of local clusters.	Creation of special online portal for the information and contacts sharing among the members of Ukrainian regional clusters The studies of clusters activity are conducted.	Analysis of economy of regions and clusters Development of the strategy of cluster development in separate regions (based on the conclusion of the Monitoring group supported by the “Effective Management” Fund)
Results	The establishment of cluster associations “Building cluster”, “Tailoring cluster” and tourism cluster “Kamianets” Clusters don’t cooperate actively, associations are passive and almost invisible on the national and international levels.	Industrial park doesn’t fully corresponds to the cluster approach; implementation of the events on cooperation between logistics clusters is not active, benefits from the cross-border cooperation are not being used.	IT-cluster in Lviv Region is active and provides the companies with real benefits from their cooperation; there exists the certain level of activity of wood industry associations.	Doctor Sokolenko’s team conducted several researches on the issue of clusters in 2005 and 2010; the map of cluster organizations was published.	One of the clusters development strategies resulted in the creation of an active IT-cluster

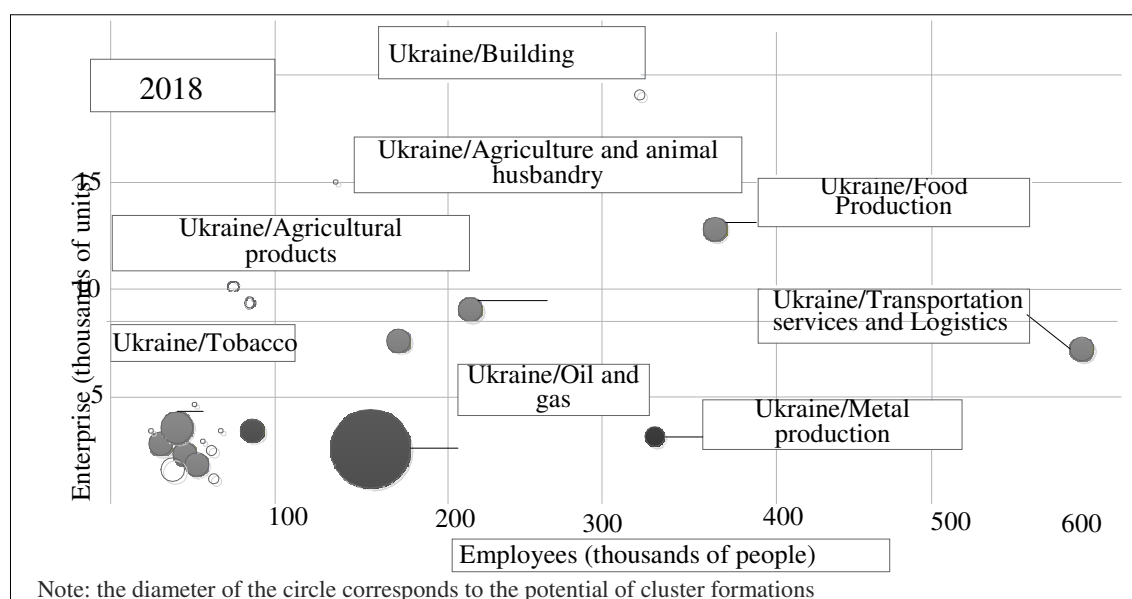
Definition of the priority directions of clustering in many regions of Ukraine does not consider features of industrial development, without taking into account industries with the largest clustering potential and formed inter-industrial cooperative bonds (for example, shipbuilding and sea-industry in Mykolaiv Region) (Table 2). In the majority of regional strategies we can observe copying of purposes and strategic priorities of regional development from the strategies of other regions, including the priority directions and sectors for clusters creation and development (first of all, on creation of agricultural clusters and for the development of entrepreneurial environment) [11].

Table 2

Use of the cluster model in different regions of Ukraine

Purpose	Region	Number of regions
Increase of agricultural production effectiveness and realization of agricultural potential	Vinnitsya Region, Zhytomyr Region, Zakarpattia Region, Ivano-Frankivsk Region, Kirovograd Region, Poltava Region, Ternopil Region, Chernivtsi Region, Chernihiv Region	9
Implementation of the innovational model of industrial development	Vinnitsya Region, Zhytomyr Region, Zakarpattia Region, Kirovograd Region, Ternopil Region, Chernivtsi Region	7
Strengthening of the SMEs potential and development of their infrastructure	Volyn Region, Poltava Region, Chernivtsi Region, Donetsk Region, Lviv Region, Kherson Region	6
Insurance of the recreational potential and tourism sphere development	Ternopil Region, Kherson Region, Chernivtsi Region, Chernihiv Region	4
Stimulation of cooperation between cross-border and border territories	Vinnitsya Region, Zakarpattia Region, Lviv Region	3
Decrease of development disproportions in the region	Kyiv Region, Mykolaiv Region	3
Insurance of the alternative energy sector development	Ivano-Frankivsk Region, Chernihiv Region	2

As the geographical localization of enterprises is considered to be one of the most essential conditions of a cluster creation, we offer to reveal the presence of clusters potential according to this feature in different spheres of economic activity of Ukraine basing on the analysis of the agglomeration map (Figure 1) [11].



Resourse: author`s calculations according to the European Cluster Observatory data [12].

Figure 1. Agglomeration map of cluster potential in Ukraine

The offered method of efficiency assessment of textile industry clusters proves the prospects of such kind of entrepreneurial integration and gives an opportunity to reveal the problems of this type of clustering [13] (Table 3).

Table 3

Main problems of textile industry development [13]

Problem	Essence of the problem
1. Personnel-based.	• lack of infrastructure of personnel training (system of technical training colleges); • increase of working professions prestigiousness in certain spheres by the means of the wages growth; • considerable shortage of personnel; • insufficient qualification of personnel.
2. Market-based.	• weak organization of the market of producers; • low competitiveness of products in comparison with their foreign analogs
3. General economic.	• low investment attractiveness; • high dependence of expenses on the level of prices for major factors; • weak contacts between producers in technological chain.
4. Production-based.	• under-utilization of production capacities as a result of their demolition; • technological gap of the industry; • high resource intensity of applied technologies.

Multiparametric approach is the basis of our method. The assessment should be carried out in 11 key directions (Table 4). It should be noted that the choice of peculiar indicators was made taking into account specific features of the textile industry. In total these criteria are capable to give a complex assessment of clusters activity.

Table 4

Form for the assessment of the textile cluster efficiency

Criterion	Content of the criterion	Weight	Assessment
1	2	3	4
1. Content assessment of cluster participants			
1.1. Share of cluster participants in total number of industry representatives	Share of the cluster textile enterprises in total number of textile enterprises of the country	3-1	5-1
1.2. Dynamics of new businesses share	Growth in the number of new companies in the cluster	3-1	5-1
1.3. Share of non-production organization	Share of non-production companies in total number of participants	3-1	5-1
1.4. Dynamics of foreign (joint) enterprises share	Growth in the number of foreign companies in the cluster	3-1	5-1

End of Table 4

Criterion	Content of the criterion	Weight	Assessment
1	2	3	4
1.5. Share of SMEs	Share of SMEs in total number of participants	3-1	5-1
1.6. Share of research institutes	Share of research institutes in total number of participants	3-1	5-1
1.7. Regional concentration of participants	In case, when major participants are located in one region (territorially close), we put 1 point, in the other case, 0	3-1	1-0
1.8. Sectoral concentration of participants	In case, when all the participants are involved only in textile industry, we put 1 point, in the other case, 0	3-1	1-0
1.9. Working experience of the participants on the market	In case, when the majority of companies have sufficient working experience, we put 1 point, in the other case, 0	3-1	1-0
2. Cluster position on the market			
2.1. Cluster share on the inner market	Relation of the amount of cluster production to the total number of propositions on the domestic market	3-1	5-1
2.2. Dynamics of share in the world-wide textile proposition	Growth in the number of cluster production on the world market	3-1	5-1
2.3. Dynamics of the outer markets	Growth in the number of outer markets, dealing with the cluster	3-1	5-1
2.4. Advantages of the cluster's geographical location	In case, when the cluster's location is advantageous for the development of its activity, we put 1 point, in the other case, 0	3-1	1-0
3. Production capacity of a cluster			
3.1. Loading of industrial capacity	Current level of the industrial capacity use	3-1	5-1
3.2. Consumption of fixed capital	The level of cluster's fixed capital consumption	3-1	5-1
3.3. Costs level	Costs on production and distribution of products	3-1	5-1
3.4. Labor productivity	The level of productivity on the key enterprise of the cluster	3-1	5-1
3.5. Fixed capital renewal rate	Share of renewed funds in general structure of fixed capital	3-1	5-1
3.6. Share of the cluster's fixed capital in total amount of the industry's fixed capital	Relation of the cluster's fixed capital to the fixed capital of the country's textile industry in general	3-1	5-1

End of Table 4

Criterion	Content of the criterion	Weight	Assessment
1	2	3	4
4. Assessment of cluster production			
4.1. Quality of products	Expert assessment based on consumer characteristics, aesthetics and environmental friendliness of products	3-1	5-1
4.2. Share of synthetic products	Share of products containing synthetic materials in general amount of cluster's production.	3-1	5-1
4.3. Competitiveness of products on the world market	Expert assessment of the demand for the cluster's production on the world market	3-1	5-1
4.4. Presence of a brand	In case when the cluster uses one common brand while distributing the products, we put 1 point, in the other case, 0	3-1	1-0
5. Efficiency assessment of cluster management			
5.1. Presence of strategies	In case when there exists a strategy of cluster development, we put 1 point, in the other case, 0	3-1	1-0
5.2. Presence of a coordinative body	In case when there exists one common body to coordinate the activity of all the participants of the cluster, we put 1 point, in the other case, 0	3-1	1-0
5.3. Level of collaborative links development	In case when the cluster's organizational structure contributes to its development, we put 1 point, in the other case, 0	3-1	1-0
6. Assessment of cluster infrastructural availability			
6.1. Availability of industrial infrastructure of business support	In case when the cluster cooperates with industrial parks and other institutions, we put 1 point, in the other case, 0	3-1	1-0
6.2. Availability of innovative infrastructure	In case when the cluster cooperates with technological parks, business incubators, engineering centers, venture funds and other institutions, we put 1 point, in the other case, 0	3-1	1-0
7. Assessment of financial component			
7.1. Cost-effectiveness of a cluster	Cost-effectiveness of sales	3-1	5-1
7.2. Returns on investment	Relation of the income to the invested capital	3-1	5-1

End of Table 4

Criterion	Content of the criterion	Weight	Assessment
1	2	3	4
7.3. Dynamics of transactional losses	Characterizes the level of decrease of transactional losses for organizations which are getting involved into the cluster	3-1	5-1
7.4. Indicators of clusters financial resilience	Is assessed using the example of the key participant of the cluster	3-1	5-1
8. Assessment of innovative component			
8.1. Dynamics of investments in Research and Development (R&D)	Growth in the number of investments directed at development	3-1	5-1
8.2. Commercialization of innovations	Number of successfully implemented developments in total amount of R&D per year	3-1	5-1
8.3. Number of new products of a cluster	Amount of new or improved cluster products	3-1	5-1
8.4. Share of hi-tech products	Relation of the number of hi-tech products to the total amount of production	3-1	5-1
8.5. Reward for innovations per one personnel member	Relation of total sum of awards for development to the general number of cluster personnel	3-1	5-1
9. Assessment of investments			
9.1. NPV	Determining the benefits of investments in the cluster project	3-1	5-1
9.2. Investments payback period	Calculation of average period of investment payback	3-1	5-1
9.3. Dynamics of foreign investments	Growth in the number of foreign investments in the cluster	3-1	5-1
10. Assessment of human resource policy			
10.1. Level of salary	Relation of the average salary to the established minimum subsistence level	3-1	5-1
10.2. Share of working personnel in the cluster	Part of workforce in the general number of cluster personnel	3-1	5-1
10.3. Share of personnel with higher education	Number of personnel with higher education	3-1	5-1
10.4. Share of highly-productive working places	Amount of highly-productive working places in general personnel structure	3-1	5-1
11. Efficiency assessment from the perspective of the state			
11.1. Cluster budgetary effectiveness	Is defined on the basis of a difference of tax and non-tax budget revenues and expenses of the authorities on cluster support	3-1	5-1

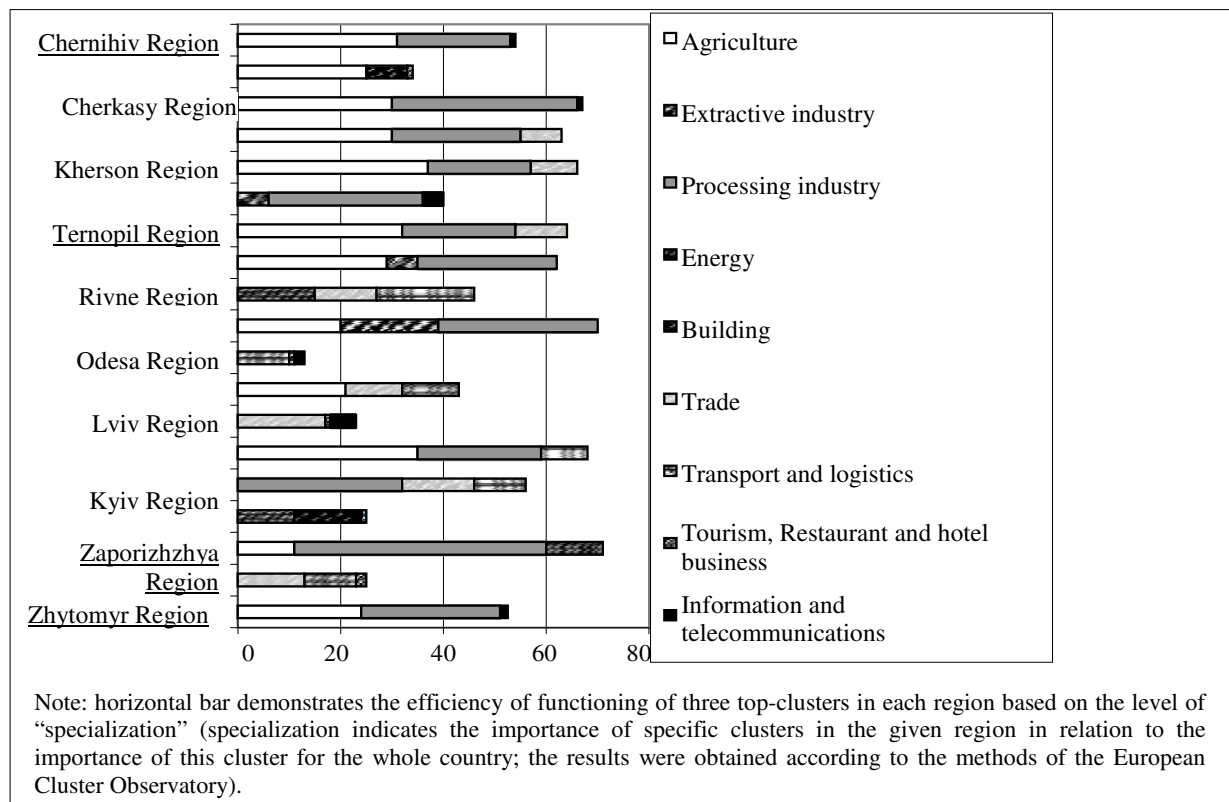
End of Table 4

Criterion	Content of the criterion	Weight	Assessment
1	2	3	4
1.2. Share on cluster in Gross Regional Product (GRP)	Relation of cluster production to the total amount of GRP in a particular region	3-1	5-1
11.3. Employment of population in clusters enterprises	Amount of job opportunities for all cluster members	3-1	5-1
11.4. Regional investments	Share of regional investments obtained by cluster members in total number of regional investments	3-1	5-1

Expert assessment of cluster efficiency. Assessment is carried out on a scale of 1 to 5 (Table 2, column 4) concerning the revealed average industrial indicators of the criteria: 5 points (the highest mark) is put in case when the expected (projected) cluster indicator significantly predominates over the characteristic (average) indicators of the textile sphere; 4 points correspond to the insignificant predomination of an indicator over the average industrial indicator; 3 points mean approximate equality of the average industrial and cluster indicators; 2 points mean some deterioration of a cluster criterion in comparison with the average industrial one; 1 point means that the cluster demonstrates significant lags according to this indicator. At the same time, it should be taken into account that for some of the assessment criteria only the scale of 1 to 2 can be used, because such criteria cannot be assessed deeply. But at the same time their use in this method is rather important for getting the correct efficiency assessment of cluster's activity. The offered method can be considered as universal. It gives an opportunity to identify the efficiency level of functioning of current Ukrainian clusters rather clearly taking into account the specificity of each industrial sector. The results of calculation are given in Figure 2.

According to Figure 2 the potential of clustering effectiveness exists, for example, in agricultural sphere of Cherkasy, Mykolaiv and Kirovograd regions; in biotechnical sphere – in the city of Kyiv and Kharkiv region; production of footwear – in Chernivtsi region; leather goods production – in Zakarpattya region. Taking into account current conditions of agglomeration in Ukraine, the implementation of cluster policy could lead to the growth of clusters, developing local economic benefits [10]. At the same time, it should be mentioned that one of the advantages of cluster policy is the creation of potential conditions for the creation of effective clusters even without the evident industrial agglomeration. As an example we should mention Saskatchewan biotechnological cluster in Canada. It was built with the help of powerful crediting and based on the

University of Saskatchewan. Its effective activity ensured the leadership of the region in the sphere of biotechnological researches in Canada [10].



Resource: author's calculations according to the European Cluster Observatory data [12].

Figure 2. Potential of clustering effectiveness according to different industries and spheres of activity

Conclusions and suggestions. Thus, economic cluster nowadays continues to obtain popularity in domestic practice of business leading. With each passing year cluster policy of Ukraine will yield new results. Methods of proper assessment of cluster functioning with the consideration of sectoral features have to be improved in order to increase the effectiveness of the events carried out by the state on the support of clusters. In our opinion, the issue of clusters efficiency assessment will not lose its relevance in the nearest future. In modern circumstances, taking into account limited financial resources, there is a problem to choose the most advantageous variant of investment. The offered methods of textile clusters assessment will give an opportunity to solve this problem to a certain extent.

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FOUNDATIONS FOR SELECTION OF THE ENERGY MARKET GOVERNMENT REGULATION TOOL

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Introduction. World experience has shown that the high energy intensity of the economy coupled with the scarcity of its own energy base causes many problems of low competitiveness of the country. The use of an effective model of state regulation of energy consumption allows us to form an effective energy saving strategy, to intensify the processes of updating the fixed assets with high-tech energy-saving equipment and technologies.

Hypothesis: the lack of a universal approach to building a system of state regulation of the energy market requires focusing on individual methods and directions of implementing energy conservation policies.

The purpose of the study is to substantiate and develop practical recommendations for implementing an effective policy of state regulation of the energy market.

Methods of research: historical and logical – in the study of patterns of development of scientific thought about the role of the state in regulating the energy resources market; statistical and factor analysis – for revealing of

macroeconomic factors of influence on the market of energy resources; economic and mathematical modeling – in developing the model of functioning of the energy market.

Results: features of the use of modern instruments of state regulation of energy resources are analyzed. The model of functioning of the energy resources market, the introduction of which will contribute to the formation of a highly competitive environment of generating companies, transferring organizations, intermediaries, and a high level of competition, is proposed.

Conclusions: state regulation of the energy resources market is an activity on the state functions in relation to the rational use of energy resources, reducing the energy intensity of the gross domestic product. Formation of effective instruments of state regulation of the energy resources market will improve the functioning of the energy sector of the Ukrainian economy.

Keywords: state regulation; energy market; energy consumption; energy saving policy; model of functioning of the energy market.

JEL Classification: Q 21; Q 41; Q 48; L 44

УДК 338.23:620.9

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**ОБҐРУНТУВАННЯ
ІНСТРУМЕНТАРІЮ
РЕГУЛЮВАННЯ
ЕНЕРГОРЕСУРСІВ**

**ВИБОРУ
ДЕРЖАВНОГО
РИНКУ**

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Вступ. Світовий досвід довів, що висока енергомісткість економіки в поєднанні з дефіцитністю власної енергетичної бази спричиняє численні проблеми низької конкурентоспроможності країни. Використання ефективної моделі державного регулювання енергоспоживання дозволяє сформулювати ефективну стратегію енергозбереження, активізувати процеси оновлення основних засобів високотехнологічним енергозберігаючим обладнанням і технологіями.

Гіпотеза: відсутність універсального підходу до побудови системи державного регулювання ринку енергоресурсів вимагає зосередження на окремих методах і напрямках реалізації політики енергозбереження.

Мета дослідження полягає в обґрунтування та розробці практичних рекомендацій щодо здійснення ефективної політики державного регулювання ринку енергоресурсів.

Методи дослідження: історико-логічний – при дослідженні закономірностей розвитку наукової думки щодо ролі держави в регулюванні ринку енергоресурсів; статистичного та факторного аналізу – для виявлення макроекономічних факто-

рів впливу на ринок енергоресурсів; економіко-математичного моделювання – при розробці моделі функціонування ринку енергоресурсів.

Результати: проаналізовано особливості використання сучасних інструментів державного регулювання ринку енергоресурсів. Запропоновано модель функціонування ринку енергоресурсів, впровадження якої сприятиме формуванню висококонкурентного середовища генеруючих компаній, передавальних організацій, посередників, високий рівень конкуренції.

Висновки: державне регулювання ринку енергоресурсів представляє собою діяльність з реалізації функцій держави щодо раціонального використання енергоресурсів, зниження енергоємності валового внутрішнього продукту. Формування ефективних інструментів державного регулювання ринку енергоресурсів дозволить поліпшити функціонування енергетичного сектору економіки України.

Ключові слова: державне регулювання; ринок енергоресурсів; споживання енергії; політика енергозбереження; модель функціонування ринку енергоресурсів.

Formulation of the problem. Energy resources play an important role in the development of the economies of the world. The current stage of development of the domestic energy market is characterized by the influence of external and internal factors, which are caused by the slowdown in the development of the world economy, the spatial discreteness of the distribution of energy resources, the violation of their balanced production and consumption, the aggravation of environmental problems, and globalization.

The main drawbacks of the Ukrainian energy market are the lack of diversification of sources of energy products supply; significant technogenic load on the environment; unsatisfactory technical state of a part of energy objects, including systems of transportation of energy products [1]; high level of energy intensity of the national economy; low energy efficiency. Today, the process of providing energy resources is pre-crisis, requiring state regulation, given the significance of this issue for the country's economy. Own energy recovery does not meet the needs of Ukraine, as evidenced by the lack of its own energy resources, the growing demand for them and high energy prices. The foregoing determines the need to study issues related to improving the efficiency of state regulation of the energy market in Ukraine

An analysis of recent research and an unsolved part of the problem. In the economic literature recently there is an increase in publications, which deals with state regulation in the energy sector. But most authors devote insufficient attention to the main instruments of state regulation, through which the process of managing the energy industry is carried out. It should be noted that a market economy requires state regulation and implementation of organizational mechanisms that ensure the unification of economic entities of the country into a coherent system.

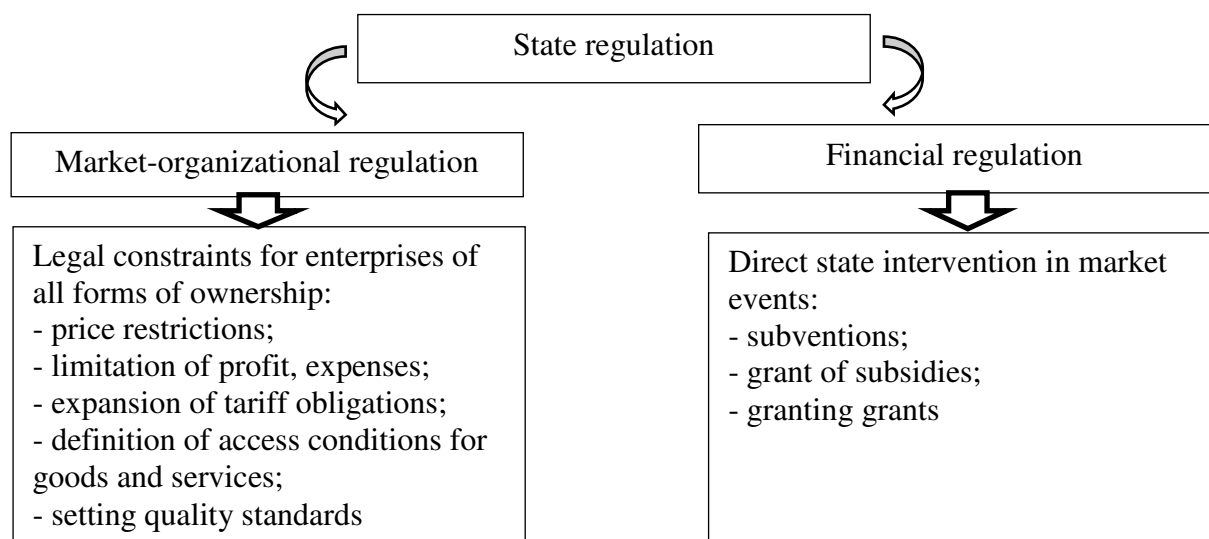
Issues devoted to the formation of the energy market, to increase the efficiency of the use of its various types, including alternative sources, were considered in the scientific works of domestic and foreign scientists: S. Fisher [2], O. Geden [2], B. Box [3], B. Slupsky [3] and others. Problems of state regulation of the fuel and energy complex are considered by such scholars as L.S. Belyaev [4], N.V. Mitsa [5], L.L. Tovazhnyansky [6], I.A. Franchuk [7], B. Shevchenko [6]. Conceptual bases of management and regulation of the development of the fuel and energy complex are highlighted in the works of foreign and domestic scientists: O. Alimov [8], A. Danilenko [8], V. Tregobchuk [8], V. Bakumenko [9], V. Knyazev [9], Yu. Surmin [9], I. Galyuk [10], O. Matskevich [10].

