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**MANAGEMENT OF THE 21ST CENTURY:  
GLOBALIZATION CHALLENGES. ISSUE 4**

Collective monograph

In edition D. Diachkov, Doctor of Economic Sciences, Professor



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## PREFACE

The modern stage of development is characterized by the realization of interdependence and interconnectedness of peoples, countries, structures, institutions and citizens. In science, this stage is called "globalization". The world is evolving, and trade and business are undergoing huge changes along with it.

The growing intensification of the interdependence of peoples and states is extended to all spheres of public life. Globalization and regionalization have become the determinative processes of the world development, the main vectors of the present. As new trends in modern post-industrial development, they lead to the emergence of new requirements for management in the 21st century, which is increasingly influenced by processes of globalization and integration, involving the consideration of regional peculiarities in the process of effective implementation of global management. However, the peculiar to the beginning of the third millennium dependence of the dynamics of society development on the quality of management activities determines the need for a solid rethinking and critical analysis of the fundamental concepts and categories of management sphere.

Traditional management, as a mechanism in its various models, forms, systems, has exhausted itself, since it does not contribute to solving the globalization problems of the development of civilization, which caused the objective need for formulation of the recent paradigm of management of the 21st century – management, the essence of which is to resist the processes of self-destruction; to create conditions for the harmonization of open self-regulatory systems: of a person, an organization, a society; to create conditions for the realization of creative potential of each person; to form and implement the management mechanism at all levels for any open socioeconomic system.

These and other problems determined the need for further research in the field of modern management, which led to the integration of the results in the third issue of the joint monograph "Management of the 21st century: globalization challenges. Issue 4".

The joint monograph presents the trends in the theory of management that are developed on the basis of the analysis of scientific-theoretical and methodological works of scientists and practitioners and create opportunities for the practical use of the accumulated experience, determine the content of management, and awareness of them is supposed to become the basis for the choice of focuses for further research aimed at improving the theory of management. In the joint monograph, much attention is paid to the practical tasks connected with the formation of organizational and economic mechanism of corporate management in the context of globalization, the development of methods, principles, models of management, taking into account modern scientific approaches and consolidated informatization of business processes of modern enterprises. The monograph presents the results of the research and scientific attitude of authors from different countries to innovative

aspects of management: management of organization as a socio-economic system, innovation, investment and information management in the system of a modern enterprise, personnel management in a modern organization, branch and regional aspects of modern management, public administration, agrarian management, international business management, risk management, management of security and competitiveness of the enterprise, marketing management, modern approaches to management of higher education.

The authors covered a wide range of problems – from the formation of conceptual foundations of the management of the potential for development of the state to the applied aspects of management of its individual subsystems.

The monograph consists of four parts, each of which is quite independent in terms of problem area. The structure of the monograph, presented by four parts: development of modern paradigm of management: globalization and national aspects; management of modern socio-economic systems: a sectoral and regional approach; current national and global fundamentals of social and economic systems' development; the legal, sociocultural and educational aspects of society management, helps to focus on the conceptual problems of the formation and development of the socio-economic and socio-ecological component as well as problems of ensuring the process of practical application of the developed management models.

The advantage of the joint monograph is the systemacity and consistency of the structure, the simplicity and accessibility of the material presentation, the presence of examples and illustrations.

The results of the research works presented in the joint monograph have a scientific and practical importance.

We believe that the monograph will become one more step towards a scientific solution of the problems in the context of formation of the effective management system under complicated globalization conditions.

The results of the research works presented in the joint monograph have a research and practice value. The advantage of the joint monograph is the system and logic of the structure, the simplicity and accessibility of the material presentation, the presence of examples and illustrations.

We believe that the monograph will become one more step towards a scientific solution of the problems concerning the formation of an effective system of security management under trying circumstances of globalization.

Publication of the monograph "Management of the 21st century: globalization challenges" is scheduled to be annual. Currently, Issue 4 is offered to our readers.

*With best regards Dmytro Diachkov,  
Doctor of Economic Sciences, Professor,  
Poltava State Agrarian University, Ukraine*

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**«If war no longer occupied men's thoughts and energies, we could, within a generation, put an end to all serious poverty throughout the world»**

# **PART 1. DEVELOPMENT OF MODERN PARADIGM OF MANAGEMENT IN UKRAINE GLOBALIZATION AND NATIONAL ASPECTS**

## **INTERNATIONAL SECURITY AS AN OBJECT OF INTERNATIONAL RELATIONS**

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The problem of ensuring general peace and international security is one of the main ones in modern international relations. Today, in the modern environment, we are witnessing a transition period in the evolution of the international system, which was connected, first of all, with the transition from a bipolar world to a post-bipolar one. Overcoming bipolar confrontation as a way of organizing international relations involves the establishment of a new system of mutual relations and security support in the East-West area [1].

The category of security is universal, since the problem of security was and remains relevant not only for market economic systems, but also for planned and traditional economies of all countries of the world. The actualization of the security problem was due to the fact that modern society exists in conditions of "mega-risks" and was qualified as a "risk society". Globalization of economic activity is one of the main trends in the development of the modern world, which significantly affects not only economic life, but also entails political (domestic and international), social and even cultural and civilizational security challenges. These consequences were increasingly felt by almost all countries, and among them, of course, Ukraine, which is fully aware, actively and purposefully moving in the direction of integration into the world economy. Therefore, the analysis of these global processes in combination has not only theoretical, but also purely practical, and extremely important significance [4].

In general, national security was defined as a system of state and social guarantees that ensure stable development of the nation, protection of basic values and interests, sources of spiritual and material well-being from external and internal threats.

The purpose of the national security concept is to ensure the unity principles of state security policy's formation and implementation, in particular, to combine approaches to the formation of the relevant legislative

and regulatory framework (for example, preparation of doctrines, strategies, concepts, state and departmental programs in various spheres of national security); coordination of national security actions at the national, local (regional) and global levels. Given the great importance of the national security of the state, almost all countries of the world are trying to get involved in its conceptual support, approved by the legislative body and reflected in all directions of the state's domestic and foreign policy. On the basis of the concept, the national security system was formed as a set of legislative and executive bodies, legal norms that ensure optimal and stable conditions for the life and development of individuals and society. To implement the concept of national security, a special body was created from the highest state officials and heads of law enforcement ministries and agencies, headed by the head of state or executive branch [3].

The international and national security of a state was closely linked, because if a state can withstand internal threats, it will be able to hold its own in the international arena. In addition, international security was formed on the basis of national security of individual countries and peoples, as well as regional security of states and regions, world, and was consolidated at the level of global international security in order to protect and realize universal interests, neutralize threats to the global universe that go beyond the national borders of states and can affect the security of other participants [3].

It was worth noting that international security is one of the key aspects of the sovereign state's activities and an important object of research in the international relations theory. It can be argued that at the current stage, the concept of international security, both regional and global, is undergoing significant transformations, which were related, in turn, to the dynamics of the international relations modern system.

Today's, globalized world was characterized by the emergence of a number new threats to international security system at all levels, which requires coordination of state's joint efforts, international institutions and the international community to counter them. The task of classifying the reasons that affect the state of the current international security system was becoming especially important. Accordingly, there was a need to systematically study this important issue for the international community, to develop effective measures to address it, which will ensure stability and peace in the face of growing international tensions [5].

In general, there were different approaches to defining the concept of "international security". Thus, we should agree with the statement that international security can be seen as a state of international relations in which the conditions necessary for the existence and functioning of states are created and ensured.

At the same time, international security is a policy that promotes the

effective creation of peace' guarantees both for an individual state and for the system as a whole, the subjects of which were states and all other participants in international relations. And the objects are peoples and states, their citizens and institutions, associations and alliances they create – humanity as a whole. Thus, the state in international security was both an object and a subject of these relations [8].

In view of the above, international security is one of the main positions in discussions scientific and socio-political circles in terms of the military aggravation and political conflicts, the spread of terrorism, the cyclical nature of the global financial and economic crisis and the globalization of socio-economic processes [7].

The financial and economic crisis has revealed the problems of global development in both economic and geopolitical spheres. Instability in economic relations is exacerbated by military actions, armed conflicts, and terrorism unfolding around the world. That is why it has been emphasized that "the system of interstate relations and effective cooperation, which in recent decades has ensured development and provided security guarantees for most states, no longer meets the realities of today" [9].

Due to the escalation of political and armed conflicts, the inability of international institutions to effectively address current threats and guarantee international security is becoming apparent. Therefore, the issues of economic stability, resumption of economic growth, and intensification of the struggle for limited global resources were urgent. The scale of global threats has been increasing recently, and their priority is changing [7].

The results of the study prove that the intersection of international security interests and international economic relations today is in the plane of issues important to the world, or rather, threats, including:

- *economic cost of military conflicts* (any military conflict in the world was, first of all, a conflict of interests, including economic ones. And any military conflict is associated with military spending, and therefore has an economic cost);

- *cooperation in the defense industry* (military and political conflicts in the world require weapons, and this was connected with the cooperation of countries in the defense industry. The supply of weapons enriches the economies of countries that supply weapons);

- *cybercrime*, which is related to the use of information and communication technologies, was rapidly spreading and is incompatible with maintaining international security and stable economic growth in the world. The spread of cybercrime has led to information wars and information terrorism as a *threat to international security*;

- *shadowing of the global economy*, which causes economic damage to both individual countries and the global economy as a whole. The current

state and growth of the shadow economy in countries is an indicator of the public administration institutions inefficiency, unfavorable business environment, and violation of the law by individual market participants;

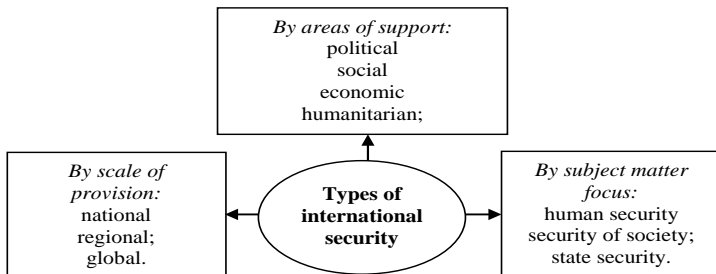
- *aggravation of social global problems*, in particular, the settlement of refugee issues, humanitarian aid, and moral and ethical development of society [7].

It is worth emphasizing that most security threats were political in nature. Except for threats caused by natural phenomena (floods, volcanic eruptions).

At the same time, the development of international security was significantly influenced by the powers of international organizations and the evolution of the state sovereignty's concept. In addition, an important trend affecting the development of international security was the growing threat of international terrorism, which has become one of the most complex global problems of our time and has challenged the ability of states to guarantee the safety and well-being of their citizens.

Thus, international security can be considered a state of absence of direct or hidden threat of conflicts or the ability of the world's leading states or collective international institutions to effectively counter them. It was the result of the complex interaction of many states, each of which seeks, first and foremost, to realize its own security. As a result, a certain security system was established in international relations, to which each state is forced to adapt.

It was advisable to distinguish international security as follows (Fig. 1).



**Fig. 1. Classification of international security**

In view of the above, it can be stated that today the main means of ensuring international security include:

- bilateral: treaties/agreements (multilateral conventions) on mutual security between interested parties;
- association of states into multilateral alliances;
- global/regional international organizations, regional structures and institutions to support international security;
- demilitarization, democratization and humanization of the international

political order, establishment of the rule and law in international relations [10].

The international security system exists to ensure and strengthen the external security of members of the world community, primarily represented by states.

The creation and functioning of the international security system was a function of the political system of a particular state, which ensures its own existence and overcoming the negative influences experienced by the political system. In addition, the international security system, according to the system theory, is an integral indicator of the political systems of the states that make up the system under study as a whole. This was what makes it possible to consider the international security system as a whole [3].

The international security system was based on a system of obligations, guarantees, and capabilities of its actors. In general, the effectiveness of any international system is influenced by several factors:

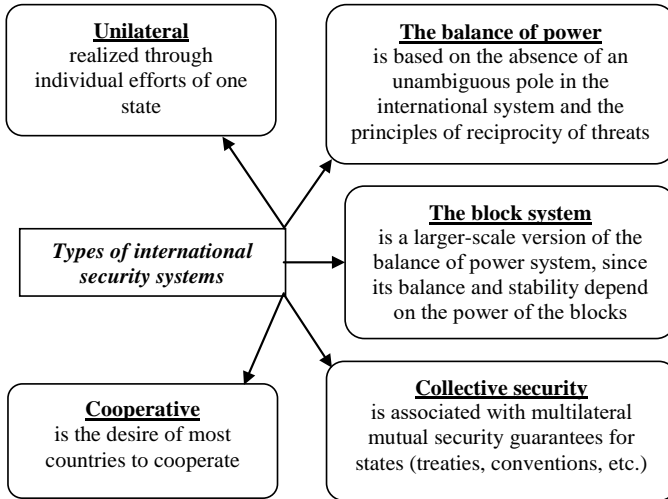
- the internal situation of states and their real capabilities in the long term;
- the state and trends of the current geostrategic situation, international realities at the regional and subregional levels;
- the nature of modern threats that have the greatest impact on the stability of states at the regional and subregional levels;
- the effectiveness of existing security systems and their ability to adapt to new challenges;
- real possibilities for creating new security systems and the nature of their interaction with existing ones.

In general, there were 5 types of international security systems (Fig. 2).

The modern system of international security was based on the principles of:

- 1) general nature and equal level of security for all countries, regardless of their role on the world stage;
- 2) unconditional respect for the sovereign rights of every nation;
- 3) establishment of peaceful coexistence as a universal principle of interstate relations;
- 4) creation of effective guarantees in the military, political, economic and humanitarian spheres;
- 5) development of effective mechanisms in the field of arms all types control, prevention of an arms race and practical steps towards disarmament;
- 6) insufficient use of peacekeeping purely military means;
- 7) strengthening confidence between states;
- 8) ensuring equal security for all states;
- 9) fair political settlement of international crisis and regional conflicts;
- 10) eliminating all forms of discrimination from international practice, abandoning economic blockades and sanctions;

- 11) eradication of genocide, apartheid, and popularization of fascism;
- 12) development of effective methods to prevent international terrorism;
- 13) establishing a new economic order that ensures equal economic security for all states;
- 14) systematic design of the security architecture, etc.



**Fig. 2. Typology of international security systems**

*Source: based on data [6]*

It is worth noting that these principles should apply not only to states as the main actors in the global political process, but also to other actors in modern international relations.

The results of the study made it possible to draw the following conclusions:

1) the concept of international security is currently undergoing significant changes due to globalization processes, an increase in the number of actors in international relations and growing interdependence between them. Among the trends in the modern development of international security were the growing influence of international organizations in world politics, limited transformation of the concept of state sovereignty, the relevance of the international global threat – terrorism and the spread of the concept of "human security" along with national and international security;

2) international security is a rather complex phenomenon and it is the result of interaction between many states, each of which seeks to realize its own security first and foremost;

3) the creation universal system of international security is extremely relevant, since a modern system of preventing and counteracting threats to international security should be designed to address real security problems,

meet the vital interests of each state, and ensure international stability and sustainable development. In order to improve the functioning of such a system, it is necessary to improve the activities of key international organizations.

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## CONDITIONS AND FEATURES OF SOCIO-ECONOMIC SYSTEMS' DEVELOPMENT

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A concept "development", due to its infiltration into various science disciplines, has become a cornerstone in many branches of knowledge. The basis of such infiltration contains complication of science as a system of knowledge, improvement of approaches for understanding the content of concept "development", evolutionary quasi-biological approach for understanding development by H. Spencer [1], holistic approach for understanding development by E. Durkheim [2], civilizational and formational approaches [3, 25-28].

The development concept "entered" into economic studies in the 20th century, initially at the macro level (probabilistic models of economic equilibrium and economic dynamics, model of economic growth stages by W. Rostow, models of social endogenous growth, models of sustainable development, ecological and economic models). Researches at the macro level were conducted in the context of Keynesianism, neo-Keynesianism and the theory of economic cycles. Subsequently, the concept "development" began to be used at the micro level, in particular in the economic theory, mathematical and economic modeling, the theory of management, operations research and management information systems, etc. As the result of conducted researches, the idea that development is inherent to any socio-economic system – from a state to an enterprise – became axiomatic one.

Development of socio-economic systems exists constantly. However, to achieve goals of such development, one should control and manage it.

Targeted development of socio-economic systems has forms of strategy, program or development model that are used in forming the state regulation policy of developing such systems, in its forecasting and for analytical purposes.

Complexity and systematicity of managing documents concerning developing socio-economic systems are hindered to some extent by the lack of clearly formulated concepts regarding development of such systems, in which it is necessary to consider not only the general scientific concept of development, but also peculiarities of the national economy. Absence of

such provisions causes mixing of notions and concepts (development is considered as a synonym of growth or increasing, it can be considered in the context of structural or qualitative changes in the economy, etc.) that prevents making the analytical, forecasting and institutional support of a state socio-economic system (strategies, various programs, etc.).

Therefore, we consider it important to formulate the conceptual framework of development that should serve as a methodological basis for forecasting and controlling development of any socio-economic systems. It will contribute to strengthening systematicity of such a development.

The conceptual framework of socio-economic systems' development is a set of views that all together form fundamental ideas about the process of any system developing. One can reveal such ideas by highlighting nature, essence, concepts and features of development.

Features and conditions of development play the pivotal role in the framework of socio-economic systems' development. It is these features and conditions make the cornerstone in the development framework, determine its structure and its concepts' interconnection.

It is well-known that development is considered basing on three positions, which are closely related to each other [4]:

- development as a law characterizes a certain type of changes in being, explains such changes in existence;
- development as a principle characterizes the connection between the essence of a separate phenomenon (or object) and its subordination in a higher-level system;
- development as a general scientific concept is opposed to unchanging being, simultaneously influencing it as a certain process (being is the necessary condition for development, and development is immanent for being in general).

Development as a general economic concept is a projection of a general scientific understanding of development onto objects of the economic studies. Therefore, the content of development as a general economic concept is narrower than the content of development as a general scientific concept.

Interpretation of development in relation to socio-economic systems is multifaceted. Development of socio-economic systems is considered as:

- a separate law concerning changes' occurrence in economic systems;
- a complex phenomenon with certain features;
- a process that has its own content, material carriers, and that is characterized by quantitative and qualitative indicators;
- criterion for evaluating quality of some socio-economic systems;
- an economic concept that reveals a system of relations with a certain orientation.

Therefore, it should be emphasized that socio-economic systems' development, as well as development of any other object, is considered through the prism of quantitative and qualitative changes in the system. Such changes are characterized by multidimensionality, direction and often irreversibility. When accumulated, such changes cause a socio-economic system's shift to a qualitatively new state. Due to mentioned changes, development of socio-economic systems is characterized by complication of their content, differentiation of their structure, increasing the number of functions, complication of the interaction organization and relations between subsystems and elements of systems.

Despite the lack of unification while interpreting the essence of the socio-economic systems' development, a lot of authors associate it with changes, process of their accumulation and system' transformation as a result of a shift from one state to qualitatively new another (and this qualitatively new state of the system may be worse than the previous one).

Development as a process has material carriers, one can describe its course using quantitative and qualitative indicators. Its dynamics and results are a criterion for success assessing.

Accumulation of knowledge about development essence allowed determining conditions of its occurrence and describing its characteristic features. Such characteristic features are unified in mostly scientists' points of view. Therefore, characteristic features of the socio-economic system development and conditions under which its development is recognized should be considered as fundamental provisions in the framework of socio-economic systems development.

One can use conditions of development as a kind of metacriteria for conceding presence of development. In case of their absence, it is not correct to consider development of the socio-economic system, although it is possible to admit separately about changes, transforming the system, acquisition of new qualities by the system or its losing some earlier existing qualities, emergence of structural elements of the system, etc.

Table 1 contains a brief description of conditions for developing socio-economic systems.

There are some mandatory conditions for developing any socio-economic system. They are changes, improvements and unity of the development subject and system that develops.

In case of absence of changes the socio-economic system does not develop, because its static state is the contrary one to development (hence the well-known contradiction between stability and development of the system begins). On the other hand, development of the socio-economic system necessarily requires changes, however not the every change of the system (or in the system) causes development. This statement means that presence

of changes is a necessary, but not a sufficient condition for development.

*Table 1*

**Characteristics of conditions of socio-economic systems development**

<b>Condition of development</b>	<b>Nature of recognition</b>	<b>Problems of recognition</b>	<b>Ways to solve the problem of recognition</b>
Changes	Objective	The limit of changes' recognition (the limit after reaching which changes are recognized as significant) <sup>1</sup>	Establishing quantitative or qualitative criteria for recognizing significance of changes, using methods of fuzzy distinction, formalizing changes' significance (by using an expert method, some membership functions, etc.)
Improvement	Subjective	Uncertainty of criteria and multiplicity of subjects to recognize improvement	Specification of criteria for recognizing improvement and acceptance of "subject-centrism" while recognizing improvement
Unity	Subjective-empirical	Uncertainty about sameness concerning an object of development to itself at different moments of time (especially in case of long-time and significant changes)	Axiomatic acceptance of sameness and essential identity of a development object during a considered period of time
Conditioning of the next more perfect state by the previous less perfect one	Objectively empirical <sup>2</sup>	The measure of reliability in recognizing a logical and cause-and-effect relationship between two discrete states of a complex system separated in time <sup>3</sup> ; the existing maximum limit of reliability for this measure <sup>4</sup>	Causal analysis under conditions of accepting some tolerable error <sup>5</sup>

<sup>1</sup> Despite the external simplicity of the formulation, this problem begins in Zeno's apories.

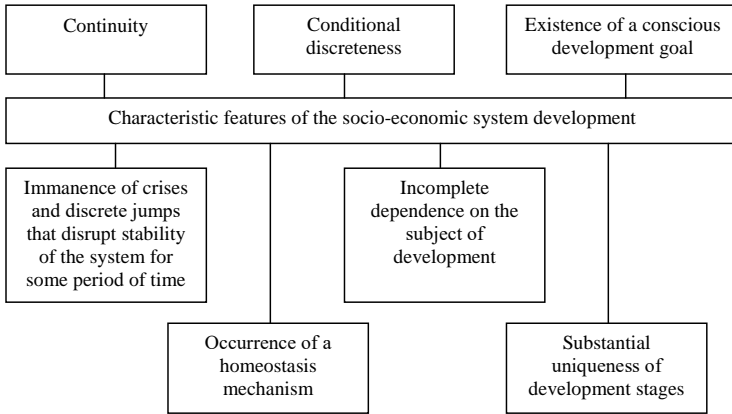
<sup>2</sup> The objective-empirical character of recognition in this case means that the basis of recognition contains empirical observations and factual data, however anyone can make the final conclusion only by using traditional rules of forming logical implications.

<sup>3</sup> In fact, this issue is linked with recognizing determinism or indeterminism when micro- and macrosystems change, since chronological and logical connection "as a whole" does not determine the cause-and-effect connection, because "after" is not an equivalent to "as a result".

<sup>4</sup> As it was clearly proven in the 20th century (ideas by R. Thom, J. Forrester, etc.), there are some systems for which deterministic defining their state in future is impossible. It means that it is fundamentally impossible to exactly define or "calculate" a state of some complex systems after a certain time even in case of understanding laws of their functioning, using necessary mathematical tools and modern computing technologies (existence of a forecast reliability horizon).

<sup>5</sup> The classic technique of discriminant analysis that allows explaining some result by the impact of selected researched factors, which create the result to a large extent but not completely (while recognizing the presence of some extraneous unexamined factors).

There are characteristic features of socio-economic systems' development in Fig. 1.



**Fig. 1. Characteristic features of the socio-economic system development**

They reveal the nature of systems' development most fully, clarify the idea about it due to emerging of new conditions in functioning of objects at all levels of a State socio-economic system, occurring of new problems and priorities in providing national effective economic and social development. Therefore, characteristic features of socio-economic systems' development allow better understanding development as a phenomenon of functioning for socio-economic systems with different levels. A development goal for socio-economic systems, which are predominantly managed, is the pursuit to adapt to the dynamic state of the external environment and in this way to achieve some stability and balance.

Development of socio-economic systems is inevitably followed by crises and some jumps that disrupt the stable state of the system for an indefinite period of time. In general, development of the socio-economic system is almost impossible without crises and an acquired state of instability from time to time. After all, changes around and within the system, especially if they are significant by measure and deep by nature, create a state of system instability for some period of time.

Long-term controlled development of the socio-economic system is possible only if there is some mechanism of homeostasis. Action of such mechanism is aimed to bringing the socio-economic system to an equilibrium state (or striving to bring the system to such state) even under conditions of variability in the system itself and in its external environment.

Scientists' views regarding the principle of action for the homeostasis mechanism in developing the socio-economic system, which reveals how

its homeostasis is provided, vary significantly. Such views include both the cybernetic approach (negative feedback) and the biological approach (the system's desire to survive and hence its anticipatory readiness for changes in external environment). However, the mentioned approaches do not contradict each other, because they characterize the available options of bringing the socio-economic system to a homeostasis state: according to the results in the past (negative feedback) or according to the expected results of events in the future, in case of which the system has to ensure its survival.