At the same time, the issues related to the formulation of recommendations for ensuring the efficiency of the process of regulating the energy market in Ukraine remain insufficiently researched.

The purpose of the article is to study and determine the most effective tools for state regulation of energy resources.

Research results. Taking into account the foreign experience of state regulation of the energy sector, based on the principles of transparency and responsible management, an important task of state policy is the formation of an effective and understandable mechanism for regulating the country's energy sector. Particular attention is paid to the search for instruments of state regulation of the energy resources market, which can provide qualitative transformations in the energy sector and the economy as a whole. Today it can be argued that state regulation and its tools are not sufficiently effective to improve the state of the energy sector. These tools need to be improved. There is a constant transformation of elements of the structure of state regulation and its permanent changes, redistribution of functions between state bodies, search of more effective instruments and mechanisms of state regulatory policy.

Instruments of state regulation of the energy resources market are mechanisms and institutions, through which the national economy carries out regulatory activity aimed at the development of the industry, the allocation of resources and the formation of proportions of industry development. It should be noted that, depending on the task solved by the state, and the forms of its intervention in the economy, state regulation is divided according to directions, as shown in Figure 1.



Source: [3; 5; 7; 9].

Figure 1. Division of state regulation depending on the task and forms of state interference in the economy

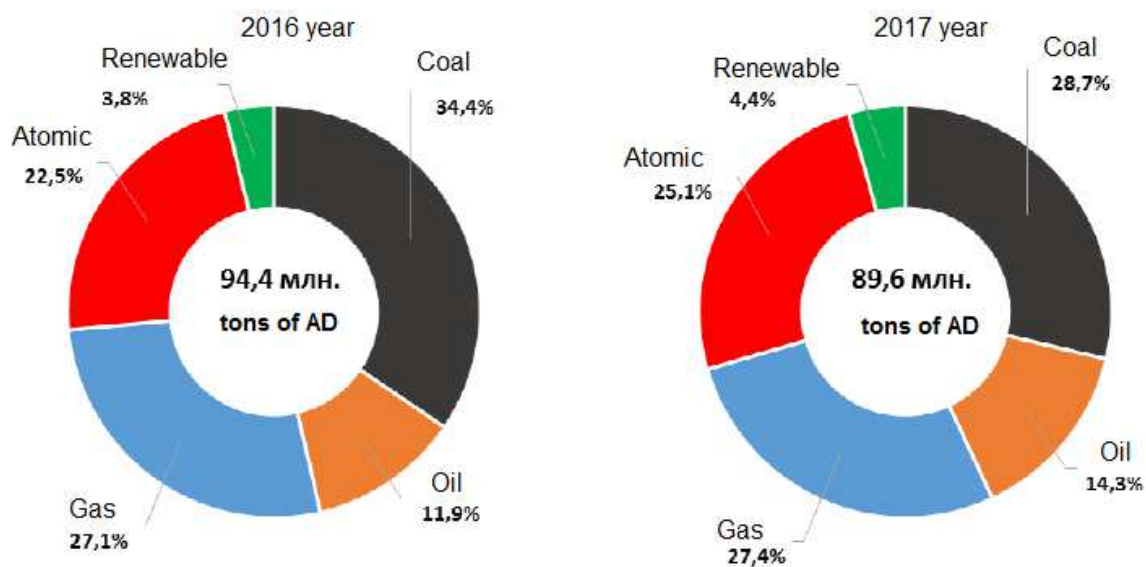
Today, the Ukrainian fuel and energy complex (FEC) is in a pre-crisis condition, which is confirmed by a number of problems, first of all, with imperfect state regulation and non-compliance of executive authorities with

existing state policy measures. Taking into account the inability of the state to act on the processes of functioning in the energy sector of Ukraine without an organized process of solving the set tasks, the organizational provision of state regulation of the energy sector is an important component of the efficient functioning of the entire industry of the country.

Among the wide range of urgent problems of brutal state policy, the following areas of the energy industry are in demand, which have absolutely concrete problems and which are shown insufficiently and unstructured, namely:

- instability of the situation in the energy market due to high monopolization of imports of natural gas and oil and, consequently, high prices for them;
- growth of energy consumption of products;
- unsatisfactory and emergency condition of the overwhelming part of fixed assets, depreciation of production assets of the fuel and energy complex;
- excessive consumption and inefficient use of energy resources;
- insufficiency of investments in the energy sector, which is combined with the crisis state of non-payment, makes it impossible for its stable work and development;
- lack of promising energy policy.

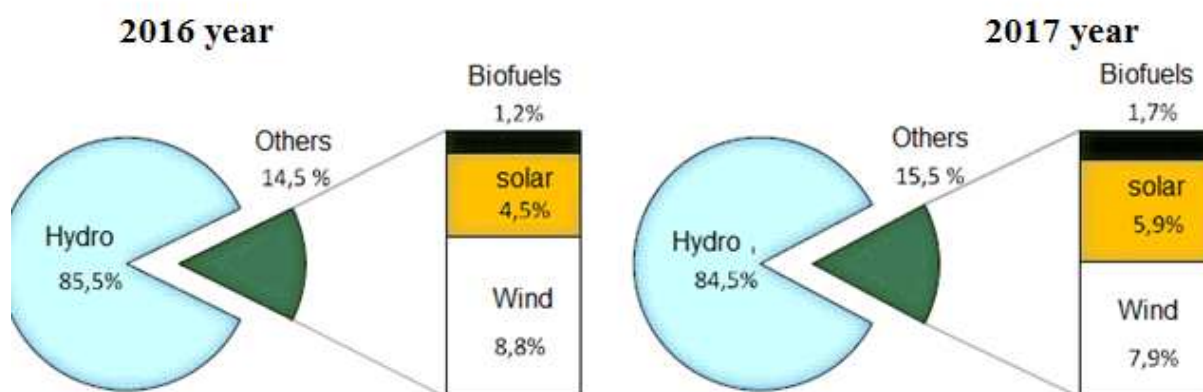
Thus, on the basis of these problems, we will try to understand more in the state of power supply and analyze the peculiarities of these negative processes that take place in the energy market. In the energy balance of the country in 2017, the total supply of primary energy amounted to 89.6 million tons of oil equivalent (million tons of oil), which is 5.0% less than in 2016 (Figure 2).



Source [11; 12].

Figure 2. Distribution of energy sources in the total supply of primary energy (by main types of fuel and energy)

In 2017, primary energy production amounted to 58.9 million tons, which is by 11.3% less than in 2016. In the structure of own production, the largest share was: atomic energy – 38.2%, natural gas – 26.3% and coal – 23.2%, renewable energy (RES) – 7.7%. Own production provided 65.7% of the total primary energy supply. The structure of own production of primary energy is characterized by the following changes: the shares of atomic energy, natural gas and RES increased by 6.1 percentage points, 3.4 pp and 1.5 pc respectively, while simultaneously reducing the share of coal by 11.3 pp. Fossil energy resources accounted for 53.2% of total energy production. In the RES structure in 2017 the bulk of biofuels and wastes accounted for 79.8%. In the structure of electricity production, the largest share of renewable energy sources remains hydropower. However, in 2017, the share of hydropower and wind energy decreased by 1.0 pp and 0.9 pp respectively, with simultaneous increase of solar energy particles by 1.4 pp and biofuels by 0.5 pp (Figure 3).



Source: [11; 12].

Figure 3. The structure of electricity production from renewable energy sources

Net imports (the difference between imports and exports) of primary energy in 2017 amounted to 33.2 million tons and it increased by 20.2% year-on-year, mainly due to the growth of imports of natural gas and coal. In the structure of energy imports, the share of coal was the largest and constituted 36.8%, natural gas – 31.9%, crude oil and petroleum products – 31.2%. In the structure of energy exports 29.2% of the volumes were coal, 27.9% – biofuels and 23.1% – electricity.

The final consumption sector represents primary and secondary energy and fuels used by consumers. In the final consumption of fuel and energy in 2017, 50.1 million tons of energy was used, which is 3.0% less than in 2016. The decrease in the volume of final energy consumption was mainly due to the reduction of coal use, natural gas and heat. In the structure of final consumption among the main sources of energy the share of natural gas remains the largest

(29.9%), the share of electricity was 20.2%, crude oil and petroleum products – 20.1% (Table 1).

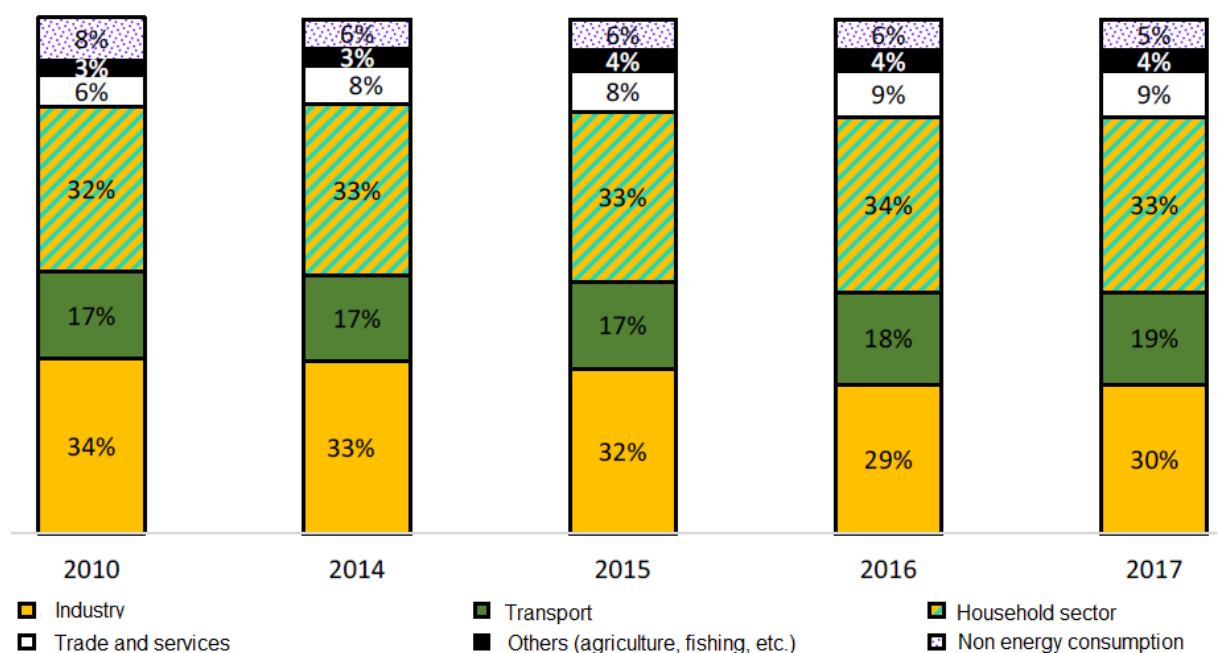
Table 1

The structure of final energy consumption

Year	Final energy consumption, ths tons of asc.	By volume of final consumption, %					
		natural gas	coal and peat	crude oil and petroleum products	electric power	heat energy	biofuels and waste
2017	50086	29.9	10.4	20.1	20.2	15.6	3.8
2016	51649	30.3	12.2	18.7	19.6	15.9	3.3
2015	50831	31.5	12.4	18.6	20.1	14.8	2.5
2014	61460	34.1	14.9	16.5	18.0	14.5	2.0
2010	74004	38.4	11.3	16.5	15.6	16.9	1.3

Source: [11; 12].

The largest final consumers of fuel and energy in 2017 were the domestic sector and industry, which accounted for 32.8% and 30.2% respectively (Figure 4).



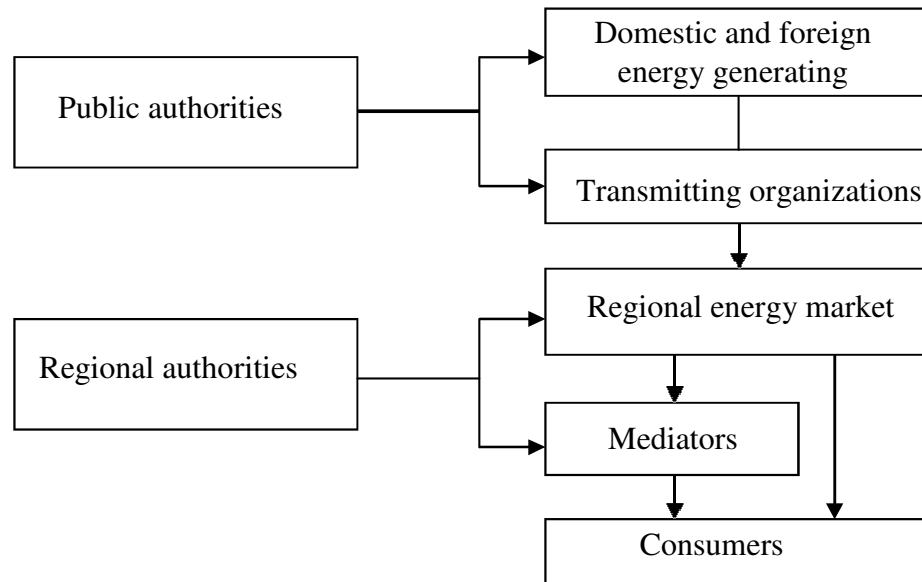
Source: [11; 12].

Figure 4. The structure of final consumption in directions

Non-energy consumption in 2017 amounted to 2.5 million tons, from which 1.2 million tons of oilseed was used as raw material for industry.

The given data testify that the modern organizational-institutional structure of the energy market does not allow to fully use the complex of incentives of

economic entities to energy efficiency and does not ensure the efficiency of the regulation process and may be reflected by the proposed model of functioning of the energy resources market (Figure 5).



Source: author development.

Figure 6. Model of functioning of the energy market

In our opinion, the national energy market should consist of regional ones that are basic. The interests of the state are to ensure the effective realization of economic, environmental and social functions. In this case, the economic function is manifested in the growth of tax revenues in the budgets, the prevention of monopoly and unfair competition, and the stimulation of energy production at the expense of alternative sources. Some aspects of the implementation of this function are disclosed in [12].

The ecological function is mainly related to compliance with environmental legislation. It is advisable to agree with [3] that the task of public authorities is also to work on the need to ensure an optimal structure of generating capacity with the timely commissioning of new facilities. This is due to the fact that the elimination of energy shortages requires a certain amount of time. The purpose of regulating the influence of public authorities is to prevent a deficit and, in the absence of the necessary amount of private investment, to ensure timely and optimal development of power facilities. Bodies of regional power, to a greater extent, are responsible for the implementation of social functions, since they are close to the specific consumer. Its essence is to reduce the level of social tension, support the strata of the population who are below the poverty line, and so on.

Implementation of the proposed model of functioning of the energy market will contribute to the formation of a highly competitive environment for

generating companies, transferring organizations, and intermediaries. In our opinion, a high level of competition will be ensured by free access to this market of business entities and the use of methods of price and non-price competition, the presence of contracts directly with consumers (their associations).

Some aspects of this model are discussed in [3]. Transmitters are obliged to freely, for a certain fee (rent payments), provide distribution networks for the implementation of energy, directly to consumers or intermediaries.

The operation of this model is economically beneficial to consumers, since it allows you to choose a supplier. Receiving super-profits by power generating companies is limited by competition between them.

At the same time, this model creates prerequisites for implementing energy efficiency programs both for producers (will reduce the cost of energy) and for consumers (reducing the cost of payment).

In our opinion, the main principles of state policy in the energy market should be as follows:

- formation of the legal and institutional environment;
- regulation of the activities of market entities on the basis of the use of economic, regulatory and technical and other methods;
- realization of a complex of measures on the use of tangible and intangible incentives for the rational use of fuel and energy resources;
- Mandatory State Examination [13];
- creation of conditions for the universal use of fuel and energy resource consumption accounting systems.

Solving these problems requires nationwide systemic solutions aimed at improving the instruments of state regulation of the energy market. As primary goals in the field of state regulation of the energy market, the goals related to the reform of the energy complex in the context of the introduction of market relations in the Ukrainian economy through the restructuring of the industry, the development of antitrust laws, the creation of a competitive market for ERFs, and strengthening the requirements of environmental legislation can be distinguished. All this requires accelerated modernization of power facilities, as well as ensuring national security taking into account the energy factor.

The most significant for Ukraine is the comprehension of economic mechanisms of the state's influence on the energy resources market, using a number of state regulation instruments. These include the tools shown in Table 2.

Thus, state regulation of the energy market should be based on the system of economic mechanisms of state energy policy. This system, which includes tax, price instruments, investment rules, provides:

- the transition from fiscal to stimulating taxation in the energy sector;

- attraction of investments into the energy sector on the basis of agreements on the distribution of energy products, resulting in an order in the adjacent industries of industrial production;

- elimination of price imbalances for certain types of energy resources, formation of environmental rent for gas, which is redistributed in favor of other sectors of the fuel and energy complex in connection with the reduction of state subsidies;

- containment of energy prices with the provision of the necessary self-sustainability of ERFs as the basis for the development of heavy industry sectors, which contributes to maintaining the necessary parity of energy prices, industrial products, consumer goods and services, taking into account the population's solvent demand.

Table 2

Instruments of state regulation of the energy resources market of Ukraine

State regulation tool	Characteristic	Task	Expected result
Pricing in the world energy markets (balancing)	A high level of monopoly in the fuel and energy complex of Ukraine, which is increasing from external natural gas supplies	Prevention of unreasonable overestimation of prices and tariffs for fuel and energy, preventing cross-subsidization of some activities in the energy sector at the expense of others	Supply of energy at a regulated tariff
Regulation by licensing	Obliges subjects to adhere to certain conditions and rules of activity	Development of licensing conditions and control over their compliance	Influence on the behavior of the licensee, which allows them to comply with technical, economic and other requirements
Tax regulation	They are used for the operational regulation of the production structure and consumption of PE	Execution of fiscal functions and creation of tasks for efficient functioning and development of the energy sector	Increasing the competitiveness of enterprises, stimulating energy saving, investment and innovation activities of economic entities
Customs regulation	Operational regulation of the structure of import of PER	Regulation of the import structure of the PER	Stimulating the import of scarce resources for Ukraine, restricting imports of goods, the production of which is possible at domestic enterprises (oil refining, coal)

End of Table 2

State regulation tool	Characteristic	Task	Expected result
Strategic state programs	They are created with the purpose of improving the overall energy situation of the country, the effective use of ERF and scientific, technical and economic potential	Formation and implementation of state energy sector development programs	Creation of effective strategic programs, in the process of implementation of which the normal state of the energy industry is achieved and its development
Legislative regulation	Monopolized nature of markets	Implementation of state control over observance of the legislation; regulation of prices (tariffs) for PPs, which are produced (sold) by subjects of natural monopolies; promotion of fair competition	Strengthening the legal field in the context of antimonopoly legislation; regulation and licensing of fuel and energy enterprises
Investment Policy	Carried out in order to improve the investment climate in the country	Expansion of forms of attracting foreign investments into the energy sector	Providing communication between strategic and tactical decisions in the field of investments, the purpose of which is structural restructuring of the power industry

Source: compiled by the authors on the materials [3; 5; 7; 8].

Conclusions and suggestions. Ukrainian energy needs a strategic state policy, based on which it is necessary to put instruments of state regulation of the energy market, which requires the improvement and implementation of certain methods, mechanisms and control over compliance with this energy public policy, due to clear objectives and regulatory measures. The most important tasks are to ensure stable energy supply, develop extraction (production) of FERs, increase energy efficiency and modernize and automate power plants and FPC facilities, which will contribute to strengthening the energy security of the state. This can be achieved by creating market conditions in the energy sector, which requires a change in pricing policy, restructuring of energy companies, improvement of management, the development of competitive markets, attracting foreign investment.

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STRUCTURE OF LOGISTIC TRANSPORTATION CUSTOMS COMPLEX

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Introduction. The customs legislation establishes requirements for the arrangement and technical equipment of facilities within which operations are conducted with goods under customs control that are stored or located on the territory of such facilities, as well as the regime rules for their operation and residence of customs officials and others within them. organs. Successful solution of problems associated with the opening of such facilities within the logistics complexes, their equipment and operation has a significant impact on the time of promotion of material flows in the logistics center, rational use of vehicles and costs of circulation.

The hypothesis of scientific research. It is assumed that the organization of logistics transport and customs complexes allows you to provide all the necessary resources and conditions for the development and successful integration of the transport and logistics system of Ukraine into the European transport and logistics system.

The purpose of the study: the classification of customs-sensitive objects that must be formed in the structure of the logistics transport and customs complex for the optimal processing of export-import commodity flows.

Research methods: theoretical analysis, synthesis, comparison, study of regulatory documents of regulatory procedures for the creation and operation of customs-sensitive facilities, as well as the purpose and principles of their work.

Results: the analysis of the work of customs-sensitive facilities was carried out, their classification by type was presented, interrelations between them were established, the optimal structure of the logistic transport and customs complex was proposed, ways to optimize the interaction of all regulatory bodies in the process of customs clearance were analyzed.

Findings. The analysis of customs legislation on the opening and functioning of customs-sensitive facilities indicates the consistency of requirements for their technical equipment and security rules, as well as the possibility of creating several facilities simultaneously within the same logistics and transport complex.

Keywords: logistic transport and customs complex; customs-sensitive facility; customs control zones; places of delivery of goods by means of transport; temporary storage warehouses; customs warehouses.

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СТРУКТУРА ЛОГІСТИЧНОГО ТРАНСПОРТНОГО КОМПЛЕКСУ

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Вступ. Митним законодавством встановлені вимоги відносно облаштування і технічної оснащеності об'єктів, в межах яких здійснюються операції з товарами, що знаходяться під митним контролем, які зберігаються або знаходяться на території таких об'єктів, а також режимні правила їх функціонування і перебування в їх межах посадовців митниці і інших контролюючих органів. Успішне рішення проблем, пов'язаних з відкриттям таких об'єктів в межах логістичних комплексів, їх оснащення і функціонування робить значний вплив на час просування матеріальних потоків в логістичному центрі, раціональне використання транспортних засобів та витрати звернення.

Гіпотеза наукового дослідження. Передбачається, що організація логістичних транспортно-митних комплексів дозволить забезпечити усі необхідні ресурси і умови для розвитку і успішної інтеграції транспортно-логістичної системи України в європейську транспортно-логістичну систему.

Мета даного дослідження полягає у проведенні класифікації митно-режимних об'єктів, що необхідно сформулювати в структурі логістичного транспортно-митного комплексу для оптимальної переробки експортно-імпортних товаропотоків.

Методи дослідження: теоретичний аналіз, синтез, порівняння та зіставлення – для визначення стану розкриття проблеми дослідження у науковій літературі, вивчення нормативно-правових документів, що регулюють процедуру створення і функціонування митно-режимних об'єктів, а також питання призначення і принципів їх роботи.

Результати: проведений аналіз роботи митно-режимних об'єктів, представлена їх класифікація за типами, встановлені взаємозв'язки між ними, запропонована оптимальна структура логістичного транспортно-митного комплексу, проаналізовані шляхи оптимізації взаємодії усіх контролюючих органів в процесі митного оформлення.

Висновки. Проведений аналіз митного законодавства з відкриття і функціонування митно-режимних об'єктів свідчить про узгодженість вимог до їх технічного оснащення і режимних правил, а також про можливість одночасного створення декількох об'єктів в межах одного логістичного транспортно-митного комплексу.

Ключові слова: логістичний транспортно-митний комплекс; митно-режимний об'єкт; зони митного контролю; місця доставки товарів транспортними засобами; сховища тимчасового зберігання; митні сховища.

Problem statement. The structure of logistic transport and customs complexes provides for the creation of objects within which operations with goods under customs control are carried out. The customs legislation establishes requirements for the arrangement and technical equipment of such facilities in order to ensure control over the goods that are stored or located on the territory of such facilities, as well as the regime rules for their operation and for the presence of customs officials and other regulatory bodies within them. Successful solution of problems associated with the discovery of such objects within the logistics complexes, their equipment and operation has a significant impact on the time of promotion of material flows in the logistics center, rational use of vehicles and expenses of circulation [6].