It is difficult to unequivocally choose the approach that prevails in practice. That is because the choice of approach does not even depend on the variability of the external environment, but on the nature of such variability, more precisely, not on the frequency and intensity of changes, but on their novelty. The homeostasis mechanism can be built on negative feedback (classical cybernetic feedback) for an external environment with repeated, typical or those that can be reduced to typical, even strong and non-periodic changes. However, homeostasis should be built on a biological approach for external environment with unknown in advance content of changes. In this case the system will seek dynamic equilibrium, but not as a target in itself, but while striving for survival and preservation. The choice of the principle of action and the structure of the homeostasis mechanism depend not only on features of the socio-economic system development, but also on features of the system itself. One can consider a continuity as a characteristic feature of the socio-economic system's development. Such continuity means that changes, which form development, are discrete, they have the beginning and the end in time, such changes are carried out step by step, and however development itself is continuous. Of course, there may be no changes in some socio-economic system for some period of time (as a rule, a short one). However, absence of changes in the socio-economic system should be distinguished from the detection and recognition of such changes, for which an appropriate toolkit is needed. Absence of identified significant changes does not mean definitely absence of system development. That is why in many cases even insignificant, but continuous changes can provide shift of the system to a fundamentally new state (the law of the shift of quantitative changes into qualitative ones in dialectics, the theory of catastrophes by R. Thom, synergetic by H. Haken and I. Prigozhin, etc.).

A substantive non-repeatability of development stages is a distinctive feature of socio-economic systems' development. Development stages may be repeatable by some features, however any substantive repetition will cause the dissipation of development, since in this case development will degenerate into a cycle. This idea for science in general (taking into account that development is, first of all, a general scientific concept) was considered by H. Rickert [5, 222].

Thus, development as a general scientific concept was implemented to economic studies under the influence of some objective circumstances. Further, concept of development became widely spread at the macro- and micro-levels in relation to the relevant socio-economic systems.

Recently, development at the macro- level has been considered not as a purely economic concept, but as a socio-economic one: development at macro- and meso- levels is considered not only as improving socio-economic systems' functioning, but also as improving people's lives and satisfying social needs. So, one can consider not pure economic development, but socio-economic or socially-oriented one.

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## PROSPECTS FOR FORMATION OF INCOME OF THE STATE BUDGET OF UKRAINE IN THE POST-WAR PERIOD

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In the modern conditions of budget reform, the problem of forming a stable financial base for the implementation of all functions and tasks assigned to state and local self-government bodies becomes urgent. At the same time, a continuous process of budget revenues, the search for alternative sources of budget revenue formation, the identification of appropriate reserves for their growth, and their optimization should be ensured.

The essence of the state budget is manifested through the creation of a centralized financial fund, which is necessary for the performance of state

functions, planning of budget indicators of income and expenses, and the use of centralized funds of funds. More and more attention is being drawn to issues related to the formation and use of funds from the State Budget of Ukraine, since about 30-50% of the gross domestic product is redistributed through the central budget of a large number of developed states, which is the main source of accumulation of the country's financial resources. State budget revenues depend on such factors as: the state of economic development of the state, the level of payment of payments to the budget, the effectiveness of the system of control over these payments, etc.

The priority directions of the budget policy for 2022-2024 are based on the provisions of the Program of Activities of the Cabinet of Ministers of Ukraine, the Sustainable Development Goals of Ukraine for the period until 2030, the Strategy of Economic Security of Ukraine for the period until 2025, the National Economic Strategy for the period until 2030, cooperation programs with international organizations, as well as on the basis of the Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their member states, on the other hand, an integral part of which is the provision on the creation of a deep and comprehensive free zone trade with the EU.

The analysis of the revenues of the state budget of Ukraine for the period 2010-2021 showed their gradual annual growth, with the exception of 2013, when there was a decrease in the indicator compared to the previous year. In general, during the analyzed period, revenues increased almost 5.4 times, or by UAH 1,056.2 billion. The largest increase in the indicator occurred in 2015 (by almost 50% from the level of the previous year), the smallest - in 2014 (only 5.3%, respectively) [1].

The largest part of the state budget (more than 90%) is the general fund, the funds of which are intended to provide financial resources for general expenses (that is, they are not directed to a specific purpose). The special fund provides for the targeted use of budget funds (that is, for the financing of specific purposes). Regarding the formation of the revenue structure of the State Budget of Ukraine at the present time (as of October 1, 2022), then:

- the share of tax revenues (54.8%) is gradually decreasing;
- in the structure of non-tax revenues, the share of budget institutions' own revenues slightly increased (up to 10.55% of the total);
- funds from foreign countries and international organizations (up to 27.35% of the total structure) are gaining the most significant increase and importance, which is fully explained by the effect of martial law and the ongoing full-scale war [1].

The main factors-macro-indicators that affect the formation of the revenues of the State Budget of Ukraine include: the level of GDP, the level of tax rates, the level of bank interest, the rate of the national currency, the



level of inflation, the internal and external public debt, the balance of the trade balance, the shadow state of the country's economy, the imperfection of tax legislation and the presence of significant benefits in taxation with low financial discipline of business entities, low competitiveness of products, etc.

In this context, T.G. Ogon defines two groups of macroeconomic indicators, which are divided depending on the degree of their influence on the state and dynamics of the budget [2, p. 60-61]:

1) which directly affect the level of budget revenues (GDP, consumer price index, producer price index, enterprise profit, financial result before taxation, wage fund, hryvnia to US dollar exchange rate, export and import of goods and services);

2) which indirectly affect the budget and its revenues (volume of production of industry and agriculture, money supply, number of employees employed in all spheres of economic activity, direct foreign investments, etc.).

J. Stiglitz considers that it is a mistake to prioritize the impact of one large negative factor or several minor ones. Thus, it has been proven that several minor taxes have a better effect on the revenues of the State Budget than one significant one [3].

We believe that the main such factors are: the growth rate of real GDP, the growth rate of commodity imports or commodity exports, the consumer price index, the dollar or euro exchange rate, and the dynamics of the monetary base. Based on these indicators, it is possible to conduct a linear regression analysis after determining the main factors of influence, as well as use a number of other research methods, however, given the limited scope of this scientific work, we will present only a few research results.

Therefore, Yu.V. Khmaruk carried out a linear regression analysis, determining that it is appropriate to use the most important factors influencing the revenues of the State Budget of Ukraine for the factor variables: the growth rate of real GDP, the dynamics of the growth rates of commodity imports, the consumer price index, the euro exchange rate, and the dynamics of the monetary base [4]. According to the defined model, the growth rate of real GDP (0.59), the consumer price index (0.69) with a direct dependence and statistical significance of the indicators at the level of 99% have a statistically significant influence on the tax revenues of the State Budget, which confirms the main influence of these macro indicators on revenue base of the state. The dynamics of the monetary base is also statistically significant at 99%, but has an inverse relationship (-0.4), according to which, when the monetary base increases by 1 UAH billion tax revenues of the state budget will decrease by 0.4. At the same time, with the growth of real GDP by 1%, tax revenues of the State Budget will increase by 0.59 UAH

billion; with an increase in the consumer price index by 1% – by 0.69 UAH billion. The dynamics of import rates and the exchange rate of the euro are statistically insignificant factors affecting the tax revenues of the budget.

The forecast of budget revenues for 2022-2024 is determined on the basis of forecast macro-indicators of the economic and social development of Ukraine, current norms of tax, customs and budget legislation, as well as information from the National Bank of Ukraine regarding the part of the forecast profit before distribution, which will be transferred to the state budget, for the medium-term period (Table 1).

*Table 1*

**State budget revenues for 2022-2024, UAH billion**

The name of the indicator	2020 (fact)	2021 (plan with changes)	2022 (forecast)	2023 (forecast)	2024 (forecast)
<b>tax revenues</b>	851,1	949,5	1 064,5	1 176,6	1295,0
general fund	733,4	881,6	983,6	1 095,2	1212,2
special fund	117,7	67,8	80,9	81,4	82,8
<b>non-tax revenues</b>	213,0	134,6	142,0	142,0	139,8
general fund	134,3	80,0	83,7	83,8	80,2
special fund	78,6	54,6	58,3	58,2	59,6
<b>other income</b>	1,3	3,1	2,3	1,8	1,7
general fund	1,1	1,4	0,6	0,6	0,6
special fund	0,2	1,7	1,8	1,3	1,2
<b>total income</b> (excluding interbudgetary transfers)	1 065,4	1 087,2	1 208,8	1 320,5	1436,6
general fund	868,8	963,0	1067,9	1179,6	1293,0
special fund	196,6	124,2	140,9	140,9	143,6
<b>official transfers</b>	10,7	10,4	10,8	12,7	15,0
general fund	8,8	10,4	10,8	12,7	15,0
special fund	1,9				
<b>Total income</b>	1 076,0	1 097,5	1 219,6	1 333,2	1 451,6
general fund	877,6	973,4	1 078,7	1 192,3	1 308,0
special fund	198,4	124,1	140,9	140,9	143,6

*Source: based on data [5]*

As evidenced by the data in the table 1, the planned amount of revenues of the state budget of Ukraine for 2024 amounted to 1,451.6 UAH billion, or almost 135% compared to the actual amount for 2020. At the same time, tax revenues are planned in the amount of 1,295.0 UAH billion (or 89.2% of the

total amount), non-tax revenues – 139.8 UAH billion (9.6%, respectively), other revenues – only 1.7 UAH billion, official transfers – 15.0 UAH billion (about 1.0%), respectively.

The indicators of the income part of the Budget Declaration for the medium-term period have been developed taking into account, in particular:

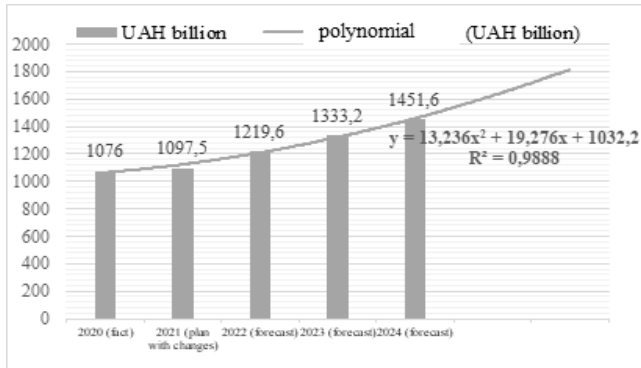
- continuation of military levy;
- quarterly calculation and payment of income tax by enterprises with an annual income of more than UAH 40 million;
- preservation of current rental rates for the production of oil, gas condensate, iron ore and natural gas with the use of normal rates from 2023 instead of preferential rates for production from new wells operating from January 1, 2018;
- application from 2024 of the indexation of the normative monetary valuation of agricultural lands, lands of settlements and other non-agricultural lands, as well as for the purposes of taxation with a single tax of the fourth group;
- crediting 95% of the rent for the use of subsoil for the extraction of minerals of national importance (natural gas, oil and gas condensate) to the state budget;
- directing 86.56% of excise tax on fuel to the special fund of the state budget for road development (the remaining 13.44% is directed to the budgets of territorial communities);
- non-application in 2022-2024 to tax rates, defined in absolute values, excise tax, environmental tax and rent payment of consumer price indices, price indices of manufacturers of industrial products;
- use of current tax rates [5].

According to the third part of Article 33 of the Budget Code, the NBU provides information on the calculation of the part of the projected profit before distribution, which will be transferred to the state budget, for the medium-term period. According to the NBU, the state budget revenues for 2022-2024 include funds transferred by the National Bank in accordance with the Law of Ukraine "On the National Bank of Ukraine" in the amount of UAH 13.6 billion, UAH 10.5 billion and UAH 15.2 UAH billion, respectively [5]. Based on the analysis of the planned indicators of the volume of the state budget of Ukraine according to the Budget Declaration in Fig. 1 presents calculations of predictive indicators using a polynomial function, the probability of which is confirmed by a sufficiently high level of the coefficient of determination ( $R^2=0.9888$ ).

However, we clearly understand that, unfortunately, the full-scale military invasion of Russia on the territory of Ukraine on February 24, 2022 completely nullified these calculations and forecast indicators.

Taking into account the forecast of the main macroeconomic indicators

of the economic and social development of the country, the dynamics of the tax base, the efficiency of the tax administration, the general indicators of state budget revenues for 2022-2024 are growing.



**Fig. 1. Dynamics and forecast of State Budget revenues according to the Budget Declaration for 2022-2024**

*Source: based on data author's own development based on data [5]*

When developing specific proposals and outlining the main ways to solve a certain problem in the economy of our country, very often you can find recommendations for the introduction or taking into account the experience of economically highly developed countries of the world, which have a number of powerful advantages or achievements in solving specific problems. However, in our opinion, today Ukraine has a situation in which it is difficult to find a ready-made example or algorithm of another state. Despite the fact that we can take into account the experience of Israel, post-war Germany or others, the conditions and prerequisites that already exist today, as well as the unpredictable consequences of Russia's terrorist actions, do not allow us to develop probable forecasts of macroeconomic indicators, in particular, regarding the revenues of the State Budget of our country.

The search for additional sources of mobilization of funds, the use of unused reserves have become one of the main tasks of the modern economic policy of the governments of Western countries (however, with a huge difference – they did not have a war). Studying their experience in regulating state budget revenues may be useful in the development of the budget in our state in certain aspects. And one of the last ones is the experience of developing an effective tax policy and a mechanism for filling the budget with taxes.

According to Arthur Laffer, a world-renowned economist, the author of the "Laffer curve", "taxes should be very diverse. They should be significantly different for developed countries and for developing countries

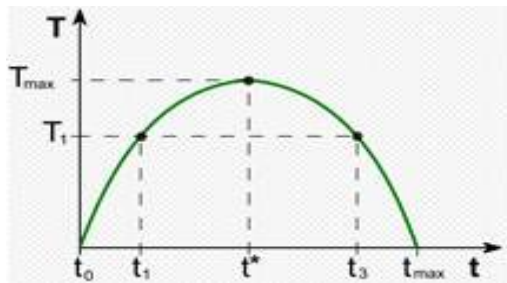
(which currently includes Ukraine). And the key is so that taxes are low enough that people actually pay them" [6].

As for examples among those countries that recently carried out tax reforms, the periods of radical, revolutionary changes made in Chile in 1974, what is happening now in Hong Kong, and the Polish experience are also very interesting.

It is also worth mentioning in this aspect the activities of Ronald Reagan in the 1980s, when he reduced the top tax rate from 70% to 29%. The incomes of the richest one percent went up. And this ensured economic growth for the entire country. Or Margaret Thatcher – thanks to her policies, the top tax rate was reduced to 40%.

Ukraine needs even more. Because our country is in a much worse shape than others were at the time of the introduction of radical reforms and changes. According to A. Laffer, "simply on the day when taxes will be reduced – everyone who earns and pays taxes honestly will benefit on the same day" [6].

The curve that characterizes the dependence of budget revenues on the average level of tax rates in the country is called the Laffer curve, and it shows the existence of an optimal level of taxation at which state revenues reach their maximum [7].



**Fig. 2. Laffer curve**

*Source: based on data [7]*

Economists cannot agree on the point (tax rate) at which an increase in taxes leads to a decrease in revenue on the Laffer curve. However, in 2010 Christina and David Romer published the paper "Macroeconomic Consequences of Tax Changes: Estimates Based on New Measurements of Fiscal Shocks", in which they presented the results of studies of the response of national income to changes in tax rates and determined this moment (the peak of the curve) at 33% [8].

Thus, we can recommend to our domestic specialists working on the development of a tax mechanism for ensuring budget revenues to use this level of the tax burden rate. After all, if the tax rate rises above 33%, the

government will actually receive less revenue.

Based on the advice and recommendations of A. Laffer, we can conclude that the following main factors are necessary: low tax rate, restraint in spending, budget reduction, healthy money, free trade, no barriers, minimum regulations. "You should imitate what Europeans did 150 or 100 years ago, not what they are doing now. Don't do what the rich are doing now. Do what they did to become rich" [6] – one of the guidelines that, in our opinion, should be followed by all Ukrainians in today's conditions, from representatives of power structures to ordinary citizens who want to live in a free and prosperous state. And ignore any obstacles if you need to save Ukraine.

The Law on the State Budget for 2023 was adopted in record time. With expenditures of UAH 2.6 trillion, half of which will be financed by borrowings. However, early dates do not guarantee certainty and predictability - there are too many risks [9].

During the consideration in the parliament, the 2023 budget "grew up" a little mainly due to the revision of the macro forecast. In particular, revenues were increased by UAH 50 billion – at the expense of the Personal Income Tax, National Bank of Ukraine, import excise and import VAT.

However, the size of the 2023 budget still "does not reach" 2022. State budget revenues for 2023 are planned at the level of 1.3 UAH trillion. This is less than the 2022 plan (1.55 UAH trillion). The nominal volume of state budget expenditures is 2.6 UAH trillion and remains significantly less than the 2022 plan (3 UAH trillion). The Ministry of Finance adheres to a conservative forecast, outlining the necessary allocation of resources. This means that the resources received "over" this necessary minimum will be distributed only later "according to the situation", which is objectively difficult to predict [9].

One of the promising ways, in our opinion, is the initiation of complex programs for the creation of jobs in the economy for the productive linking of the available money mass in new projects for the production of goods and services. It is necessary to harmonize the directions of monetary and fiscal policy to solve this issue. Programs aimed at forming centers of generation of added value will allow to effectively eliminate the problem of excessive liquidity of the banking system at the same time as the problem of expanding the tax base of state budget revenues.

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## **THE NECESSITY FOR THE FORMATION OF SUSTAINABLE LAND USE PARADIGM IN UKRAINE**

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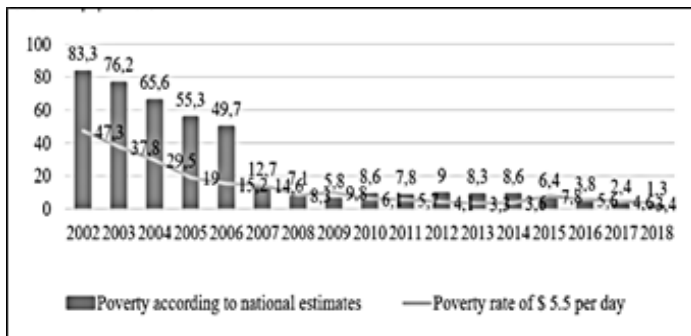
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The main strategic task of modern society should be to create the necessary conditions for the rational and ecologically safe use of natural resources, as well as the environmental pollution prevention and the natural resources reproduction. Considering this, the research should focus on at least three essential issues, as they have a system-forming nature. The first is to identify the reasons for a situation in which the state and society, which have quite significant strategic reserves of various types of resources, remain among the poor countries of Europe. The second concerns whether Ukraine, having the necessary funds, will be able to use them properly for sustainable development and the ability to transform its own resources into

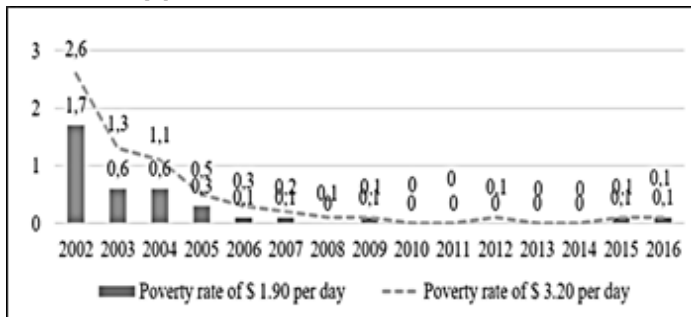
effective capital and a powerful source of raising the national economy. The third issue is further accelerated integration into the European Union, which requires the creation of a foundation, in particular a system of natural resource management oriented to the European vector on the basis of power decentralization [1].

According to the methodology of the World Bank, the poverty rate in Ukraine in 2018 was 1.3% (Fig. 1). The critical and upper poverty rate in Ukraine is decreasing (Fig. 2), with the upper poverty rate (the share of the population living for 3.21-5.50 US dollars per day) from 2002 to 2016 decreased seven times.



**Fig. 1. The poverty rate in Ukraine according to the data of national accounts and the upper poverty rate**

Source: based on data [2]



**Fig. 2. Critical and moderate level of security in Ukraine according to the World Bank, %**

Source: based on data [3]

In recent decades, there has been a significant increase in agricultural productivity to meet the food needs of the growing world population. But this progress has a significant increase in the social and ecological and psychological situation, such as water shortage, soil degradation,



ecosystem overload, biodiversity loss, reduction of fish stocks and forestry, high emissions of greenhouse gases. The production potential of natural resources does not have time to recover. Today, 815 million people are starving, indicating an imbalance in the food system (FAO, 2018).

The reform of land relations in Ukraine led to the redistribution of land not only according to forms of ownership, but also according to categories of land plots. The most striking changes occurred in the distribution of agricultural land according to ownership forms, which is a direct consequence of the land reform. Thus, considering 41.4 million hectares of agricultural land, 31 million hectares are in private ownership, 8.7 million hectares are in state ownership, and 1.7 million hectares are in communal ownership [4]. 45.3 thousand farm units own and use 3.8 million hectares of land or 10% of their total area (Fig. 3), and 15% of all agricultural lands in Ukraine are cultivated by agricultural companies that have foreign capital in their structure.



**Fig. 3. Farms of Ukraine**

Source: based on data [4]

Agricultural holdings represent a multifaceted intensive form of concentration, when the enterprise develops not only agricultural, but also processing production, which objectively increases the need for specialized equipment, that is, fixed capital, as well as working capital and human resources. Today, according to the "Latifundist" website, the TOP 117 agricultural holdings of Ukraine cultivate 16% (or 6.45 million hectares) of the country's agricultural land. More than 10 foreign agricultural holdings are among them that control about 3-4 million hectares of agricultural land. Quite often, foreign registration is used by Ukrainian owners of agricultural holdings for the so-called "financial activity optimization" [5]. Among the 100 largest agricultural holdings as of 2020, there are 36 companies with a land bank size of more than 50,000 hectares, concentrating 4,540,85,000

hectares of land, which is slightly less than in 2012 (39 companies and 5,258,600 hectares). In the cross section of the regions, it is possible to observe areas of concentration in the Vinnytsia, Ivano-Frankivsk, Kyiv, Sumy, Ternopil, Kharkiv, Kherson, Khmelnytskyi, Cherkasy, and Chernihiv regions (Fig. 4).



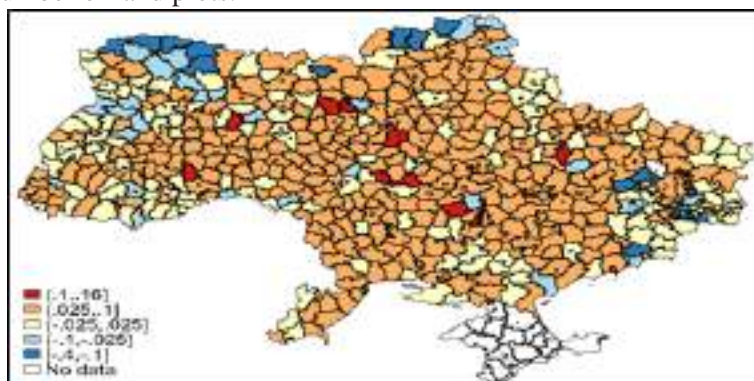
**Fig. 4. Land concentration areas of agricultural holdings (according to Land Matrix)**

*Source: based on data [5]*

An important positive aspect of agricultural holdings activity is their contribution to the processes of ensuring the necessary quality of agricultural and food products, which were actualized by Ukraine's entry into the WTO and access to world markets. The disadvantages of overconcentration in the agricultural sector are related to economic, ecological and social aspects of functioning. Most agricultural holdings of Ukraine are registered in offshore zones, which allows them to avoid paying taxes at the place of economic activity. For agricultural production, land use on large areas leads to the following negative consequences. First, the weakening of competition in the agricultural sector, which is the driving force of economic progress. Secondly, the violation of crop rotation, which leads to the deterioration of the agricultural lands fertility. Agricultural holdings specialize in the production of highly profitable export-oriented crops, including sunflower and corn, which deplete soil fertility to the greatest extent.

It is interesting to analyze data [6] obtained in Ukraine for the first time since 2017, and to conclude what the index of gender land distribution in Ukraine actually reflects today. The total area of registered land privately owned by individuals, which is considered for this analysis, is 31.5 million hectares. Considering this amount, women own 8,748,522 land plots with a total area of 16.7 million hectares (53%), men own 8,214,093 land plots

with an area of 14.8 million hectares (47%). Therefore, women own 534,000 more land plots (or 1.9 million hectares) than men. For many years, the structure of the Ukrainian population has been dominated by women; in 2017, this proportion looked like 53.7% to 46.3%, and in absolute numbers it meant that 22.65 million women and 19.55 million men lived on the territory of Ukraine. Thus, there are 80.95 land plots for every 100 women in Ukraine, and 80.6 for every 100 men. Considering the territory, on average, 100 women own almost as much land as 100 men – 168.0 hectares versus 168.8 hectares. At the level of individual districts, the index of gender land distribution was calculated for both the number and area of land plots. The index acquires the value of "-1" in case of complete discrimination of men; value "1" – under the condition of complete discrimination of women; equals zero when complete gender equality is noted. On the following map (Fig. 5) you can see the index of gender land distribution for the number of land plots.