An equally important issue is the optimization of information flows accompanying the movement of goods of foreign economic operations. To solve it, it is necessary to ensure effective coordinated interaction of all the supervising bodies involved, taking into account the presence of requirements established by the legislation for exercising control over the movement of goods across the customs border.

Analyze of the latest research and unsolved issues. The issues of optimizing the national network of logistics complexes are covered in a number of scientific papers. Thus, in the works of A. Pasechnik [7], M. Danko [1], V. Dikan [2], V. Zubenko [3], M. Koren [4], I. Tokmakova [8], V. Kutyreva [5] an analysis of the current state of the transport and logistics infrastructure of Ukraine has been carried out and the directions for its further development have been determined with the aim of increasing the efficiency of using the transit potential of the Ukrainian transport system. The main reasons for the gradual reduction in the volume of international traffic through the territory of Ukraine have been established. A classification of conditions for the formation of multimodal transport hubs is given, the impact of creating such objects on the development of international transport corridors is analyzed, priorities are identified in reforming the existing system of logistics centers in Ukraine based on an analysis of regional economic development, and problematic issues related to the current level of transport and logistics and customs service in Ukraine, as well as prospects for the development of transport and logistics and transport and service centers in Ukraine. A comparison of the logistics indicators of Ukraine with the most developed European countries. Formulated recommendations for improving the logistics rating of Ukraine.

At the same time, the issues of consistency of regulatory documents governing the creation and operation of customs-sensitive facilities, as well as the purpose and principles of their work, are little studied.

The purpose of the study is to carry out the classification of customs-sensitive objects that need to be formed in the structure of the logistic transport and customs complex for the optimal processing of export-import goods flows.

The result of the study. The structure of logistic transport and customs complexes provides for the creation of objects within which operations with goods that are under customs control are carried out.

To enable operations with goods under customs control on the territory of the logistic transport and customs complex, it is necessary to create the following customs-sensitive facilities:

- customs control zones;
- the place of delivery of goods by vehicles;
- customs warehouse;
- a warehouse for temporary storage of goods under customs control;
- cargo customs complex.

The customs control zone is a place determined by the authorities of revenues and fees at checkpoints across the state border of Ukraine or elsewhere in the customs territory of Ukraine, within which authorities of revenues and fees carry out customs formalities [9].

Zones of customs control can be permanent in the case of regular placement on their territory of goods that are subject to customs control, or temporary, which are created at the time of the customs control. In the territories and in the premises of enterprises, cargo customs complexes, customs warehouses, temporary storage warehouses, permanent customs control zones are created.

Access to the zone is provided only to customs officials who are directly involved in the implementation of customs formalities; officials of state authorities who exercise the types of control provided for in part one of Article 319 of the Customs Code of Ukraine during the movement of goods and vehicles across the customs border of Ukraine; and the declarants at the time of the customs authorities of customs formalities regarding the goods and vehicles that they show for customs control. Admission to the customs control zone by other persons is provided by the customs authority in whose zone of activity it was created, in compliance with the requirements of the Customs Code of Ukraine and other regulatory acts. Officials who are granted access to the customs control zone may be in it only to the extent necessary to perform their direct official duties. Such officials should not carry with them goods, the export or import of which into the customs territory of Ukraine is prohibited or restricted by the legislation of Ukraine [6].

The place of delivery of goods by means of transport is the territory defined by customs (or part of it) of the checkpoint (control point) across the state border of Ukraine, sea or river port, airport, railway station, free customs zone, department of destination customs, where customs clearance is carried out

directly, enterprises with a continuous production cycle, a cargo customs complex, a territory which is adjacent to a complex marshalling yard, a regional marshalling yard, places international mail exchange, temporary warehouse or bonded warehouse [10].

A customs warehouse is a properly equipped warehouse, tank, cold store or freezer, covered or open area, designed for storage of goods under customs control. The customs warehouse can be closed (used only by the company-keeper) or open (available to all entities on a paid basis) type. A permanent customs control zone is necessarily created on the territory of the customs warehouse. If a customs warehouse is included in the structure of a cargo customs complex, you can use technical equipment, equipment, infrastructure and security for the equipment of a customs warehouse, which ensure the functioning of this cargo customs complex [10].

A temporary storage warehouse is appropriately equipped premises and / or covered or open areas, tanks, refrigerators or freezers designed for temporary storage of goods under customs control before they are placed in the customs regime. A temporary storage warehouse can be closed (used only by the company-keeper) or open (available to all subjects on a fee basis) type. A permanent customs control zone is necessarily created on the territory of the temporary storage warehouse [9].

The temporary storage warehouse is located in the customs territory of Ukraine. A temporary storage warehouse may have: one postal address if it consists of one or several warehouse objects and several postal addresses, if it consists of several warehouse objects that have different addresses and are enclosed inseparably along the perimeter of the territory of the temporary storage warehouse. In the case when the temporary storage warehouse consists of several storage facilities, it is allowed to use the territory adjacent to one of these storage facilities as an adjacent territory to the temporary storage warehouse.

The cargo customs complex is a section of a territory with a complex of buildings, structures, engineering and technical means and communications necessary for the implementation of customs control and customs clearance of goods and vehicles for commercial use that move across the customs border of Ukraine. A permanent customs control zone is necessarily created on the territory of the cargo customs complex [10].

The holder of the cargo customs complex provides intermediary services for the declaration of goods that move across the customs border of Ukraine, the provision of services for the storage of goods that move across the customs border of Ukraine, and commercial vehicles, as well as loading and unloading. Equipped places for the provision of additional services may also be available at the cargo customs complex.

Analysis of the customs legislation regarding the opening and operation of these objects indicates the need to harmonize the requirements for their technical equipment and regime rules, as well as the possibility of the simultaneous creation of several objects within the same logistic transport and customs complex [6].

When creating a logistics transport and customs complex, it is necessary to take into account that it simultaneously carries out operations with foreign goods and "internal" cargoes that are not under customs control and move within the country. Therefore, in order to fulfill the strict rules established by the legislation of Ukraine regarding the impossibility of simultaneously staying at the customs-sensitive objects of goods under customs control and goods that are not under customs control, as well as access of unauthorized persons who do not carry out foreign economic operations, the territory of such objects must be the process of creating a logistics transport and customs complex at the planning stage of industrial facilities, clearly define which of the objects They are used to handle "internal" goods, and which are used to handle goods that are under customs control, as well as to develop schemes for the optimal movement of cargo flows within the logistics and transport complex and to provide for the possibility of interested persons to access relevant types of cargo. This issue is of particular importance in the process of planning and creating such objects as: automobile terminals, railway terminals and storage facilities.

The solution of this issue should be carried out by calculation on the basis of a separate analysis of domestic and foreign trade cargo flows that are available in the area of the logistic customs complex.

Results. The analysis of customs legislation on the opening and functioning of customs-sensitive facilities indicates the consistency of requirements for their technical equipment and security rules, as well as the possibility of creating several facilities simultaneously within the same logistics and transport complex. At the same time, the most optimal is the formation of a customs-sensitive facility as part of the logistics transport and customs complex, which would have the status of a cargo customs complex, since such a customs-sensitive facility can combine the places of goods delivery by vehicles, temporary storage warehouses and customs warehouses with the corresponding customs control zones.

At this stage of development of the logistics transport and customs infrastructure, there are low quantitative indicators of the creation of cargo customs complexes in Ukraine. This situation is due to the fact that obtaining the status of cargo customs complexes by enterprises that already have at their disposal a place for goods to be delivered by vehicles with a temporary storage warehouse or a customs warehouse requires the owner to fulfill additional

requirements related to the registration and equipping of facilities without visible financial benefits in the future.

The most effective mechanism for optimizing customs procedures and reducing the processing time of documents during customs clearance is the use of modern information technologies in the design process.

Subsequent studies in this direction consist in applying the proposed algorithm for optimizing cargo flows within logistic transport and customs complexes, these should be carried out by calculation based on the analysis of current legislation, the range of goods being processed and the volume of domestic and foreign trade flows.

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CLUSTER FUNDAMENTALS FOR THE DEVELOPMENT OF INTEGRATED BUSINESS STRUCTURES

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Introduction. Nowadays, both in the world economy in a whole and in the economies of the leading countries a major role play not individual entities, but their integrated structures. Thus, over the last 5 years, sales of the 2000 largest integrated business entities from 51 countries in the world have almost doubled, accounting more than 50% of the global gross domestic product. Taking into account the mentioned above, we can say that the problem of defining cluster foundations for the development of integrated business structures is urgent.

Hypothesis of scientific research. All existing organizational forms of integrated structures vary greatly in nature, principles, goals of association, features of the organization, degree of integration of participants, the breadth of coverage of the spheres of production and economic activity, but the use of cluster principles of their organization allows to achieve a synergistic effect of development at a new level.

Aim of this research is a study of the above problems within the global economy and across Ukraine.

Methods of investigation: in the basis of the analysis procedures lies the modeling of financial and production activities of the group of companies before and after the consolidation on the basis of the cost-output model adapted to the characteristics of consolidated accounting in industrial companies.

Results. A new cluster approach to the development of integrated business structures is proposed on the basis of the author's study of world economic practice.

Conclusions: The formed matrix of estimation of degree of integration of participants of forms of separate subjects' unification allows to choose one or another form of business integration depending on the goals which are set for them and the ways of achievement of these goals (for example, retaining or losing their legal, industrial and economic and financial independence).

Keywords: integrated business structures; branding; cluster approach.

JEL Classification: L 22; F 23; G 34

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КЛАСТЕРНІ ЗАСАДИ РОЗВИТКУ ІНТЕГРОВАНИХ СТРУКТУР БІЗНЕСУ

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Вступ. В даний час як в світовій економіці в цілому, так і в економіках провідних країн головну роль відіграють не окремі суб'єкти господарювання, а їх інтегровані структури. Так, за 5 останніх років обсяг продажів 2000 найбільших інтегрованих структур бізнесу з 51 країни світу збільшився практично вдвічі, та склав більш ніж 50% до обсягу світового валового внутрішнього продукту. З огляду на вищевикладене, актуальною є проблема визначення кластерних засад розвитку інтегрованих структур бізнесу.

Гіпотеза дослідження. Всі існуючі організаційні форми інтегрованих структур значно різняться за характером, принципам, цілям об'єднання, особливостям організації, ступеня інтегрованості учасників, широтою охоплення сфер виробничо-господарської діяльності, але використання кластерних засад їх організації дозволяє досягнути синергетичного ефекту розвитку на новому рівні.

Метою даної статті і є дослідження вищевказаних проблем в рамках світової економіки і по Україні.

Методи дослідження. В основі процедур аналізу лежить моделювання фінансово-виробничої діяльності групи компаній до і після проведення консолідації на основі адаптованої з урахуванням особливостей консолідованого обліку в промислових компаніях моделі «витрати-випуск».

Результати. На підставі проведеного автором дослідження світової практики господарювання запропоновано новий кластерний підхід до розвитку інтегрованих структур бізнесу.

Висновки. Сформована матриця оцінки ступеня інтегрованості учасників форм об'єднання окремих суб'єктів дозволяє вибрати ту чи іншу форму інтеграції бізнесу в залежності від цілей, які перед ними стоять, і шляхів досягнення цих цілей (наприклад, зберігши або втративши свою правову, виробничо-господарську та фінансову самостійність).

Ключові слова: інтегровані структури бізнесу; брендинг; кластерний підхід.

Formulation of the problem. Under current conditions of globalization and liberalization of markets in the basis of economic relations between different countries and regions lies, on the one hand, competition for promising markets and attraction of factors of production, on the other hand, mutually beneficial cooperation and partnership in order to ensure national, regional and sectoral competitiveness. One of the complex mechanisms of development that ensure the growth of competitiveness is the formation of clusters, which today have become a part of economic and industrial policies of many countries. At the same time, foreign experience shows that the functioning of cluster forms of spatial organization of the economy is effective. These trends require a detailed and comprehensive study, especially because the development of clusters largely determines the current reproductive structure of world, national and regional economies. The desire of micro- and macroeconomic entities to create sustainable competitive advantages in the context of high dynamics of changes in the external environment leads to significant structural transformations of market relations and the emergence of new processes and institutional entities as a result. On the level of firms and industries (microlevels) – they are processes of inter-corporate integration and internationalization of production, which leads to the formation of vertically and horizontally integrated structures, various strategic alliances, as well as industry and inter-corporate associations, actively advocate and lobby for the interests of their participants. On the countries' level (macro levels) – these are regional integration processes that lead to the formation of regional associations. In these circumstances, the cluster approach can become a new vector of economic growth for large industrialized regions with a high degree of concentration of production. At the same time, the efficiency of regional branch complexes, formation and development of integrated business structures becomes a basic factor for their sustainable functioning and competitive development. The solution of these problems requires new practical actions aimed at the formation and development of regional sectoral complexes, which require theoretical substantiation.

Analysis of recent research and unresolved part of the problem. Major contributions to the development of cluster theory have been made by T. Andersson, T. Brenner, K. Ketels, G. Lindquist, R. Martin, M. Porter, F. Raines, S. Rosenfeld, P. Sunley, O. Solwell, and S. Sweeney, E. Feser, M. Enright and others. The problems of creation and functioning of integrated business structures are devoted to the work of both foreign and domestic scientists: D. Aaker, T. Ambler, J.-N. Kapferer, J. Robinson, K. Stiles, D. Trout, P. Fatkhutdinov, L. Ganushchak-Efimenko, O. Nifatova, V. Shcherbak and others.

However, despite the vast amount of research on these issues, most of them are local in nature and focused on specific issues. The spectrum of problems in the

field remains unresolved: Scientific and practical significance of the research results is to substantiate the formation of theoretical and methodological provisions in the field of spatial-cluster organization of regional integrated business structures based on the improvement of its forms and methods, taking into account the synthesis of economically and fairly social nature of their functioning within the framework of the developing theory of economic and sectoral clusters.

The aim of the study lies in substantiation and development of theoretical provisions and scientific and methodological tools for the development of regional integrated business structures based on a cluster approach.

Results of research. Integration processes occurring between enterprises of different ownership and activities are the basis for a promising model of economic development of the country's economy. An important direction of creating an effective and competitive integrated business structure is to provide organizational conditions for forming an integrated business structure based on a systematic approach (Figure 1).

The regulation of interaction of components of effectiveness system of branding of integrated business structures is realized through a sequence of stages (Figure 2).

Under the influence of internal factors, a set of consistent measures of brand management is carried out, aimed at achieving the goal. The first stage is diagnostics, which includes the analysis of strengths and weaknesses, threats and opportunities, the choice of strategy of brands of IBS, creation of brand image. The second stage involves defining the criteria for choosing a set of brand management measures, namely: the level of brand competitiveness, consumer satisfaction, brand value, identity compliance, brand portfolio structure, brand complex, brand life cycle, corporate culture. The next stage is the development of alternatives of the brand management strategy, among which the author proposes: repositioning, that is, adjusting a firm view of a particular brand in the consumer's mind; restyling that involves changing brand attributes, rebranding, that is, adjusting (or changing) brand identity; elimination – withdrawing a brand from the market.

Accordingly to the mentioned above, the proposed approach to the organization of control over branding of integrated education within the operationalization of a balanced scorecard is shown on Figure 3. When organizing the control of an integrated entity's branding activities, the system of interaction between brands of business units should be taken into account, aimed at maximizing the value or capitalization of the integrated entity. The implementation of a control organization system will help to address such issues as identifying internal growth reserves, maximizing capacity, increasing the

soundness of decisions made, and adhering to the chosen strategic development trajectory.

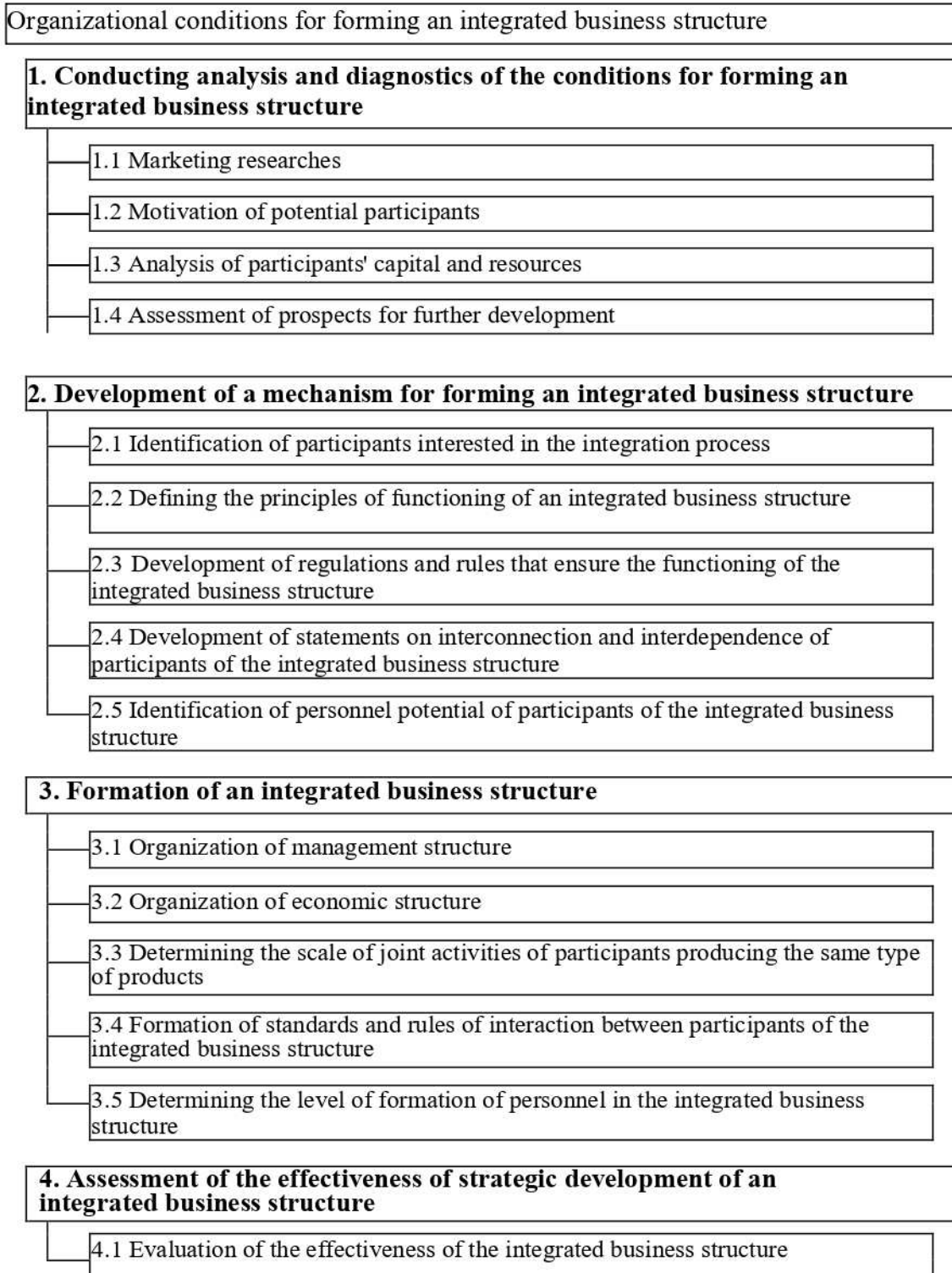


Figure 1. The recommended structural model of organizational conditions for the formation of integrated business structure

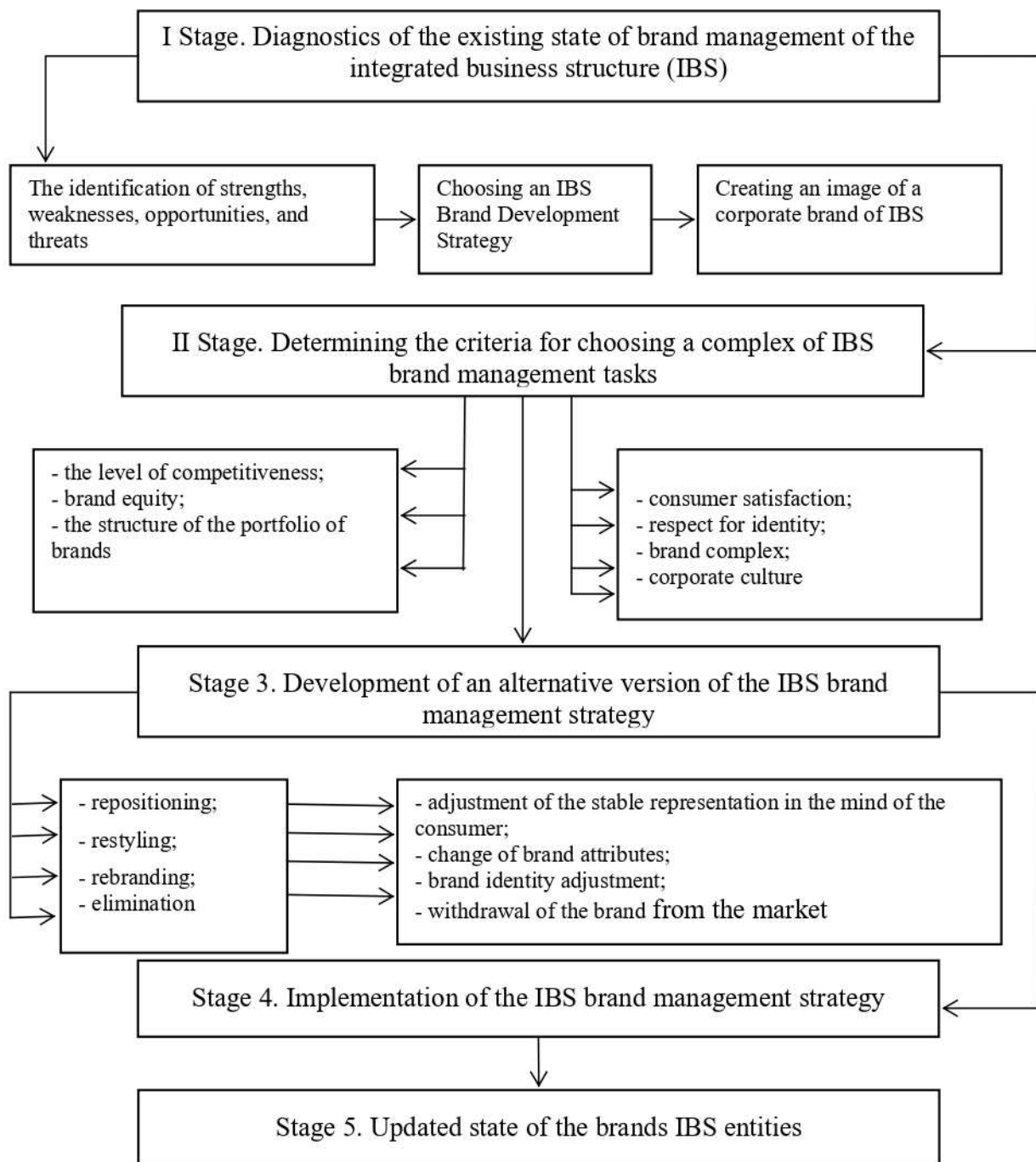


Figure 2. Regulation of interaction of components of effectiveness system of branding of integrated business structures

It is advisable to use a balanced scorecard to implement this monitoring organization. For this purpose, a comparative analysis of existing measurement systems was carried out and an approach to the structuring of key performance indicators was developed, based on the creation of classification of indicators

systems, and hierarchically separated levels and centers of responsibility of the integrated business structure. This approach allows to establish effective interaction of different participants of integrated formation and to orient them to achieve synergy from interaction of brands of different business units with simultaneous maximization of capitalization, or brand capital, of integrated structure as a whole. At the same time, the use of the indicated landmarks as the main strategic goals of the branding is proved.

The commonality of the mechanism and the balanced scorecard occurs both in terms of developing branding tools and levers of influence on the functions performed by individual business units, and in terms of institutionalization of the interaction environment (internal market) of participants in the integrated business structure. The consolidation of these tools is carried out within the framework of the developed model of implementation of a balanced scorecard and brand management mechanism of the integrated business structure, which provides multiple options for both the mechanism of organization and the approaches of integration.

The implementation of consolidation processes in integrated business structures is inextricably linked to the strategic level of management. To assess the strategic level of functioning of an integrated structure, it is necessary to monitor the current degree of efficiency of the integrated structure as a system and to determine what measures related to consolidation processes should be implemented to improve production efficiency and sales. For this purpose, a system of indicators is proposed that will allow comparing competing companies with each other.

To solve this problem, it is proposed to use a developed graphical structure, called "strategic consolidation cube" (Figure 4). The strategic cube is built on three axes, with a corresponding mathematical representation of the company's ability to develop in the market on the basis of branding: horizontal, reverse and direct vertical consolidation.