**Fig. 5. Index of gender land distribution by the number of land plots, by regions of Ukraine**

*Source: based on data [6]*

The calculated index of gender land distribution showed that, on average, gender equality in access to land resources is still observed in the territory of Ukraine. However, this indicator reflects only the equality of rights regarding the inheritance of agricultural lands.

Since 2021, the territorial communities of Ukraine received a new tool for managing the territory in the context of sustainable development – this is a comprehensive plan for the spatial territory development of the territorial community. This type of documentation defines the planning organization, the functional purpose of the territory, the main principles of land protection and other components of the natural environment, the formation of an eco-network. But because of war in our country, it is not possible to develop

such plans.

The ecological aspect of land use, declared in the Land Code of Ukraine and the Law of Ukraine "On Land Management" (2003), as one of the key foundations of the legal regulation of land management relations, has not become operational, as it has not yet been supported by a legal mechanism for its practical implementation, taking into account the peculiarities of land as natural resource and an important element of the agricultural sector. In Ukraine the current system for managing state budget funds at the local level of managing land relations and organizing the use and protection of land is still far from perfect, despite the high costs of service maintenance in conditions of decentralization (table 1).

*Table 1*

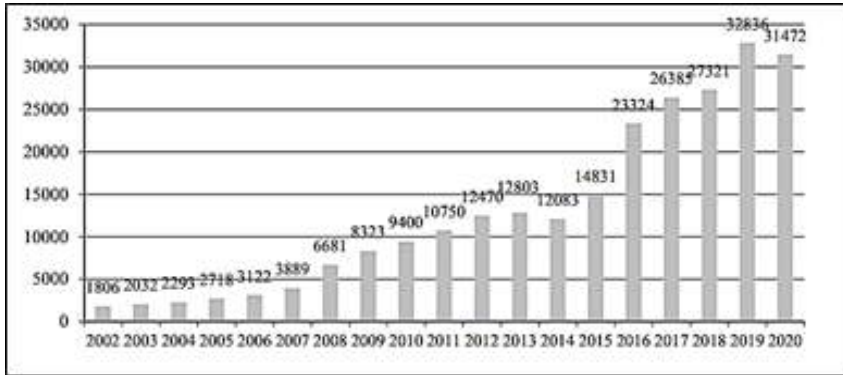
**State budget funds, allocated for the State Service of Ukraine for Geodesy, Cartography and Cadastre, thousand USD**

	Administration and management in the field of land resources	Advanced training of staff	Issue of state acts certifying the right of ownership of a land plot on rural area	Implementation of the land reform	Construction of anti-erosion hydro-technical units and reclamation of disturbed lands	Protection, reclamation and rational use of land resources	National topographic-geodesic and cartographic works, demarcation and delimitation of the state border	Inventory of lands and updating of the cartographic base of the State Land Cadastre
Total	910 063	182	75388	170323	1417	6799	6537	18472
Average in a year, thousand USD	47898	10	3 968	8964	75	358	344	972

*Source: based on data [7]*

Table 1 shows that the land policy of Ukraine was not aimed at ensuring ecologically rational use of land resources. The funds are distributed this way, 6,799, thousand dollars for the reclamation and rational use of land resources and land protection, 1,417 thousand dollars for the construction of anti-erosion hydro technical units and reclamation of affected lands, 270,720 thousand dollars for land reform measures and its organization. This confirms the inefficient state policy regarding the land and resource potential management. After the approval of the current Land Code of Ukraine, i.e. 20 years ago, the average financing of the above measures was 0.24 dollars/

hectare annually, as well as 0.79 dollars/hectare for management structures, while the land fee provided 18 dollars/hectare of budget revenues different levels (Fig. 6).



**Fig. 6. Revenues from payment for land to the consolidated budget of Ukraine and its share in the total amount of revenues from the specific use of natural resources, million USD**

*Source: based on data [7]*

In recent years, Ukraine has been a leader in the European, and for some goods, in the world market in terms of export volume, but this opportunity to increase sales is directly correlated with an increase in production, which requires additional resources: land, water and energy. The use of energy resources significantly affects not only the cost of production, but also climate change, which has major negative consequences in the ecological, economic and social spheres. Not only the diesel fuel used for sowing and harvesting should be considered, but also those energy resources used for the production and use of fertilizers for crops and animal feed, for growing vegetables in greenhouses and greenhouse gas emissions from animals. The amount of greenhouse gas emissions in Ukraine during the production and processing of agricultural products (in terms of lost food products and food waste) "in 2016 amounted to 401.2 thousand tons, which is 13.2% of the total emissions volume, while unnecessary emissions at the product processing stage are much higher – 384.4 thousand tons, which is almost 23 times higher than useless emissions at the production stage (17.0 thousand tons)". It is impossible to calculate all stages of production, as there are no official statistics of emissions at the stages of storage and consumption in Ukraine, which means that the number of such useless emissions is even higher [8].

The conducted research makes it possible to assert that Ukraine has a powerful land and resource potential. However, the incompleteness of the

land reform, the absence of a consistent state policy regarding land use, disposal and ownership causes negative social and economic consequences for the development of the entire economy. Changes in land relations affect the structure of the land fund of Ukraine, ways and methods of land use [9]. As a result, there is an unjustified intensification of agriculture in order to obtain maximum profits in agriculture, which has caused large-scale soil degradation.

Currently, there are 110053.6 sq. km of arable lands located within the risk farming zone in Ukraine, which is 30% of all arable land in the country [10]. The deliberate actions of Russia to reduce Ukraine's agricultural potential is primarily a hit to Europe, which exports more than 32% of all Ukrainian agricultural products. And this could be most devastating for poor countries and populations that will not afford the new food price. The large-scale hostilities now taking place in Ukraine are setting a precedent in the modern history of civilization. Whether in the social, cultural, economic and educational dimensions or in the balance of agrarian economy and nature. And we will continue to carefully analyze aspects of ongoing agrarian-natural transformation and continue to perform respective modelling and analysis.

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## **SECURITY ASPECTS OF MANAGEMENT OF THE COMPETITIVENESS OF AN INNOVATION-ORIENTED ENTERPRISE UNDER GLOBALIZATION**

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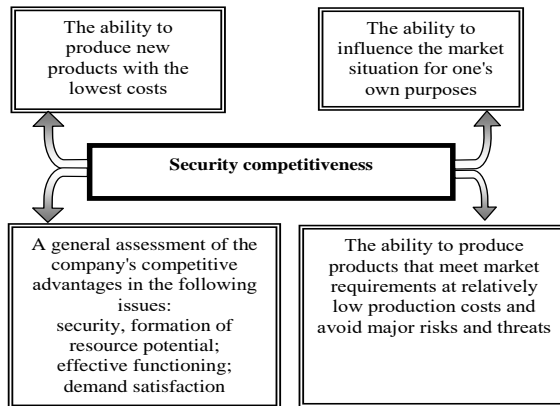
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The competitiveness of an innovatively oriented enterprise in the conditions of globalization means its ability to perform effective business activities and ensure profitability under the conditions of a competitive global market. In other words, the competitiveness of an innovatively oriented enterprise is the ability to ensure the production and sale of competitive products on the world market. Security competitiveness determines the ability to withstand competition in comparison with similar objects, including international ones, avoiding the main risks and threats (Fig. 1).

The security competitiveness of an innovatively oriented enterprise in the conditions of globalization can be defined as a comprehensive comparative characteristic of the enterprise, which reflects the degree of

superiority of a set of evaluation indicators of its activity (including the security component), which determine the success of the enterprise on a certain globalized market for a certain period of time, in relation to the set of indicators of competitors.



**Fig. 1. Determination of the security competitiveness of an innovatively oriented enterprise in the conditions of globalization**

*Source: based on data [4; 10]*

The security competitiveness of an innovatively oriented enterprise can be detected only among a group of similar enterprises that belong to the same industry or produce substitute goods, work in the same security situation, that is, competitiveness is a relative concept. The same innovation-oriented enterprise within a regional strategic group can be defined as competitive, but not on the world market or its segment. The security competitiveness of the enterprise is evaluated in general under the condition of a single strategic business area or each of the business units created in the structure of a diversified strategic business unit operating in a specific strategic business area [5].

The safety competitiveness of an innovatively oriented enterprise is inextricably linked to the implementation of safety changes, that is, to the restructuring process. But the implementation of such changes also has certain peculiarities. One-time emergency security measures can improve the competitiveness of an innovation-oriented enterprise for a short time, but a truly successful restructuring is a long-term process [1].

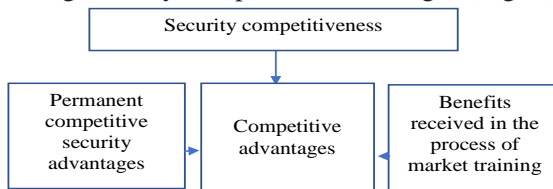
It is necessary to introduce gradual changes, thanks to which it is possible to reach the zone of safe competitiveness and stay there, carrying out accelerated improvement of activities. The goal should be first to implement gradual changes in order to gain safe competitiveness, and then to move to active, rapid measures to improve operations in the global field. In order



to ensure the safe competitiveness of an innovatively oriented enterprise, a systematic approach to management is mainly used.

Currently, there is no generally accepted methodology for determining and assessing the safety competitiveness of an innovatively oriented enterprise. In the world, there are several approaches to assessing the security competitiveness of an innovatively oriented enterprise, the main of which are: the method based on the theory of effective competition; approaches to assessing the competitiveness of an innovation-oriented enterprise, which relate its level to indicators of the quality (competitiveness) of manufactured products; methods based on the theory of competitive advantage; benchmarking method. The specified methods differ in their essence and basis of formation of security competitiveness indicators. Their use can be convenient in various situations depending on the specifics of the industry to which the object under study belongs. It is desirable to measure the safety competitiveness of a specific object quantitatively, which will enable management of its level. For this, information characterizing the beneficial effect of this object and competing objects for the normative period of their service and the total costs during the life cycle of the objects [2; 7].

In addition, it is necessary to create a legislative framework that would stimulate and encourage domestic manufacturers to create large innovation-oriented enterprises, associations, scientific-technical and industrial economic formations, which would include the full cycle –from the idea to the serial production of new types of goods and services, in particular, to be providers of innovations, including security ones, and would be able to face foreign competitors, including transnational corporations. There are two antagonistic views regarding the possibilities of an innovation-oriented enterprise obtaining security competitive advantages (Fig. 2).



**Fig. 2. The structure of measures to strengthen the security competitiveness of an innovatively active enterprise**

*Source: based on data [3; 6]*

According to the traditional and most widespread view, an innovatively oriented enterprise receives secure competitive advantages in the process of working on the market, in particular the global one. Initial failures should not deter an innovation-oriented enterprise from working in a certain market. Working on the principle of "trial and error", the company will

eventually achieve certain competitive advantages. Such a view is followed, for example, by schools of strategic planning, positioning, entrepreneurship and some others. Adherents of this point of view most often cite the example of Japanese automobile companies in the American market as arguments. The initial failures on it encouraged the Japanese to even more fruitful work, the result of which was the dominance of the American market of small cars and motorcycle equipment.

Representatives of the school, which can be conventionally called the "school of permanent advantages", take a different position regarding the possibilities of obtaining competitive advantages. Representatives of this school, which was formed in Europe, in particular, in Sweden, point out that, indeed, certain competitive security advantages can be obtained in the process of "market learning", but strategic advantages are natural, permanent and determined by the environment in which an innovation-oriented company works enterprise. For example, Germany is a leader in precision mechanics due to the natural qualities of engineering and technical workers at German factories, etc. [8]. In order to obtain secure competitive advantages, an innovation-oriented enterprise must first decide on the approaches that will be used for this. A customer-focused approach assumes that a company gains competitive advantage if its products meet the needs of consumers better than those of its competitors. Due to the latter, it is believed that this approach is more satisfactory from the point of view of the marketing concept. Cost reduction is the traditional, oldest and most researched method of strengthening the competitive position of an innovatively oriented enterprise. It should only be noted that in this case, unlike differentiation, the company does not have consumer loyalty and attachment to goods, and the competitive advantage is formed only by increasing the margin between the selling price and the cost of products. The bearer of competitive advantage in this case is an innovatively oriented enterprise, which, thanks to a set of measures, achieves lower costs than competitors. However, it is quite difficult to maintain such a secure competitive advantage in the conditions of globalization.

The implementation of this method requires the coordinated work of the staff of an innovatively oriented enterprise to improve production technologies (first of all, technological innovations are needed), scientific research and experimental design developments, improvement of logistics, organizational structure, and personnel management. Enterprises that choose this way of strengthening their competitive positions are constantly engaged in cost analysis at all stages of product development, production and sale. The role of marketers is also important at this stage. They must constantly monitor the global market, monitor the costs of competing enterprises, the latest technologies, conduct functional and cost analysis. The secure

competitive advantage of an innovatively oriented manufacturer with optimal costs consists of closeness to competitors on the key parameters "quality – service – characteristics – attractiveness" on the one hand, and an advantage over them in terms of costs, on the other [9]. Due to the fact that these functions, as a rule, in an innovation-oriented enterprise are performed by different departments, the employees of which have a weak idea about the functions of other divisions, the coordination of these functions has in many respects a decisive influence on the efficiency of the enterprise in the globalized market.

We understand the innovative development of a typical enterprise as a process of interaction of a set of certain factors (technical and technological, personnel, spatial, organizational, informational, financial), the level of which determines the degree of readiness of the enterprise to attract investment funds into its internal environment, with further use of the invested funds in promising innovative projects or programs within the chosen strategy under the conditions of a complex and changing environment [7-10].

The main obstacles to realizing the personnel and innovation potential of a typical enterprise are the insufficient development of a solvent internal product market, the absence of a state and regional development program, significant dependence on the situation in foreign markets, nationwide shortcomings in the implementation of the state development program, a shortage of personnel with the necessary qualifications (scientific and technical, engineering, labor specialties), etc.

As a highly effective tool for a strategic breakthrough in a competitive market environment, the process of realizing the personnel and innovative potential of a typical enterprise requires the creation of an appropriate system of its information support. This is also due to the fact that today information is no longer a simple set of certain data, but is one of the most important resources of the industry. When making a decision to carry out certain innovative changes, it is important not only to ensure the completeness, quality, timeliness, quantity and measurability of information resources for a typical enterprise, but also to create a system of transformation of the internal information field into interconnected information-resource flows that are adequate for the purposes of innovative development maximum efficiency of defined business processes.

Another way to obtain secure competitive advantages within the competitor-focused approach is to use methods to degrade the quality of the competitive environment. Security competitive advantage is almost always achieved through successful offensive strategic actions; defensive strategies can protect, maintain a secure competitive advantage, but very rarely help to create it. In order to identify safe competitive advantages, assess the competitive strength and competitiveness of an innovatively

oriented enterprise, a comparative assessment of the enterprise's activity with competitors is carried out. Achieving this goal is ensured by using a comprehensive approach to comparative analysis. A comparative analysis of important aspects of the activity of an innovatively oriented enterprise will ensure the determination of opportunities to strengthen the competitive position of the enterprise, ensure long-term competitive advantages and increase the efficiency of its activities in the conditions of globalization.

The identified competitive advantages determine the security competitiveness of an innovatively oriented enterprise, provide a certain competitive position and are therefore important for determining the development strategy and competitive strategy of an innovatively oriented enterprise. Thus, advantages in resources and skills and abilities provide an opportunity for the enterprise to offer consumers safer products of a wide range at lower prices and with a level of service higher than that of competitors.

The identification of strategic competitive advantages, i.e. stable, long-term, requires an assessment of the identified security competitive advantages based on the time factor. Competitive advantages of an innovation-oriented enterprise, which are provided for a long time, belong to sustainable advantages. The assessment of the competitive position of an innovatively oriented enterprise allows to determine the power and prospects of the enterprise in the globalized market. There are quite a variety of methods for determining the degree of security competitiveness of an innovatively oriented enterprise. The diversity of scientific approaches to the definition of the list of evaluation indicators of safety competitiveness of an innovatively oriented enterprise testifies to the debate and complexity of this issue. The most common is the method of comparative advantages, according to this method, a comparative assessment of the activity of an innovatively oriented enterprise with competitors is carried out based on the indicators of avoiding threats and risks, financial condition, efficiency of resource use, and evaluation of marketing activities.

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## **ECONOMIC AND LEGAL ASPECTS OF THE STUDY OF CALCULATING THE AMOUNT OF LOSSES, INCURRED TO THE CONSEQUENCES OF ENTERPRISE AS A RESULT OF RUSSIAN MILITARY AGGRESSION**

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The armed aggression of the Russian Federation against Ukraine caused numerous destruction and loss of property of citizens, business entities, state bodies and local self-government bodies. Therefore, the implementation

of normative legal acts, which determine the procedure for assessing the value of damaged property and the mechanisms for obtaining appropriate compensation, is one of the priority tasks of the Ukrainian authorities.

Currently, the Verkhovna Rada of Ukraine is considering two draft laws:

- dated March 24, 2022 No. 7198 "On compensation for damage and destruction of certain categories of immovable property as a result of hostilities, acts of terrorism, sabotage caused by the military aggression of the Russian Federation" [1];

- dated March 22, 2022 No. 7193 "On state registration of damages caused as a result of the armed aggression of the Russian Federation against Ukraine" [2].

Draft Law No. 7198 [1] does not provide for the right to receive compensation for damage and destruction of certain categories of real estate objects as a result of hostilities, terrorist acts, sabotage caused by the military aggression of the Russian Federation for enterprises. In turn, draft law No. 7193 [2] provides for the regulation of relations arising in the field of state registration of the amount of damages caused as a result of the armed aggression of the Russian Federation against Ukraine.

The amount of damage caused to the affected entity as a result of the armed aggression of the Russian Federation against Ukraine is proposed to be determined by means of a standardized assessment in cases and according to the methodology approved by the Cabinet of Ministers of Ukraine, and by conducting an independent assessment of damages in accordance with the Law of Ukraine "On Valuation of Property, Property rights and professional evaluation activity in Ukraine". At the same time, the main components of the mechanism for determining the amount of damages are the affected subject, the assessment report and the damage. The value of the property and the amount of damages, in accordance with the completed appraisal report, will be subject to state registration.

On March 20, 2022, Resolution No. 326 of the Cabinet of Ministers of Ukraine approved the Procedure for determining damage and losses caused to Ukraine as a result of the armed aggression of the Russian Federation [3]. The norms of the specified Procedure define the main directions in which methods will be developed for assessing damage and losses caused as a result of Russian armed aggression.

One of these directions is the establishment of economic losses of enterprises, which includes losses of state-owned enterprises, including economic companies, in the authorized capital of which the state owns 50 percent or more of shares (parts, units), and non-state-owned enterprises, as a result of their destruction and damage property, loss of financial assets, as well as lost profit from the impossibility or obstacles in the conduct of economic activity.

The main indicators to be evaluated in this direction are [3]: the cost of lost, destroyed or damaged property; the value of lost financial assets; lost profit; losses from unpaid goods, works and services provided and consumed in the temporarily occupied territories.

Order No. 326 also states that ministries, other central and local bodies of executive power, which are authorized management bodies, and regional and Kyiv city state administrations (for the period of martial law - military administrations) are responsible for determining damage and losses in the above direction and the determination of damage and losses of enterprises is carried out in accordance with the methodology approved by a joint order of the Ministry of economy and the State property fund with the approval of the Ministry of reintegration [3].

Order No. 326 contains the appendix "General principles for assessing damages caused to property and property rights as a result of the armed aggression of the Russian Federation." The specified appendix discloses the organizational principles of damage assessment and methodological principles for determining the amount of damage caused by armed aggression, which define the main methodological guidelines that must be taken into account in the assessment procedures when developing damage and loss assessment methods [3]. Currently, the issue of approving the methodology for determining the damage and losses caused to the enterprise as a result of the armed aggression of the Russian Federation, in the direction of "economic losses of enterprises" is open. That is, a clear mechanism for determining the damage and losses caused to the enterprise as a result of the armed aggression of the Russian Federation has not been established at the legislative level, so the affected entities can currently be guided by the general rules for confirming losses.

In clause 2 of Art. 20 of the Commercial Code of Ukraine defines that every business entity and consumer has the right to protect their rights and legitimate interests, including through compensation for damages [4].

According to clause 2 of Art. 224 of the Commercial Code of Ukraine, losses are expenses incurred by the managed party, loss or damage to its property, as well as income not received by it, which the managed party would have received in the event of proper fulfillment of the obligation or compliance with the rules of economic activity by the other party [4].

According to the norms of Art. 22 of the Civil Code of Ukraine, damages are: losses that a person has suffered in connection with the destruction or damage of a thing, as well as expenses that a person has made or must make to restore his violated right (real damages); income that a person could actually receive under normal circumstances if his right had not been violated (forgotten benefit) [5].

Therefore, the current legislation defines damages as incurred losses of



property, assets, and income. At the same time, the calculation of the amount of losses requires documentary justification, which is provided by accounting and expert assessment data. In our opinion, in order to ensure the possibility of calculating the amount of losses, it is advisable for the enterprise to prepare the necessary documents confirming the fact of destruction/damage of property today. Such documents may include: documents certifying property ownership, technical documentation (technical passports, design and estimate documentation, etc.); organizational and administrative documents of the enterprise regarding: impossibility of using the property due to loss of control over the property, destruction/damage of the property, suspension of the activities of individual divisions of the enterprise, or the enterprise as a whole; carrying out an inventory of property; carrying out a technical inventory of property to obtain conclusions on the destruction/damage of industrial and/or real estate; documents regarding the economic activity of the enterprise, accounting documents regarding the past, current and planned volumes of economic activity, which substantiate the calculation of the size of the enterprise's losses.

In addition to calculating the amount of damages, Order No. 326 also provides for the determination of lost profits [3]. According to Art. 225 of the Commercial Code of Ukraine, losses include unearned profit (lost profit), which the party that suffered losses had the right to count on in the event of proper performance of the obligation by the other party [4].

According to Art. 22 of the Civil Code of Ukraine, lost benefit is the income that a person could actually receive under normal circumstances, if his right had not been violated [5].

In order to confirm the calculation of the amount of the lost profit, the enterprise must prepare certified copies of concluded current contracts and those that were planned for execution, as well as relevant primary documentation containing information about business transactions. If necessary, statements from bank accounts, payment orders confirming certain receipts under these contracts or from these counterparties in previous periods (if available), as well as correspondence with counterparties regarding intentions to conduct profitable business transactions are attached.

From the point of view of documentary support, the amount of unearned income due to the war in the form of lost profit can be established by the company after conducting an audit for the period from February 24, 2022. In this way, a decrease or absence of income will be recorded with the beginning of a full-scale invasion of military units of the Russian Federation.

The regulation on the inventory of assets and liabilities specifies that in the event of theft, damage to valuables, accidents or fire, an inventory is mandatory [6].

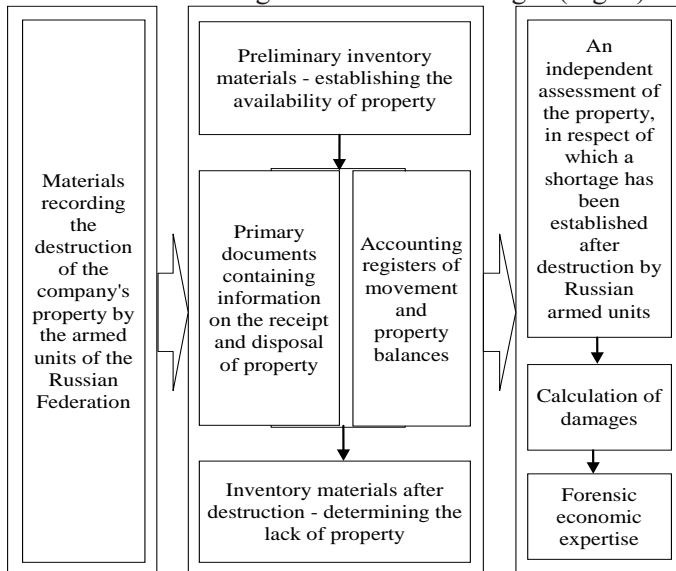
During the inventory, the actual availability of values, their condition, data



on which are subsequently compared with accounting data are established. According to the results of the inventory, shortages or surpluses of property are revealed. It should be emphasized that losses during the inventory are not established.

In turn, in accordance with Art. 7 of the Law of Ukraine "About the valuation of property, property rights and professional valuation activity in Ukraine", property appraisal is mandatory when determining damages or the amount of compensation in cases established by law. Article 3 of this Law defines that an independent appraisal of property is considered to be an appraisal of property carried out by a subject of appraisal activity [7].

That is, the value of lost, damaged or destroyed property must be documented in order to include it in the calculation of damages. In this matter, one should rely on the norms of Order No. 116 [8], which states that the amount of damages from theft, shortage, destruction (damage) of material values is determined by conducting an independent assessment in accordance with national assessment standards. Therefore, according to Order No. 116, the property, in relation to which a shortage was established during the inventory, is subject to an independent assessment for further consideration when calculating the amount of damages (Fig. 1).



**Fig. 1. Conceptual scheme of the study of the calculation of the amount of damages caused as a result of the physical destruction of the property of the enterprise by the armed units of the Russian Federation, when conducting a forensic economic examination**

*Source: author's own development*

It should be noted that the calculation of the size of the economic indicator of property damage (damages) and the assessment of property, the shortage of which was discovered during the inventory, does not belong to the tasks of the forensic economic examination.

Conclusions. One of the main tasks of the forensic economic examination is to determine the documentary validity of the size of the shortage, calculations of lost profits and the economic indicator of property damage (damages). For the purpose of a full and comprehensive study of the calculation of the amount of damages caused to the enterprise by military aggression from the Russian Federation, a forensic economic examination is appointed. Materials for the calculation of damages, made on the basis of the established amount of property shortages, documents on the movement and remains of property, which will be the objects of court proceedings for further compensation for material damage, are subject to investigation.

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## **VUCA STRATEGY FOR SECURITY MANAGEMENT OF THE COMPETITIVENESS OF AN INNOVATION-ORIENTED ENTERPRISE**

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No matter how advanced an innovation-oriented enterprise is, there will still be aspects that require improvement in the future. At the same time, it should be taken into account that we live in a VUCA world (volatility, uncertainty, complexity and ambiguity), so strategies should be VUCA. The following requirements apply to the formulation of strategic VUCA goals: the goals must be specific, quantifiable, realistically achievable, and balanced with the capabilities of an innovatively oriented enterprise; must be oriented in time; adaptive, i.e. revised in connection with changes in the external and internal environment of the enterprise.

Determinants of security competitive goals are: scale of competition; target market share of enterprises; competitive business position of innovatively oriented enterprises; intentions of enterprises; claims of enterprises.

The definition of strategic competitive VUCA goals of an innovatively oriented enterprise showed that if the enterprise competes on a national scale, the following typical tasks are appropriate: maintaining the existing market share through the creation of a unique trade offer; increasing the visibility of a competitive business position; the use of defensive strategic intentions; the presence of a claim to strengthen the competitive position

on the market; implementation of the competitive goal of stabilizing the financial position and increasing the market share.

It should be noted that the main approach in managing the implementation of VUCA strategic security changes should be a champion approach, i.e. a high degree of employee motivation in the process of implementing strategic changes.

When implementing certain changes in the activities of an innovatively oriented enterprise, there may be resistance from the staff. In order to overcome the possible causes of resistance, it is advisable to apply the concept of "force field". It includes the picture of the desired situation and the existing picture at the moment, as well as the forces that can bring the innovation-oriented enterprise to the specified desired situation. At the same time, it is necessary to take into account the forces opposing the achievement of the desired situation.

The concept of the "force field" shows that it is possible to overcome resistance to change, to achieve the desired situation, with the help of a full explanation of the need for these changes and the benefits that an innovation-oriented enterprise and each employee will receive.

Thus, the VUCA concept of security management of an innovatively oriented enterprise based on a dynamic vision meets the modern requirements of leading management experience and allows for effective adaptation, ensuring long-term competitiveness based on foresight.

Factors can contribute to the creation of a corporate culture that strongly influences the VUCA strategy: the presence of a strong leader who defines the rules, establishes basic values and norms of behavior; firm intention of management to act in accordance with established traditions; manifestation of constant concern for employees of innovatively oriented enterprises; management based on maximum contacts with personnel.

A necessary condition for the development of an effective competitive VUCA strategy, which ensures obtaining secure competitive advantages, is the availability of appropriate informational support for competitiveness management. This subsystem allows you to compare the relative advantages and disadvantages of competitors from the point of view of their abilities and capabilities, to monitor the actions of competitors, to warn the management of an innovatively oriented enterprise about the current and projected actions of competitors, to develop competition strategies. Its creation is aimed at providing an innovatively oriented enterprise with reliable and reliable information about the market, the competitive environment, competitors, the structure and dynamics of demand, the tastes and desires of consumers, etc [11-13].

The main task of security management of the competitiveness of an innovatively oriented enterprise is to create its own competitive potential

with a clear orientation to the market situation, taking into account competitive risk. This general task can be divided into two separate tasks of fundamental importance. In the short term, the problem of current efficiency comes first, that is, the transformation of existing resources and competences into market competitive advantages, while in the long term, the problem lies in the development of new resources and competences that would allow us to use market opportunities. It is advisable to increase the competitive potential of such indicators as technology, finance, management organization and marketing.

VUCA competitive risk management strategies allow to reduce the probability of its occurrence, and therefore to reduce the possibility of receiving losses as a result of active actions of competitors or adverse influence of the competitive environment.

At innovation-oriented enterprises, it is advisable to implement the algorithm of the process of security management of competitive risks, which will limit the number of risky situations in the enterprise's activities, reduce the level of risk in general, reduce losses, and therefore will contribute to the acquisition and maintenance of stable competitive advantages by the enterprise in the market.

Management of competitive assets involves: consideration of the evolution of competitive interaction; choosing an alternative to finding exclusive competitiveness; determination of directions for achieving sustainable competitive advantages. It has been determined that the modified product is sufficiently risk-free to be introduced to the market, it is expedient to determine the possibilities of obtaining long-term competitive advantages.

To develop a program of actions to create long-term secure competitive advantages for an innovation-oriented enterprise, it is advisable to use the matrix of acquisition of competitive advantages (Fig. 1), which asks certain questions for each of the four positions of the use of competitive assets and key competencies, and also takes into account the ambition of the enterprise's plans for conquest competitive advantages.

		Competitive advantage	
		New	Existing
Competitive assets and key competencies	New ones	Competitive mega opportunities	Unoccupied competitive spaces
	Existing	Filling competitive gaps	Competitive inertia

**Fig. 1. The matrix of the acquisition of long-term competitive advantages of an innovatively oriented enterprise during the implementation of the VUCA strategy of security management of competitiveness**

*Source: based on data [1-10]*

The competitive advantage of the modified product is new, and new competitive assets and key competencies are also needed. According to the matrix of long-term competitive advantages, an innovation-oriented enterprise is characterized by competitive mega-opportunities, in which the strategic foresight of enterprises allows to determine new competitive advantages that should be realized in the future, and to find new competitive assets and key competencies that will contribute to the creation of these advantages.

The control system of safety management of competitiveness includes the subsystem of analytical and control work and the subsystem of implementation of corrective actions. The developed matrix of the possibilities of the results of the implementation of a comprehensive system of security management of competitiveness in the practice of the enterprise shows that only under the condition of functioning of all components of the value chain of competitiveness management "VUCA strategic dynamic vision – planning of competitiveness management – organization and motivation of competitiveness management – management of competitive advantages – control of competitiveness management" it is possible to implement desired changes in the competitive position of innovatively oriented enterprises.

If an innovation-oriented enterprise lacks the first link – a strategic dynamic vision, there is a conflict of vision and opportunism. The lack of a planning mechanism for security management of competitiveness leads to a false start and disorientation of the enterprise. Unsatisfactory organization and motivation of security management of competitiveness is a consequence of uncertainty and dissatisfaction.

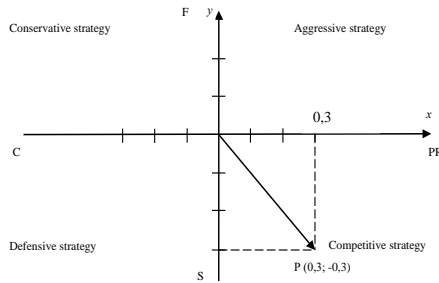
Strategic frustration and apathy can develop in an innovatively oriented enterprise due to unprofessional management of competitive advantages. Ineffective control of security management of competitiveness can lead to dissonance in enterprises, lack of feedback.

Implementation of a complex system of safety management of competitiveness into the practice of an innovatively oriented enterprise, the implementation of all elements that are part of their functional levels, will provide a comprehensive, systematic approach to managing competitiveness in conditions of instability of the market economy and marketing orientation of the enterprise, will contribute to strengthening the competitive position of the enterprise in a turbulent competitive marketing environment, increasing competitiveness and obtaining competitive advantages in the long term based on the effective use of competitive assets and key competencies.

It should be noted that currently in domestic practice there is no generally accepted methodology for determining and assessing the safety competitiveness of an innovatively oriented enterprise. All existing evaluation

methods can be classified according to the following characteristics: by the degree of coverage of aspects of the enterprise's functioning and by the form of expression of the evaluation result. We will evaluate the security management strategies of corporate level competitiveness. We will calculate the weighted assessment of the criteria using the SPACE method, based on the expert assessment of managers based on the criteria of financial strength, competitiveness, attractiveness and stability of the market.

According to the SPACE method, it is advisable for an innovatively oriented enterprise to use a competitive strategy (Fig. 2), in general, it is necessary to develop the product, the market, as well as joint ventures.



**Fig. 2. Construction of a recommended strategy vector using the SPACE method for an innovation-oriented enterprise**

*Source: composed by the authors*

The competitive position is characteristic of attractive industries in a relatively unstable environment. A critical factor of a competitive strategy is the ability to preserve and strengthen the company's financial position, in this regard it is recommended to: accumulate additional financial resources to strengthen the market potential; strengthen implementation (sales) services; invest in productivity growth; reduce costs; take measures to protect and preserve competitive advantages in the market; carry out a merger with an enterprise that has significant financial resources.

Thus, the main resources of a model innovation-oriented enterprise and management efforts should be aimed at stabilizing the financial situation, protecting competitive positions and maintaining an occupied market niche. Since the market share is the main external criterion of the security competitiveness of an innovatively oriented enterprise, in the conditions of the implementation of the VUCA strategy, a tense competitive situation and fierce competition between the enterprise and its direct competitors, the positive dynamics of the market share will be the result of correctly adopted management decisions and strategies.

An innovatively oriented enterprise based on cost (price) reduction is



able to form the lower limit of prices and costs on the market and in the industry. Four types of competitive VUCA strategies of an innovatively oriented enterprise are distinguished, oriented to different environmental conditions and different resources at their disposal: violent (force), patient (niche), commutative (adjustment strategy) and expletive (pioneer). It can be determined that a model innovation-oriented enterprise is a "patient". For success according to this strategy, the enterprise must have high-quality products that will stand out against the background of competitors' products, direct efforts to meet the special needs of the consumer.

Therefore, in the conditions of increased competition, a high level of instability and risk of domestic markets, it is considered appropriate to recommend innovatively oriented enterprises to apply a VUCA strategic approach to the security management of the enterprise's competitiveness, the essence of which is the development of a VUCA strategy and a long-term action program for achieving goals and solving tasks for maintaining or increasing security competitiveness using a limited amount of resources in a certain market situation.

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## **COMPARATIVE ANALYSIS OF THE RESILIENCE FACTORS OF THE UKRAINIAN SOCIO-ECONOMIC SYSTEM**

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The recovery and reorientation of a socio-economic system in the face of global shocks and challenges gain momentum due to certain drivers, which are embedded mechanisms catalyzing the impulses for protection, recovery, and structural transformations and consolidating (attracting) various assets (institutional, material, financial, informational, and labor-related) at corresponding stages based on vertical and horizontal links, changing the economic situation within the system. Clear identification and analysis of the resilience drivers are relevant and up-to-date tasks in the context of

searching for ways to strengthen the resilience of Ukraine’s socio-economic system in the face of global threats.

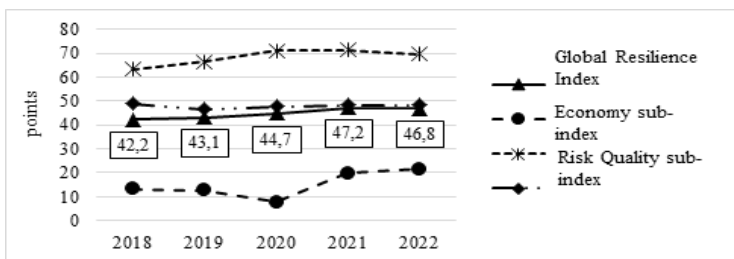
The FM Global Resilience Index is the basic parameter for comparative analysis of resilience drivers of the socio-economic system in Ukraine and worldwide. It has been calculated annually by the American mutual insurance company FM Global since 2018. The Index is the average of three sub-indices:

1. Economy characterizes the political and macroeconomic impact on resilience. It is calculated on the basis of five initial parameters: productivity, political risk, urbanization rate, energy intensity, and healthcare expenditure.

2. Risk quality measures the relative commercial and industrial activity risks. It includes initial parameters that characterize the impact of different types of risks on a socio-economic system: cyber, climate, seismic, and fire risks.

3. Supply chain is calculated based on initial parameters that characterize the infrastructure quality, control of corruption, corporate governance, supply chain visibility, and supply chain timeliness.

Fig. 1 shows the dynamics of the rates of the FM Global Resilience Index sub-indices for Ukraine in 2018-2022.



**Fig. 1. The dynamics of the rates of the FM Global Resilience Index sub-indices for Ukraine in 2018-2022, points**

*Source: compiled by the author based on the data [1]*

In 2018-2020, Ukraine is characterized by the positive dynamics of the FM Global Resilience Index. However, in 2022, its rate decreased by 0.4 points compared to the previous year and by 4.6 points compared to 2018. Throughout the observation period, our country’s score was the lowest by the Economy sub-index. Meanwhile, Ukraine’s result declined almost twice against the base period in 2020, in the midst of the COVID-19 pandemic. But our country’s results by this sub-index have been showing some progress in terms of economic recovery since 2020 in the post-COVID period, and Ukraine has moved up 13 places in global ranking by the Economy sub-index (from 118th place in 2020 to 105th place in 2022; Table 1). Meanwhile, the best result in the period under review was demonstrated by Ukraine by the

Risk Quality sub-index, when it entered the Top 50 countries in the world by this parameter in 2022 (Table 1).

*Table 1*

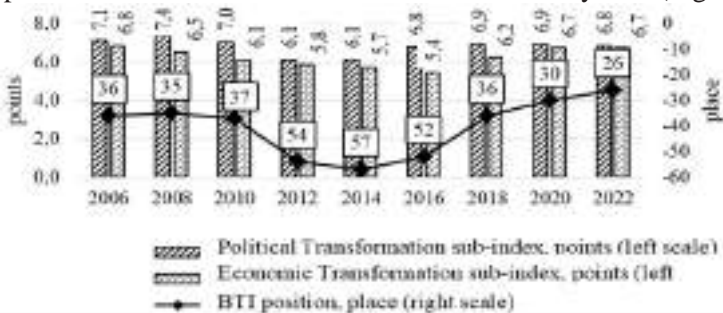
**Rankings of Ukraine and countries worldwide in the FM Global Resilience Index and its sub-indices, points**

Country	Global Resilience Index	Sub-index		
		Economy	Risk Quality	Supply Chain
Germany	5	9	6	9
Sweden	7	11	11	10
Austria	9	13	13	8
Belgium	10	16	4	14
USA	11	6	12	18
Finland	12	17	14	4
Great Britain	13	18	20	5
France	16	20	7	17
Spain	17	26	1	21
Canada	21	28	18	16
Czech Republic	23	23	9	27
Poland	25	37	2	31
Portugal	27	34	17	29
Italy	29	25	36	28
Hungary	33	38	21	41
Greece	45	49	47	51
Turkey	48	69	38	47
Brazil	52	61	45	63
Russia	55	96	10	83
Kazakhstan	61	83	52	56
Argentina	63	51	84	69
Egypt	73	84	57	78
India	74	114	78	46
UKRAINE	75	105	50	73
Montenegro	79	56	101	77
Georgia	81	87	87	71
Bosnia and Herzegovina	83	90	59	90
Armenia	85	66	103	84
Azerbaijan	90	94	82	91
Albania	94	78	107	86
Iran	111	129	86	106
Pakistan	115	116	112	108

*Source: compiled by the author based on the data [1]*

This result was secured for our country primarily due to the low risk of wind, earthquake, and flood affecting economic activity. Instead, cyber risks remain quite acute for Ukraine (both in institutional-organizational and technical terms). Numerous drivers impact the resilience of a socio-economic system. At the same time, institutional-managerial and organizational drivers are arguably the most important. In fact, they shape/determine the operating conditions of all system components – economic, financial, socio-demographic, investment, innovation, environmental, etc. Their efficiency boosts the establishment of productive interaction between all entities managing the socio-economic system, which ultimately fosters the fastest possible post-shock recovery of the system. To estimate the impact of institutional-managerial and organizational drivers on the resilience of the socio-economic system, we have chosen the Rule of Law Index [2] as a complex parameter calculated on the basis of 44 initial parameters characterizing the constraints on government powers, the presence/absence of corruption, open government, fundamental rights of economic entities, order and security in the society, and the efficiency of the criminal and civil justice. The relationship between the FM Global Resilience Index and the Rule of Law Index deteriorated slightly in 2021 compared to 2019 – from 0.802 points to 0.764 points [1; 2]. This was primarily caused by an emergence of a new major global shock – the COVID-19 pandemic – and the associated disruptive socio-economic processes.

In 2022, the quality of the transformation processes in Ukraine was the highest in the period for which the Bertelsmann Transformation Index is calculated. In particular, Ukraine reached a record high 26th place among 137 countries worldwide in the reporting period, while in 2014, for instance, it was only in the 57th place. Ukraine’s resilience increased slightly during this period. Political transformation is the key factor determining the development vectors of the Ukrainian socio-economic system (Fig. 2).



**Fig. 2. The dynamics of the Bertelsmann Transformation Index for Ukraine**

Source: compiled by the author based on the data [3]

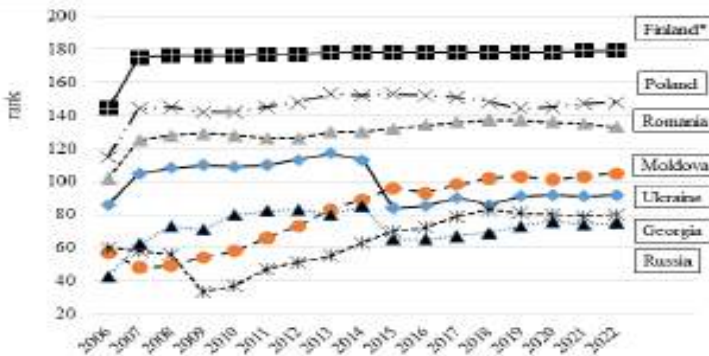
Upon the occurrence of a shock event, a resilience policy is a policy characterized by an efficient transformation of a socio-economic system with the aim of adapting to functioning in new conditions and overcoming the recession as soon as possible. Fig. 2 shows that the social and political events that took place in Ukraine in 2014-2015 (including, the Revolution of Dignity, the military conflict with Russia, and the annexation of Crimea) were not accompanied by efficient economic and political transformations. As a result, the resilience of our country's socio-economic development decreased, which is reflected in the decrease of GDP per capita against the pre-shock period (2013): by \$1,100 in 2014 and by \$2,100 in 2015.

The analysis of the transformation processes in our country in economic and political terms allows the identification of some stimulating and de-stimulating drivers of the resilience of the Ukrainian socio-economic system:

- stimulating drivers: high level of corruption and abuse of power; formal price liberalization; significant level of regulation of utility, energy, and telecommunication tariffs; challenges related to currency conversion for foreign investors, etc.;

- de-stimulating drivers: slight increase in the level of protection of foreign investors (foreign investments cannot be nationalized except in cases of force majeure, when investors have the right to compensation for damages and unhindered repatriation of income, dividends, and investments after payment of all taxes); slight decrease in the level of economy illegalization, etc [4].

- Over the period 2006-2013, Ukraine's position in the Fragile States Index has steadily improved (86th position in 2006 and 177th position in 2013 out of 179 states; Fig. 3).



**Fig. 3. Positions of Ukraine and some countries worldwide in the Fragile States Index**

2022\* Notes:

\*Finland – permanent leader of the ranking;

\*\* more fragile states are at the top of the ranking and vice versa;

compiled by the author based on the data [5]

Mainly due to a high level of population coverage with public services (education, healthcare, water supply, ICT), relatively stable social security (absence of military coups and rebel riots, few and infrequent social protests, etc.), and an almost insignificant problem of refugees and internally displaced persons. However, the global shock of 2014 – Russia’s military aggression against Ukraine and the annexation of Crimea – caused by growing threats to national security and accompanied by the socio-political crisis in our country, the fragmentation of security forces and elites, and the government’s struggle to control the integrity of the state territory resulted in Ukraine’s drop in the 2015 ranking by 29 places, which was the worst score for our state in the entire period for which the Fragile States Index is calculated. In 2022, Ukraine ranked 92nd in the Fragile State Index.

An analysis of the Index across its components (Fig. 4) reveals the major disincentives in terms of ensuring the national economic resilience in Ukraine:

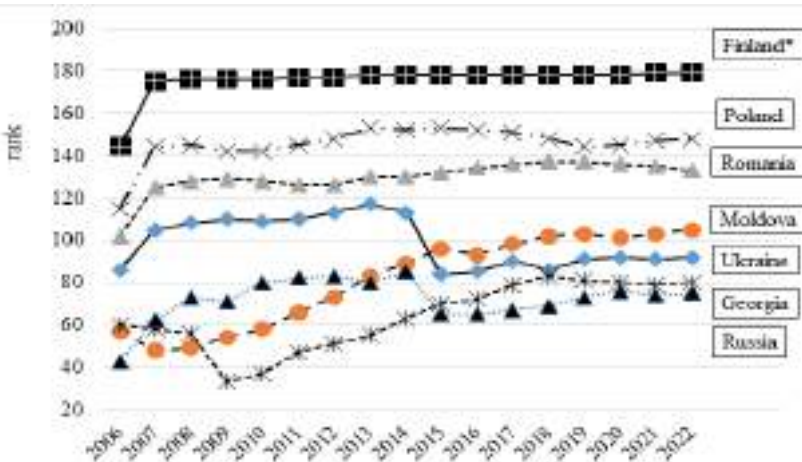
- high level of external intervention in domestic socio-political and socio-economic life. This parameter had a relatively low impact on the fragility of the Ukrainian socio-economic system until 2014. However, the worst result of the parameter was recorded as early as 2014-2015. This happened in the midst of the Russian military invasion of Ukraine and the annexation of Crimea. Since 2016, the situation has improved slightly but gradually. Nevertheless, the high level of external intervention in the processes of life activity in Ukraine in 2014-2021 remained the main destabilizing factor in terms of shaping the capacity and, therefore, the resilience of our country;

- significant fractionalization of the political elite during 2006-2014 reflected in the fragmentation of public institutions, a permanent struggle for power, and political competition. Meanwhile, in 2022 Ukraine made considerable progress in unifying domestic politics around the main goal of winning the war against Russia;

- insufficient legitimacy of public authorities, which was reflected, among other things, in the closed nature of the relationship between the government, ruling elites, and citizens, low public trust in public institutions, high corruption in the country, etc. (in fact, in 2010-2014, the power was excessively concentrated in the hands of the then president Viktor Yanukovich and his closest associates).

For that matter, 2015 was the crisis year preceded by the Revolution of Dignity and President Yanukovich’s escape from Ukraine. While the abovementioned problems were the key ones in terms of their impact on the fragility and resilience of the Ukrainian national economy in 2006-2021, the problems of migration abroad and a growing number of internally displaced persons aggravated in 2022 amidst the large-scale Russian invasion of Ukraine.

In turn, it caused labor market deformations, a shift in consumer demand from the areas of hostilities to safer areas and abroad, a decrease (in some cases, a total loss) in the solvency of the population, etc.



**Fig. 4. Ukraine's results by some parameters of the Fragile State Index, 2006-2022\***

*\*Note: the more points – the more negative impact on the efficiency of the socio-economic system; compiled by the author based on the data [5]*

The data of international indices and rankings show a significant positive impact of institutional-managerial and organizational drivers, qualitative structural transformations of a system as a factor of rapid overcoming of crisis phenomena, economic, political, and social globalization, and innovative and technological development on the resilience of a socio-economic system (Table 2).

At the same time, the resilience of the socio-economic system is shaped under the impact of a number of disincentives, including corruption, shadow economy, significant social inequality, etc.

Meanwhile, socio-economic systems characterized by high resilience, favorable institutional environment, etc. are more resistant to global threats and more capable of qualitative transformation in shocks, preserving their competitiveness in global markets, and fostering further human development and social progress.

Using comparative section we propose to analyze key international indices that, to one degree or another, testify to the resilience of the socio-economic system and influence it; study of the dependence between the specified indices and the main parameters of the socio-economic development of the studied system.

Table 2

**The matrix of correlation dependencies between organizational-institutional, managerial, and socio-economic development, as reflected in international estimates and indices, and the resilience of national economies, points**

Impact vector	International indices	Global Resilience Index
stimulating	International Innovation Index	0.902
	KOF Index of Globalization (total rate)	0.889
	The Global Competitiveness Index	0.882
	Human Development Index	0.871
	Social Progress Index	0.859
	KOF Index of Globalization, social globalization sub-index	0.835
	Bertelsmann Transformation Index	0.770
	Rule of Law Index	0.764
	KOF Index of Globalization, political globalization sub-index	0.627
	KOF Index of Globalization, economic globalization sub-index	0.576
de-stimulating	Corruption Perceptions Index	-0.883
	Fragile States Index	-0.844

*Source: compiled based on the author's calculations*

The resilience of a socio-economic system in global uncertainty is characterized by its ability to recover and reorient after the impact of external global shocks and challenges due to internal adaptive drivers.