The first axis is market share:

$$MS = R / D, \quad (1)$$

where R – revenue of the integrated structure of companies from the sale of products;

D – demand for the products of the integrated structure of the company in the selected market analysis (can be defined as the total consumption of products in the market).

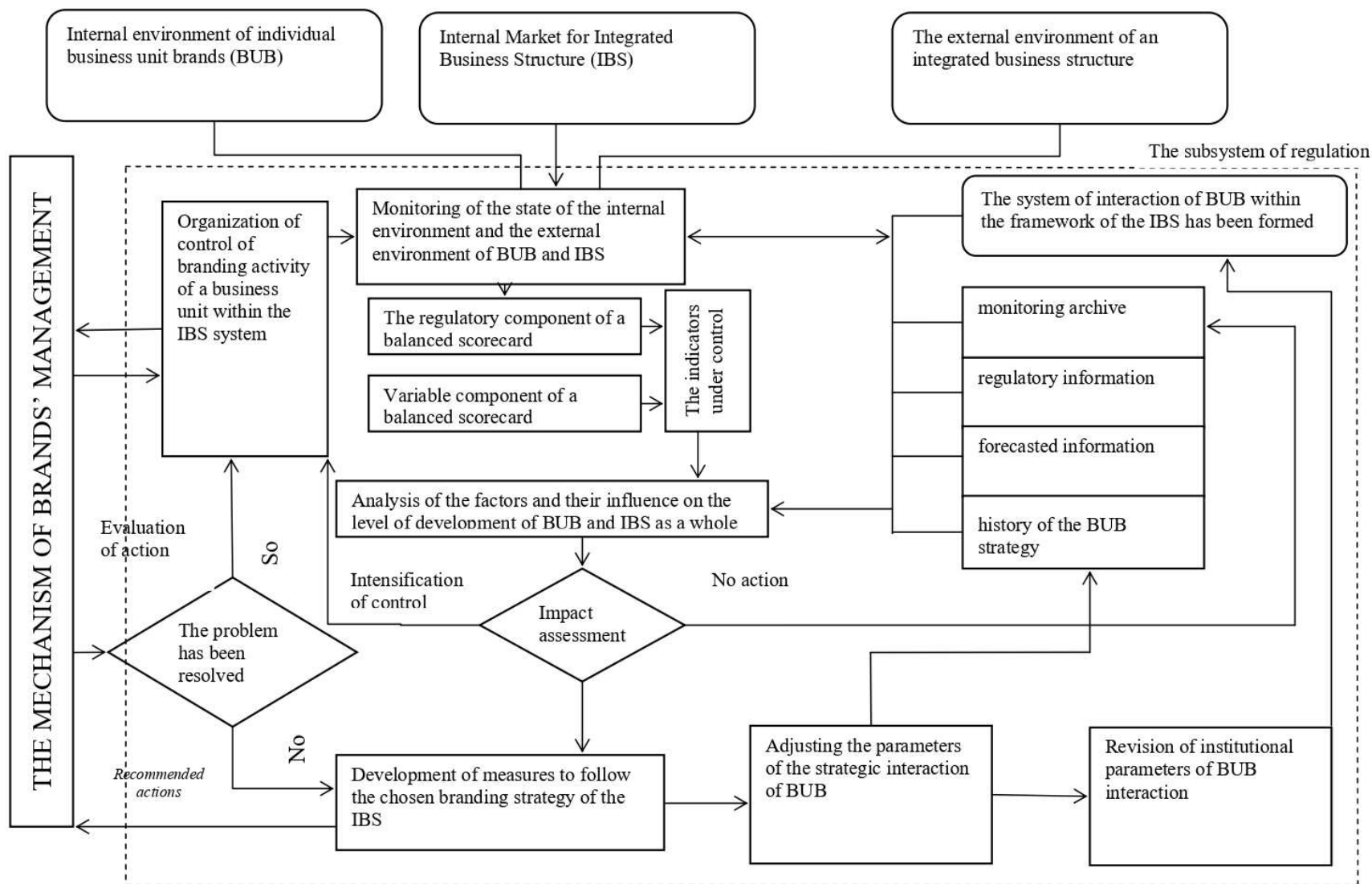


Figure 3. Scheme of organization of control over the integrated branding formation within a balanced scorecard

The degree of backward integration shows how much of the value chain in the main manufacturing process is controlled by the integrated structure:

$$BIR = IG \text{ cost} / (C - w - t - d), \quad (2)$$

where $IG \text{ cost}$ – volume of purchases (in terms of value) made by controlled companies;

C – the total cost of production of products of the integrated structure;

w – wages, which are included in the costs of production of the integrated structure;

t – tax payments included in the cost of production of the integrated structure;

d – the amount of depreciation that is included in the cost of production of the integrated structure.

The degree of direct integration shows how much of the value chain after the main production process is controlled by the integrated structure:

$$FIR = IG \text{ rev} / (R - R^{fin}), \quad (3)$$

where $IG \text{ rev}$ – sale of products of controlled companies within the IBS (in terms of value);

R – total value of sales of products / works / services;

R^{fin} – the realization of products / works / services to the end consumers.

The "Strategic Consolidation Cube" allows you to organize the indicators in annex to the divisions where the IBS operates (Figure 4). Division refers to a set of business units of one type of activity operating in a specific market.

The total number of divisions is indicated by an index e .

Point 0 on Figure 4 shows the lack of market control by the IBS. Point S reflects the limits of development of the integrated structure as far as possible in this market. At this point, the consolidated group is a monopoly on the implementation and controls the complete value chain from the main factors of production to the end consumer. Similar cubes are built on other divisions where the IBS operates, to evaluate the adjacent indicator – the degree of diversification – as a ratio between the criteria.

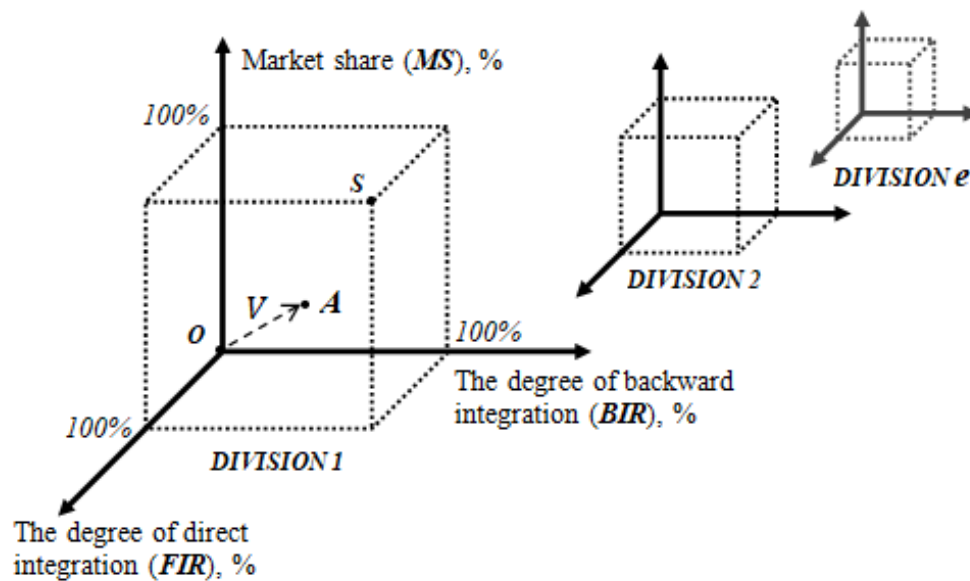


Figure 4. Strategical cube of consolidation

The company under analysis occupies some state inside the cube (point A). To summarize the three indicators, a metric called the “strategic vector” was proposed. Its calculation is made by the formula of the length of the vector:

$$V = \sqrt{[(MS)^2 + (FIR)^2 + (BIR)^2]}. \quad (4)$$

In order to increase the efficiency of managing business units on the basis of branding, it is necessary to assess the points of interaction of business units at the planning stage as accurately as possible, forecast future results and evaluate their economic efficiency. Any economic forecast should be based on the model of functioning of the IBS in future periods. At the same time it is necessary to focus on the systematic approach in the analysis, namely – it is necessary to evaluate changes in financial and production indicators of the integrated structure as a system, and not just two entities – the consolidator and the goal.

Conclusions and suggestions for further research.

The developed tools and techniques for practical application can be implemented in industrial corporate structures for:

- forecasting and systematic analysis of the impact of consolidation: on individual business units and on the group as a whole – which ensures greater accuracy in assessing the effectiveness of the integration process;
- implementation of the choice of integration process from the standpoint of increasing competitive advantages and achieving economic efficiency in the conditions of uncertainty of the market environment – which differs from the existing methods by the complexity and objectivity of the analysis;

- comparison of alternative consolidation projects and compilation of the most useful combinations of them – which allows to execute a broader analysis than the currently widely used tools.

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CONCEPT OF MANAGEMENT AND FORMATION OF FINANCIAL POTENTIAL OF CLUSTER UNIONS

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Introduction and purpose of research. A prerequisite for effective, stable and competitive functioning of cluster unions is the totality of its financial resources and capabilities – financial potential. The financial potential of a cluster is a combination of combined financial opportunities, resources and financial capital, the main purpose of the formation and use of which is to maximize income and maintain a stable competitive position in the market. Management and formation of the necessary size of the financial potential of cluster unions, which is necessary for the effective operation of the enterprise, is carried out under the influence of a set of certain characteristics of the activities of cluster unions, their priorities, goals, functions, etc.

The hypothesis of scientific research. The concept of management, formation and development of the financial potential of cluster unions will improve the production and economic activities of clusters, their financial and economic situation and investment and innovative attractiveness for external investors.

The aim of research: an in-depth study of the concept of management and the formation of the financial potential of cluster unions will lead to competitive production and economic activities, maximization of profits and investment and innovative attractiveness.

Methods of research.

- general scientific and special methods – in the study of the theoretical foundations of the essence of cluster formations, the disclosure of the essence of "financial potential", the definition of general scientific principles that are the basis for building research on the financial potential of cluster formations;

- functional and system analysis – when highlighting the features and patterns of the formation and functioning of cluster formations;

- systematization and generalization – in the study, analysis and comparison of domestic and world experience in the management, formation and development of cluster unions to establish the characteristics of the formation of their financial potential.

Results: it was established that the concept of management, formation and development of the financial potential of cluster unions should take into account the presence of such factors that significantly affect the value of financial potential, namely: the need to ensure the optimal value according to the chosen criterion; the presence and effectiveness of functional relationships between individual cluster members; determining the results of using financial potential and assessing the contribution of individual cluster members to its formation; approaches to the distribution of financial results of the cluster and determining the directions of their use.

Conclusions: on the basis of the study, it can be concluded that the concept of management and the formation of the financial potential of cluster unions is considered as a general mechanism for attracting, managing and optimizing financial resources and financial capabilities in the formation of financial potential, which will allow cluster unions to remain in a competitive state, to be profitable and maximize profits.

Keywords: management; formation; financial potential; cluster unions; stakeholders; efficiency; costs; profit; concept.

JEL Classification: C38; G34; J54; O16

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**КОНЦЕПЦІЯ УПРАВЛІННЯ ТА
ФОРМУВАННЯ ФІНАНСОВИМ
ПОТЕНЦІАЛОМ КЛАСТЕРНИХ
УТВОРЕНЬ**

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Вступ і мета дослідження. Передумовою ефективного, стабільного та конкурентоспроможного функціонування кластерних утворень є сукупність його фінансових ресурсів та можливостей – фінансовий потенціал. Фінансовий потенціал кластера – це сукупність поєднаних фінансових можливостей, ресурсів та фінансового капіталу, основна мета формування та використання якого полягає в отриманні максимального доходу й утримання стабільного конкурентного становища на ринку. Управління та формування необхідної величини фінансового потенціалу кластерних утворень, що необхідне для ефективної діяльності підприємства, здійснюється під впливом набору певних характеристик діяльності суб'єктів кластера, їхніх пріоритетів діяльності, цілей, функцій, та ін.

Гіпотеза наукових досліджень. Концепція управління, формування та розвитку фінансового потенціалу кластерних утворень дозволить покращити виробничо-господарську діяльність кластерів, їх фінансово-економічне становище та інвестиційно-інноваційну привабливість для зовнішніх інвесторів.

Мета: поглиблене дослідження концепції управління та формування фінансового потенціалу кластерних утворень, що призведе до конкурентоздатної виробничо-господарської діяльності, максимізації прибутку та інвестиційно-інноваційної привабливості.

Методи дослідження:

- загальнонаукові та спеціальні методи – при дослідженні теоретичних основ сутності кластерних утворень, розкритті сутності «фінансового потенціалу», визначені загальнонаукових принципів, що є основою побудови дослідження фінансового потенціалу кластерних утворень;

- функціонального та системного аналізу – при виокремленні особливостей і закономірностей формування та функціонування кластерних утворень;

- систематизації та узагальнення – в дослідженні, аналізі та порівнянні вітчизняного й світового досвіду управління, формування та розвитку кластерних утворень для встановлення особливостей формування їх фінансового потенціалу.

Результати: встановлено, що концепція управління, формування та розвитку фінансового потенціалу кластерних утворень повинна враховувати наявність таких чинників, які істотно впливатимуть на величину фінансового потенціалу, а саме: необхідність забезпечення його оптимальної величини за вибраним критерієм; наявність та дієвість функціональних взаємозв'язків між окремими членами кластера; визначення результатів використання фінансового потенціалу та оцінки вкладу окремих учасників кластера у його формування; підходи до розподілу фінансових результатів діяльності кластера та визначення напрямків їхнього використання.

Висновки: на підставі проведеного дослідження можна зробити висновок, що концепція управління та формування фінансового потенціалу кластерних утворень розглядається як загальний механізм, що передбачає залучення, управління та оптимізацію фінансових ресурсів і фінансових можливостей в формуванні фінансового потенціалу, що дозволить кластерним утворенням залишатись в конкурентоспроможному стані, бути рентабельними та отримувати максимальний прибуток.

Ключові слова: управління; формування; фінансовий потенціал; кластерні утворення; стейкхолдери; ефективність; витрати; прибуток; концепція.

Formulation of the problem. The effectiveness of the concept of formation, use and management of the financial potential of cluster unions depends on the size of the desired positive financial result (profit). So, the main indicator that will allow us to unambiguously determine and study the process of forming the financial potential of cluster unions is the profit of the enterprise and the size of its financial resources and opportunities for the future, because they occupy leading positions in the industrial and economic activities of cluster unions [2]. Profit most fully characterizes the results of production and business activities not only of cluster unions as a whole, but also of its individual participants (stakeholders), reflects the quantitative and qualitative parameters of the use of financial resources, capital, is the main internal source of the formation of own financial capital, financial stability and solvency, and due to the capitalization of profit, the share of own financial capital increases, and as a result, preference in borrowed sources. Thus, the concept of management and the formation of the financial potential of cluster unions should be considered as a process involving the formation of such an amount of financing of the integrated structure and the ratio of own and borrowed sources of formation of financial potential, in which the profit as a result of the functioning of the system would be maximum [3].

Analysis of recent research and unresolved part of the problem. Issues related to the activation and development of financial potential have been the subject of research by many academic economists: A. Arefyeva, A. Amosha, L. Vorotin, V. Babich, V. Bazilevich, V. Belolipetskiy, I. Blanca, J. Bersutsky, A. Vasilika, V. Grinev, A. Zagorodnogo, V. Zang, M. Ivanova, A. Kizima, V. Kovaleva, T. Klebanova, N. Krasnokutsky, P. Likes, M. Lepi, V. Oparina, P. Orlova, V. Ponomarenko, O. Pushkar, L. Rudenko, A. Stoyanova, A. Trided, L. Khudoley, D. Shevchenko, B. Shelegeda and others. The dynamics of integration processes in economic systems, the specifics of the formation and functioning of various types of integrated structures, including cluster formations, are considered by such economists: N. Weber, M. Vnukova, L. Ganushchak-Efimenko, V. Heetz, M. Enright, N. Kizim, S. Kropelnitska, V. Ponomarenko, M. Porter, O. Ptaschenko, G. Semenov, S. Sokolenko, I. Tkachuk, V. Tretyak, T. Uskova, L. Fedulova, J. Schumpeter, V. Scherbak. At the same time, there is a need to improve and deepen the theoretical foundations of management, the formation of the financial potential of cluster unions, generalization of the features of the functioning of clusters in a market economy and sources of financing for their development.

The aim of research is to improve the management process and the formation of the financial potential of cluster unions, given their basic elements and integrated structure.

Results of the investigation. The process of formation of financial potential in cluster formations is determined by its size and structure. The amount of funding and structure should be such as to ensure effective, cost-effective, competitive production and business and financial activities of cluster unions. It should be borne in mind that the excess amount of financial capital will create the prerequisites for further inefficient use of assets, lower rates of return on capital [1].

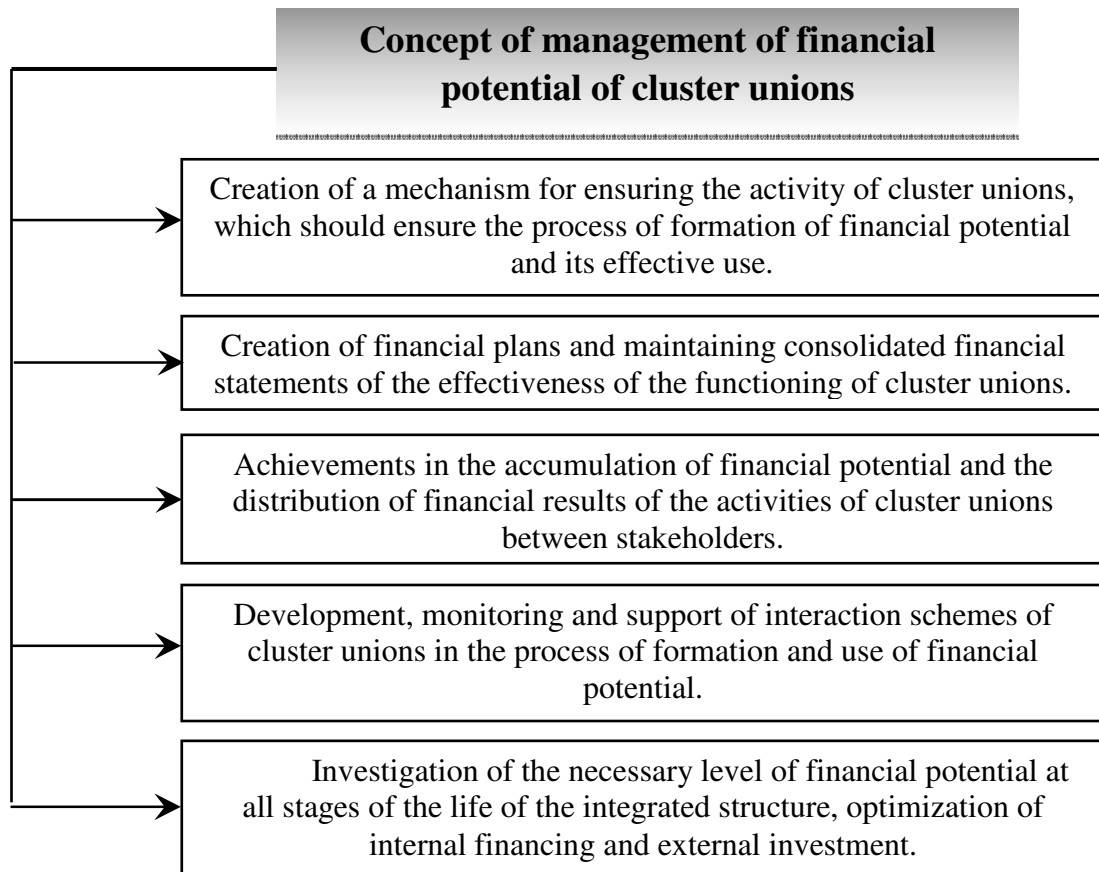
Thus, the question arises of the effective management of financial potential in cluster formations, which is possible using the concept of financial potential management, due to the complexity and diversity of external and internal financial relations between the entities of the integrated structure. Effective management of the financial potential of cluster unions will ensure the continuous vigorous activity of the integrated structure in modern market conditions, will ensure maximum profit, profitability, financial stability and independence [2]. Also, it is necessary to pay attention to the process of managing the financial potential of cluster unions, as a system of principles and methods of managerial decisions related to solving a set of tasks aimed at ensuring the optimal amount of financial potential for effective industrial and economic activities of an integrated structure [3]. The main goal of managing the financial potential of cluster unions is to provide optimal conditions for its formation and use in the process of financing production and business activities to maximize the income of cluster unions and the structure as a whole in the current, tactical and strategic periods [4].

In the system of managing the financial potential of cluster unions, it is advisable to distinguish the subject and object of management. The object of management is the process of formation, direction of use of financial potential, its volume and structure. The subject of financial potential management is a financial center, the main role of which is to ensure the optimal volume of formation of financial potential, increase the efficiency of its use and control these processes at the level of intercluster relations. The procedure for choosing companies for managing financial potential should be based on a comparison of the needs of cluster members, their own financial potential and the services of financial institutions that are potential subjects of cluster formations [2; 3; 5].

The volume of financial potential of cluster unions, sufficient to ensure the achievement of goals, is determined at the stage of creating an integrated business structure [10]. The functioning of cluster formations and the optimal value of financial potential is determined by the qualitative and quantitative composition of the cluster, its structure and potential projects. In the future, the value of the financial potential should be such that with the maximum possible use of the existing cluster potential, taking into account the market conditions of

the product and changes in the external functioning environment, profit as the final result of the system's functioning would be maximum [7; 9; 10].

The main tasks of the concept of managing the financial potential of cluster unions are the following elements (Figure 1).



Source: supplemented by the author based on [2; 3].

Figure 1. The main tasks of the concept of managing the financial potential of cluster unions

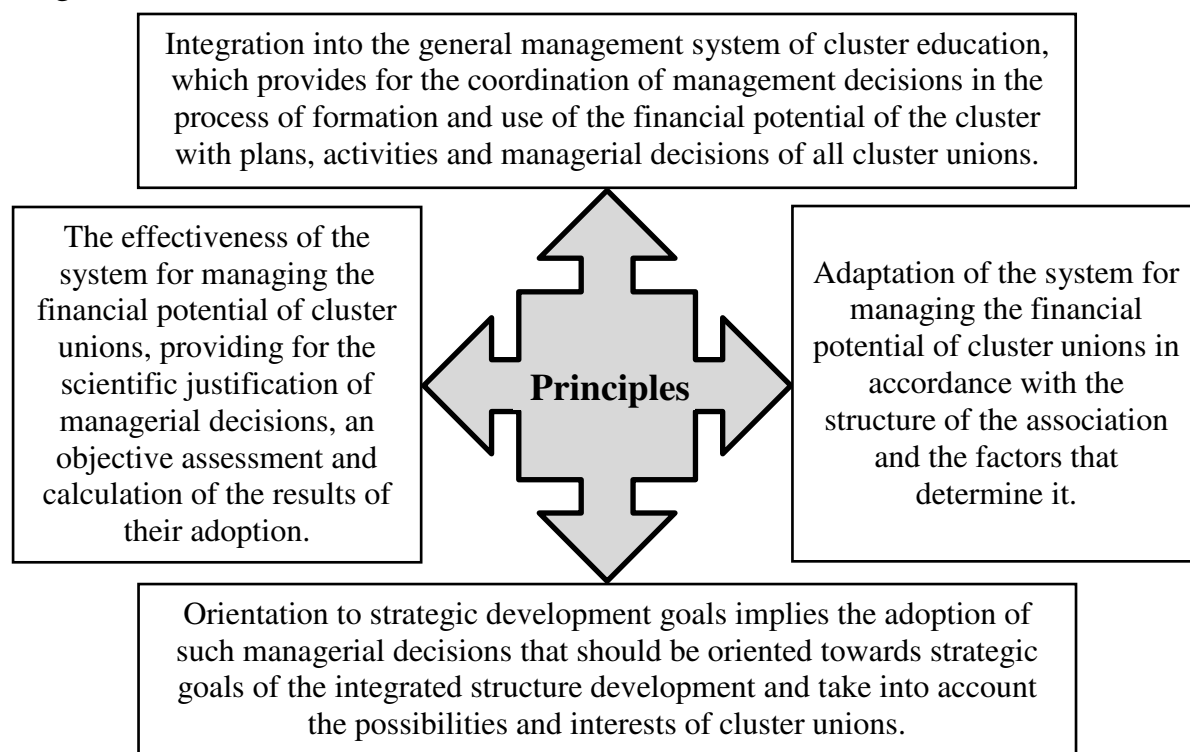
Such a mechanism for centralized management of the financial potential of cluster unions will allow the integrated structure to adequately and quickly respond to both internal changes and changes in the external market environment of the functioning of the cluster, as well as quickly redistribute financial flows in the integrated structure. Joint conduct of financial and investment activities reduces risks and increases the efficiency of financial flow management [6].