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# **CIRCULAR ECONOMY AND LEAN MANAGEMENT AS BUSINESS MODELS FOR THE POST-WAR RECONSTRUCTION OF UKRAINE**

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The legacy of the Soviet economy, with its predominantly comprehensive approaches to increasing productivity, remained dominant in the Ukrainian business environment and household consumption for quite a long time. However, the events of 2014 became both a trigger and a driver of changes that forced the Ukrainian market to switch to new economic models as soon as possible.

Of course, it is necessary to acknowledge the impact on the world and Ukrainian economy of understanding of limitation and exhaustion of resources and the awareness of the impasse of the concept of mass consumption.

The most advanced models, focusing primarily on thriftiness, environmental friendliness and social responsibility, are the models of circular economy and lean production (also known as the Lean Management model). These models are well known, having been first described by their authors in 1990, but they have only been widely applied since the beginning of the XXI century. And although companies, society and government are well aware of the benefits and possibilities of these models, their use still needs to be improved. A cursory analysis of The Circularity Gap report, presented annually at the World Economic Forum in Davos, is a good illustration of this thesis [1].

Thus, according to the report, only 9.1% of materials in the world economy are reused. However, these are data for 2018; in 2020, the percentage dropped to 8.6%, and already in 2023, it was 7.2%. So, over the past five years, the reuse of resources and materials worldwide has decreased by almost 20%. In Ukraine, the situation is even worse since purposefully collected secondary raw materials (mostly scrap metal, paper, and PET bottles) are mainly recycled. Thus, according to representatives of enterprises in the field of waste management in Ukraine, at most 20% of all waste is processed, and business is forced to import millions of tons of garbage [2].

The situation with lean production is similar. So, on the one hand, in recent years, Ukraine has almost doubled its gas consumption both in industry and by household consumers: from 50.4 billion cubic m of gas. In 2013, up to 26.8 billion cubic meters. m of gas in 2021 (we do not provide 2022 data due to their apparent irrelevance) [3; 4].

But on the other hand, the need to introduce a program to exchange incandescent lamps for LED lamps", which is carried out within the framework of the resolution of the Cabinet of Ministers of Ukraine On the implementation of an experimental project on creating favourable conditions for ensuring the adequate consumption of electric energy by the population" [5] and studying the need to replace similar lamps with communal ones and state institutions and institutions, which takes place within the framework of the execution of the order of the Prime Minister of Ukraine dated 27.12.2022 No. 35840/0/1-22 regarding "Development of an algorithm, logistics of distribution and exchange of incandescent lamps and gas-discharge lamps for LED lamps", shows about inefficient use of resources.

The ongoing Russian attacks on the energy infrastructure instantly brought the need for frugal energy consumption to the fore. Experts estimate the annual effect of the exchange of incandescent lamps in savings of more than 1 billion kW. Moreover, this service is top-rated since almost 5 million lights were exchanged by the middle of February, and the program is designed for 10 million participants, who must trade 50 million lamps [6].

Considering the given examples and relying on the current legal framework, particularly the National Waste Management Strategy in Ukraine until 2030 [7], we can assert the high relevance of the mentioned models and their post-war relevance.

So, if the traditional economy involves the linear use of products, that is, the algorithm – take, make, waste" ("get, use, throw away"), then the primary model of the circular economy is based on the 3R model: reduce (reduction); reuse (repeated use); recycle [8].

In general, the essence of the circular economy can best be described with the help of its principles, namely:

- the zero-waste principle, that is, designing and creating products that are as repairable as possible, which, after the end of their service life, are suitable for the most profound processing and reuse;
- the principle of segmentation, i.e. the creation of products by combining consumables and components of long-term use, which are again suitable for deep processing and reuse;
- the principle of energy balance, i.e. maximum use of renewable energy and energy from renewable sources;
- the principle of responsible use, that is, the same transition from the

consumption economy to the sharing of products, the sharing economy.

Over time, the understanding came that the primary 3R model is characterised by certain limitations and cannot cover the full range of modern business methods based on openness, accessibility, equality, etc.

Therefore, the 9R model arose: refuse (a conscious refusal of unmotivated use, the design of goods from environmentally friendly raw materials and the unwillingness of features that do not affect the quality of products come to the fore), reduce (reduction in the use of resources and responsible consumption of products), reuse (the ability to reuse products that have lost their value for one consumer, but retain their properties and are of interest to another consumer), repair (designing products with an extended service life, i.e. a conscious rejection of the not so long ago widespread "planned obsolescence", combined with high maintainability and an extended period of after-sales service), refurbish (suitability of products for renewal, i.e. saturation with new functionality, which allows products to meet today's consumer requirements), remanufacture (production of new products from unprocessed elements of old ones), repurpose (repositioning of products, i.e. its use to meet needs different from those for which this product was created), recycle (processing and secondary use of products as raw materials), recover (renewable energy production).

The circular economy model based on the 9R approach opens up much more prospects for wartime businesses, offering new ways of development and forming a strategic vision of doing business in postwar times. Today's challenges have shown quite clearly that excessive dependence on import supply (even if we set aside dependence on Russian oil, its refined products and gas, we are still too dependent on many types of raw materials and derivatives) and export conditional uniformity (too high a value of the "grain agreement", which on the one hand ensures the inflow of foreign currency, and on the other – supports the producer's domestic market; the "collapse" of the potential of the IT sector due to the efforts of foreign customers to diversify and hedge the risks of Ukrainian outsourcing) quite strongly limit the possibilities of economic manoeuvring and protection.

The circular economy has the following vital tools [9]:

- design of the future, i.e. production of goods that are suitable for reuse, refurbishment, remanufacture or repurpose;
- joint use, that is, the use of sharing economy approaches;
- the "goods as a service" strategy, i.e. not buying or renting a conventional drill from the classic example of the sharing economy, but getting a high-quality drilling service without the risk of doing something wrong and overpaying for hedging goods when renting it;
- reuse in production, i.e. when used products or components become part of new goods;

- reuse in consumption, i.e. filling an existing product with new qualities and properties without processing it;
- thrifty waste management, i.e. a situation in which waste ceases to be an unavoidable expense and is turned into a source of additional profit;
- in-depth processing, that is, not only physical processing of products that have finally lost their quality and properties, but also filling with new content the very philosophy of production of such products.

Note that, on the one hand, Ukraine is legislatively ready for the introduction and development of a circular economy; this is how a relatively progressive waste management strategy works, in 2022 the relevant Law of Ukraine "On Waste Management" was adopted (but this law will come into force only on 07/09/2023) [10].

But, on the other hand, even the newest regulatory acts already require appropriate revision, which is caused by changes in the Plan for achieving a circular economy, in the implementation of which Ukraine is involved, and the last edition of the Plan was approved in the summer of 2022 [11].

According to the said Plan, it is generally necessary to promote the establishment of a longer service life of goods; increase the level of reuse and recycling; promote the application of eco-labelling and facilitate the search for sources of origin of raw materials; improve data collection and harmonisation; to encourage the use of biomaterials, etc.

If this Action Plan is extrapolated to Ukrainian legislation, it will become necessary to: update the draft Law of Ukraine "On Energy Efficiency" in the part of eco-design of energy-consuming products; updates of the Technical Regulation on eco-design of energy-consuming products; updating the National Standards for measurement methods in terms of eco-design and energy labeling; updating the Law of Ukraine "On Public Procurement" to reduce the weight of the procurement price criterion in favor of environmental and social orientation criteria; updating the draft Law of Ukraine "On prevention, reduction and control of pollution arising as a result of industrial activity" in the part related to the efficiency of resource use, waste minimization, recycling; update of the Resolution of the CMU "On approval of the Technical Regulation on the restriction of the use of certain hazardous substances in electrical and electronic equipment"; updating and adoption of updated legal acts in the field of management of individual waste streams; updating and adoption of the revised draft of the Law of Ukraine "On Packaging and Packaging Waste"; updating of the National Waste Management Strategy in Ukraine until 2030, etc.

In addition, it is necessary to ensure that Ukraine joins the Global Alliance for the Circular Economy (GAERCE) for international coordination in matters of bringing the functioning of the economy of Ukraine closer to the principles of the circular economy, as well as to ensure support for the

transition of the business to circular models of work, through interaction with international initiatives, such as SWITCH to Green [11].

At the same time, we note that the current regulatory framework and the recommendations given to Ukraine in the Plan for achieving a circular economy need to consider the conditions of the post-war territories.

Lean management is a development of the kaizen management model [12]. It involves every employee's involvement in optimising business processes and the maximum orientation of the entire business to the consumer. This model makes it possible to increase the competitiveness of products as much as possible under minimum costs for improving quality.

The formation of a culture of employee loyalty, strengthened by the skilful use of Lean-management, allows maximum involvement of employees in the production process, eliminating indifference to the company and its products and causing a conscious readiness for continuous improvement of both the product and itself.

Due to Russian aggression, about 30% of the territory of Ukraine is contaminated with flammable objects, demining them will require tens of years and special equipment [13].

The general area of damaged and destroyed housing exceeds 22 million square meters. m. [14]. Since the beginning of the full-scale war, the Russian Federation has caused damage to Ukraine's environment in the amount of more than 1.35 trillion hryvnias. 20% of Ukraine's nature conservation areas suffer from the war, 3 million hectares of forests have been damaged due to hostilities, and eight nature reserves and ten national parks are under Russian occupation [15].

Real ecocide and urbanite are ongoing in Ukraine [16].

Therefore, taking into account the obligations already accepted by Ukraine and the realities of the war, it is necessary to legislatively develop mechanisms for the speedy restoration of millions of hectares of contaminated land and billions of tons of construction debris, to form international funds to support post-war reconstruction, and not to neglect the legal justification and actual implementation of reparations. With the end of the war, the world economy will not wait for Ukraine to regain its competitiveness, which is why it is so essential to develop strategies for the recovery of the industry today, embedding in them the critical advantages of the latest business models, in particular, the recycling economy, the sharing economy, and frugal management.

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## **ENSURING THE COMPETITIVENESS OF THE STATE BY REGULATING THE PROCESS OF MANAGEMENT OF FOREIGN ECONOMIC ACTIVITIES UNDER THE CONDITIONS OF MARITAL STATE**

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The current state of Ukraine's economy in the conditions of a brutal war necessitates the search for new mechanisms for the organization of state regulation of foreign economic activity (FEA), which will be not only adaptive to today's realities, but also effective in the context of supporting international trade relations, maximizing state revenues, maintaining business activity, as well as the search for new markets for the sale of domestic products and services in order to ensure the competitiveness of enterprises [5].

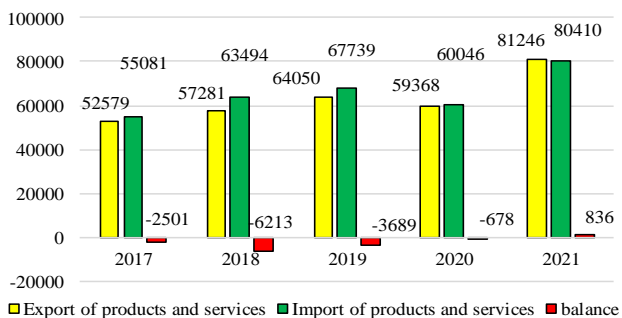
Undoubtedly, in today's progressive world, considerable attention is paid to the FEE and its regulation mechanisms. Accordingly, foreign trade, as a process of international interaction and interweaving of national economic systems, is a factor that determines the effective development of



every country in the world [7]. That is why Ukraine, as a state that has strong potential and ambitious plans for the development of the national economic system, is forced to pay considerable attention to the processes of regulation of foreign economic activity in war conditions in order to restore its own economy, international business activity and gain a high level of competitiveness in the world market [2].

It is polite to note that Ukraine is in difficult conditions caused not only by military events, but also by post-pandemic instability [6]. The impact of these two factors on the economy of the state is completely negative and even destructive, which can be argued based on: first, the processes of destruction of industries and entire economic spheres; secondly, an unprecedented slowdown in business activity, the impossibility of socio-economic development and the difficulty of restoring the profitability of economic entities in the newly created circumstances; thirdly, a significant outflow of human capital, a decrease in productivity and quality of work in accordance with quite obvious reasons (in particular, due to the deterioration of conditions for professional activity, a significant degree of uncertainty and the lack of real prospects for the development of employees.

Regulatory mechanisms and tools are the main means of managing foreign trade, but their construction is impossible without taking into account the dynamics of export-import activity of domestic economic entities, as well as the state as an independent entity of economic relations (Fig. 1).



**Fig. 1. Indicators of export-import activity in Ukraine during 2017-2021**

*Source: based on data [4]*

Indicators of Fig. 1 testify to the achievement of certain successes by the state authorities in the regulation of foreign exchange, as Ukraine managed to stabilize international trade activity in the conditions of post-pandemic instability, achieving a positive balance and increasing the indicator of export-import coverage by 0.02 pp. (from 0.98% in 2020 to 1.01% in 2021).



In the conditions of the global crisis, strengthening the position of the national goods producer has a priority role, and therefore the reduction of imports during the exacerbation of the Covid-19 pandemic became an additional incentive for domestic business entities [6]. The growing autonomy of national economies and the physical impossibility of international trade had a positive effect on the Ukrainian market to a certain extent; the global crisis contributed to the creation of incentives for increasing the efficiency of enterprises, improving the quality of goods and services, thereby giving economic entities the opportunity to gain the trust and commitment of citizens to Ukrainian products.

In the context of such trends, a strategy for the regulation of foreign exchange based on the balanced application of tools for reducing Ukraine's import dependence and stimulating export activity under the condition of comprehensive state support could become effective for future periods [8]. However, the war completely changed the conditions for foreign trade and already according to the results of the first quarter. In 2022, we observe sharply negative dynamics of export of import activity in Ukraine: export of goods amounted to 14100.7 million dollars. USA or 102.9% compared to the corresponding period of 2021, import of goods – 14132.3 million dollars or 94.4% [4]. Martial law is a specific legal regime under which not all market instruments of influence on foreign economic activity are appropriate and effective. Legal levers of influence become the basis of the regulatory mechanism. Thus, in 2015, the Law of Ukraine "On the Legal Regime of Martial Law" No. 389-VIII [10] was adopted, which does not contain any direct restrictions or bans on export-import during the period of martial law. However, considerable attention in the legislation is paid to the regulation of trade with the aggressor state. In fact, the main tool needed to limit the cooperation of states is an embargo. Yes, Art. 9 of the Law of Ukraine "On Foreign Economic Activity" No. 959-XII dated 16.04.1991 [9] defines that the Verkhovna Rada of Ukraine is the highest body that carries out state regulation of foreign trade, and therefore has a large set of powers in the specified area, which includes: firstly, making decisions on applying measures in response to discriminatory and/or unfriendly actions of other states by establishing a full/partial embargo on trade; secondly, deprivation of the most favored nation or preferential special regime.

In addition, Art. 29 of the Law of Ukraine "On Foreign Economic Activity" provides that in the event that discriminatory and/or unfriendly actions against Ukraine are applied by a state recognized by the Verkhovna Rada of Ukraine as an aggressor state and/or an occupying state, retaliatory measures may be applied by decision of the Cabinet of Ministers of Ukraine (KMU) according to a simplified procedure [1].

In February 2022, the State Customs Service of Ukraine published

information on the termination of the operation of certain customs checkpoints on the border with Russia and Belarus, the key aspects of this appeal were systematized and published in the Order of the Cabinet of Ministers of Ukraine No. 188-r dated February 26, 2022 [12]. This order contains information on the official temporary closure of a number of crossing points across the state border and control points (mainly those located on the border with russia and belarus, or in the immediate vicinity of areas where active hostilities are taking place), which indicates the actual cessation of customs registration of goods from the two countries mentioned above. In the conditions of martial law, the country's government adopted documents that not only regulate foreign trade in Ukraine, but also promote support of export-import activities (Table 1).

*Table 1*

**Normative and legal regulation of foreign trade in conditions of war**

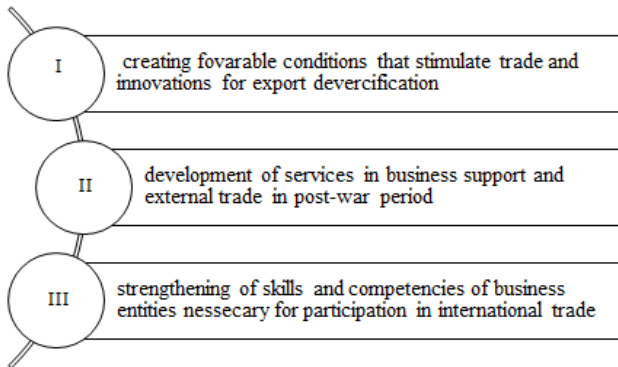
<b>Document</b>	<b>Content</b>
Resolution of the CMU No. 314 of 18.03.2022 "Some issues of ensuring the conduct of economic activity in conditions of martial law"	Regulates the procedure for simplifying the acquisition by economic entities of the right to carry out certain types of economic activity; regarding the organization of the ZED
CMU Resolution No. 153 of 24.02.2022 "On the List of Critically Imported Goods"	They regulate theoretical (the essence and importance of critical imports and the list of criteria for recognizing critical imports of strategically important sectors - energy, security and defense, ensuring the livelihood of the population, the functioning of manufacturing enterprises) and practical aspects (restoring the economic activity of enterprises whose work depends on imported raw materials, etc.)
CMU Resolution No. 289 of 16.03.2022 "Some Issues of Critically Imported Goods"	
CMU Resolution No. 207 of 05.03.2022, CMU Resolution No. 422 of 09.04.2022, CMU Resolution No. 549 dated 07.05.2022 "On Amendments to Appendices 1 and 5 to the Resolution of the Cabinet of Ministers of Ukraine dated December 29, 2021. No. 1424"	Regulation of export of a number of agricultural products
Resolution of the CMU of 09.03.2022 No. 236 "Some issues of customs clearance of certain goods imported into the customs territory of Ukraine during the period of martial law"	It is possible to import most goods in a simplified way based on the submission of a preliminary customs declaration without making customs payments (including VAT, excise tax, import duty), without conducting a customs inspection, phytosanitary control, as well as measures of non-tariff regulation
Resolution of the CMU of 03.03.2022 No. 186 "Some issues of labeling of food products under martial law"	Decides to establish that as a result of forced changes in the recipe, which are associated with the absence or insufficiency of the corresponding raw materials, for the period of martial law mandatory information about the food product and mandatory information on the labeling of the food product
Resolution of the Board of the National Bank of Ukraine of 24.02.2022 No. 18 "On the operation of the banking system during the introduction of martial law"	Regulates aspects of settlements for operations on export and import of goods

*Source: based on data [1]*

Under the conditions of the slowdown in the development of international trade in Ukraine, the question arises of improving the tools of influence on foreign trade and intensifying export-import operations, to the extent that this is possible in the current conditions.

It is appropriate to note that the reorientation of exports from raw materials to goods, in particular products that can be defined as science-intensive, high-tech, innovative and with high added value, can positively affect the dynamics of foreign exchange indicators and change the level of competitiveness of both the state and domestic products in the field's world space [3].

In 2017, the Export Strategy of Ukraine [11] was adopted, which, unfortunately, was mostly theoretical rather than practical in nature. Accordingly, in the context of the construction of tactics for the restoration of the FEZ at the post-war stage, it is worth taking the tasks defined by this Strategy as a basis (Fig. 2).



**Fig. 2. Tasks of the Export Strategy of Ukraine**

*Source: based on data [11]*

Business entities should be aware that at the stage of economic recovery, which will inevitably come after the end of the war, they will have the opportunity to enter new markets belonging to progressive European states. However, the main prerequisites for taking confident positions on them are the desire and readiness of domestic enterprises to master various spheres of the economy, as well as increasing competitiveness by increasing the level of innovativeness, environmental friendliness and technology of goods and services.

Therefore, each participant of the ZED must understand the importance of the high quality of exported goods and services, their innovation and technology for the ability to compete with the leading manufacturers of the

international market. It is the quality of the products that affects the level of trust, which at the moment is not high enough for the Ukrainian producer on the part of the consumers of the European markets. However, right now, in the conditions of war events, when Ukraine got a chance to change its future and reorient itself to new sales markets, it is important not to lose the favor of the potential consumer.

As a result of the study, it was determined that Ukraine is in difficult circumstances of martial law. Modern events require changes in the management tools of economic processes, in particular foreign economic activity.

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## **PART 2. MANAGEMENT OF MODERN SOCIO-ECONOMIC SYSTEMS A SECTORAL AND REGIONAL APPROACH**

### **KEY ASPECTS OF ENSURING ENTERPRISE'S FINANCIAL SECURITY**

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The economic situation in the world was currently characterized by conflicts between countries, which leads to the spread of destabilizing economic processes. The quantitative and qualitative losses of existing enterprises were caused directly or indirectly by the impact of negative external and internal processes and can significantly threaten the more stable functioning of these business entities and their development. Hence, enterprises were forced to adapt to environmental conditions, and therefore it was necessary to ensure the required measures and create a sustainable management system so that businesses can experience the devastating effects of negative factors in economic and political situations at the national and international levels as minimally as possible.

Ensuring the need for security for all businesses, regardless of their ownership and scope of activities. This is an issue that was not the exclusive prerogative of any particular department, service or group of people. Security can only be guaranteed if the entire arsenal of forces and protective equipment was used exhaustively and the importance of security issues was understood in all structural units of the enterprise.

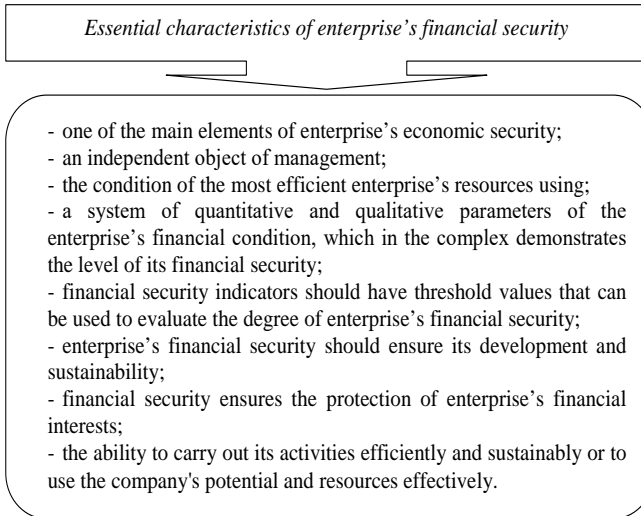
An analysis of the Ukrainian economy shows that there were serious problems in the activities of individual economic entities. The deterioration of the socio-economic situation and differences in economic development have made the issue of ensuring the financial and economic security of enterprises extremely relevant.

It should be noted that according to the variety of views on the structural and functional set of enterprise's economic security components, according to some researchers, includes: financial, intellectual and human, technical and technological, information and political, legal, logistics, energy, environmental, social, resource, market and interface components [3]. This classification is quite logical, as it characterizes important functional areas and elements of corporate activities. However, the political, legal, market economy, socio-political and interface components are more concerned

with aspects beyond the economic security of the enterprise, so they can be used to identify risks and external threats. In addition, the functional components of security are often given the same meaning through different definitions [4].

Therefore, an integral element of the economic security system was the enterprise's financial security, which should be understood as an equilibrium state of its elements and subsystems as an autonomous economic system, which can be expressed in quantitative or qualitative terms. Financial security was characterized by resistance to the negative effects of the internal and external environment and the ability to ensure the effective functioning of enterprises, stability of development and long-term economic growth [2].

The carried out research on the definition of the concept of "financial security of enterprise" made it possible to determine the essential characteristics of financial security of enterprise (Fig. 1).



**Fig. 1. Essential characteristics of an enterprise's financial security**

Thus, the identification of the above-mentioned essential characteristics of the enterprise's financial security confirms the view that the main long-term direction of the state policy in the field of financial security was to ensure financial stabilization in the country.

However, in order to ensure the security of the company's finances, a number of necessary measures should be taken. Namely:

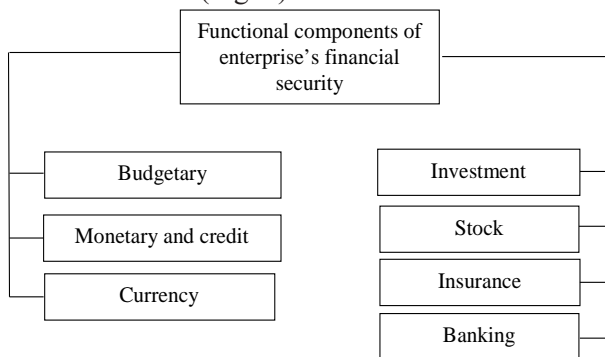
1. Determine the parameters and criteria of the company's activities that would meet the basic requirements of financial security.
2. Include the following components in the elements of financial

security: characterization of the threat's areas; development of high-quality mechanisms that help identify potential threats to the financial activities of the enterprise, as well as their timely elimination; identification of the main threats, the specifics of their activities, as well as the scope of influence on the enterprise's financial system.