One of the tasks of the financial and organizational center, as a center for making managerial decisions, is the formation of a financial mechanism for supporting the activities of the cluster, which should be considered as a set of financial methods, techniques, levers and tools that directly or indirectly affect the organization of financial relations between the subsystems of the cluster and

its elements in the process of functioning of the integrated structure. This mechanism is needed to effectively mobilize the cluster's internal financial potential and includes such methods as financial planning, operational management, financial control, financial support and financial regulation. These methods are used by the subject of financial potential management in order to ensure the formation of the optimal value of the financial potential and its effective use [8].

Financial support for the formation and use of the financial potential of the cluster includes domestic and foreign investments, own funds of cluster unions, loans, local and state budget funds, targeted financing on an irrevocable basis [9]. A component of the financial mechanism is financial regulation, through which there is a stimulation of the activities of business entities. Financial regulation instruments are divided into budgetary (budgetary lending, reimbursement of interest rates on loans, subsidies, subventions, subsidies) and tax (accelerated depreciation, exemption from import duties). In Ukraine, budgetary instruments are more common, but given the deficit of budgetary resources, such support for business entities is negligible [2; 3].

Effective functioning of the system for managing the financial potential of cluster unions is possible provided that the following principles are observed (Figure 2) [2; 3]:



Source: supplemented by the author based on [2; 3].

Figure 2. The basic principles of compliance with the effective functioning of the system for managing the financial potential of cluster unions

Considering the above principles, goals, subject and object of managing the financial potential of cluster unions, it is possible to provide a description of the main tasks that are expected to be implemented in the process of managing the financial potential of a cluster: creating a rational level of financial potential for efficient production and economic activities of cluster unions; ensuring the continuity of the formation of financial potential; optimization of the distribution of the available volume of financial potential between stakeholders of cluster formations for the maximum performance of their functions; study of ways to effectively use the financial potential of cluster unions according to certain criteria [2; 3; 9].

In the process of using financial potential, it should be borne in mind that, due to the characteristics of the quality structure of the cluster, individual subsystems may not receive profit for a certain period, or its value will be insufficient for their full financial support. However, their expenses will be necessary, and possibly priority for the further effective development of cluster unions and should be taken into account when determining the total financial results of activities [9]. Improving the efficiency of using the financial potential of cluster unions, which is one of the main tasks of the management system, is possible through the management of financial flows, transaction costs, as well as the structure and composition [2; 3; 9].

The formation and distribution of financial flows in cluster formations is coordinated by the financial and organizational center [2]. Within the cluster, there are internal financial flows that can be divided into input and output for each of the subsystems, the management of which depends on the existing organizational and production structure. The cluster is an open economic system, the structure-forming elements of which are in constant relationship with the external environment. Therefore, it is possible to separately distinguish the input and output flows for the cluster as a whole, going beyond its limits, which are affected primarily by the characteristics of the market and changes in it, as well as the socio-economic development of the region in which the cluster was formed and operates [2; 3]. These flows have different directions, speeds, periods, and are also in a state of constant motion, coexist and intersect. In the process of optimizing cluster financial flows, it is necessary to clearly understand the structure of an integrated association: the larger the number of association members, the more complex the relationships and financial flow management system will be [2; 3; 9].

As theoretical studies show, management, the process of formation and use of the financial potential of cluster unions are significantly affected by its composition and structure. The size and structure of financial potential depends on the status of stakeholder, their functions and role in the association, the specifics of activity [2]. Theoretically, the number of cluster stakeholders may

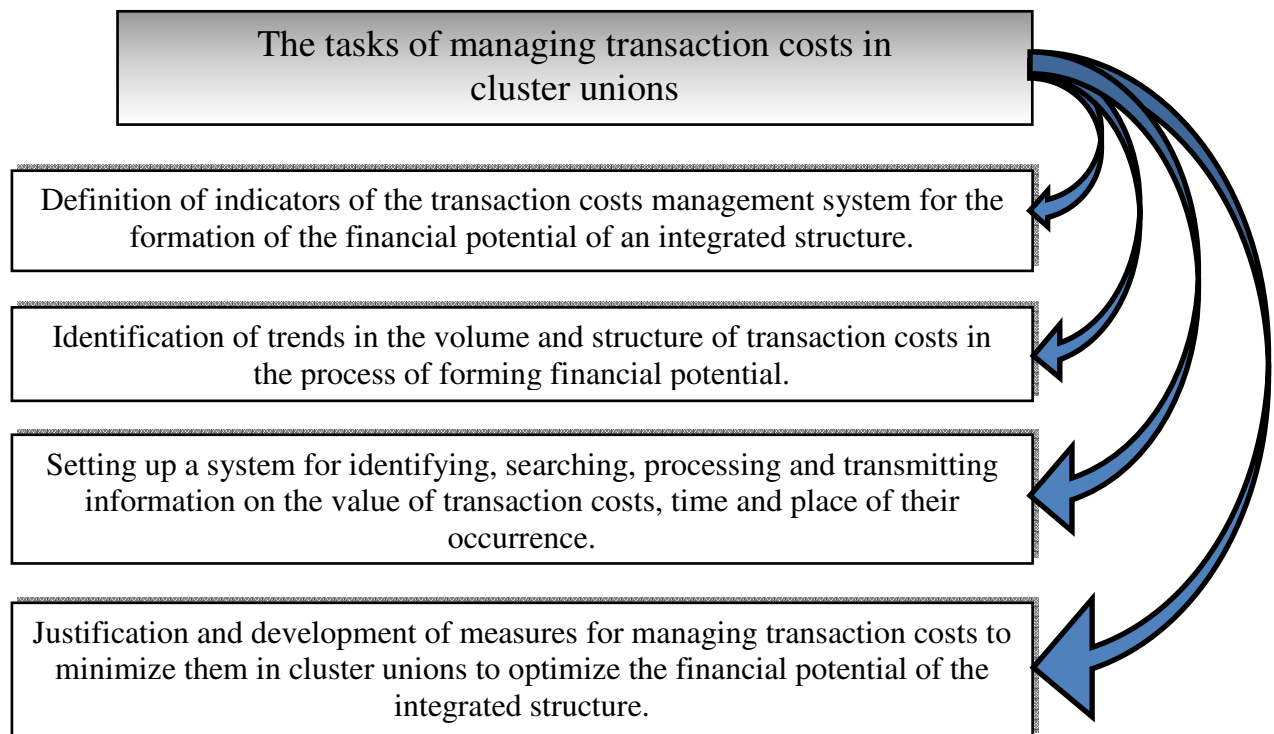
not be limited. However, the larger it is, the more complex the system of managing vertical and horizontal connections within the structure, multi-stage relationships and interdependencies will be, and the less likely it will be for the participants to match the common strategy of the association. And this, of course, will negatively affect the development of the association and the process of forming its financial potential [3]. Therefore, the number of participants should be optimal, that is, one in which the financial result of the structure's functioning would be maximum and the economic expectations of cluster members would be maximally satisfied (increase in sales, income, decrease in expenses, growth in demand for goods, etc.) and the strategic goals of cluster formations are realized [2; 3; 9].

The structure of cluster formations, its qualitative composition also determines the structure of its financial potential, that is, the ratio of its total own and borrowed financial resources and opportunities. The presence in the structure of financial and credit institutions will minimize the dependence of the integrated structure on external sources of financing, will increase its financial stability, liquidity and solvency, affect the final total income of the integrated structure, because the cost of financial potential for production and business and investment needs of the group will be lower. The financial and organizational center can also act as a guarantor when obtaining subjects of a cluster of loans in other financial and credit institutions [1; 8].

So, to create an effectively functioning system, it is necessary, first of all, to clearly define its composition and structure, and also to establish and maintain organizational and financial ties within cluster unions. With a certain, effectively functioning composition, if the strategic goals of the association as a whole are achieved and the economic expectations of each member of the cluster are maximally realized, then in the future it is imperative to monitor and provide for the impact of structural changes within the system [8].

The process of forming financial potential requires certain costs. They depend on the sources, methods and conditions of financing. This applies, first of all, to transaction costs, the management of which, in the process of optimizing the financial potential of the cluster, should be aimed at minimizing their size [3].

In cluster formations, the value of transaction costs depends on the number of structure-forming units (small and medium enterprises), the effectiveness of mutual cooperation and compliance with existing agreements between them, as well as on the structure management system and its financial potential. Thus, the management of transaction costs in cluster formations should be aimed at performing a number of tasks, which will allow us to analyze the available costs, factors of influence on their size and education processes, as well as justify and determine measures to minimize them [2; 3; 8]. These tasks are (Figure 3).



Source: supplemented by the author based on [2; 3; 8].

Figure 3. The main tasks of managing transaction costs in cluster formations

Thus, given the features of the functioning of cluster unions as a business entity, it is necessary to assess the financial potential in two areas:

I-st – assessment of the formation and use of the financial potential of each cluster member (internal efficiency). Such an analysis will help determine the directions of the most efficient use and the appropriateness of redistributing financial potential between the stakeholders of the cluster [2; 3].

II-nd – assessment of the formation and use of the financial potential of cluster unions as a whole (assessment of the overall effectiveness of the functioning of the integrated structure) [2]. Carrying out such an analysis will ensure constant monitoring of the stability and solvency of cluster unions as a whole, and will make it possible to make timely management decisions by the financial and organizational center as a subject of managing the financial potential of the structure [8; 9].

Conclusions and suggestions.

So, as a result of the study, it can be concluded that the management and formation of the financial potential of cluster unions occurs through the creation of a financial potential management system, which is due to the complexity and variety of external and internal financial relations between the entities of the integrated structure. It has also been established that increasing the efficiency of

using financial potential in cluster formations is carried out through the management of its financial flows, structure and transaction costs.

It is proved that the assessment of the financial potential of cluster unions is carried out on the basis of a system of interrelated indicators and involves their calculation both at the level of each participant in the integrated structure and the cluster as a whole, which is due to the peculiarity of its functioning as a business entity and the organization of inter cluster relations.

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INNOVATIVE TECHNOLOGIES AS A FACTOR OF INCREASING THE COMPETITIVENESS OF HOTEL AND RESTAURANT ENTERPRISES

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Introduction and purpose of the study. The key to the success of enterprises in modern realities is innovation as the basis of modernization, a factor in successful activity. They contribute to the formation and maintenance of competitiveness, and is also an incentive for the country's economic development. The study of the problems of enhancing the innovation activity of enterprises is due to its influence on production efficiency, achieving high economic indicators in the case of the most rational use of resources, conditions for the stable development of enterprises and competition in the market.

Methods of research. In the article, to fulfill the task, the following methods were used: formal-logical (comparison of analogies, modeling), economically statistical (grouping) and substantive-logical (analysis and synthesis).

Results. The article analyzes the day lightness of innovation. Competitive transfers are marked, due to the international duality. It was reasoned that we should recognize that there is a competitive position on the market to lay out the first and foremost key keys. The main tape is reserved for the secure competitiveness of business on the basis of the success of innovative capabilities. It has been shown that scholars are becoming more and more formally new and competitive to overcome the need to reach the competitive advantage of current realities. To ensure the competitiveness of enterprises, it is proposed to form an effective competitive business strategy, making extensive use of innovative solutions, creating three bridges.

The hypothesis of scientific research.

The study of the problems of enhancing the innovation activity of enterprises is due to its influence on production efficiency, achieving high economic indicators in the case of the most rational use of resources, conditions for the stable development of enterprises and competition in the market.

The purpose of the article is to determine the features of the relationship between innovation and the competitive advantages of the enterprise, the features of their

formation in hotel and restaurant enterprises.

Keywords: innovation, innovation, enterprise competitiveness, competitive advantages, business model.

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ІННОВАЦІЙНІ ТЕХНОЛОГІЇ, ЯК ЧИННИК ПІДВИЩЕННЯ КОНКУРЕНТОСПРОМОЖ- НОСТІ ГОТЕЛЬНО-РЕСТОРАННИХ ПІДПРИЄМСТВ

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Вступ та мета дослідження. Запорукою успіху підприємств у сучасних реаліях є інновації як основа модернізації, чинник успішної діяльності. Вони сприяють формуванню та підтримці конкурентоспроможності, а також є стимулом для економічного розвитку країни. Вивчення проблем посилення інноваційної діяльності підприємств обумовлено її впливом на ефективність виробництва, досягненням високих економічних показників у разі найбільш раціонального використання ресурсів, умов для стабільного розвитку підприємств та конкуренції на ринку.

Гіпотеза наукових досліджень. Дослідження проблем підвищення інноваційної діяльності готельно-ресторанних підприємств обумовлено її впливом на ефективність надання послуг, досягнення високих економічних показників у разі найбільш раціонального використання ресурсів, умов для стабільного розвитку та конкуренції на ринку.

Метою статті є визначення особливостей взаємозв'язку інновацій та конкурентних переваг підприємства, особливостей їх формування на підприємствах готельного та ресторанного господарства.

Методи дослідження. У статті для виконання завдання були використані

такі методи: формально-логічний (порівняння аналогій, моделювання), економічно статистичний (групування) та субстанціонально-логічний (аналіз та синтез).

Результати. Стаття аналізує можливість впровадження інновацій у діяльність готельно-ресторанних підприємств. Конкурентні трансфери помітні, завдяки міжнародній подвійності. Було обґрунтовано, що ми повинні визнати, що на ринку є конкурентна позиція, щоб викласти перший і головний ключові ключі. Основне завдання – забезпечення конкурентоспроможності готельно-ресторанного бізнесу на основі успіху інноваційних можливостей. Показано, що науковці стають все більш формально новими та конкурентоспроможними для подолання потреби досягти конкурентної переваги сучасних реалій. Для забезпечення конкурентоспроможності готельно-ресторанних підприємств пропонується сформувати ефективну конкурентну бізнес-стратегію, широко використовуючи інноваційні рішення, створюючи три мости.

Ключові слова: інновації; інноваційна діяльність; конкурентоспроможність підприємств; конкурентні переваги; бізнес модель.

Formulation of the problem. Current market conditions require decisive mechanisms from domestic companies to respond to the rapid pace of change that is dictated by the environment. Such a response mechanism provides for an effective large-scale fight for the competitive position of the enterprise. The ability of an enterprise to adapt to changes in the external environment while providing the appropriate level of competitive advantage is interpreted as the competitiveness of the enterprise.

The key to the success of enterprises in today's realities is innovation as a basis for modernization, a factor of successful activity. They contribute to the formation and maintenance of competitiveness and are an incentive for economic development of the country. Research of problems of activation of innovative activity of the enterprises is conditioned by its influence on production efficiency, achievement of high economic indicators in the case of the most rational use of resources, conditions of stable development of enterprises and competition in the market. Innovation is expected to ensure the development of enterprises and the creation of powerful incentives for effective work, increasing competitiveness and more. Therefore, the problems of innovations in the business of hotel and restaurant enterprises are of particular relevance.

Analysis of recent publications. Problems of innovative activity and competitiveness of enterprises are thoroughly researched by foreign and domestic scientists. Significant scientific contributions to the study of theoretical and practical problems of competition, competitive strategies, competitiveness and competitive advantages of enterprises have been made by such scientists as G. Azojev, M. Porter, U. Chan Kim, S. Hunt, R. Morgan, R. Fathutdinov, L. Antonyuk, N. Krakhmalova. The issues of innovative activity are given attention by such scientists as S.D. Anthony, M. Eyring, L. Gibson, R. Moborn, G. Chesborough, L. Fedulova, V. Shcherbak. However, the level of development of problems of innovative activity and formation of competitive advantages of enterprises is insufficient, due to the need to operate in conditions of uncertainty and high risks, difficulties in ensuring the competitiveness of enterprises.

The purpose of the article is to determine the peculiarities of the relationship between innovative activity and competitive advantages of the enterprise, peculiarities of their formation at hotel and restaurant enterprises.

Outline of the main results and their justification. From the outset of its activities, each enterprise selects development and growth targets. However, real life adjusts to these basic guidelines, as it is often the case that maintaining a high growth rate is not the best solution. Any business is trying to be competitive in order to be profitable and efficient because it will create the conditions for long-term development.

The concept of "enterprise competitiveness" is complex and interpreted ambiguously. Most scientists view the concept of "competitiveness of the enterprise" from different positions of the object of study, a position that implies effective management in the market and confrontation with competition.

The competitiveness of the enterprise must be understood as having an effective strategy of competitive development, the ability to retain and realize competitive advantages, the production of competitive products with minimal costs, the quality satisfaction of consumer needs, the ability to adapt to changes in the environment, ensure extended reproduction of economic activity and achieve a sustainable market [9, p. 103].

At present, most hotel and restaurant businesses have achieved high competitiveness through innovative development. The main feature of competitiveness is its innovativeness, ie the ability of the system to continuously develop, update and change activities based on the development of innovations. Innovation also means using existing scientific, technical, informational and intellectual potential to further develop, enhance our performance and quality of life.

Today, there are an incredible number of different definitions of the category "innovation". Its founder is the famous American economist J. Schumpeter. he proposed the concept of innovation, which was based on the idea of "new combinations", referring to the new quality of the means of production, which was achieved through some improvements to existing equipment, the introduction of new means of production or organizational systems. In the further works of the scientist, the term "new combination" was replaced by the term innovation. J. Schumpeter interprets the concept of innovation as change in order to introduce and use new types of consumer goods, new production and transportation vehicles, markets and forms of organization in industry [8, p. 53].

S. Ilyashenko, O. Prokopenko states that innovation is the end result of activities aimed at creating and using innovations embodied in the form of improved or new goods (products or services), technologies of their production, management methods at all stages of production and marketing of goods [3, p.153].

Y. Bukovecka considers innovation in two aspects: the static aspect (the end result of innovation) and the dynamic aspect (the process of introducing innovations in which an invention or idea acquires new economic meaning) [1, p. 35].

According to D. Ukhvatkin, innovation is the use of the results of research and development aimed at improving the process of industrial activity, economic, legal and social relations in the field of science, culture, education and other sources of society [6, p. 53].

M. Polegenko believes that innovation is an innovation, any positive change that has an independent value, is brought into the activity to increase the

efficiency of any production process, competitiveness and economic efficiency of production [6, p. 59].

After analyzing a large number of scientific literature and generalizing the above approaches, you can propose your own transformed version. So, different authors explain the innovation:

1) as a change in the state of the object (J. Shumpeter Y. Yakovets, F. Valenta, L. Vodachek, O. Vodachkova);

2) as a result of scientific and technical activities (A. Serbenovskaya, S. Beshelev, I. Dumanskaya, H. Barnet, O. Volkov, K. Barmuta, L. Fedulova, A. Didchenko);

3) as a new consumer value (M. Gershman, V. Shcherbak);

4) as a process of creation and dissemination of innovations (B. Tweiss, A. Koire, O. Lapko, V. Rappoport, B. Santa, V. Kabakov, D. Gvishiani, V. Makarov, V.G. Medinsky);

5) as a process of investment in development (A. Tichynsky, Y. Yakovets, B. Kuzik, N. Krakhmalova);

6) as a system (J. Schumpeter, N. Lapin, G. Azgaldov);

7) on other grounds that do not fall under the above categories (P. Drucker, N. Dinofrio, V. Zagorsky, O. Vovchak, O. Popova, I. Kuznetsova, S. Ozhegov, F. Vysotsky).

Generalizing the various approaches to interpreting this category, you can suggest the author's definition of the category. Thus, innovation is the end result of the transformation of an idea into a fundamentally new or improved innovation (technology, method, service), which is used in the economic activity of the enterprise and is accompanied by an increase in the efficiency of the production process.

An important characteristic of competitive activity is innovative activity - purposeful support of high sensitivity of the enterprise staff to innovations by means of purposeful structures and management methods. It is from the scale of the introduction of modern approaches to the introduction of innovative technologies that further sustainable development will depend [9, p. 102].

If in the nineteenth century the source of competitive advantage was the presence of factors of production, in the early twentieth century. the main source is the steady reduction of production costs, the constant improvement of quality, flexibility, creation and development of specific resources and key competences, and today the focus is on innovations that lead to the emergence of new or improved products on the market, the use of new or improvement of production processes and equipment.

Undoubtedly, any development is linked to innovative changes that have gradually turned into a competitive advantage for each entity. The prerequisite for innovation is the diversity of sources of scientific and technological

knowledge, changes in the cost or availability of raw materials, constant changes in consumer needs and tastes, which greatly facilitates the achievement of competitive advantages.

Ensuring the competitiveness of an enterprise is a system of integrated measures tailored to the conditions of activity of a particular enterprise: goals, values, resources, personnel, production, products and problems that confront the business entities and is based on stages. Innovation and competitiveness are interrelated. The advantage in competition is given to those market participants who take an active position in the use of innovation. The impact of innovation on the formation of competitiveness is shown in Figure 1.



Source: suggested by the author.

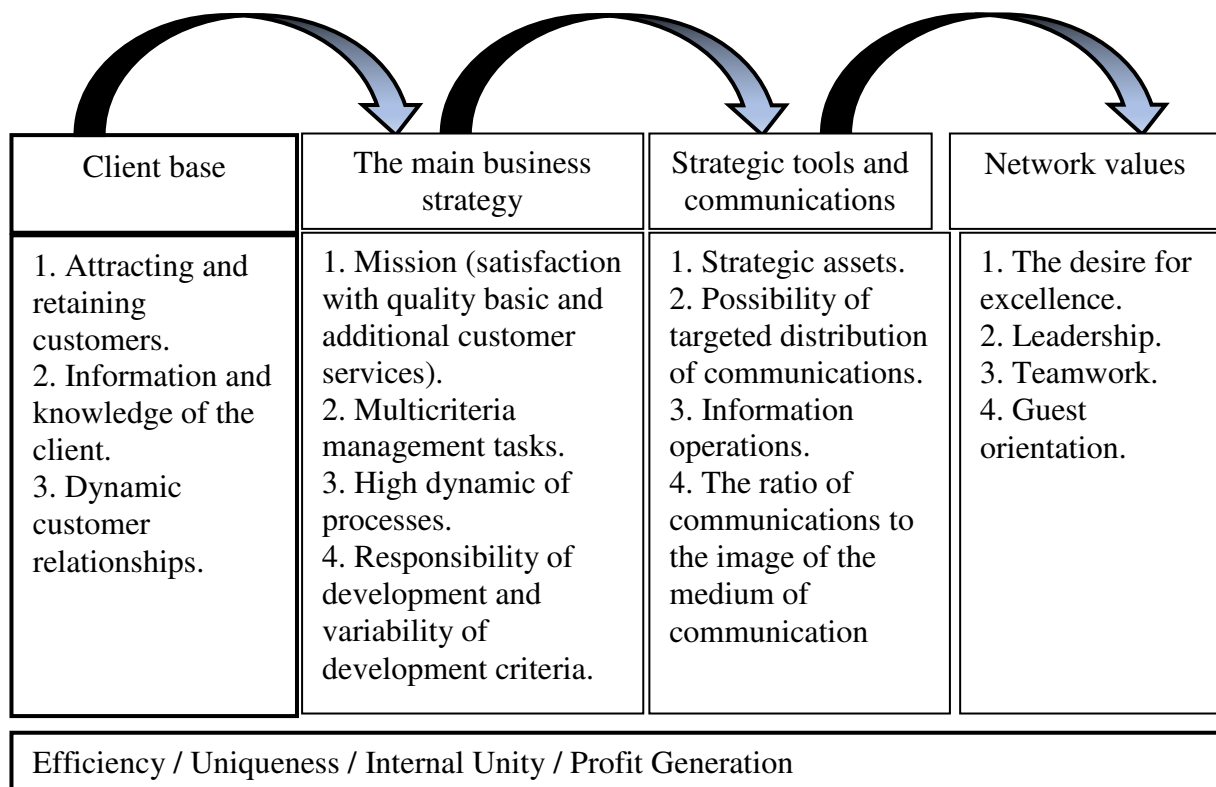
Figure 1. Impact of innovation on competitiveness formation and the main stages of ensuring the competitiveness of hotel and restaurant enterprises

Based on the conditions of the external and internal environment, hotel and restaurant enterprises can choose one of two innovative strategies:

1. Adaptive, passive, protective.
2. Creative, active, offensive.

In order for the innovation to work for the benefit of the enterprise and become an integral component of its competitiveness, the following requirements must be met: management is required to define an innovation strategy; innovation should be consistent with the enterprise's business strategy; it is worth creating innovations in the form of a network, both internally and externally. It is interesting to look at innovations as an important element in formulating strategies and business models that correspond with them. We propose the following elements of the innovative business model (Figure 2).

CUSTOMER BENEFITS CONFIGURATION OF ENTREPRENEURSHIP BORDERS



Source: based on [11; 12].

Figure 2. Elements of an innovative business model

Elements of an innovative business model are core business strategy, strategic tools and communications, customer base (communication and customer relations), network values. All four elements are interconnected and form the characteristic three "bridges":

1. Main business strategy $\Rightarrow$ action configuration $\Rightarrow$ strategic tools and communications.

2. The main business strategy is customer benefits and customer base (communication and customer relations).

3. Strategic tools and communications enterprises limits of enterprise activity enterprises value of network.

The basis for building the model, and therefore its four elements, as well as the connecting “bridges”, is the potential for profit. There are four factors that determine potential:

- efficiency;
- uniqueness;
- intra-unity;
- ideas and ability to generate profit.

The major advantages of the model described are the interpretation of its elements in the same way as sources of innovation, as well as the identification of significant links from the point of view of introducing innovation between the individual elements of the model. In its structure, the relationship with the market is very strong, mainly with clients, but also with suppliers and partners. For the performance of the model, both internal links (bridges) between the components of the model and external relations are crucial. An original approach that treats the ability to generate wealth (value) as the highest goal of an innovative business concept is the criterion for its evaluation.

Summarizing the above, we can name the following reasons for innovative competitive behavior of hotel and restaurant enterprises:

1. Changing the level of competitiveness of industry. The structure of the industry shows a significant influence on the level of innovation activity. The lower the level of competition, the less the desire for innovation, and vice versa.

2. The desire of the enterprise for economic profit. Thanks to innovations, businesses are given a chance to temporarily become dominant in the market, that is, they have the opportunity to dictate their prices to customers and, as a consequence, to profit above the norm.

3. The introduction of innovation enables businesses to scale up their business, since the successful introduction of innovation enables them to open new doors in no-go markets.

4. New regulations of the state, forcing enterprises to carry out unplanned events, are also the cause of innovative activity.

In addition, to improve their competitive position in the market, hotel and restaurant businesses are innovating through which they can achieve the following results:

1. Increasing the competitiveness of services, which creates competitive advantages in the short and medium term.

2. Emergence of new consumer needs, which creates competitive advantages in the long run.

3. Improving the efficiency of services rendered, which by its influence transforms the competitiveness of products into the competitiveness of the enterprise.

So, to summarize the above, we can say that the impact on the elements of competitiveness of the innovation factor, creates a positive change: improving the quality of services; reduction of costs, prices; scaling up activities. Activation of innovative activity leads to increase of competitiveness of hotel and restaurant services.

Conclusions and prospects for further research. Most domestic companies understand the importance of innovation in the context of increasing competitiveness, but only do so in the replacement of outdated equipment with newer ones. Given the rapid “aging” of existing ones and the development of new technologies in most industries, this is not enough. In order to increase the level of competitiveness, businesses need to constantly monitor innovation and innovate, ahead of their competitors.

Therefore, innovation can be seen as the key to competitive advantage, and the hotel and restaurant business, if it is to be competitive in the market, must be innovation-oriented. Ensuring an enterprise's competitiveness should be based on developing an effective competitive strategy by making extensive use of innovative knowledge-based solutions.

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INCREASING BUSINESS PROCESS RESULTS IN IT-OUTSOURCING ENTERPRISES

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Introduction. The practice of the world business shows that in order to achieve a competitive advantage it is advisable to use a benchmarking tool that allows you to use the experience of your competitors who have succeeded in different areas of activity. Of particular relevance is the use of benchmarking in the field of innovation, in particular in the IT industry, which has become a key driver of economic growth and productivity in many countries.

Hypothesis. High-quality IT consulting services require not just the automation of a single process or the implementation of a specific system, but the modernization of the organization's IT infrastructure, bringing it into line with business goals. The practical implementation of such projects allows the organization to get a real increase in production efficiency. Complex consulting projects based on benchmarking are characterized by the use of various services in the field of IT consulting and consulting in related branches of management on the basis of borrowing the best world experience.

The purpose of the study is to develop methodological provisions and practical recommendations for the implementation and use of benchmarking technology in the business management system.

Methodology. The theoretical and methodological basis of the research is the scientific works of domestic and foreign scientists and specialists on the planning and organization of benchmarking outsourcing of IT services. The following methods are used in the research process: theoretical generalization, analysis, synthesis.

Results: main types and stages of benchmarking realization are considered, application of the concept of benchmarking in the system of management of IT business processes is substantiated; developed methodological and practical recommendations for the implementation of benchmarking in the IT sector on the basis of outsourcing. The connection between the concepts of business process benchmarking and outsourcing has been established, a detailed description of business processes in IT outsourcing enterprises is given.

Conclusions: The creation of a benchmarking platform that will increase the innovation activity of IT companies and will help to forge closer links between IT companies, industrial enterprises and public authorities.

Keywords: business processes; IT outsourcing; benchmarking; IT services.

JEL Classification: L 22; F 23; G 34

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ПІДВИЩЕННЯ РЕЗУЛЬТАТИВНОСТІ БІЗНЕС-ПРОЦЕСІВ В ПІДПРИЄМСТВАХ СФЕРИ ІТ-АУТСОРСИНГУ НА ЗАСАДАХ БЕНЧМАРКІНГУ

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Вступ. Практика світового бізнесу показує, що для досягнення конкурентної переваги доцільно застосовувати інструментарій бенчмаркінгу, який дозволяє використовувати досвід своїх конкурентів, що досягли успіхів у різних напрямках діяльності. Особливої актуальності набуває застосування бенчмаркінгу в сфері інновацій, зокрема, в ІТ-галузі, яка стала ключовим фактором економічного зростання і продуктивності праці в багатьох країнах світу.

Гіпотеза. Якісне надання ІТ-консалтингових послуг вимагає не просто автоматизації окремого процесу або впровадження конкретної системи, а модернізації ІТ-інфраструктури організації, приведення її у відповідність цілям бізнесу. Практична реалізація таких проектів дозволяє організації отримати реальне підвищення ефективності виробництва. Комплексні консалтингові проекти на засадах бенчмаркінгу характеризується використанням різних послуг в області ІТ-консалтингу та консалтингу в суміжних галузях управління на підставі запозичення найкращого світового досвіду.

Мета дослідження – розробка методичних положень та практичних рекомендацій щодо впровадженню і використанню технології бенчмаркінгу в системі управління бізнесом.

Методологія. Теоретичною та методологічною основою дослідження є наукові праці вітчизняних і зарубіжних учених та фахівців з питань планування й організації бенчмаркінгу аутсорсингу ІТ-послуг. У процесі дослідження застосовуються такі методи: теоретичне узагальнення, аналіз, синтез.

Результати: розглянуті основні види та етапи реалізації бенчмаркінгу, обґрунтовано застосування концепції бенчмаркінгу в системі управління ІТ бізнес-процесів; розроблені методичні та практичні рекомендації щодо впровадження бенчмаркінгу в ІТ-сектор на засадах аутсорсингу. Встановлено зв'язок між поняттями бенчмаркінгу бізнес-процесів та аутсорсингу, дана детальна характеристику бізнес-процесів в підприємствах сфери ІТ-аутсорсингу.

Висновки: обґрунтовано створення бенчмаркінгової платформи, що підвищить інноваційну активність ІТ-компаній та сприятиме формуванню більш тісних зв'язків між ІТ-компаніями, промисловими підприємствами та органами державного управління.

Ключові слова: бізнес-процеси; ІТ-аутсорсинг; бенчмаркінг; ІТ-послуги.

Formulation of the problem. Many companies' experience confirms the effectiveness of outsourcing companies' use of IT services. Suppliers consider IT outsourcing necessary, but its serious use in Ukraine is not yet observed. There is a rather high demand for the services of Ukrainian providers from foreign customers, while national companies do not use such a management model. Increasing domestic demand for such services will have a positive impact on the development of the outsourcing market in Ukraine.

Performance Assurance is one of the levers of creating a flexible system for adapting to today's fast-paced market changes in the IT services market. Performance management is integrated into all aspects of management and decision-making processes, combining all areas of activity. Such integrativeness achieves the best results through the synergistic integration of various aspects of operations: strategic and operational management, personnel management, planning, analysis, accounting and control, appropriate methods, models, management decision support system. Sustainable growth in IT service delivery is only possible with the use of cutting-edge management technologies, one of which is outsourcing tools (as a means of finding the best IT contractor) and benchmarking (as a means of finding the best standard for delivering IT services).

The relevance of using benchmarking as a modern concept in the IT outsourcing business performance management system is driven by the need to maintain a high level of competition in both domestic and global markets, which implies continuous improvement of IT services, business processes and strategies for changing business processes and strategies. competitiveness. To support long-term competitive advantage and unique competencies, businesses need to create services that meet not only real, but also future-proof needs and meet world standards. This raises the problem of choosing the methods and directions of the improvement strategy, because the right or wrong strategic and tactical decisions determine the successes and failures of the enterprise. This requires exploring the capabilities of benchmarking as a tool to manage the performance of IT services businesses and increase their competitiveness in order to gain a better competitive position in the market.

An analysis of recent research and an unresolved part of the problem. An analysis of the literature indicates that the research carried out is very versatile. The degree of scientific development of the problem is characterized by a large number of publications devoted to basic research on benchmarking as a tool for improving the effective operating systems of business entities.

Research of benchmarking as a technology of finding the most effective types of business activity of the enterprise was carried out by such foreign scientists as R. Camp [1], R. Mann [2], F. Butler [3], G. Watson [4], J. Patterson [5], M. Spendolini [6], R. Damelio [7] and others. Outsourcing and outsourcing

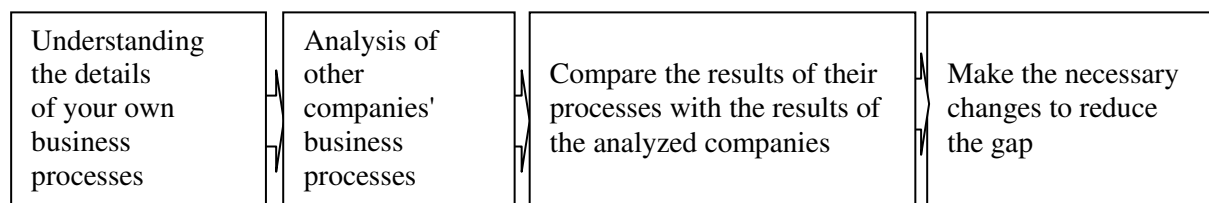
as high management technologies have been explored by J. Haywood [8], J. Cowan, K. Helmcamp, J. Hemerling, H. Hsu, M. Zinser [9].

In Ukraine benchmarking as a method of enterprise efficiency management was investigated by G. Kindratsk [10], D. Maslov [11], A. Goncharuk [12]. The effectiveness of benchmarking in the provision of various services was studied by L. Ganushchak-Yefimenko, V. Shcherbak, O. Nifatova [13], Y. Bilyavskaya [14], V. Bilyavsky [15], L. Pruss [16].

That is, scientific and practical problems related to outsourcing of services management for subjects of different economic levels, ways of finding the best examples of effective business activity have been found in the works of many domestic and foreign scientists. However, a comprehensive scientific and methodological approach to the management of outsourcing of IT services, implementation of the most effective benchmarking in Ukraine remains at the stage of formation. A significant area of research is the development and justification of the algorithm for implementation and management of IT outsourcing at enterprises, finding the means of benchmarking the stage of business activities.

The aim is to explore benchmarking technology as a tool for implementing and effectively managing outsourcing of IT services.

Research results. Benchmarking is about goal setting and is one of the components of the planning process. Some researchers combine it with a Deming cycle that includes four elements: Plan, Execute, Check, Action (PDCA). Individual benchmarking models include up to 30 steps that must be completed to achieve the end result. There is no consensus on defining the essence of benchmarking as a method for improving performance. The most generalized one is the definition of benchmarking as a means to improve the best quality practices and practices using the best practices in the field [1]. Benchmarking is an alternative method of strategic planning, in which tasks are determined not by what they have achieved, but by analyzing competitors' indicators. Benchmarking technology integrates strategy development, industry analysis and competitor analysis into a single system [4]. The process of applying benchmarking at an enterprise will be considered using the following scheme (Figure 1).



Source: [5; 6].

Figure 1. Stages of application of benchmarking

There are the following types of benchmarking:

- internal benchmarking, which is limited to analyzing and comparing the performance of different business units of the same enterprise;
- competitor-oriented benchmarking, focused on comparative analysis of goods (works, services), productivity of production processes and other parameters of the studied enterprise with similar characteristics of competing enterprises. It is considered that the best analogue for comparison is the "market leader". Identification of the factors that cause a backlog of the company under study from the leader, makes it possible to develop recommendations for reducing the backlog;
- Functional benchmarking, which analyzes individual processes, functions, methods and technologies in comparison with other enterprises that are not competitors of the considered. Companies that use similar methods, techniques or technologies, and are not competitors, are willing to exchange mutual primary information and are interested in implementing joint projects aimed at improving comparable operations;
- process benchmarking: study and compare process characteristics;
- general benchmarking: comparison of the specific function of several enterprises of different sectors of activity;
- strategic benchmarking: studying successful strategies of partner companies;
- Global benchmarking: study of the culture and national characteristics of the enterprise.

One of the most successful business models that provide competitive advantage is outsourcing, which can help reduce costs for non-core business areas. The outsourcing practice of IT services is widespread in the world and is carried out through projects that are outsourced (high quality providers). Some companies use outsourcing not only to redefine certain internal processes, but also to seriously improve key business opportunities. Therefore, it is advisable to use functional benchmarking to find the most effective way of performing this function.

Enterprise outsourcing management is a complex activity aimed at achieving an efficient result with the lowest cost of resources. That is why, before outsourcing business processes, it is advisable for each enterprise to undertake some preparatory work, develop or adapt an existing outsourcing management and implementation model.

It is possible to propose such algorithm of transition and management of outsourcing at the enterprises on the basis of benchmarking: formalization of business processes; creating an internal service level agreement; an analysis of the allocation of resources needed to implement outsourcing; risk analysis,

performance evaluation; search for a leader in this function; analysis of outsourcing efficiency.

The first step towards outsourcing is the formalization of business processes. Businesses that are in the process of formation or rapid growth have a volatile business model, so they should not be outsourced to perform their functions. The structure of their business processes can change quickly, and a contract with a supplier for a certain period will prove outdated. However, if the decision to outsource outsourcing is still made, then a hierarchy must first be created: from business goals through business processes to IT services consisting of IT processes.

The next step is to formalize the business requirements for IT by drawing up a single Service Level Agreement (SLA). The SLA describes the services provided by the IT business service. Signing an SLA is a common worldwide practice that enables an enterprise to improve the quality of its IT support, get a clear budgeting policy for IT services, and refuse to purchase unnecessary services, as well as justify changing the IT service provider.

The choice of services for "potential outsourcing" and "potential outsourcing" can be guided by the following factors: the importance of the service to the business, the stability of the business requirements to providing the service, the internal efficiency of the service, the criticality of the service (promptness, reliability, information security), the novelty of services for companies, availability, quality and value in the market [9]. When the need for outsourcing is justified, it is necessary to find a supplier and enter into a cooperation agreement. In this step, the customer is ready for direct communication with potential contractors. It is very important to choose the right model of cooperation with the service provider (Table 1).

Table 1

Models of collaboration with outsourcing providers

Type of model Working conditions	Fixed price	Hourly payment
Fixed term	Fixed	Fixed
Price	Fixed	Fixed price limit
Functionality	Fixed	Non-fixed
Payment	Step-by-step or after completion	Only pay for the implemented functionality

Source: [8; 9; 14].

The choice of model depends on the tasks assigned by the service provider's management. The first model is the most risky for developers and the most favorable for the client. All risks belong to the developer because the client may not pay for the services as long as possible. Hourly payment can be risky

for the client and will not allow you to build long-term relationships. It is important for each client to have control and the ability to influence the project team, the service provider company, and the performance.

Prerequisites for effective IT outsourcing are to monitor the parties' compliance with the terms of the agreement, to track and record changes in business requirements for IT. There are two levels of control over the implementation of SLAs. The first is compliance with the internal SLA (highest priority). At the second level, control over the execution of external SLA conditions is implemented [17]. These levels are interrelated: failure to comply with the provider's external SLA may result in failure to comply with the internal agreement. Important aspects of control are the tracking, harmonization, and modification of the SLA's internal agreement regarding new service requirements and their quality. This process involves regular communication between employees of the business units of the customer and the representative of the provider.

In today's economic environment, outsourcing is a popular tool for managing key business processes of enterprises. However, the percentage of successfully implemented projects is low. Coverage of risk analysis and cost-effectiveness assessments should help an enterprise improve its performance through outsourcing.

Risk analysis has a significant impact on the successful decision making on outsourcing. Despite the benefits of outsourcing, it is important to keep in mind that using it will put you at risk of leaking sensitive information. As a result, there may be a direct competitor who has such experience.

Another feature of outsourcing is the possible loss of control over one's own internal resources, as well as the removal of management from the company's activities. The result is a decrease in staff productivity. There is also the risk of bankruptcy of the outsourcer, forcing the company to look for an alternative supplier or perform the work on its own. The outsourcer may have the monopoly power on which the customer's business depends. This situation is characteristic of the underdeveloped market of this type of services. Ranking method should be used for more detailed risk analysis. The risk matrix is used for this purpose (Table 2).

Table 2

Risk matrix

Probability Implications	Low	Low	Medium	High
Critical	Medium Risk	Medium Risk	Critical Risk	Critical Risk
Significant	Medium Risk	Medium Risk	High Risk	High Risk
Medium	Low risk	Medium risk	Medium risk	High risk
Insignificant	Low risk	Low risk	Medium risk	Medium risk

Source: [17; 18].

Ranking criteria are the likelihood of occurrence and the nature of the consequences of the risks. The latter is usually determined by the possible loss of the enterprise budget (Table 3). An example of a catastrophic ranking scheme is the risk of loss of intellectual property, technological control, quality, etc. Ranking results (risk sharing) can depend on many factors: the reputation and experience of the service provider; market situation; experience of cooperation of the company with service providers and others.

Table 3

**Ranking the risks of outsourcing IT services based
on the nature of the impact**

Rank	Value	Budget Loss, USD	Risks of outsourcing
4th	Catastrophic	1 million <	Loss of technological control; inability to manage the enterprise; loss of intellectual property
3rd	Critical	200,000 –1 million	Confidential information leakage; bankruptcy of the provider
2-th	Minimum	10 - 200 thousand	Inefficient expenses; tax risk; lack of effective project management
1st	Minor	2-10 thousand	Decrease in productivity of personnel

Source: [18].

The probability of occurrence of risks is classified as follows: rare, unlikely, possible, very probable, determined (Table 4). The criterion should be measured quantitatively and assigned a logical risk rank.

Table 4

**Ranging the risks of outsourcing IT services by the probability of
occurrence**

Rank	Value	Likelihood of occurrence over the life cycle of the business	Risks of outsourcing
5th	Determined	Every 2 years	Inefficient expenditure of funds
4 th	Very likely	Every 4 years	Reduced productivity of own staff
3rd	Possible	Every 6 years	Tax risk, loss of technological control
2nd	Unlikely	Every 12 Years	Leakage of Confidential Information
1st	Rare	Every 24 Years	Service provider bankruptcy

Source: [18].

For example, the bankruptcy of an IT service provider is very rare if the company intends to partner with an experienced partner who has long been active in the market. While inefficient spending is a well-defined risk, it is often a lack of interaction between the customer and the contractor. To mitigate the potential negative effects, reduce the risks, it makes sense to: 1) maintain the

production of the most valuable products in the company; 2) adjust the production of critical components in the organization so that the product cannot be reproduced; 3) to carry out careful monitoring; 4) to resort to patent protection, to develop strict contracts that exclude double interpretation; 5) invest in projects for training, training, programs to encourage service providers; 6) carefully select and monitor the outsourcing market; to develop short-term contracts with stringent conditions [17].

In addition to risk analysis, it is very important to calculate the potential economic impact of outsourcing. There are many methods for determining the effectiveness of outsourcing. Several approaches to assessing outsourcing performance have emerged in international practice. The application of each method depends on the resources available in the enterprise. The most popular are budget and project approaches [8; 9].

The budget approach is most commonly used to evaluate IT implementation projects in a company. In form, it is a table of the IT-portfolio of the organization. It provides complete descriptions of the organization's business processes, as well as some guidelines for optimizing funds. According to modern financial theory, there are 4 ways to calculate the effectiveness of a particular project for the company: return on investment, payback period, net profit from the project, internal profitability.

To calculate net present value (NPV) or internal profitability, many parameters (capital cost, tax effect, residual value) that are often difficult to obtain in an enterprise must be kept in mind. Therefore, the following formula for calculating economic efficiency can be applied [8]:

$$E_{outs} = \frac{\sum internal\ costs}{\sum outsourcing\ costs}, \quad (1)$$

where E_{outs} – outsourcing efficiency;

$\sum internal\ costs$ – the sum of the costs of performing functions through internal resources;

$\sum outsourcing\ costs$ – the amount of costs for outsourcing functions.

If the outsourcing efficiency is > 1 , then the economic effect is positive, it should be implemented. If efficiency is < 1 , then the effect is negative, and therefore outsourcing is not economically justified. This approach to performance appraisal is basic, thus helping to determine the impact of implementation on a logical level. If necessary, further detailed calculations of NPV, Internal Rate of Return (ROI), etc. can be made.

For example, the Galnaftogaz concern needs to upgrade its entire IT infrastructure to implement a project of quality control at OKKO filling stations. To complete the task, management intends to find an outsourced contractor and outsource it to the system for 3 years. In the process of benchmarking and

outsourcing, LLC Engler Scientific and Production Enterprise was found. At the same time the enterprise has the opportunity to accomplish this task with the help of internal resources (workers of IT department). The outsourcing service provider estimated the contract value at UAH 2 850 000. The effectiveness of IT outsourcing implementation at the enterprise with the involvement of internal resources and compared to the cost of outsourcing contract is given in Table 5.

Table 5

**Annual calculation of costs for the performance
of work with own resources, UAH**

Costs	2016 year	2017 year	2018 year
Wage Fund	720 000	792 000	871 200
Single Social Contribution	264 816	291 297,6	320 427,36
Cost of equipment	130 000	–	–
Conducting systematic training courses for workers	50 000	50 000	50 000
Total	1 164 816	1 133 297,6	1 241 627,36

Designed by the author based on his own research.

These costs can be used to calculate the cost-effectiveness of outsourcing:

$$E_{outs} = 5,946\ 184.32 / 2,850,000 = 2.1$$

The calculation shows that the economic impact of implementation > 1 is positive. Thus, outsourcing is expected to save resources, reduce costs, and improve the quality of work. Information on the experience of applying the chosen method of performance analysis over a long period is required to determine accurate estimates.

Management should carry out a thorough cost-effectiveness analysis and risk assessment before undertaking outsourcing. To simplify these procedures, it is possible to involve independent business process outsourcing consultants. Applying the practical experience of outsourcing management will increase the likelihood of its successful implementation and, as a consequence, will bring the enterprise to a new level of competitiveness in the global economy.

Conclusions and prospects for further research. Outsourcing management is a complex and complex process that requires successful risk analysis, cost-effectiveness assessment, control, etc. to be successful. The scientific novelty of the obtained results is the formation and justification of the algorithm of implementation and management of outsourcing at the enterprise; ranking IT outsourcing risks based on the nature of the consequences and the likelihood of the occurrence; development of a simplified method of evaluating the effectiveness of implementation at the preparatory stage. The topic needs

further exploration of the methods of justifying the economic feasibility of outsourcing; adaptation of the management algorithm for enterprises of different industries, taking into account the specificity of their activity; creation of an outsourcing risk management mechanism at different stages of the project lifecycle.

The practical significance of the obtained results is that using the algorithm, enterprises will be able to implement the outsourcing management model of IT services in internal systems and increase their competitiveness. The gradual increase in internal demand for IT outsourcing services will have a positive impact on the dynamics of the industry.

The considered approach to the research of benchmarking technology as a basis for ensuring the efficiency and increasing the operational efficiency of domestic enterprises, can be regarded as one example of finding alternative ways of solving the problem, which can later be used to create objective prerequisites and methodological basis for the study of the systematic approach to the development of the operating strategy enterprises.

Investigating this topic, we can draw the following conclusions about the use of benchmarking in managing a company in the current environment of enterprise globalization:

- benchmarking is necessary, first and foremost, to "keep your hand on the pulse of competitors" and have a real idea of your place in a changing business world;
- benchmarking can be a powerful motivating factor as a source of information for employees about the results of their counterparts from competing companies;
- it is useful to use any opportunities for the development of formal and informal contacts with partner and competing companies;
- benchmarking cannot be a one-off analysis; in order to obtain proper efficiency from the application of this process it is necessary to make it an integral part of the process of business innovation;
- in recent years, organizations such as government agencies, hospitals and universities have also begun to discover the benefits of benchmarking and apply its core tenets to improve their processes and systems;
- the practical value of benchmarking is that it compares not just the core performance of two or more organizations, but also compares the causes and outcomes of particular actions.

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DEVELOPMENT OF SMALL AND MEDIUM ENTERPRISES AMONG PARTICIPANTS OF OJFS AND IDPS

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Introduction. With the exacerbation of the situation in the East, the destruction of infrastructure and housing, the uncertainty of return prospects, it became clear that adaptation and socio-economic integration should become a priority in IDP and OJF policy. Therefore, one of the strategic guidelines of the economic policy of the state should be to create and maintain the most favorable environment for the development of small and medium business veterans, as well as the employment of veterans and members of the families of the victims.