3. Develop components that would define the mechanisms for monitoring activities, implementation of preventive measures, timely control and effective protection against various types of threats. This group should include:

- developing a methodology for predicting, identifying and protecting against negative factors that destabilize the company's security;
- drafting regulations that would identify threats to the company's financial sector and methods of counteraction. In addition, criteria should be clearly established by which to judge a breach of sustainability;
- creation of information systems that allow monitoring of various threats (both external and internal);
- establishing a structure that exercises financial control over financial security. At the same time, countermeasures should be developed both for normal conditions and for crisis stages;
- development of a preventive measures setting, formation of clear mechanisms of financial policy, as well as implementation of a normal financial security system, which, if necessary, would mitigate the impact of negative factors [1].

The above gives us an opportunity to state that the purpose of ensuring the enterprise's financial security was to achieve the highest efficiency and stability of its functioning and to create the preconditions for development by timely detection and prevention of external and internal dangers and threats. In turn, the functional structure of the enterprise's financial security can be presented as follows (Fig. 2).



**Fig. 2. Functional structure of enterprise's financial security**

*Source: developed on the basis of [5, 7, 9, 10]*



The functional structure of financial activity and, accordingly, the enterprise's financial security include the following

- budgetary – relations with the budget (taxes and fees to the budget, if available – budgetary loans or budget financing);
- monetary and credit – loans for operating activities, payment of salaries to employees, settlements with suppliers and receipt of funds from buyers of products and services;
- foreign currency – in the course of export and import operations (purchase and sale of foreign currency, loans in foreign currencies, settlements with foreign consumers and suppliers of products and services in foreign currency);
- banking – the company's relations with banks on loans and deposits;
- investment – capital investments in the company's development, including through long-term loans;
- stock – issuance of own shares by the company and purchase of shares of other companies,
- insurance – insurance of the company's property or the results of its activities, safe labor and health of employees [5, 7, 9, 10].

Research on this issue shows that the financial security of an enterprise depends on various reasons. In particular, damage to the interests of an entrepreneur may be caused by unfair actions of competitors, failure of partners, customers, suppliers, clients to fulfill their obligations to pay for contracts, supply of goods, as well as economic crises, unpredictable changes in market conditions, natural disasters, emergencies, managerial incompetence, social tensions and, finally, unfavorable economic policy of the state.

According to Nakonechna O. S. and Mykhailyk O. M. [7], for a more in-depth study of this issue, it is necessary to outline the factors that affect the level of financial security of an enterprise, which can be structured as follows: external, internal, intensive, extensive, objective, subjective.

Thus, internal factors include:

- the level of enterprise's financial stability, liquidity and solvency;
- the ratio of equity and debt capital;
- structure of property and capital;
- amount of profit;
- cost of goods sold;
- efficiency of property use;
- qualifications of economists, accountants, and financiers;
- qualifications and experience of the company's managers;
- responsibility of the company's employees;
- compliance with the protection of trade secrets;
- professional qualities of lawyers, level of legal support;

- technical and technological efficiency of production;
- risks associated with ineffective or erroneous actions of personnel;
- negligence, theft [7].

External factors include:

- solvency of debtors;
- cost and quality of credit services;
- reliability of partners, customers and suppliers;
- stability of the current economic situation in the country;
- nature of actions by competitors and other stakeholders;
- the nature of actions taken by public authorities and local governments [7].

The intensive factors that affect the level of enterprise's financial security include:

- introduction of innovations;
- restructuring of the enterprise;
- changes in labor productivity;
- significant changes in the management of the enterprise [6; 7; 8].

Extensive factors include changes in production output and technical re-equipment of the enterprise.

In turn, subjective factors were:

- the level of management competence;
- level of production organization;
- the level of the marketing and personnel management system formation;
- level of control over the level of economic security at the enterprise [5; 6; 7].

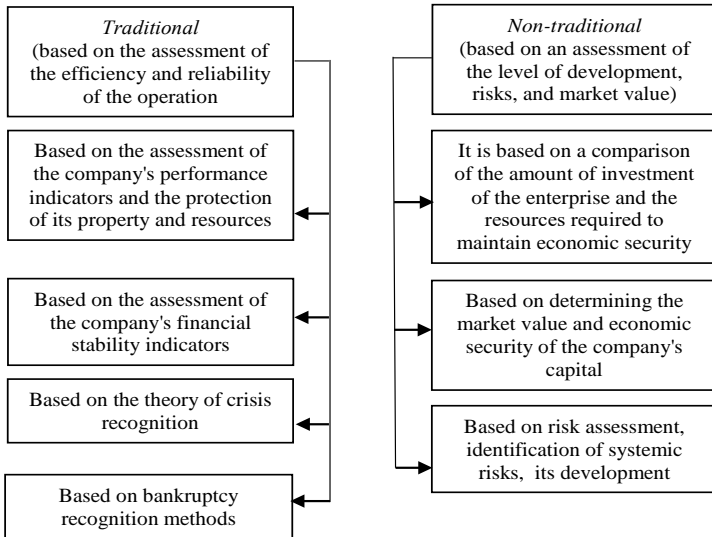
Objective factors include natural factors and natural disasters, as well as pricing and inflation.

The generalization of scientific research has made it possible to formulate the basic principles of financial security: the primary importance of human rights and freedoms, the rule of law, the priority of peaceful ways to resolve conflicts, the adequacy of measures to protect national interests from real and potential threats, the separation of powers and cooperation between government agencies to ensure national security.

It is worth noting that the level of enterprise's financial security depends on the influence of many objective and subjective factors. One of them was economic instability in the country. The phenomenon of economic instability, in particular, a decline in economic development, rising unemployment, inflation, currency fluctuations, has a negative impact on the profitability and solvency of the company, which reduces the level of its financial security. Therefore, in the context of economic instability, it was advisable and necessary to carry out special management of the financial security of enterprises.

The development of methods for assessing the enterprise's financial security was great methodological importance, as it is associated with the need to have information about its financial stability. This information was needed not only by the company's managers and owners, but also by investors and creditors. The issue of methods for assessing the enterprise's financial security is controversial. This primarily concerns the choice of criteria for assessing an enterprise's financial security, the system of indicators that characterize it, and the methodological approaches to determining the level of financial security.

In general, in order to assess the level of enterprise's financial security, it was recommended to use traditional and non-traditional approaches (Fig. 3).



**Fig. 3. Methodological approaches to assessing the level of enterprise's financial security**

Source: developed on the basis of [10]

Thus, the enterprise's financial security being one of the functional components of economic security, requires special attention due to the importance of ensuring proper protection of the enterprise's financial sphere, which not only determines current activities but also forms the financial basis for development.

Ensuring financial security should not be based on a single process, but rather on the system of all processes interconnections take place both inside and outside the enterprise in interaction with the external environment. Important conditions and elements in ensuring the normal functioning of an enterprise were the assessment and management of economic risks and

adaptation to changes in market conditions. In the context of increased crime and criminalization of society, in order to increase the efficiency of enterprises, it is necessary to create financial security management structures that ensure the safety and quality of raw materials and finished products, profit growth and improvement of key financial indicators.

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## **DIGITALIZATION OF INFORMATION AND ADVISORY SUPPORT FOR AGRI-FOOD ENTERPRISES**

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Modern transformational processes of information and consulting support for the activities of agri-food entities were changing their focus under the influence of the digitalization processes of the economy and social relations, and digital business transformations were radically changing the information, digital and communication infrastructures, which, in turn, necessitates the improvement of the information and consulting support for modern enterprise's business model [3]. The effectiveness and competitiveness of agri-food enterprise's information and consulting support in modern conditions was determined by their ability to use digital business technologies and professional consulting, which requires the creation of appropriate organizational and informational forms of interaction between the participants in this process.

Despite the creation of a nationwide system of information and advisory services, which includes specialized units in the country's regions, whose activities were aimed at collecting, processing, storing specialized information, meeting the professional information needs of economic entities in the agricultural sector, generating and disseminating innovative data, and ensuring a proper communication mechanism. The issues of practical implementation of a single digital platform for the distribution and use valuable information arrays, the formation of the necessary operational mechanisms for information exchange and the implementation of consulting processes remain problematic.

The following organizational forms of information and consulting support in the domestic practice of the agri-food system's information management should be distinguished:

Ministry of Agrarian Policy and Food of Ukraine, its structural subdivisions, specialized information departments, and representative offices in the regions;

- information and advisory associations based on the integration of interests and efforts of agricultural producers with different organizational and legal status, form, which were more focused on solving practical current

tasks of agribusiness enterprises, but their information base is mostly limited due to servicing the needs of their own producers;

- university modules of information and advisory support, which were able to provide high-quality information and analytical services on all issues of agro-economic science with a high degree of trust in employees, but, unfortunately, in conditions of insufficient budget funding or incomplete reimbursement of expenses;

- information and consulting services of commercial organizations, companies that employ highly qualified specialists, but sometimes their financial interests diverge from the needs of agricultural business entities due to highly specialized consulting;

- individual consulting, which provides closer and more practical feedback between private consultants and agricultural enterprises on a contractual basis, fulfills legal requirements for the quality of information interaction, but there is a possibility of providing inaccurate information and reducing the economic accessibility of services for clients with insufficient solvency;

- information and consulting systems of combined status, combining multiple forms and options for organizing the provision and financing of information and analytical services, which were more typical for international practice (Fig. 1).



**Fig. 1. Organizational forms of information and consulting support for agri-food enterprises**

*Source: developed on the basis of [1; 2; 4; 5; 7; 8]*

However, the global development of information processes, their implementation in the economic and social sphere of enterprises, production's

digitalization and management processes determines the need to update the information and consulting support of agri-food enterprises, which consists in creating a digital platform, the main purpose of which should be to unite agri-market participants for the exchange of operational information, joint interaction (integration of activities), expanding and sharing information and digital infrastructure, and other aspects.

Thus, the main goal of designing and developing a digital platform for information and analytical support of agri-food entities can be defined as a radical increase in the efficiency of agricultural and agro-industrial enterprises through the widespread introduction of new digital, including end-to-end technologies and innovative business models for market interaction of these enterprises in production processes. To ensure the creation and functioning of this platform, the following actions are advisable:

- study of theoretical aspects of creating digital platforms from the management theory, business consulting, computer science, cybernetics standpoint, respectively, analyzing existing or projected digital platforms to identify the main leading trends in their development. This will allow us to form the organizational and technical basis and basic requirements for the digital platform for agri-food entities' information and analytical support;

- to develop solutions to streamline the supply of information, scientific and consulting services, in which the scientist or consultant providing the services was an independent entrepreneur or an employee of a scientific institution;

- to define digital and economic models of interaction between suppliers and consumers of information and analytical support and consulting services based on the Uber-model (uberization);

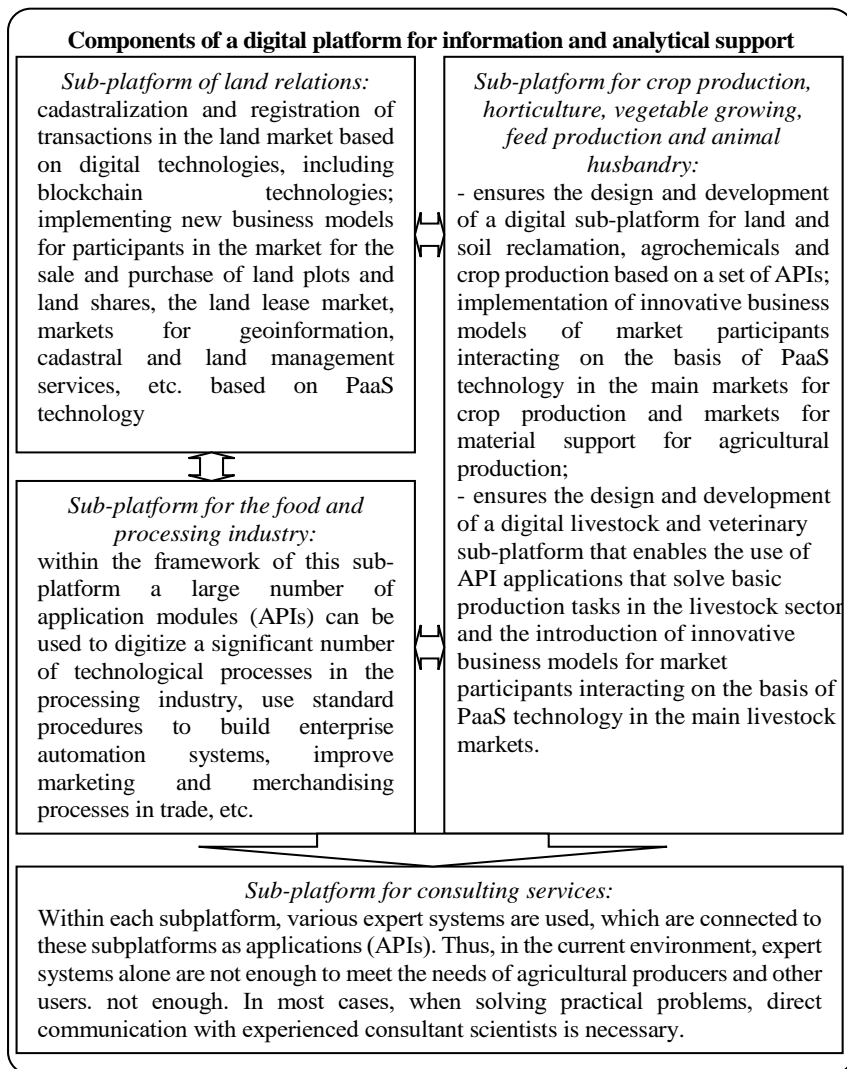
- to substantiate the software tools for the implementation of the platform and the requirements for the technical means necessary for the effective functioning of the digital platform;

- to determine the financial and human resources required for the implementation of the digital platform, to propose an economic model of interaction and mutual settlements between the platform organizers and providers of services, software products, and API applications;

- to substantiate the feasibility of creating a digital platform for information and analytical support of agri-food entities based on the priorities of agricultural sector of Ukraine socio-economic development, and to develop indicative, expert assessments of the economic and budgetary efficiency, its creation and operation;

- to ensure the clustering of the digital platform for information and analytical support of agri-food sector entities, which will simplify the search for the necessary information and counterparties interaction. It was proposed to distinguish the following clusters: a sub-platform for land

relations (land lease market, markets for geoinformation, cadastral and land management services), a sub-platform for crop production, horticulture, vegetable growing, feed production and livestock, a sub-platform for food and processing industry, a sub-platform for consulting services (Fig. 2) [1; 2; 3; 5; 7; 9; 10].



**Fig. 2. Sub-platforms of the digital platform for information and analytical support of agri-food sector entities**

Source: author's development



In addition to these sub-platforms, the digital platform for information and analytical support of agri-food entities should include modern achievements of Industry 4.0 technology, in particular:

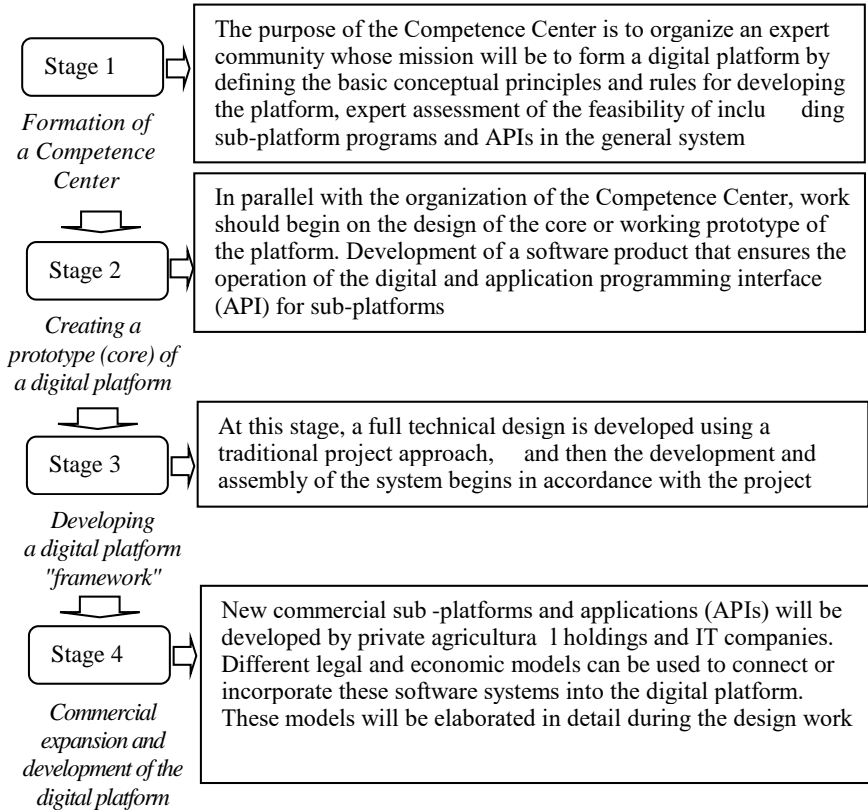
the "Land relations" sub-platform may include the Public Cadastral Map "Land Surveyor" and the StateGeoCadastr database for visual representation of agricultural land based on high spatial resolution satellite imagery, automatic collection and processing of agricultural land's field survey data, and consolidation of all collected data into a single database. The conversion of cadastral maps to blockchain technology has certain prospects. The land market can become more efficient if a specialized digital technology is created that will "connect" land rights holders and buyers of these rights without intermediaries, as well as cadastral engineers and appraisers with customers;

it was advisable to include expert systems and databases on crop diseases and plant protection products in the sub-platform "Crop, horticulture, vegetable, fodder and livestock production". This could include the use of end-to-end Big Data technologies for analyzing field histories and artificial intelligence for soil fertility expert systems, as well as the following end-to-end technologies: big data for field history research; artificial intelligence for building expert systems; robotics and sensor components for controlling agricultural machinery and monitoring fuel consumption; wireless communication technologies; virtual and augmented reality technologies for labeling seeds and plant protection products; embedded end-to-end distributed registry and big data technologies for maintaining registers of farm animals, diseases and veterinary services; artificial intelligence and robotics systems can be used for herd management on grazing and in automated milking systems; augmented reality technologies can be effectively used for individual veterinary care, feeding and milking in free-range cattle;

"The processing and trade" sub-platform can use cross-cutting technologies: big data to find optimal marketing strategies in trade; artificial intelligence to solve many technological problems in the processing industry; distributed ledger systems to ensure security and maintain a register of trade transactions; new manufacturing technologies for prototyping products in the food industry; the industrial Internet in warehouse automation; robotics components, sensors, and robotics components in all branches of the processing industry and in trade; wireless communication technologies – everywhere;

the "Consulting Services" sub-platform should include modern technologies that allow organizing consultations with specialists and scientists on specialized issues using Internet teleconferences, and it was also advisable to use expert systems to solve many production and management tasks in the process of agri-food entity's functioning.

The full digital platform of the agro-industrial complex is quite large and expensive, and it should include at least the above sub-platforms and many hundreds of APIs. Therefore, it seems advisable to formulate a scheme for building a digital platform for information and analytical support of agri-food entities (Fig. 3).



**Fig. 3. Scheme of formation of a digital platform for information and analytical support of agri-food sector entities**

*Source: developed on the basis of [1; 4; 5; 6; 10]*

Therefore, the development of the digital technology segment requires the preparation of a developed information and communication infrastructure. To meet the challenges posed by the digital economy, we need relevant knowledge bases, information resources and interactive communities, a wide network of integration business platforms, a digital environment and personnel capable of working in the new environment. This comprehensive

approach will help create a digital ecosystem in which each participant will play a dual role as a client and a data server. This will form the basis for subject-oriented clusters within which agricultural digital ecosystems operate.

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# PREREQUISITES TO FORMATION OF THE RISK MANAGEMENT SYSTEM OF AGRICULTURAL ENTERPRISE DEVELOPMENT

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The companies of agricultural industry are exposed to risk in the course of market relations. Uncertainties related to weather, productivity of land, prices, government policies, global markets and other factors affecting agriculture, can lead to significant fluctuations in the income of agricultural businesses. Furthermore, currently enterprises in various areas, including agriculture, are facing financial problems caused by the new economic crisis. In this connection, the issue of risk minimization becomes particularly relevant. Risk management commonly includes choosing among alternatives which reduce the financial consequences that may arise from the negative natural, economic or political changes [11].

There is a number of definitions of the "risk" category but, as a rule, most of them come down to the fact that risk can be defined as the probability of some negative event or situation. For example, Cambridge Dictionary defines risk as "a situation that is likely to be dangerous or have a bad outcome." Oxford Dictionary defines the term "risk" as "a chance or possibility of danger, loss or other adverse consequences".

Understanding of risk mainly as a danger, threat is basic for the core concepts in the risk management, which consider the occurrence of natural, man-made, economic and other hazards, while the risk management itself is understood as the process of making and implementing of managerial decisions that should reduce the probability of negative events or their consequences and minimize possible losses. In other words, risk management is attempting to identify and then manage threats that could severely impact or bring down the organization.

The main types of risk to which enterprises are exposed are:

- risk of production, i.e. any events directly affecting products, their quality and quantity;
- price risk, i.e. the probability of price fluctuations, which can cause a loss of income;

- financial risk, i.e. the probability of loss of funds, inability to meet company's financial obligations;
- institutional risk, i.e. changes in the state policy and standards governing the industry;
- technological risk, i.e. the degree of availability of equipment, machinery, materials, etc;
- personnel risk, i.e. the risk related to the lack of highly qualified personnel, the possibility of staff recruitment and professional training [1].

A specific feature of the risk management of the agricultural enterprises is that they should adapt not only to market changes, but also to natural and climatic challenges.

Obviously, it is impossible to completely get rid of risk in economic activity, but risk management allows agricultural enterprises to assess risks and adapt to them. It should also be taken into account that agricultural risks may not weaken over time, but intensify, so a continued search for new, more effective risk management tools is required.

The general purposes of the risk management are: to improve the company's activities for the risk avoidance or prevention; to minimize the negative consequences of exposure to risk; to obtain additional profit or other commercial benefits in the face of risk. In turn, making profit allows to create reserve funds to overcome risky situations in the future.

Risk is a financial category. In this regard, the level and magnitude of risk can be influenced through the financial tools. Hence, to identify and assess risks, it is necessary to study the financial position of the enterprise at the first stage. Basic financial analysis includes an analysis of the company's assets and liabilities, liquidity, solvency and financial stability, which contributes to identify the probability of bankruptcy. Financial analysis is recommended to be supplemented with such strategic management tools as: SWOT analysis, which allows to identify strengths and weaknesses, opportunities and threats of the enterprise in the external and internal environment; PEST analysis, which reveals political, economic, social and technological factors of the external environment, that affect the company's business operations, VRIO analysis, BCG matrix [13] or other appropriate tools.

After conducting an analysis of the company's financial position, it is possible to go to selection of a risk behavior strategy, determine the necessary resources and allocate the tasks, the solution of which should lead to risk minimization. Risk treatment is carried out in four ways: avoidance, reduction, acceptance, transfer of risks. Each of the above-mentioned ways has its positive and negative sides, accordingly, they should be used in combination. The company's management team monitors, evaluates and adjusts the results of the chosen strategy.

Managers of enterprises in agricultural sphere have to make everyday

decisions to guide the success of business. For number of such decisions, outcomes cannot be predicted in advance, hence, it is important to plan and calculate risks. At this, problematic issues can vary from weather to pests and diseases, from fluctuation of market prices to equipment breakdowns. Indicated above creates an uncertain picture and requires the consideration of many computational fields of knowledge. Agricultural enterprises will be exposed to numerous external risks that will lead to business failure without grounded decisions that determine the strategy direction.

It is possible to minimize the risks of enterprise in the agricultural sphere by diversifying agricultural systems, using the most profitable combinations of agricultural crops or livestock, as long as different variants of the same crop. Agricultural insurance, which protects against losses and creates a predictable level of income, also constitutes the method of the risks reduction in the agricultural industry. Agricultural enterprises can also practice forward contracts, which provide for the payment of goods at a predetermined price. The use of new technologies can also be one of the tools to reduce agricultural risks. For example, hybrid seeds can be much more resistant to cold or disease, so it is advisable to use them if there is a risk of crop loss [9]. The measures listed do not completely eliminate risks in the activities of agricultural enterprises, but allow them to be significantly reduced.

The susceptibility of agricultural enterprises to risks, both economic and specific, makes the agricultural industry one of the most unstable, and necessitates the creation of a risk management system for timely detection of threats and effective responding to them. Risk management reduces the negative consequences of a risky situation and increases the positive ones, which allows the company to remain profitable and competitive.

Nowadays, in the course of production activities more attention is being paid to the risk management. Risk management subsystem should be integrated into the general management system of the organization in order to protect it from the negative impact of external and internal factors and generally increase the efficiency of its functioning. In management risk also means the probability of receiving financial losses, loss of resources, or failure to receive income in the process of implementation of managerial decisions. Risk management refers to the process of making and implementation of managerial decisions that minimize the adverse impact on organization.

As it was earlier indicated, agriculture, especially plant growing and processing industry, is the industry most susceptible to the influence of external factors.

The main risks here include [7]:

- natural and climatic risks;
- trade and economic risks;

- macroeconomic risks;
- foreign trade risks;
- social risks.

Taking into account the specifics of farming, this list should be supplemented by highlighting a separate group of production risks.