The hypothesis. It is envisaged that all regions of Ukraine can be classified by the level of development of small and medium-sized enterprises among the participants of the IDP and OJF.

The aim of the article is to develop a methodological approach to classification the regions of Ukraine by the level of development of small and medium-sized enterprises among participants of OJFs and IDPs and implementation of directions of support to the development of small and medium-sized enterprises in depressed regions based on increasing the awareness of participants of CSOs and IDPs about grant and state support.

The research methodology: method of systematic analysis and logical generalization – for implementation of directions of support of development of

small and medium-sized enterprises in depressed regions; substrate approach – to justify and systematize social support programs for small and medium-sized enterprises; method of cluster analysis – for classification regions of Ukraine by the level of development of small and medium entrepreneurship.

Results: developed a methodological approach to the typology of regions of Ukraine by the level of development of small and medium-sized enterprises among participants of OJFs and IDPs, which provides an opportunity to comprehensively address the urgent issue of implementation of areas of support for the development of small and medium-sized enterprises in depressed regions on the basis of increasing awareness of participants in OJFs and IDPs and government support.

Conclusions: high professional and qualification potential of participants of OJFs and IDPs should become a factor of innovative development of the regions of Ukraine whose economy is in urgent need of modernization. Foreign investments are a potential source of financing the modernization of an existing production base or the construction of new high-tech enterprises.

Keywords: OJF and IDP participants; small and medium-sized enterprises; grant support; level of development.

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РОЗВИТОК МАЛОГО ТА СЕРЕДНЬОГО ПІДПРИЄМНИЦТВА СЕРЕД УЧАСНИКІВ ООС ТА ВПО

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Вступ: Із загостренням ситуації на Сході, руйнуванням інфраструктури та житла, невизначеністю перспектив повернення, стало зрозумілим, що пріоритетним у політиці щодо ВПО та ООС має стати адаптація та соціально-економічна інтеграція. Отже, одним зі стратегічних орієнтирів економічної політики держави має стати створення і підтримка максимально сприятливого середовища для розвитку малого та середнього бізнесу ветеранів, а також працевлаштування ветеранів та членів сімей загиблих.

Гіпотеза наукового дослідження. Передбачається, що всі регіони України можливо класифікувати за рівнем розвитку малого та середнього підприємництва серед учасників ООС та ВПО.

Метою статті є розробка методичного підходу до типологізації регіонів України за рівнем розвитку малого та середнього підприємництва серед учасників ООС та ВПО та імплементація напрямів підтримки розвитку малого та середнього підприємництва у депресивних регіонах на основі посилення обізнаності учасників ООС та ВПО щодо грантової та державної підтримки.

Методи дослідження: метод системного аналізу та логічного узагальнення – для імплементація напрямів підтримки розвитку малого та середнього

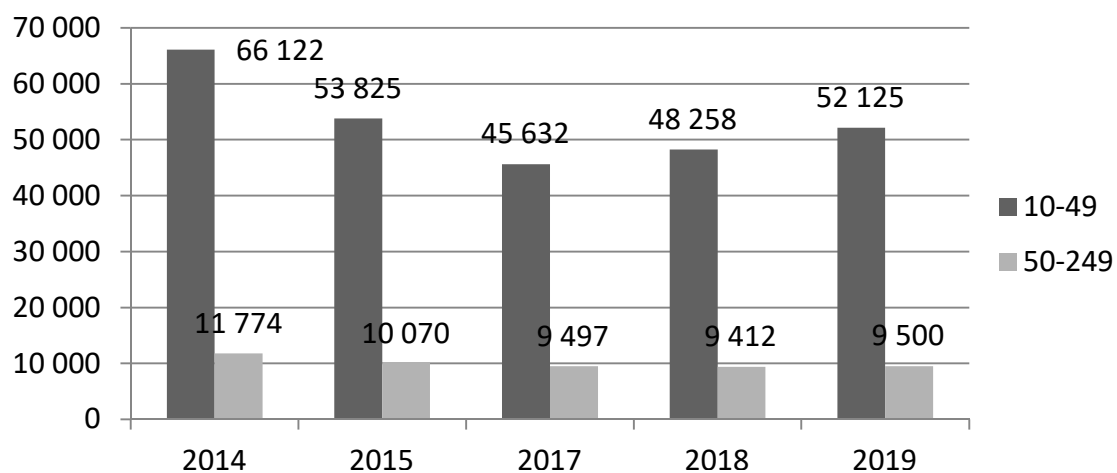
підприємництва у депресивних регіонах; субстратний підхід – для обґрунтування та систематизації програм соціальної підтримки малого та середнього підприємництва; метод кластерного аналізу – для типологізації регіонів України за рівнем розвитку малого та середнього підприємництва.

Результати: розроблено методичний підхід до типологізації регіонів України за рівнем розвитку малого та середнього підприємництва серед учасників ООС та ВПО, який надає можливість комплексно підійти до вирішення актуального питання імплементації напрямів підтримки розвитку малого та середнього підприємництва у депресивних регіонах на основі посилення обізнаності учасників ООС та ВПО щодо грантової та державної підтримки.

Висновки: високий професійно-кваліфікаційний потенціал учасників ООС та ВПО має стати чинником інноваційного розвитку регіонів України, економіка яких вкрай потребує модернізації. Потенційним джерелом фінансування модернізації наявної виробничої бази чи побудови нових високотехнологічних підприємств є іноземні інвестиції.

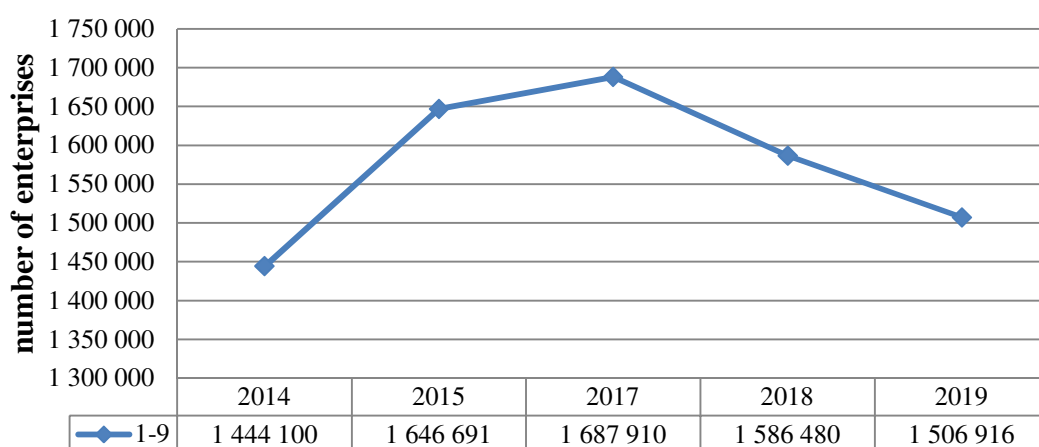
Ключові слова: учасники ООС та ВПО; мале та середнє підприємництво; грантова підтримка; рівень розвитку.

Formulation of the problem. Overcoming the difficult transition from war to peaceful life, the adaptation and socio-economic integration of veterans of the Russo-Ukrainian war today are a powerful catalyst for socio-economic change. This fact, in turn, contributes to the sustainable development of the economy in the regions and the stability of filling the budgets through the implementation of entrepreneurial activity by participants of the OJFs and IDPs. At the same time, the development of small and medium-sized entrepreneurship among participants of OJFs and IDPs is accompanied by some difficulties [1]. By 2014, SMEs accounted for 99.96% of the total number of business entities. This situation complied with the established European standards. However, since 2014, in absolute terms, there has been a quantitative decline in all types of businesses. The number of small businesses varies from recession to small growth, and the number of medium-sized enterprises decreases every year [2]. This trend is also observed in 2019 (Figure 1, 2).



Source: [3].

Figure 1. Dynamics of development of small and medium enterprises



Source: [2].

**Figure 2. Dynamics of microenterprise development
(number of employees from 1 to 9)**

The situation is complicated by the inability to determine the magnitude of the problem of resuming IDPs' entrepreneurship, as the number of IDPs has not been established. The desire to return is a demotivating factor in the resumption of business. The IDP status itself guides entrepreneurs to the expectation of state support and the moment of return, rather than to business recovery and economic activity. In addition, the low entrepreneurial activity of participants of OJFs and IDPs, from the number of entrepreneurs engaged in entrepreneurial activity to resettlement, is conditioned by the general economic context: economic downturn, banking crisis, and thus – limited access to financial resources, raising credit rates, low purchasing power. population. Actually, this can be explained by the rather low indicators on the opening of their business enterprise by unemployed participants of OJFs and IDPs.

Under such economic conditions, state support for small and medium-sized enterprises becomes crucial. Among the measures that can revitalize business recovery in the areas of current residence of participants of OJFs and IDPs, the first is the possibility of obtaining a loan and reducing the single social contribution for businesses based on combatants.

Analysis of recent research and unresolved part of the problem. The basis of the theoretical and methodological base of the research is formed by the work of domestic and foreign scientists on the problem of socio-economic adaptation, in particular veterans of hostilities and internally displaced persons, as well as works devoted to the prospects of small and medium-sized entrepreneurship in the aspect of state and international grant support.

Many works of scientists are devoted to the problem of social and economic integration. For example, V. Shcherbak proposed the formation of an adaptive infrastructure to support small and medium-sized enterprises of socially vulnerable groups [7]. A. Semykina focuses on the importance of human capital development as a way of increasing competitiveness through social innovation [8]. The question of studying the problem of attracting entrepreneurs to the OJF is not ignored by scientists. O. Sorokivska and I. Goncharenko propose as an effective instrument of formation of favorable policy of conducting small and medium business the introduction of a roadmap system in the regions of the country [5, 6].

The aim of the article is to develop a methodological approach to classification the regions of Ukraine by the level of development of small and medium-sized enterprises among participants of OJFs and IDPs and implementation of directions of support to the development of small and medium-sized enterprises in depressed regions based on increasing the awareness of participants of CSOs and IDPs about grant and state support.

Research results. According to the Ministry of Social Policy, the largest number of internally displaced persons is registered in Donetsk, Luhansk, Kharkiv, Zaporizhzhia, Dnipropetrovsk and Kiev regions. The smallest

number of IDPs are displaced in Ternopilskiy, Chernivtskiy, Rivnitskiy, Zacarpatskiy, Ivano-Frankivskiy and Volynskiy regions. This demonstrates the uneven regional distribution of IDPs across Ukraine, leading to undue social and administrative burden on communities, local labor markets, and the social infrastructure of the regions of the universe. Uneven placement of internally displaced persons across regions makes it difficult to implement employment and development policies for small and medium-sized enterprises [9].

In order to implement the areas of support for the development of small and medium-sized enterprises (SMEs) in depressed regions, a typological grouping of regions of Ukraine was conducted on the basis of increasing the awareness of OJF and IDP participants on the following indicators: dynamics of the number of SMEs, unemployment rates of OJF participants and IDPs number of employed by SMEs, share of SMEs of IDPs and OJF s participants in total sales of SMEs.

For the purpose of typological grouping, cluster analysis was used - a method of multidimensional classification of data, which allows to group the objects of research (in our case - regions of Ukraine) by a similar structure, which is determined by the indicators of the level of development of SMEs of IDPs and OJFs.

According to the clustering results of 24 regions of Ukraine, five clusters were identified (Table 1).

Table 1

Classification of regions of Ukraine by the level of development of small and medium-sized enterprises among participants of OJF s and IDPs

Clusters	Regions
Cluster 1 (progressive)	Vinnytskiy, Lvivskiy, Zaporizhskiy, Poltavskiy, Kievskiy
Cluster 2 (developing)	Rivnenskiy, Khmel'nitskiy, Kirovohradskiy, Dnipropetrovskiy
Cluster 3 (unwavering)	Ternopilskiy, Zacarpatskiy, Ivano-Frankivskiy, Volynskiy, Sumskiy, Odesskiy, Kharkivskiy
Cluster 4 (regressive)	Chernihivskiy, Zhytomyrskiy, Cherkaskiy, Mykolaivskiy
Cluster 5 (depressed)	Chernivtskiy, Khersonskiy, Donetsk, Luhansk

The results of the cluster analysis were tested for adequacy according to the criterion for exceeding the values of intragroup variance by the values of intragroup variance, as well as for the value of the p-level indicator (Figure 3).

The calculated values of the F-criterion are greater than the tabulated value of this criterion with the corresponding level of significance and corresponding degrees of freedom. The confidence level (p-level) allows us to conclude that

the relationship between the factors found in the clusters is determined by chance of this sample with a probability of 1%.

Variable	Analysis of Variance (Spreadsheet2)					
	Between SS	df	Within SS	df	F	signif. p
Dynamics of the number of SMEs	14,73897	4	8,26103	19	8,47475	0,000423
Unemployment rate of SMEs	20,67719	4	2,32281	19	42,28364	0,000000
Number of employees	18,11682	4	4,88318	19	17,62271	0,000003
Part of SMEs OJF and IDP	11,38558	4	10,14420	19	4,65641	0,000653

Figure 3. Results of clustering of regions of Ukraine by the level of development of small and medium entrepreneurship among participants OJF and IDP (Statistica listing)

Regions are relatively stable and developed are clusters 1 and 2. Other regions need to implement the positive experience of progressive clusters, which is primarily determined by the high value of the business climate index (business environment quality index, current business activity, long-term business activity and assessment of key regulatory procedures, tax administration, audits). For them, the necessary measures are to create favorable economic conditions for investment and innovation activities, differentiation of tax benefits, interest rate subsidies, application of preferential loans, as well as pursuing an active state policy in the field of small and medium-sized entrepreneurship.

Among the measures that can revitalize business in the areas of current residence of IDP entrepreneurs, the first is the possibility of obtaining a loan. State support instruments for IDP entrepreneurs can be:

- compensation of interest rate on credits of commercial banks;
- grant or grant financial assistance for the acquisition of fixed assets (means of production, raw materials, etc.);
- programs of preferential lease of premises and fixed assets / leasing and granting of interest free trade credits.

Measures aimed at meeting the needs and effective integration of OJF and IDP participants into and institutions involved in the implementation of these measures are presented in Figure 4. Introducing pilot projects to provide preferential loans to stimulate the development of temporary migrants' businesses, including through international projects and foreign financial institutions, it is advisable to stimulate industries that are in line with regional, city or district development strategies [10].

In addition, there is a need for measures to build the capacity of local authorities to support the development of the private sector through trainings and seminars, exchange visits and lessons learned.

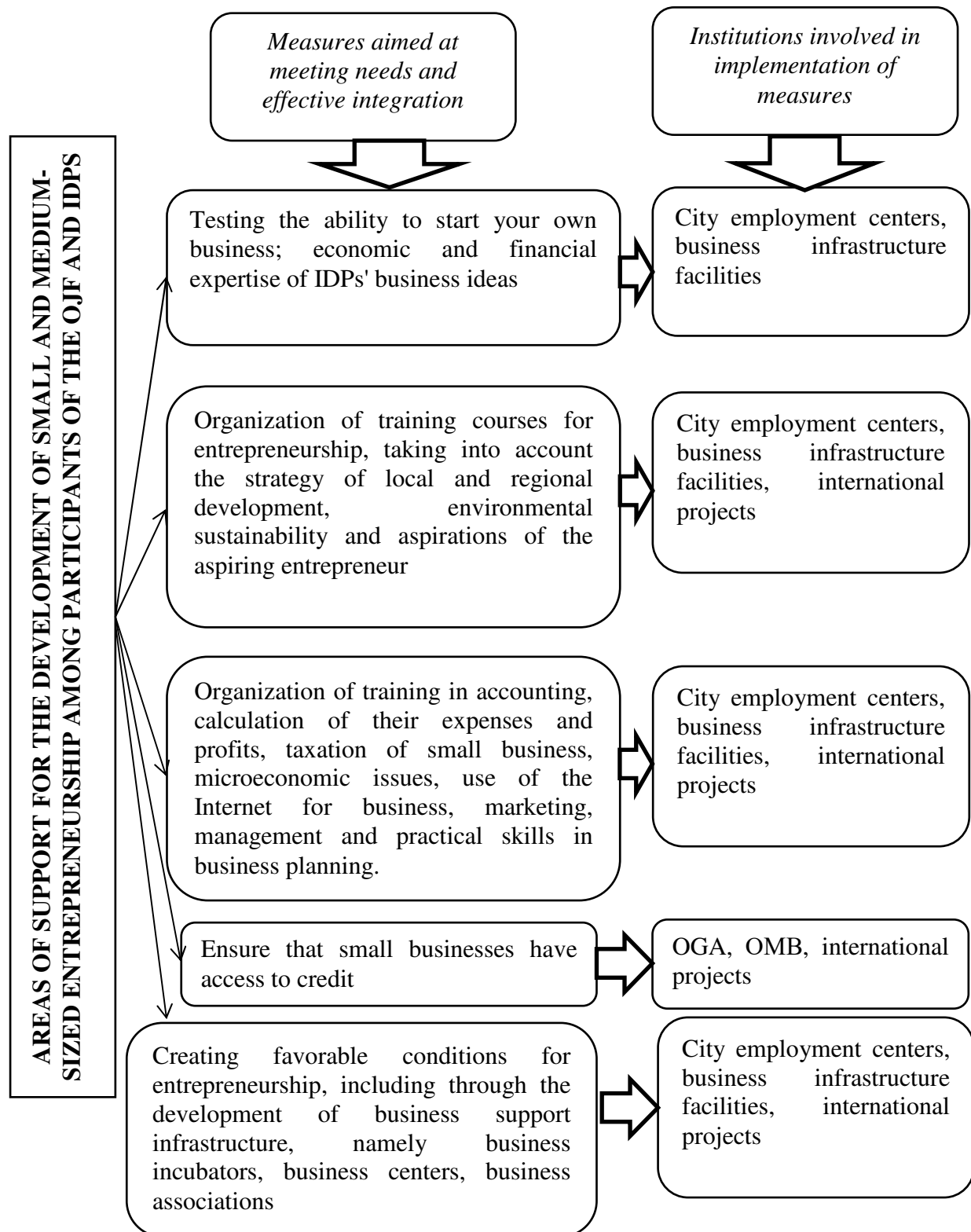


Figure 4. Areas of support for the development of small and medium-sized entrepreneurship among participants of the OJF and IDPs

There are various programs of assistance to OJFs and IDPs in the regions, supported by both international donors and local authorities. The most important of these are presented in Table 2.

Table 2

Entrepreneurship support programs for OJF and IDP participants

Program	Direction of activity	Financing
United States Agency for International Development (USAID)	Creating new jobs and developing the skills of people affected by the conflict. Creation and / or transfer of small business. Expanding the economic opportunities of people with disabilities in Ukraine.	Grant in the form of equipment or other assets, as requested, and expert support within 3 months. The amount of international technical assistance for one participant of the competition is up to 38 000 UAH
WNISEF Social Investing Program	Provision of support to private enterprises and individual entrepreneurs through the creation of an accessible lending mechanism jointly with banking institutions, the provision of training and consulting services, coaching and mentoring	Lending Credit rate – 5% to 10%
European Union COSME – "Competitiveness of SMEs"	The financial resources are provided in the form of grants to finance projects that support SMEs' export and innovation activities.	From 125 thousand UAH to 250 thousand UAH per entrepreneur
United Nations Development Program (UNDP)	Grant support is provided for the start-up, renewal or expansion of business activities	From 75 thousand UAH to 250 thousand UAH per entrepreneur
MES Self-Employment Program	Grant in the form of equipment for entrepreneurship development	Up to 1000 euros per entrepreneur

The funds from these grants can be used to purchase equipment for the production of goods; providing tools for service delivery; staffing or business expansion; rental of premises for production of goods and provision of services; providing resources for the production of goods and services; purchase of a franchise under a commercial franchise agreement with appropriate equipment; the acquisition of licenses and permits in the case of a particular type of business activity.

Conclusions and suggestions. Thus, the development of a methodological approach to the classification of regions of Ukraine by the level of development of small and medium entrepreneurship among the participants of OJFs and IDPs provides an opportunity to comprehensively address the urgent issue of implementation of support areas for the development of small and medium

entrepreneurship in depressed regions on the basis of increasing awareness of OJFs and IDPs participants grant and government support.

High professional and qualification potential of participants of OJFs and IDPs should become a factor of innovative development of the regions of Ukraine, whose economy is in urgent need of modernization. Foreign investments are a potential source of financing the modernization of an existing production base or the construction of new high-tech enterprises. The entry process should be as simple as possible, but with due regard for environmental standards. The involvement of international organizations can help to find the most effective types of economic activities to attract investment. Both governmental bodies of Ukraine and local authorities and international organizations should work to raise awareness of OJFs and IDPs about the possibilities of obtaining assistance. In this context, cooperation public organization and IDPs is extremely important.

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CREATION OF INTERACTIVE PLATFORM FOR ATO VETERANS OF ENTREPRENEURSHIP TRAINING

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Introduction: For many demobilized ATO soldiers, the solution to the problem of unemployment is to set up and run their own business as a tool for socio-economic adaptation, since a self-fulfilling condition for returning to a full-fledged life of a Ukrainian soldier is to achieve self-realization, to obtain a stable economic income and to ensure a proper social status in society [15]. According to research conducted within the framework of the Annual Business Climate Assessment (ABCA 2016), ATO veterans have indicated that they first and foremost need to increase their knowledge and skills in business. Most of them lack knowledge, first of all, in the field of promotion of their business, the second place is occupied with knowledge of the legal framework and taxation. This speaks to the need for additional measures, namely, it is advisable to pay attention to the introduction of on-line training for ATO veterans through interactive platforms that will allow veterans and disabled ATO, even at a distance, to fully receive qualified training and consulting services for starting own business.

Today, the system of higher education institutions has the power of an on-line training system based on the use of interactive platforms, but only some of them have been documented in the military environment using this technology of training. Therefore, the task is to explore the possibility of using interactive platforms to teach the basics of ATO veterans entrepreneurship, to analyze and establish the most effective platform, which will be easy to understand and with a simple interface in the training of ATO veterans in the basics of doing business.

The hypothesis. It is envisaged that the introduction of an interactive platform for training ATO veterans the basics of entrepreneurship, will allow them to solve a number of problematic situations in the process of opening their own business, familiarize with the rules of law and the tax system in Ukraine.

The purpose of the article is to theoretically investigate the prospects of implementing an on-line training system for conducting training courses on the basics of doing business for demobilized ATO soldiers using an interactive training platform.

The research methodology: a systematic method of comparing the features and tools of existing on-line interactive learning platforms in the world, critical thinking – to highlight the most effective interactive platform for teaching ATO veterans the basics of doing business, the method of analogy – to study the international experience of using interactive platforms the military training process.

Results: It is proposed to implement an on-line training system to implement business training courses for demobilized ATO soldiers using the popular modular object-oriented dynamic learning environment. It is proved that the process of training using the interactive training platform Moodle for ATO veterans will allow them to implement the basic methodological principles. The Moodle interactive platform mandates the download of instructions for use of the software, which allows ATO veterans to effectively manage business processes. Also, the presence of training courses and constant communication with the teacher helps ATO veterans to form entrepreneurial logic - a type of thinking with which it is possible to launch your startup in the shortest possible time.

Conclusions: It can be argued that the use of an interactive platform will not only simplify the process of opening its own business by ATO veterans, but also solve a number of problems related to the socio-economic and psychological adaptation of demobilized ATO soldiers to the peaceful life in the country.

Keywords: socio-economic adaptation of ATO veterans; on-line training; e-learning platform; own business.

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СТВОРЕННЯ ІНТЕРАКТИВНОЇ ПЛАТФОРМИ НАВЧАННЯ ПІДПРИЄМНИЦТВУ ВЕТЕРАНІВ АТО

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Вступ: Для багатьох демобілізованих воїнів АТО (ООС) вирішенням проблеми безробіття є створення та ведення власного бізнесу, як інструменту соціально-економічної адаптації, адже, вагомою умовою повернення до повноцінного життя українського воїна є його самореалізація, отримання стабільного економічного доходу та забезпечення відповідного соціального статусу у суспільстві [15]. Відповідно до досліджень, проведених в рамках «Щорічної оцінки ділового клімату», (ABCA 2016), ветерани АТО зазначили, що передусім вони потребують підвищення знань та навичок у сфері підприємницької діяльності. Більшості з них не вистачає знань, перш за все, у сфері просування свого бізнесу, другу позицію займають знання законодавчої бази та оподаткування. Це говорить про необхідність здійснення додаткових заходів, а саме доцільно звернути увагу на впровадження on-line навчання для ветеранів АТО за допомогою інтерактивних платформ, що дозволять ветеранам та інвалідам АТО (ООС), навіть на відстані, повноцінно отримати кваліфіковану підготовку та консалтингові послуги для започаткування власного бізнесу.