As it was previously mentioned, there are four common risk mitigation strategies. This typically include: avoidance, reduction, transfer, and acceptance (localization). Risk management in the agricultural sphere should be considered at different levels, such as: business, industry and country level.

Although risk management is based on general principles, this process has its own specific features at each level. In particular, this specificity is manifested both in the form of particular decision-making procedures and in the form of specific risk management tools. For the mentioned levels decisions are made by persons who have a different relationship with the risk bearer, i.e. this is a state official at the state level, and a manager at a company level.

The following risk management practices can be proposed at the level of business [10]:

- innovative production technologies should be introduced to reduce the risk of manufacturing of uncompetitive and undemanded products;
- strict adherence to technology and control over the timing of agritech events should be taken to reduce production risks;
- use of highly productive plant varieties and disease-resistant animal breeds;
- renewal of an active part of fixed assets to prevent production risks due to equipment failure;
- development of risk self-insurance;
- establishment of a plant storage base to reduce the risk of spoilage of products;
- forecasting of the market situation;
- diversification of manufacture.

At the state level the following risk management measures can be taken [14]:

- monitoring of the situation in the global agricultural market, developing of methods for the stimulation of the agricultural industry;
- carrying out procurement and commodity interventions, involving state support for the national production of agricultural products;
- support and development of the national insurance system;
- vertical integration for the aim of optimization of agricultural holdings, including the joining of low-profitable agricultural companies to highly profitable processing companies in order to increase the efficiency of the

manufacturing and economic activities of the first and to form an own raw material stock for the latters;

- development of consumer patriotism for creation of sustainable demand for agricultural products, primarily plant products, with a higher level of profitability, to reduce financial risks;

- investor attracting for the investment attractive industries, such as production of meat, milk, potato processing, for the introduction of modern technologies and expansion of current production capacities of agricultural and processing enterprises;

- development of export oriented industries in order to facilitate foreign trade and attract foreign currency funds.

The measures listed above, should be implemented along with the development and controlling of an appropriate system of risk indicators at all stages of the production process in order to prevent failures and take timely corrective measures.

Currently, the market is stimulating agricultural enterprises to fundamentally review their relations with production partners and other counterparties. Changes in the business environment of agricultural enterprises are connected with increasing competition, new information technologies, globalization of business and other factors that determine the needs for the structural reorganization of industry, technical reengineering, raising of qualification of employees, creating a system of complex management, optimizing the use of resources stock in the agricultural sector of economy.

The following problematic issues can be outlined in the field of management of agricultural companies in current economic conditions [8]:

- lack of information base necessary for analysis, forecasting and risk management at agricultural enterprises;

- lack of methodical approaches, tools and means to ensure timely resolution of managerial problems;

- lack of skilled staff in the field of management;

- lack of social, ecological and economic security of agricultural enterprises and their production processes.

At this, the problematic issues that arise in the process of formation and development of the management system are commonly multi-criteria, waeakly structured and often have the character of uncertainty. When developing an agricultural enterprise management system, it is necessary to proceed from the multi-connectivity of this process based on the definition and improvement of the initial model of the system using the interaction of its component parts.

In this regard, the components are considered in interrelationship and dialectical unity, since revealing the essence of the problems of the



management system is possible only through studying the dynamics of the interaction of its component parts. This approach requires clarification of basic system principles. The following system principles are outlined in the scientific literature, i.e.: hierarchy, integration, formalization, modeling, targeting, combination of centralization and decentralization.

The selection of methodological principles is conditioned to the need to reveal the essence of the development of the management system, its functions and impact on the macroeconomic system as a whole and its individual subsystems as a part.

In accordance with the above-mentioned basic principles, it is possible to outline the main directions of improving the efficiency of the management system of agricultural enterprises [3]:

- perspective development, i.e. need to correspond to the enterprise perspective development and to assess the risks of decision-making in the future;

- communication, i.e. free data flow and transfer of information, continuing interaction between upper and lower levels of management;

- all-scenario, i.e. the ability to manage all situations, including the crises ones, when the connection with the object of management is ruined for a certain time;

- changing risk management methodology depending on the risk situation and long-term trends;

- responsiveness, i.e. the ability to react in a timely manner, appropriately and efficiently, and quickly change depending on the situation and business conditions;

- efficiency, i.e. the ability to effectively implement managerial decisions aimed at the entire process with a minimum amount of relevant resources;

- conformity of managerial tools, i.e. congruence to other components of the management system and its theoretical prerequisites which are the basis to methodological groundings.

Dynamic complexity is an obligatory feature of an agrarian enterprise. A situation is considered to be dynamically complex when the immediate and long-term consequences of any action are defined as fundamentally different, or when the regional consequences of any managerial influence are opposite in terms of impact on a specific enterprise.

One of the main trends of the world and national economics is the increased speed of environmental changes and the strengthening of the environment's influence on the functioning of agricultural enterprises. Ensuring stability in the situations of frequent changes occurring in the external environment is possible when the enterprise is prepared for such changes in advance. It is advisable to identify the problematic issues as early as possible, namely in the early stages of their occurrence, and their management should be

proactive.

The tool set for managers of agricultural enterprises should ensure the search for the optimal trajectory of the enterprise business movement in the multidimensional space of goals, parameters, resources and other limitations that describe the external and internal environment of the enterprise over time. The core advantages of a dynamic approach to modeling management processes for agrarian enterprises include [12]:

- identification of the most critical factors, which will make it possible to rank the threats and opportunities that appear in the simulated environment by the degree of importance;
- visibility of data and obtained results. A dynamic model can be called as "live" in the meaning that each of its states depends on its previous states at each moment of time, namely, the model develops and "lives" in accordance with the laws and rules laid down for it.

The task of the risk management team in the system of optimal solutions of an agricultural enterprise is to prevent the occurrence of problematic scenarios by anticipating them in advance and changing the situation accordingly.

In the case of individual agrarian enterprise that carries out a reproductive activity in the course of agricultural business, the treatment of risks of agricultural manufacturing is based on the risk management provisions. At this, the basic tasks of the risk management are: the creation of a "safety cushion" in financial activity; minimizing the probability of bankruptcy and receiving losses by agrarian manufacturers based on the principles of priorities and proportions optimization; providing effective methods for conducting business activities in volatile conditions.

Risk management in agricultural business involves the application of a set of means that ensure the sustainable development of agricultural production through the use of such methods as [2]:

- avoiding systematic risks associated with macroeconomic factors of the implementation of the reproductive process in agriculture, and, first of all, the disparity of prices for industrial and agricultural products in the framework of agro-industrial manufacturing;
- distribution (sharing) of systematic risks among agribusiness partners in order to minimize losses connected with limitations arising from the nature of the reproductive process in agriculture;
- minimization of unsystematic risks of agricultural production due to the improvement of management and organization processes at the microeconomic level;
- hedging risks of agricultural production.

At this it should be emphasized that risk management cannot eliminate the influence of the uncertainty factor, i.e. the phenomenon or event, the

consequences of which cannot be predicted in agricultural production.

Currently, the concept of "risk" as the probability of an event occurring, as well as the classification of agricultural production risks, are debatable.

A number of economists classify risk factors as: production and technological; trade and commercial; financial and economic; innovation and investment factors. By these factors, the most typical causes of risk for a particular enterprise are established. In the course of production activity in agriculture, the following risk factors can be distinguished: natural and climatic conditions available; susceptibility of the production process territory to the natural disasters; probability of illness and death of farm animals; susceptibility of agricultural crops and perennial plantations to pests and diseases; untimely supply of material and technical resources and their shortages; breakdown and downtime of machines and equipment; decrease in productivity of employees for various reasons; untimely and unreliable information.

Partner groups in agricultural production can be divided into principal and non-principal stakeholders. The principal partner groups include all those entities, which are directly interested in the positive results of the company's activities due to the fact that the financial and economic relations of partners are based on the grounds of mutual benefit. The principal partners include: supplier entities, buyer entities, financial institutions, government bodies, etc. When considering the relationships between the state and the manufacturing enterprise, the risk factors here can be the following: inconsistency or lack of state support for agricultural producers; gaps in terms of delivery and payment of products within the framework of state procurement; inconsistency of interventions with the market size for a certain agricultural product [16].

Production and economical interconnections within an agro-industrial cycle determine the sustainability of agricultural production and agricultural business as a whole.

Timely, proper and due implementation of agreements with business partners and consumers is a principal condition for the sustainable operation of agricultural enterprise. Non-fulfillment of contractual obligations both in terms and quality can cause significant losses.

It should be noted that commodity production in agriculture, due to its seasonal nature, production cycle length, natural and other factors, needs sufficient funding. In this regard, one of the most weightful risk factors for agricultural producers is the lack of loan funds on terms acceptable to them.

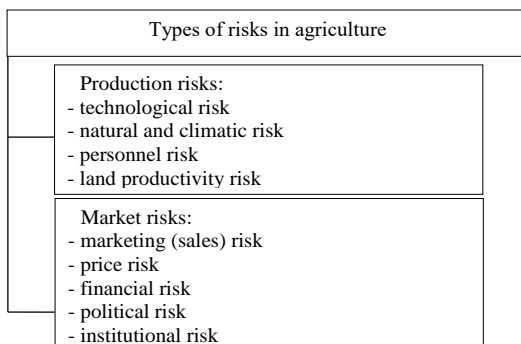
For greater sustainability of agricultural enterprise in the terms of market economy, it is also necessary to analyze the basic factors of conducting the reproductive process, i.e.: land, labor, capital and entrepreneur activity.

Anti-crisis management is based on target search and organizing of

work to reduce risk, obtain and increase returns in the forecasted economic situation. Among the measures that reduce risk are: diversification and risk insurance, increasing the share of reserve deductions for unforeseen circumstances.

Insurance of the reproduction risks in agriculture is one of the most important factors in ensuring the sustainability of agricultural production in general. At the same time, it should be emphasized that insurers often do not take into account the peculiarities of the reproductive process in agriculture when concluding an insurance contract with the insured. Moreover, the operation of the insurance companies in agriculture sphere is more risky itself compared to other areas of economy. In this regard, there is an objective demand to introduce compulsory insurance of crops and livestock based on state support within the framework of a separate targeted subsidy. In addition, the creation of financial reserves is considerable for covering unforeseen expenses [6]. Nevertheless, the entire responsibility for the implementation and use of risk management tools and specific methods of minimizing the risks of conducting the reproductive process in agriculture operating in the market conditions is those of the agrarians themselves.

The risk system of an agricultural company can be presented in the following chart (Fig. 1).



**Fig. 1. Types of risks in agriculture**

The concepts of "agricultural risk" and "risk in agriculture" should be distinguished. Agricultural risk should be understood as the risk associated with the influence of natural and climatic factors, i.e. one of the types of production risk. The concept of "risk in agriculture" implies various types of production risks, price and market risks, business and financial risks, and others. In the scientific literature there is no unified approach to the classification of risks in agriculture [15].

Technological risk in agriculture involves the disruption of production process due to the failure of machinery and equipment, as well as the lack

of necessary spare parts and materials. The level of this type of risk directly depends on providing the enterprise with update equipment, qualified personnel, raw materials and production stuff.

Natural and climatic risk, which is called "agricultural risk", represents the external influence of natural and climatic factors, such as: a large amount of rain, snow cover, average annual temperature.

Risk of personnel is a very meaningful factor in an agriculture enterprise operation. This risk lies both in the low qualification component of the company's staff and in their limited number.

Productivity risk is the level of yield of agricultural crops. This kind of risk is directly related to the natural and climatic risk, but simultaneously is affected by such factors as the level of mineral fertilization, soil enrichment, seed varieties.

Marketing or sales risk consists in limited sales channels for the products of agricultural producers, a high share of commercial costs, which affects the level of profitability.

Price risk involves in an increase in the price level of raw materials, fuel and lubricants, fertilizers and other means used by the agricultural producers. This kind of risk is directly related to the level of inflation. In turn, targeted programs are being developed at the state level, including compensation of fuel costs. These programs contribute to the reduction of price risks of agricultural companies.

Financial risk includes the probability of change in the system of crediting to the subjects of agrarian industry, changes in the foreign currencies exchange rate. The level of financial risk is also formed under the influence of internal environment of the enterprise, among the elements of which it is reasonable to include: management system, accounting methods, planning and control system.

Political risks are associated with the political regime in the country, the form of governing, the system of economic relations. Sharp changes in the political system of the country can negatively affect the activities of agricultural producers by limiting access to the sales markets, forming state regulation of price levels.

Institutional risk lies in the methods of regulating the taxation system for agricultural producers, setting rates, benefits and exemptions. Simultaneously, the level of this risk is determined by the customs and tariff policy of the state, the policy of tariff regulation in the field of electricity prices, fuel and lubricants [5].

Hence, agricultural producers are exposed to various types of production and market risks. At the moment, not only agricultural producers, but also the state authorities should directly influence the reduction of the level of agricultural risks, which will be an effective step in attracting private

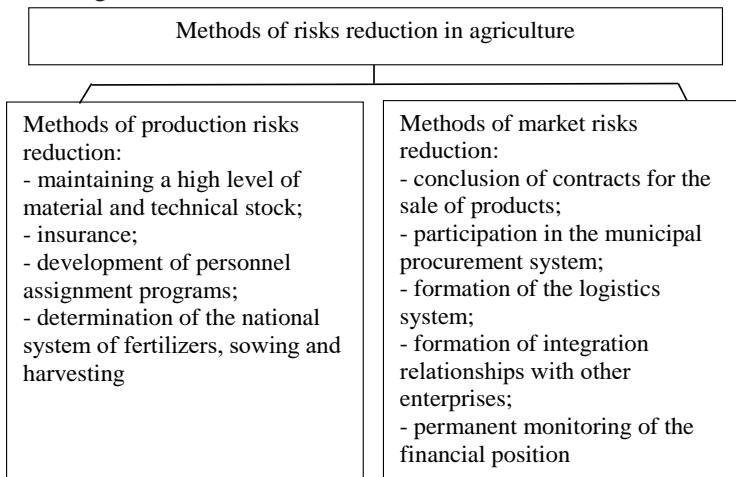
investments in the industry.

Agriculture has been actively developing in Ukraine in the recent years. Nevertheless, those measures carried out by the government in the field of formation of target national and regional programs are clearly insufficient. Investments to the development of the agrarian industry should also be attracted from the private sources. Investors should be interested in the profitability of this business sphere. It is known that before making an investment, investors assess risks they may face in the process of carrying out their production and sales activity.

The development of the risk management system in the field of agriculture is primarily connected to the definition of its concept. Therefore, the basis of the concept of risk management in agricultural sphere should reach the achievement of sustainable functioning of an agriculture enterprise. Simultaneously, risk management should optimally combine two directions [4]:

- taking measures to prevent (avoid) and reduce risks, overcoming their consequences at minimal costs;
- taking (accepting) risks and choosing a strategy that maximizes the probability of obtaining the expected results.

Fig. 2 represents the main directions of production and market risks reduction in agriculture.



**Fig. 2. The basic directions of reduction of production and market risks in agriculture**

Conclusions. Risk management, being a component of the management system of an agricultural enterprise, must be grounded on the same principles, correspond to the general strategy of the enterprise and contribute to the

performance of the main functions of the enterprise management system. The improvement of the enterprise management system as a whole and the management of risk situations or events in particular, should provide adjusting the management structure, adapting it to the changes occurring in the course of enterprise activities, by using new management methods, conducting a sound and grounded personnel policy, using update methods of data processing and making reasonable managerial decisions. The development and improvement of the risk management system at the enterprises of agricultural sphere will significantly increase the efficiency of agrarian industry as a whole.

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## **STRATEGIC DIRECTIONS OF INTERNATIONAL TOURISM DEVELOPMENT**

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Today, tourism is considered to be one of the most promising areas in socio-economic and socio-cultural development, contributing to the improvement of the living's standard and quality of life and being an integral part of people's livelihoods. The range of functions performed by tourism allows it to be used as an effective tool to stimulate socio-economic growth at macro- and meso-levels of management.

In the context of globalization, the travel sector was one of the hardest hit in the world by the COVID-19 outbreak, which affects both supply and demand. This will provoke further regression in the face of a weaker global economy, geopolitical, social and trade tensions, and uneven performance among major outbound travel markets [6].

At the same time, it wa be noted that the current situation should be viewed not only as a problem, but also as an opportunity to bring the tourism sector to a qualitatively new level. In particular, scholars argue



that the consolidation efforts of all executive authorities to create favorable conditions for improving the quality of tourist services to the level of international standards was primary importance in the tourism development. The tourist attractiveness of a region depends not only on the comfortable accommodation and attractive tourist products availability. Tourism makes increased demands on the general infrastructure development level of the region and the domestic culture of the local population: the state of housing and communal services, roads and communications, consumer service's quality, trade, preservation of cultural and natural sites, as well as the conditions and guarantees of tourist's safety in this area [4].

The natural, recreational, historical and cultural potential of many countries gives impetus to the international tourism development. In this context, Ukraine was no exception. In the practical enterprise's activities of any industry, the strategic management system includes one of the main management functions – strategic planning. The process of strategic planning for the economic enterprise's development was aimed at complying with the mission of the enterprise and achieving the goals of the corporate strategy, determining the strategic potential, and developing a flexible production and pricing policy. It should ensure the efficiency of the company's economic activities and the new innovative development, technological opportunities in the long term.

For this purpose, it is necessary, first of all, to take into account changes in the environment that pose risks for enterprises to the fullest extent possible, i.e., to be able to identify uncontrollable force majeure circumstances, risk forces of influence from the macro-, meso- and microenvironment and to develop measures to minimize their negative impact on the economic development of the enterprise.

According to Ukrainian researcher, international tourism is travel for tourism purposes outside the country of permanent residence. There were two forms of international tourism: inbound and outbound, which differ in the direction of tourist flow [2].

International tourism as a type of business has a multiplier effect on all sectors of the economy, so its effective organization and management stimulates the economic system's development of localization in different levels. The pace of international tourism development has been clearly defined since the Second World War. On average, they grew by about 5% per year. Their development was hindered by factors that were erased over time and lost their relevance as new technological processes were established, but others took their place [3].

Within the framework of global tourism development, the need for strategic tourism planning development was undeniable, i.e., the definition and availability of a development strategy for tourism, and its implementation

was conditioned by the functioning of strategic management in tourism.

Strategic management is a proactive process of achieving the long-term compatibility of the relevant territory in planned tourism, which demonstrates a more profitable way to achieve the priority goals of tourism development set by the national economy, which, accordingly, was influenced by tourism development. There were a number of advantages and disadvantages of enterprise's strategic management (Table 1).

*Table 1*

**Advantages and disadvantages of strategic management of the enterprise**

<b>Advantages</b>	<b>Disadvantages</b>
linking current decisions to future results, organized reflection on decisions (as opposed to spontaneous decision-making) with forecasting their consequences;	substitution of the strategic activity content for the form, bureaucratization of procedures for developing strategies and plans;
focus on finding alternative options for achieving goals, i.e., acceptable goals within the defined objectives and existing constraints;	excessive time spent on developing strategic plans, which manifests itself in delayed reactions to changes in the environment;
identifying opportunities and threats, strengths and weaknesses of the company's activities, taking them into account when setting goals and formulating strategies to ensure that these aspects were influenced;	the gap between strategic and current activities, the expectation that having a strategy already ensures its implementation;
conscious preparation of the future and for the future;	overestimation of expectations, development of unrealistic plans that do not take into account the specifics of the planning object and the possibilities for implementing changes;
division of responsibilities not only between business lines, but also between current and future activities.	hoping to find a «panacea» for the problems and directing all efforts and resources to it, rather than applying a systematic approach to implementing strategic activities.

*Source: developed on the basis of [1; 3; 6; 7; 8]*

The strategic management problems of Ukrainian enterprises were related to the realization that in order to obtain the desired result, both current and strategic tasks must be solved simultaneously. Thus, in newly established enterprises, management is so busy with current problems that it is unable to engage in planning (let alone long-term planning), and in existing enterprises, managers refuse to make plans, arguing that they have done without them in the past. The reasons were also the complexity and rapid change of market processes, in particular, the increase in the size of enterprises, the complexity of their activities, the instability of the external environment, etc. It is worth noting that the complexity of tourism management lies in the fact that the tourism market is one of the most volatile and unpredictable, as

it is sensitive to changes in various factors and circumstances: income and price levels, marital status and age structure, epidemiological situation, etc.

As to the prospects for the development of international tourism in Ukraine, they were reflected in the strategy. The purpose of the strategy is to create favorable conditions for intensifying the development of tourism and resorts in accordance with international quality standards and taking into account European values, transforming it into a highly profitable, competitive sphere integrated into the world market, which ensures acceleration of region's socio-economic development and the state as a whole, contributes to improving the quality of life of the population, harmonious development and consolidation of society, and popularization of Ukraine in the world [1].

The strategic directions of international tourism development in Ukraine were determined by a number of factors and conditions that manifest themselves at both the national and global levels. The level of national competitiveness in the field of international tourism depends not only on the specifics of the country, but also on a number of global changes that affect the economy development as a whole.

When determining the strategic direction of international tourism development, it is necessary to take into account both the problems solved by the leading countries in the global tourism market and the countries that have a direct impact on this type of tourism in Ukraine. If a country wants to effectively implement a tourism development strategy, it is necessary to apply the idea of strategic management. Strategic management functions ensure efficiency and effectiveness in achieving tourism development goals. One of the characteristics is organizational efficiency in all enterprises of the tourism sector, which means the implementation of management control with determines the effectiveness of activities. Every industry has its own trends and innovations, and tourism is no exception. With ever-changing technological processes, cultural changes, and the evolving landscape, trends are also changing. In addition to economic impact, tourism has a social impact. The problem of the tourism sector social impact has both a regional and a national aspect. However, it should be noted that the global crisis caused by the coronavirus pandemic has radically changed the tourism industry around the world. The COVID-19 pandemic has clearly shown that the economies of both individual countries and the European community as a whole were highly dependent on tourism and related sectors. Several months of almost no travel life for travelers around the world have caused enormous damage to all market participants [7].

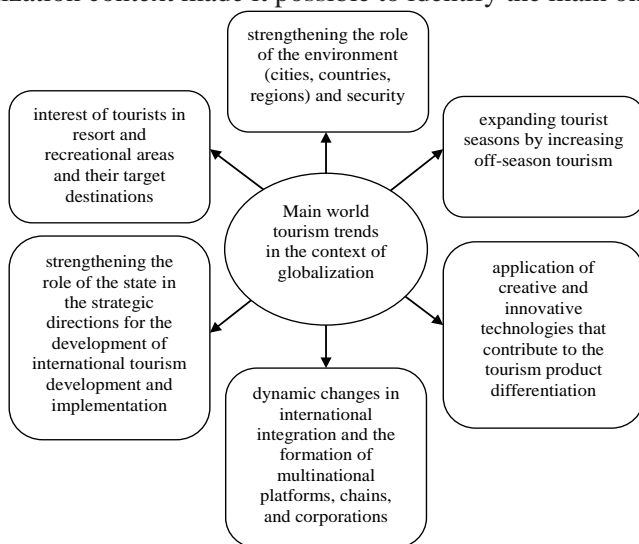
In the context of the global pandemic, globalization and the rapid innovative technologies development, the leaders world's countries were being challenged in the international tourism industry by setting complex tasks, the solution of which was based on the formation and implementation

of an effective organizational and economic mechanism, which ensures the strategic development of tourism enterprises in the current conditions.

The World Tourism Organization (UNWTO) has identified the following as the main tasks for the international tourism's development in the near future: the need for state investment in tourism development and strengthening the role of public and private partnerships to increase the coordination role and overall responsibility on the part of the world's leadership for the tourist's safety and awareness. The international tourism development also depends on the level of countries and regions' socio-economic development. The highest level of its development was observed in Western European countries [8].

Thus, today, the world's tourism leaders were facing global challenges, where strategic modeling of enterprise development is one of the most pressing issues in the formation and implementation of an effective strategic management system in the global cataclysms and collapses context.

The analysis and systematization results of trends in world tourism in the globalization context made it possible to identify the main ones (Fig. 1).

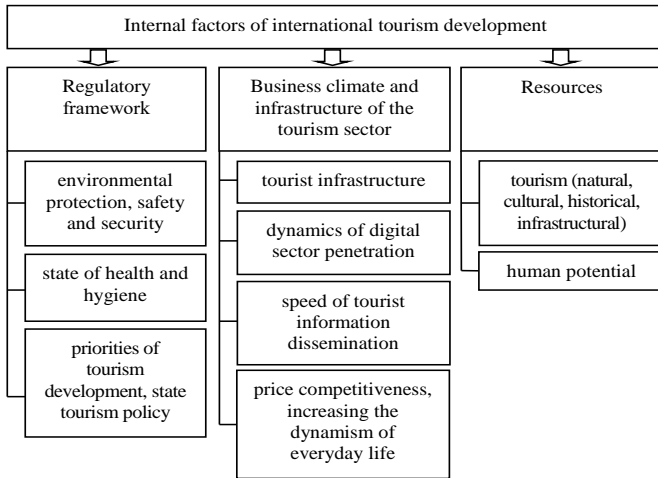


**Fig. 1. Main world tourism trends in the context of globalization**

*Source: developed on the basis of [1; 4; 6; 7; 8]*

We can also note the intensification of individual tourism, where recreation for people of all ages, including the elderly, is becoming more popular. The share of extreme, youth sports and inclusive tours has increased. There was also a greater interest in camping, beach vacations, and multi-purpose visits to resorts, etc.