На сьогодні в системі закладів вищої освіти спостерігається потужність системи on-line навчання на основі використання інтерактивних платформ, проте лише деякі з них були задокументовані у військовому середовищі, використовуючи цю технологію навчання. Відтак постає завдання дослідити можливість використання інтерактивних платформ при навчанні основам підприємництва ветеранів АТО, проаналізувати та встановити найбільш ефективну платформу, яка буде простою для сприйняття та з простим інтерфейсом в процесі навчання ветеранів АТО основам ведення бізнесу.

Гіпотеза наукового дослідження. Передбачається, що впровадження інтерактивної платформи для навчання ветеранів АТО основам підприємництва, дозволить їм розв'язати низку проблемних ситуацій в процесі відкриття власної справи, ознайомить з нормами законодавства та системою оподаткування в Україні.

Метою статті є теоретичне дослідження перспективи імплементації системи on-line навчання для реалізації тренінгових курсів з основ ведення бізнесу для демобілізованих воїнів АТО (ООС), використовуючи інтерактивну платформу навчання.

Методи дослідження: метод системного аналізу в процесі порівняння функцій та інструментів існуючих в світі інтерактивних платформ он-лайн навчання, метод критичного мислення – для виокремлення найефективнішої інтерактивної платформи для навчання ветеранів АТО основам ведення бізнесу, методу аналогії – при вивченні міжнародного досвіду застосування інтерактивних платформ в процесі навчання воєнних.

Результати: запропоновано імплементувати систему on-line навчання для реалізації тренінгових курсів з основ ведення бізнесу для демобілізованих воїнів АТО (ООС), використовуючи популярне модульне об'єктно-орієнтоване динамічне середовище навчання MOODLE. Доведено, що процес навчання з використанням інтерактивної платформи навчання Moodle для ветеранів АТО, дозволить їм реалізовувати основні методичні принципи. Інтерактивна платформа Moodle санкціонує завантаження інструкцій для користування програмним продуктом, що дозволяє ветеранам АТО ефективно управляти бізнес-процесами. Також наявність тренінгових курсів і постійний зв'язок з викладачем допомагає ветеранам АТО сформувати підприємницьку логіку – тип мислення, з яким можливо запустити свій стартап у найкоротший термін.

Висновки: можна стверджувати, що застосування інтерактивної платформи дозволить не тільки спростити процес відкриття власного бізнесу ветеранами АТО, а й вирішити низку проблем, які стосуються соціально-економічної та психологічної адаптації демобілізованих воїнів АТО до мирного життя в країні.

Ключові слова: соціально-економічна адаптація ветеранів АТО; on-line навчання; платформа електронного навчання; власна справа.

Formulation of the problem. The continuation of Russian aggression in eastern Ukraine, leads to an increase in the number of demobilized ATO soldiers. According to the State Service of Ukraine for Veterans and ATO Participants, as of January 31, 2019, the status of a participant in hostilities was granted to 358,576 people and this indicator is constantly growing [3].

Currently, Ukraine has public initiatives and regional support programs for ATO veterans. So, state employment centers help to get a job for unemployed ATO participants in Ukraine. Also, unemployed veterans have access to general job search services, career counseling and vocational training. Since August 30, 2016, ATO participants have been included in the list of "categories of citizens with additional guarantees in promoting employment". For such categories, a quota of 5% is provided for enterprises employing more than 20 employees, and it is possible to reimburse ERUs within a year (subject to employment for a year) [3].

Statistics on the employment of ATO veterans in Ukraine today is actually not very good. As of July 1, 2019, 8.4 thousand (3%) ATO participants remain unemployed. In January-June 2019, 16.3 thousand people used the services of the state employment service. Unemployed from the number of military personnel who took part in the anti-terrorist operation (joint forces operation) (hereinafter – ATO(JFO)), of which 1.3 thousand were persons with disabilities. Assistance for unemployment was received by 15.1 thousand participants of the ATO (JFO) [2; 17].

After demobilization, it is extremely difficult for fighters to find a prestigious job. For many of them, the solution to this problem is to create and conduct their own business as a tool for socio-economic adaptation, because an important condition for returning to a full life of the Ukrainian soldier is his self-realization, obtaining a stable economic income and ensuring the corresponding social status in society [15]. This suggests the need for additional events, namely the use of interactive platforms that will allow veterans and disabled ATO (JFO), even at a distance, to fully receive qualified training and consulting services to start their own business.

Today, in the system of higher educational institutions, the power of the distance learning system based on the use of interactive platforms is observed, but only some of them have been documented in the military environment using this training technology. Therefore, the task of this article is to explore the possibility of using online platforms for teaching entrepreneurship ATO veterans in Ukraine, to analyze and establish the most effective system that will be easily understood with a simple interface in the preparation of ATO veterans in Ukraine.

Analysis of recent research and unresolved part of the problem. Today, most scientific research is aimed at studying the problems of psychological and

social adaptation of displaced persons from the zone of aggression of the Russian Federation and anti-terrorist operation participants. They are especially justified in the scientific works of P. Vorona [8], A. Prots [13], A.A. Srokovsky [14, 15]. The aim of a number of authors' studies is to understand the ways of the social adaptation of ATO participants, among which are the training sessions that positively affect the post-traumatic rehabilitation of ATO veterans. P. Vorona notes that "ATO fighters are people who, as a rule, have already received education, so the real problem is not the need for higher or professional education, but in PTSD. Many people who went through hostilities want to radically change their lives instead of returning to the old. They need help in providing new opportunities. This is an important part of rehabilitation" [8].

In most scientific studies, little attention is paid to determining specific ways of the socio-economic adaptation of veterans, the specifics of conducting an anti-terrorist operation in the east of Ukraine are not taken into account, feedback with the study participants is not clearly established. All this testifies to the relevance of the topic, and then determined the choice of the direction of research in the scientific and practical aspects.

The purpose of the study is to implement an on-line training system to implement training courses on the basics of doing business for demobilized ATO soldiers (JFO) using the popular modular object-oriented dynamic training environment (MOODLE).

Research results. With the beginning of Russian aggression in the east of Ukraine, a very specific social group was formed, which requires constant psychological and socio-economic adaptation. Even at the beginning of hostilities, the psychological adaptation of veterans to peaceful life was given a major role; today, assistance was also added to the socio-economic adaptation of ATO veterans in everyday life [15].

According to the USAID LEO program, socio-economic adaptation takes place in such forms (Figure 1).

P. Vorona in his studies notes that the main thing for ATO veterans today is decent work, in the vast majority of cases it guarantees the success of the process of social integration [8].

One of the ways is to develop methods for the professional adaptation of ATO (JFO) participants.

According to focus group studies conducted as part of the "Annual Assessment of the Business Climate" (ABCA 2016), ATO veterans noted that they first of all need to increase knowledge and skills in the field of entrepreneurial activity. Most of them lack knowledge, primarily in the field of promoting their business, the second position is occupied by knowledge of the legislative framework and taxation [1].



Source: based on USAID Leadership in Economic Management [6].

Figure 1. Socio-economic adaptation of ATO veterans: forms and premises

In this context, special programs seem relevant, including educational courses, trainings and consultations that would allow ATO veterans to start their own business.

Today it has become a widespread practice of using interactive platforms in the learning process, it is also advisable to apply such practice to the military environment.

An interactive platform is an innovative form of training that provides network access for participants to digital learning resources. Digital technologies within the framework of the lifelong learning system make it possible to individualize the learning process both at the stage of studying new material and at the stage of monitoring knowledge, skills. This platform offers quality courses and multimedia support.

Creating an interactive platform will enable ATO veterans to get information about business opportunities, training materials, as well as business news. In addition to online tools and resources, registered users will be able to attend educational events and trainings on business development, exchange experiences and best practices, establish useful contacts, discuss problems and receive practical advice on improving entrepreneurial activities from leading experts.

The main principles of training on the basis of an interactive platform are:

1. Flexibility – training can take place at a convenient time for ATO veterans, at a convenient place and at a convenient pace, the implementation of a

part of the distance learning process by the full-time part, insignificant in time and volume.

2. Modularity – the creation by each individual course of a holistic view of a separate subject area, which makes it possible to form a curriculum from a set of independent module courses that best meets the individual or group needs of ATO veterans.

3. Parallelism – the possibility of on-the-job training (or with a minimum margin) profitability – a concentrated and unified presentation of information, the use and development of computer modeling to reduce the cost of training specialists.

4. Manufacturability – the use of modern information technologies of the educational process, facilitating the entry of a person, is studying into the global information space.

The existence of a growing trend in the use of interactive platforms is also evidenced by the market itself, where the offer of various platforms for distance education is growing. They can be divided into two groups: mass open online courses (Massive open online courses, MOOC) and software.

Among MOOC, for example, the popular sites Coursera, Udacity, EdX successfully operate. In Ukraine, this form is only just beginning to develop.

But MOOCs are more for self-education. Using such platforms for the organization of full-fledged training for ATO (veterans is inconvenient, because any service has its limitations and requirements.

Therefore, the most convenient solution for this training may be web-based software, for example, Moodle, e-Front, Adobe Connect Pro, Blackboard Learning System, WebCt, Microsoft Learning Gateway, etc.

Having studied foreign experience, it was found that a Rayton study in 2013, showed that Dropbox as an online academic portal for military veterans of Class 2013 A proved to be ineffective in improving the learning experience of American war veteran students. It was used only to represent tasks to replace regular email. Rayton has proposed using EDU 2.0, a cloud-based Learning Management System to enrich the learning practices of American war veteran students. However, over time, they came up with the idea to create a Virtual Learning Environment (VLE), designed to support face-to-face instruction between the teacher and the program participant [11]. This is established using an e-learning platform called Modular Object Oriented Dynamic Learning Environment (MOODLE). This software platform offers interface modules for quizzes, tasks, blogs, forums and other useful manuals for both students and teachers. MOODLE is a useful e-learning platform with many features that make learning a rewarding experience. Moodle is constantly updated with new features, and these functionalities allow you to get a more general and unified approach to learning [7].

The Moodle Learning Platform is an open source software project that has been developing since 2002 under the direction of Moodle Pty Ltd and is used in hundreds of thousands of institutions and jobs around the world (Figure 2).



Figure 2. Global usage of the Moodle Interactive Platform

Now the use of interactive platforms for training the entrepreneurial skills of war veterans is at an early stage of implementation not only in Ukraine, but throughout the world. In Ukraine, only 17 higher education institutions offer training on the basis of an interactive platform, among them only 9 use the Moodle system, however, the use of this system for corporate training, and in particular for training ATO soldiers, is used for the first time.

Today, there are 6 program products in the Moodle system: Moodle LMS, Moodle App, Moodle Workplace, MoodleCloud, MoodleNet, Moodle Education, each of which has its own characteristics and purpose (Table 1).

Table 1

Characteristic of the Moodle system products

Name	Features
Moodle LMS	The worldwide open-source learning platform Moodle allows you to create a private online learning space filled with courses and materials. You will always have full control over all your data and which of your course participants are in the system.
Moodle App	Using Moodle Apps, participants can access training materials instantly from anywhere. Everything that the user does offline in the application is automatically synchronized when connected, so training is always available on your devices.

End of the Table 1

Name	Features
Moodle Workplace	Moodle Workplace allows you to share knowledge in your organization and develop specific skill sets Give your employees the flexibility to access your training system from anywhere on any device Maximize your learning and development strategy in your organization.
MoodleCloud	MoodleCloud is designed for educators, trainers, and those who need an online learning environment to learn or facilitate learning in any situation.
MoodleNet	A new open social media platform for educators, first focused on collaboratively curated collections of open content. MoodleNet will become an integral part of the Moodle ecosystem, which will enable educator communities to share and learn with each other to improve the quality of education.
Moodle Education	Focusing on learning outcomes using an open source platform. The Moodle Teacher Certification Program (MEC) recognizes and confirms mastery of building effective teaching and learning activities with Moodle.

Source: built by the author on the basis of data [7].

The training course is designed taking into account the following rules:

- 1) ensuring a linear sequence of studying the modules of the course,
- 2) the use of modules for repetition of the training material necessary when studying the next topic, if this material was not a direct subject of study of the previous topic;
- 3) the introduction of modules for the generalization of educational material and control over the educational achievements of the subject of training.

In accordance with the indicated rules, it is possible to design such an indicative structure of the course on the basics of running a business on maintenance for demobilized ATO soldiers (Figure 3).

The Moodle platform allows ATO veterans to organize a clear system of role-based access to resources, the sufficient security of which protects against unwanted users viewing data that is not intended for them. This makes it possible to conduct network tests (the system provides a large number of tools for organizing them). In addition, the protection of resources from access by unauthorized users of the network contributes to the introduction of such active elements as a thematic chat, forum, online seminar, workbook, which will be useful as existing tools for the socio-economic adaptation of ATO soldiers and the like. The MOODLE platform has a large number of control modules (Figure 4).

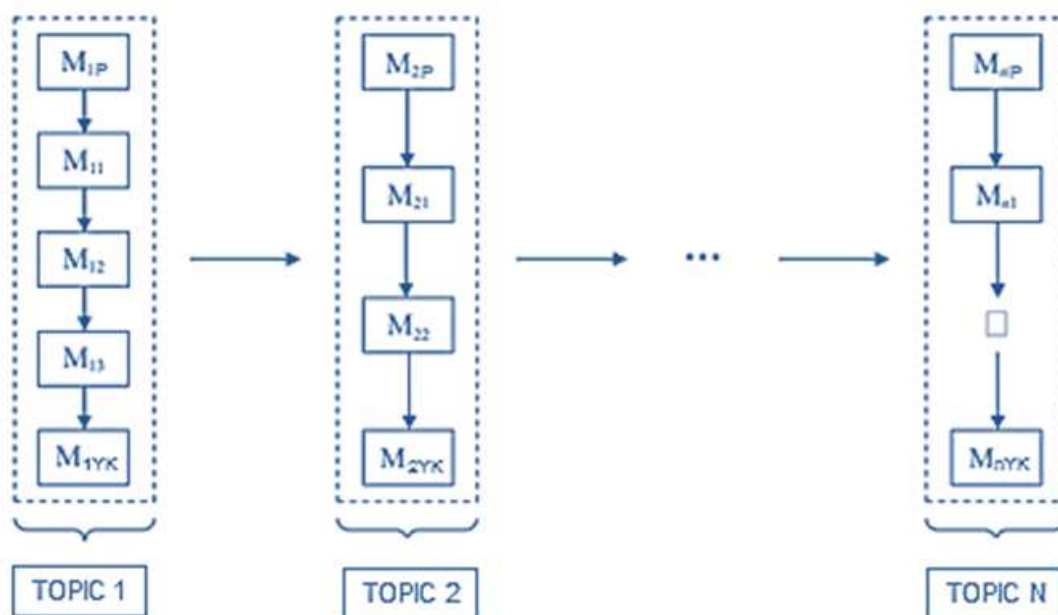


Figure 3. The approximate structure of the course on the basics of doing business: M_{1P} , M_{2P} , M_{nP} – modules for repeating the training material; M_{11} , M_{12} ... M_{n1} – substantial modules of the distance course; M_{1YK} , M_{2YK} , M_{nYK} – modules for generalizing training material and monitoring the academic achievements of demobilized ATO soldiers

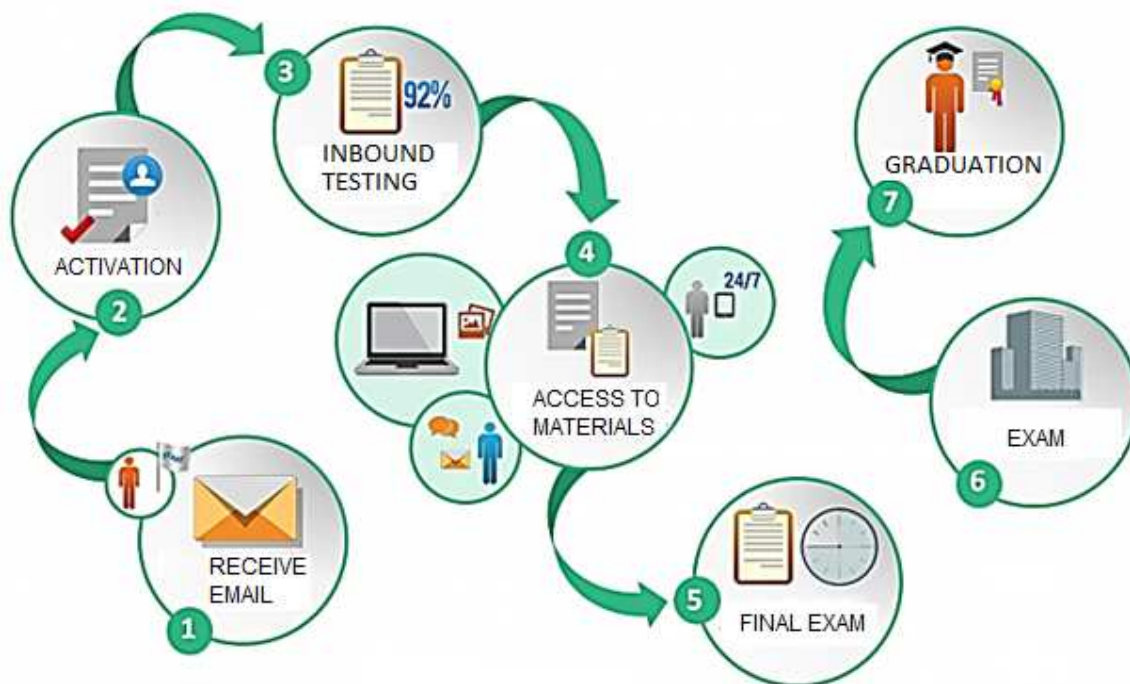


Figure 4. Tools List of Moodle platform

The teacher can evaluate any type of activity in the training course, as well as write a review on any work (business plan) of users (ATO veterans), where they indicate the shortcomings and ways to eliminate them. The system provides for the possibility of creating and using within the framework of the course any assessment system defined by the course teacher. In Moodle, teacher can analyze the participation and activity of ATO veterans in the process of seizing, the time allotted to work with materials; evaluate the development of what elements of the course caused difficulties in the group (or a specific participant); quickly provide assistance with educational work on the Internet or the local network of the educational institution by downloading additional materials. An important feature of Moodle is the ability of the system to create and save the portfolio of each participant in the course: all work performed, grades, teacher comments, message on the forum. When working through the Internet platform, ATO veterans can learn the training material directly on the course page, as well as download individual course files to their computer and study at a convenient time without going to the Internet. The platform provides the opportunity to use a lot of training resources and materials, and also provides communication interaction between ATO veterans both in synchronous mode using chat, and in asynchronous mode using e-mail forum, workbook and the like. The system supports the exchange of files of any format, both between the teacher and the participants, and between the participants themselves. The Moodle platform in the online version is a platform for holding forums and chats for individual groups of course participants.

To monitor the activities of ATO veterans and the level of assimilation of educational material, a teacher can revise reports on the performance of the corresponding users. Let us briefly consider the process of passing and checking the course report by the corresponding user (ATO veterans) in the Moodle system. The procedure will include the following steps:

- user registration (ATO veterans) in the Moodle system;
- choosing the appropriate course for training;
- passing a training course;
- passing tests in accordance with the course taken;
- viewing success by a user (ATO veteran) at the end of the course;
- viewing the success of users (ATO veterans) by a teacher in the Moodle system.

The registration stage in the Moodle distance learning system allows ATO veterans to enter the system and go to the corresponding developed course for familiarization and study of the discipline (Figure 5).

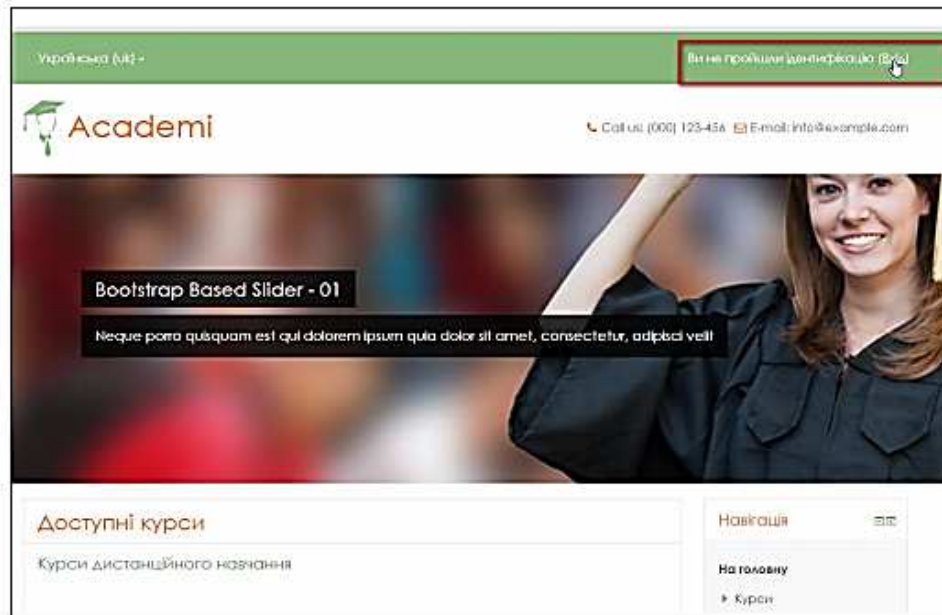


Figure 5. Moodle Login Link

Thanks to effective learning through mobile devices, the Moodle focus on the mobile application supports ATO veterans anywhere to learn anywhere, anytime with the click of a button. Moodle Analytics allows you to track compliance, course completion and competencies, is valuable when considering participants in ATO veterans to conduct their own business (Table 2).

Table 2

Advantages of using the Moodle interactive platform in the process of learning the basics of entrepreneurship for ATO veterans

Potential	Features
All resources – assembled into the single products	In the system, you can create and store electronic training materials and take the sequence of their study. Due to the fact that access to Moodle is via the Internet or other networks, ATO veterans are not tied to a specific place and time, they can move through the material at their own pace from any part of the globe. The electronic format allows using not only text, but also interactive resources of any format from a Wikipedia article to a YouTube video as a "textbook". All course materials are stored in the system, they can be organized using labels, tags and hypertext links.
Joint solution of educational problems	Moodle is focused on collaboration. The system provides a lot of tools for this: wiki, glossary, blogs, forums, workshops. The training can be done asynchronously, when each ATO veteran studies the material at his own pace and in real time, organizing online lectures and seminars. The system supports the exchange of files of any format – both between the teacher and the participants of the system, and between the participants themselves.

End of the Table 2

Potential	Features
The teacher is always in touch with the course participants	Ample opportunities for communication – one of the strengths of Moodle. In the forum you can hold discussions on groups, evaluate messages, attach files of any format to them. In personal messages and comments – discuss a specific problem with the teacher in person. The chat discussion is in real time. Newsletters promptly inform all participants of the course or individual groups about current events: it is not necessary to write to each participant about a new task, the group will receive a message automatically.
The quality of training is in control	Moodle creates and saves a portfolio of each participant: all submitted work, assessments and comments of the teacher, a message in the forum. Allows to control the "attendance" – the activity of participants, the time of their training in the network. As a result, the teacher spends his time more efficiently. It can collect statistics by group. Thus, to understand how the ATO veterans understand the topic, and taking this into account, offer material for further study.

In this Moodle system is the ability to download instructions for using a software product that allows you to effectively manage business processes. Also, the availability of training courses and constant communication with the teacher helps ATO veterans to shape entrepreneurial logic – the type of thinking with which it is possible to launch their startup in the shortest possible time.

Conclusions and suggestions for further research. Today, an effective way of socio-economic adaptation for ATO veterans is to open their own business and learn something new. Therefore, it was proposed to implement an on-line training system for implementing training courses on the basics of doing business for demobilized ATO soldiers using the popular modular object-oriented dynamic training environment Moodle. It is proved that the learning process using the interactive Moodle training platform for ATO veterans will allow them to implement the main methodological principles:

- sufficient motivational potential;
- compliance with the principles of developmental education;
- the possibility of repeated repetition of educational material;
- a high degree of interactivity than in the audience;
- modularity;
- availability;
- individualization;
- the presence of a permanent active help system;
- the possibility of self-control by ATO veterans;
- dynamism of access to information;
- ensuring the visibility and lot of variation of the presentating information;
- confidentiality (incognito education (without disclosing one's name) due to certain circumstances, registering under a different name).

This study provides information about the possibilities of the MOODLE interactive platform for training ATO veterans entrepreneurship and is relevant today for the development of this system within the framework of the joint Ukrainian-Lithuanian project "Ukrainian educational platform (for demobilized ATO soldiers)" – a training road map «Step to entrepreneurship».

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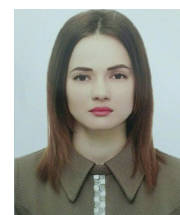
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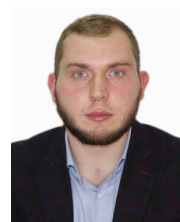


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**Загальні відомості щодо подання рукопису статей в журнал:
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