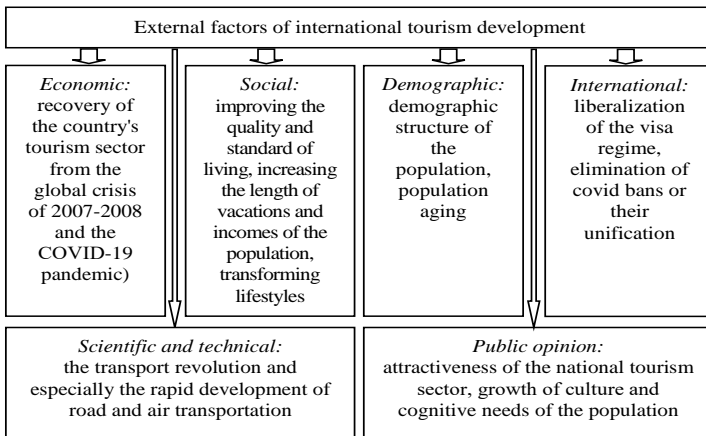
The development of international tourism as a systemic object is influenced by internal and external factors operating at the global and national levels. Internal conditions include: regulatory framework, business climate and infrastructure of the tourism sector, resources (Fig. 2).



**Fig. 2. Internal factors of international tourism development**

Source: developed on the basis of [6; 7; 8]

Accordingly, the external conditions that influence the development international tourism directions of the economy which determine the strategic development in the country are: economic, social, demographic, scientific and technical, international, and public opinion (Fig. 3).



**Fig. 3. External factors of international tourism development**

Source: developed on the basis of [3; 6; 7; 8]

Thus, the current dynamics of tourism development and economic gains from tourism activities make it one of the global economy's most important sectors in the dynamics economic processes, social component improvement, environmental protection and cultural heritage restoration, as well as their transformations caused by various processes. International tourism is an indicator of the country's socio-economic development, as well as important sectors of the economy. These include transportation, trade, communications, construction, and agriculture.

Despite the trends, the enterprise's strategic tourism development can be a way not only to maintain the company's position in the market, but also to improve its performance, as it implies certain progress that can be realized both in improving the market position and optimizing the company's internal business processes, opening new markets or using innovative channels to promote existing or new types of services.

In the tourism industry enterprises practice, there was a single philosophy of modeling the strategic planning process – tourism enterprises active adaptation to the environment, the environment to the tourism enterprise's needs; as well as several general stages that were repeated in different schemes of the strategic management process. The international and domestic tourism development today's realities directly depends on SMART technologies, which were an integral part of time management [5].

Thus, strategic management of the tourism business involves increasing revenues to the state budget, promoting the development of the little-known "green" tourism, identifying the tourism services target consumers segment, their purchasing preferences, etc. The creation of a development strategy requires identifying the primary alternative: relying on foreign tourists or reviving the domestic tourism process. Both directions require changes in the domestic tourism market in line with international requirements.

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## **PROSPECTS OF INNOVATIVE MANAGEMENT IN THE DEVELOPMENT OF SUSTAINABLE LAND USE OF AGRICULTURAL ENTERPRISES**

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At the UN Conference on Environment and Development held in Rio de Janeiro in 1992, a program of economic and social development of mankind in the 21st century was adopted, which is based on the concept of sustainable development, which is presented as a modification of the biosphere and the application of human, financial, living and non-living resources to meet human needs and improve the quality of life [1].

One of the fundamental principles of the concept of sustainable development is the strengthening of the relationship between the economy and ecology, the formation of a single ecological and economic system of development as a system of complete and comprehensive intensification, which ensures ecologically safe sustainable management. Today, the concept of "sustainable development" has quite a large number of definitions, as within the framework of this concept, they try to describe the processes of development of systems of various nature and levels of organization: biological, socio-economic, political, geographical, and others.

It is necessary to specify the conditions for the transition to the path

of sustainable development, both at the global and at other levels of the hierarchy (regional, national, local, industrial). From this point of view, the use of the principle "think globally – act locally" is promising, which involves taking into account the specifics of environmental, social, and economic problems characteristic of each specific natural-geographical complex, that is, the spatial structuring of global problems [9].

The concept of sustainable development emerged as a result of combining three main points of view: economic, social and environmental. Reconciliation of these different points of view and their translation into the language of specific measures that are means of achieving sustainable development is a task of enormous complexity, since all three elements of sustainable development must be considered in a balanced way. The components of sustainable development can be presented in the form of multiple interests and goals of each of the systems: ecological, economic and social. The intersection of these sets leads to the need to implement the procedure of harmonization of interests. Principles of harmonization: bearable, equitable, viable. Thus, the coexistence of ecological and economic systems should be based on viability, which is implemented mainly in adaptive management systems; the coexistence of ecological and social systems is implemented according to the principle of tolerance; the coexistence of social and economic systems is implemented on the basis of the equality of the interests of economic entities and the interests of society.

These provisions quite precisely, although they do not fully characterize the concept of strategy in the implementation of the ideas of sustainable development. A variant of implementation of indicators reflecting the level of socio-economic development can be presented in the form of a projection on specific priorities of socio-economic development. Economic growth, based on the rational nature of the use of resources, in its essence should cause the rise of the social sphere at the expense of a high level of employment, and since man is a part of nature and is biologically connected with it to ensure his survival, he must take care of the ecological state.

The creation of technical potential to ensure sustainable development is directly related to the introduction of sustainable, environmentally friendly and cost-effective technologies in industry, agriculture, energy, water supply, urban management and transport. Such technologies are complex systems that combine cost-effective and environmentally safe production schemes, the necessary communication and information tools, as well as new management and reporting mechanisms (environmental marketing and management, insurance, accounting for environmental protection activities, a system of rational environmental management, etc.).

The sustainable technological model, unlike the usual production scheme, is characterized by serial production, high speed, economic efficiency,



centralized control and standardization, orientation to the human factor, humane attitude to the environment, the need for repeated waste disposal and ease of operation.

To achieve the goals of sustainable development in the production sphere, it is necessary to:

- ensuring the priority of "breakthrough" technologies, which are ahead of both domestic and foreign analogues in terms of their indicators;
- introduction of new models of technology management, in the framework of which ecological restructuring and ecological modernization of production are important measures of a preventive nature;
- development of tools for decision-making and the formation of new infrastructure with the aim of introducing sustainable technologies into the practice of economic activity, including a system of long-term planning, mechanisms of financial regulation, measures of public support, developed innovative structures, conditions for modernization and transformation of infrastructure.

The presented approach, based on the combination of interests of subsystems, makes it possible to determine the main mechanism for implementing the principles of sustainable development – the mechanism of cooperation. The value of the cooperative idea in the formation of sustainable development mechanisms lies in their ability to harmonize the interests of society to achieve well-being. Cooperative principles are a set of ethical foundations of organizational, economic, social, cultural and educational and other spheres of cooperative activity. Special studies show that, despite the surplus of agricultural products in the EU countries, their need for ecologically clean products is met only by a third. At the same time, the demand for such products is growing at a faster pace. Ukraine has certain prospects for claiming part of the world market. This is extremely important for us, because environmentally friendly products are products with a high level of added value. In the WTO, countries that export goods with a high level of added value (raw resources are not) primarily benefit. This is a significant opportunity to become independent from price fluctuations, the price situation for energy carriers, on which the state of the economy depends very seriously today. Finally, these are global markets that are growing and renewable, as opposed to natural raw resources, products. Therefore, Ukraine's prospects for occupying its niche in the supply of ecologically clean products are very good. The basis of the provided management is the presence of a development strategy.

The formulated strategy should be used for the development of strategic projects and search methods. The role of strategy in search is, first, to focus attention on certain areas or opportunities, and second, to reject all remaining opportunities as incompatible with the strategy. The MOST model can be

used to solve the question of how much the resulting picture corresponds to the mission, goals and strategies of the organization being implemented.

This model brings clarity to the hierarchy between mission, goals, strategies and tasks. The mission implies a vision of the company's long-term prospects, sets the limits of acceptable behavior, and defines the purpose of the company. But at the same time, the mission does not give an answer to the question of what exactly should be achieved. This is served by goals, and these goals must meet a number of criteria: be specific, measurable, agreed with the company's stakeholders, resourced, and their achievement must be time-bound. Having analyzed the general trends in the development of sustainable agriculture according to the materials of the world organization FAO, we note that the concept of the formation of ecological agriculture is a generally recognized concept of sustainable development of agro-ecological systems [6]. Having analyzed the concept of "ecological agriculture", we note that the basic principles are mainly laid down in its definition: the rejection of chemical means of action on plants, the use of biological action and the formation of the ecosystem. That is, the environmental friendliness of the obtained products is judged by the method of production, which, in fact, is the production technology. So, it is with technology that ecological agriculture begins. A significant number of new crop production technologies developed over the last decade are based on the optimization of innovative land use management. Such technologies include: the technology of managing the moisture supply of crops, the essence of which is the implementation of agrotechnical measures designed to promote the accumulation and retention of moisture; pasture management technology, the essence of which is to optimize grazing and running of animals, which ensure natural restoration of grass cover and many others. The use of the MOST model of strategic planning makes it possible to form some hierarchy of modern agricultural technologies on the way to the formation of ecological agriculture.

Thus, Ukraine has sufficient biomass potential available for energy production – more than 30 million tons of conventional fuel / year. The main components of the potential are primary agricultural waste and energy crops, the cultivation of which on an industrial scale has been actively developing in the country in recent years. In general, the economic potential of waste from agricultural enterprises is 11.6 million tons of conventional fuel/year, energy crops – 7 million tons of conventional fuel/year. Currently, only about 10% of the total potential of biomass is used for energy needs in Ukraine – 3 million tons of conventional fuel/year. It is mainly wood biomass in the form of firewood, chips, pellets/briquettes (in total 87.2% of the total annual volume of biomass use), and sunflower husks (6.6%). The least actively used vegetable waste is 52 thousand tons of straw per year, which is <1%

of the economic potential of straw in Ukraine [8, pp. 130-131].

In our opinion, the use of first-generation biofuel has many positive points from an economic point of view:

- there is an increase in the energy independence of settlements or entire regions from the supply of external energy carriers from the production of thermal energy, and in the future from electricity, biodiesel, bioethanol;
- a more rational forecasting of heat energy production costs is carried out (they no longer depend on market prices);
- small and medium-sized businesses are developing (because with effective management, this is a promising and profitable area);
- the investment attractiveness of regions rich in biofuel resources increases.

From an ecological point of view, there are also advantages of using first-generation biofuel:

- the soil is enriched with minerals, trace elements and substances of natural origin, as a result of which such land resources will have a low degree of degradation and will be quickly restored, unlike lands where heavy crops such as sunflower, corn, rapeseed are grown;
- when burned, energy willow, for example, gives a high heat output, as well as low emissions of carbon dioxide and greenhouse gases, which are processed by the plant during its growth in the process of photosynthesis, where the opposite side of this process is the release of oxygen;
- the process of soil erosion slows down;
- the soil is cleaned of pesticides, since the same energetic willow is also a natural filter [7, pp. 163].

The current state of the agricultural system of Ukraine can rightly be considered the heritage of traditional farming, characterized by a significant number of plowed areas, eroded and weathered lands. The intensification of agricultural production has somewhat improved their condition due to the clear passage of technology. The mission of the national agrarian production is defined as universal promotion of the principles of conducting ecological agriculture. The goal can be defined as the formation of organic agriculture, i.e. the introduction into practice of methods of soil treatment and plant care that allow obtaining an ecologically clean product without disturbing the ecosystem [4; 10].

A sharp transition from arable farming to organic farming is impossible, so the strategic task of producers should be the implementation of no-till technology as a stabilization system, which is the basis for stabilizing the phytosanitary environment of the ecosystem. Many years of research by domestic and foreign scientists [2; 3; 5] made it possible to identify characteristic stages in the dynamics of the phytosanitary situation during the implementation of no-till soil treatment technologies: Stage I – deterioration

of the phytosanitary situation due to the growth of weeds (especially perennial weeds), increase in the harmfulness of pests and diseases (duration of 4-5 years); Stage II – stabilization of the phytosanitary situation (duration 3-4 years); Stage III – due to the activation of natural regulation mechanisms, the number of harmful organisms is significantly reduced compared to the level at the time of the introduction of such technologies.

Specialists of the international organization FAO [6] proposed an economic division of the process of adoption/adaptation of technology into four theoretical phases. This is a theoretical unit that facilitates the understanding of technology by analyzing the actions of new technologies in the production process of agricultural enterprises. The tactical implementation of the goal can be based on the use of a system of precision farming technology, the task of which will be to control the process of technological updating, correcting possible errors and taking into account the specifics that have arisen.

The tense situation with the development of harmful organisms obliges specialists of agricultural enterprises to conduct constant phytosanitary monitoring of agricultural crops cultivated using such technologies. Only knowledge of the real situation in each field makes it possible to effectively fight against pests, diseases and waste plants, which means - to reduce the level of costs for plant protection. Such a unity of innovative technologies and their hierarchy will make it possible to form a competitive innovative agriculture of Ukraine, a high culture of agriculture, preserving the richness of the natural world. With such a construction of innovative land use management, the implementation of technologies, the key principles of each of them do not contradict each other, but harmoniously complement each other, forming the possibility of obtaining a synergistic effect, which is an indicator of a civilized approach to land management.

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## **THE ROLE AND IMPORTANCE OF FINANCIAL MANAGEMENT AT THE ENTERPRISE**

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Under conditions of a market economy, when enterprises are interested in increasing the volume of sales and ensuring a competitive advantage on the market of goods and services, the role of financial results of activity is significantly increasing, both for the enterprise itself and for its numerous partners, owners, personnel, and financial authorities. Positive financial results are the basis of the survival and stable development of enterprises, as they ensure the fulfillment of such principles of commercial calculation as economic independence, profitability, self-financing and material

interest. Only under the condition of making a profit, the enterprise has the opportunity to be economically independent and finance industrial and social development with its own resources.

In the system of managing various aspects of the activity of any enterprise in modern conditions, the most complex and responsible part is financial management. The implementation of effective financial management at large enterprises, as a rule, requires a radical restructuring of the management mechanism of the entire enterprise as a whole.

First of all, this can be explained by the fact that large enterprises carry a management style that was left from the days of the planned economy, for which the main criteria for the success of their activities was the implementation of the production plan at any cost. As a result, for the head of the enterprise, the main task was to fulfill a state order for the production of products, and not to make a profit. Therefore, the decisive factor was the well-being of the production management system, and financial management played a secondary role.

In the conditions of a market economy, there is a shift in emphasis from purely production planning to financial planning, accordingly, the structure and direction of information flows must change. However, the existing management accounting has significant shortcomings and does not allow:

- quickly bring together disparate financial information;
- to determine the influence of centers of income and expenditure formation on the overall financial result [1].

The management of the enterprise in this case is characterized by signs of systemic disorganization, characterized by an excess of insignificant information and a lack of necessary and operational management information, fragmented control in all directions of the enterprise's activity, great inertia in the implementation of managerial decisions.

The financial results management system is an integral part of the overall enterprise management system. The effectiveness of any management system largely depends on reliable, complete and timely information support. The more diversified the operational, investment and financial activities of the enterprise, the higher the role of quality information for making management decisions in the field of profit formation and use.

A systematic analysis of the financial condition of the enterprise, its solvency, liquidity and financial stability is necessary because the profitability of any enterprise, the size of its profit, largely depend on its solvency. The financial condition of the enterprise depends on the results of its production, commercial and financial and economic activities. Therefore, it is affected by all these types of enterprise activities.

The financial condition of the enterprise must be systematically and comprehensively evaluated using various methods, techniques and methods

of analysis. This will provide a critical assessment of the financial results of the enterprise both statically for a certain period and dynamically - for a number of periods, will make it possible to identify "weaknesses" in financial activity and ways of more efficient use of financial resources, their rational allocation.

Financial management is a system of principles and methods for the development and implementation of management decisions related to the formation, distribution and use of financial resources of the enterprise and the organization of the circulation of its funds [2]. Financial management is an integral part of the overall enterprise management system, which consists of two subsystems: the object of management (managed subsystem) and the subject of management (managing subsystem).

The main goal of financial management is to ensure the maximization of the income of the owners of the enterprise in the current and prospective period.

The main object of management in financial management is the cash flow of the enterprise as a continuous flow of cash payments and receipts passing through the settlement and other accounts of the enterprise. To manage money circulation means to predict its possible states in the near and distant future, to be able to determine the volume and intensity of receipt and expenditure of funds, both for the short-term and for the long-term perspective.

To determine the expected volume and intensity of the enterprise's cash flow, it is necessary to analyze all the features and conditions of the enterprise's cash flow, the process of circulation of capital, the movement of financial resources, and the state of the enterprise's financial relations with all participants in the commercial business.

Thus, in the formation of financial management at the enterprise, the issue of building intra-company management technology comes to the fore. This is a large and troublesome work, which involves the implementation of the following measures:

1. Reconstruction of the management mechanism of the entire enterprise taking into account the requirements of financial transparency.
2. Development of an organizational management structure with the dividing of production into business processes.
3. Organization of the work of the financial service in such a way that it is possible to receive information from all areas of work concerning:
  - objects of financial management;
  - management processes (planning, forecast analysis);
  - financial flows.

Also it is necessary to organize the methodical support of the financial service with the means, methods, and principles of modern financial



management, that is, to actually train the staff to work in new conditions.

4. Development of management accounting standards for the entire enterprise as a whole and for each link separately: reporting forms, deadlines, system of information flows, document flow, etc. It is especially important to achieve a combination of managerial financial accounting and accounting, since the main source of actual financial information is the company's accounting statements. The purpose of this stage is to ensure prompt receipt and summarization of the necessary financial information in accordance with the requirements.

5. Automation using modern computer technologies and software of the above mentioned activities.

The subject of management, i.e. the managing subsystem of financial management, is the financial directorate and its divisions (departments), as well as financial managers. The management subsystem creates and implements the goal of financial management. The main final goal of financial management is to increase the competitive position of the enterprise in the relevant field of activity through the mechanism of formation and effective use of profit [3].

The main rule or principle that financial managers should be guided by is the exclusivity of the interests of the firm (enterprise). The final financial goals of the enterprise determine the entire chain of goals and actions of all participants in the process. The legal legitimacy of operations ensures their protection and the legitimacy of income. Therefore, the functional responsibilities of the financial manager at the enterprise are:

- ensuring the legality and security of economic transactions with the capital and financial resources of the enterprise;
- establishment of normal financial relations with all participants of the commercial operation;
- development of capital investment plans and forecasts and assessment of their effectiveness;
- development and implementation of investment projects aimed at increasing the profitability of the enterprise and its subsidiaries;
- selection and justification of the enterprise's credit and currency policy;
- insurance of capital and financial operations against financial risks and losses;
- identifying the rating of the enterprise and competitors;
- continuous provision of economic activity with financial resources and control over the effectiveness of their use;
- analysis of financial results and financial condition of the enterprise and clients [4].

Therefore, it can be concluded that it is very important for the enterprise to pay great attention to the organization of the process of managing financial



results because the indicators of financial results characterize the absolute efficiency of the economic activity of the enterprise. These results form the basis of the economic development of the enterprise and the strengthening of its financial ties with all participants in the economic process.

The effective operation of the enterprise and ensuring high rates of development and competitiveness of its products directly depends on effective management of income and expenses. Therefore, in our opinion, the enterprise, first of all, needs to focus on finding opportunities to improve the use of its already existing production and financial potential.

There are two main ways to optimize the financial state of the company, the first is an optimization of activity results (the enterprise should earn more) and the second is a rational disposal of activity results [5].

Possibilities to optimize the financial state of the company due to a more rational disposal of the results of activity are effective, but over time they are exhausted. Therefore, it is necessary to remember that the base of the stable financial state of the organization for a long time is the obtained profit. Therefore, when optimizing the financial state of the organization, it is necessary to strive, first of all, to ensure the profitability of the activity.

In order to improve financial results and promote the realization of identified reserves, it is possible to apply the following measures both in the short and medium terms, as well as in the long term:

- to consider and eliminate the causes of overspending of financial resources on material and other operational costs;
- to implement cost management accounting systems at the enterprise in terms of responsibility centers and costs for individual product groups;
- to implement an effective pricing policy, differentiated in relation to certain categories of buyers;
- to improve advertising activity; increase the effectiveness of individual advertising measures;
- to pay sufficient attention to training of personnel, qualifications improvement;
- to develop and introduce an effective system of material incentives for personnel, closely related to the main results of the enterprise's economic activity and saving resources;
- to use systems withdraw premium for employees in case of violation of labor or technological discipline;
- to carry out constant control over the conditions of storage and transportation of commercial products.

Implementation of the proposed measures will allow to use the identified reserves and improve the overall quality of the enterprise's functioning, which, in turn, will lead to the optimization of the financial result of the activity [6].

Therefore, in order to reduce the cost and increase the profit, it is important to observe the strictest economy regime at all stages of the production and economic activity of the enterprise. The consistent implementation of the economy regime is manifested primarily in the reduction of the costs of material resources per unit of production, the reduction of costs for maintenance of production, management and other administrative costs.

In the process of improving and maintaining the financial state of the enterprise, the following measures should be implemented: optimal ratio of equity and debt capital, mobilization of internal reserves, increase of incoming and decreasing outgoing cash flows, reduction of the cost of production and expenses, optimization of sales policy, increase of revenue from sales, identification of hidden reserves.

At the same time the list of measures to improve the financial state is individual for each of the enterprises and depends on the area in which business is conducted, product groups, market conditions, regional infrastructure, enterprise management system, structure of production and management costs, technical and technological features and other factors. This leads to the need for constant, systematic financial analysis at the enterprise and improvement of its methods, construction of economic-mathematical models and formation of forecasts of prospective development.

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# **THEORETICAL AND METHODOLOGICAL BASIS FOR EVALUATING THE EFFICIENCY OF FUNCTIONING OF JOINT-STOCK COMPANIES IN THE SYSTEM OF THEIR MANAGEMENT**

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The corporate sector occupies a special place in the national economy, where more than 35 thousand enterprises established in the form of joint-stock companies operate. The effectiveness of their functioning significantly affects the development of the state as a whole. The results of joint-stock companies depend not only on the ability of management to rationally use available resources, but also to respond in a timely manner to change the environment in a timely manner.

The constant development and improvement of the internal mechanism of activity of joint-stock companies, changes in the external environment and the need to adapt enterprises to changing conditions of functioning require a qualitatively new approach to determining the efficiency of a joint-stock company [1].

The purpose of the study is to deepen the theoretical and methodological principles of assessing the management of the efficiency of functioning of joint-stock companies of Ukraine on the basis of taking into account the peculiarities of their activities and prospects of development.

According to the purpose of the study, the range of tasks is outlined: substantiate theoretical approaches to the essence of managing the efficiency of functioning of a joint-stock company; identify factors that have a significant impact on managing the efficiency of the activity of a joint-stock company; determine the peculiarities of the activity of joint-stock companies in Ukraine.

On Today, the doctrine is recognized, which is so-called all acts corporations only on the growth of the excuse income, which is manifested in the half -life, imposing the course of stock of stock imprisonment and the extent. In the 21st this an entrance, it is a snorty, then in the effective work of corporation and second-sides, the awards The second interested parties include the needs, hundreds, supplements, staff [2, p. 354].

Thus, the organization is unacceptable to focus solely on the needs of

only one interested party, provided that survival and its success in the long run, and the relationship between corporation, shareholders, consumers, employees, suppliers and the state are mutually binding. All strategies and potential of a joint-stock company must be linked and agreed if the company seeks to take a favorable position in the market and bring real benefits to all interested parties on a long-term basis.

The effectiveness of the joint-stock company is realized through the skills and ability to take into account the desires and needs of stakeholders and organization in full. This work is based on coordination of performance criteria with the organization's strategy and its capabilities [3, p. 84].

The key role in this process is played by the leadership of the blood pressure. They should understand and understand what shareholders, customers, employees, creditors and regulatory bodies want from the company, and that each category requires an organization to meet their own needs. In this case, the efficiency system and management system should be sufficiently flexible for transparency and the possibility of tracking the processes occurring in the organization and interconnections with interested parties [4, p. 315].

It should be noted that the detection and analysis of information concerning the degree of satisfaction of all parties and the development of criteria for such an assessment requires some costs not only of material but also physical. To prevent collecting, analyzing, storing unnecessary data and reducing the appropriate costs, you need to develop an efficiency measurement system. The construction of the system lies in four main stages: development, implementation, analysis, adjustment (or change). In this case, the information to be used must be reliable, purposeful, necessary, logical, accessible, clear, timely and require a minimum of costs (Table 1).

It is obvious that the information plays a crucial role in the measurement of efficiency. It should include all the stakeholders. All data should be constantly updated to prevent time and effort to track and calculate indicators that have lost their value for the company, that is, the system must be constantly improved. The simultaneous development and adaptation of methods of work of the organization to its goals is essential.

Thus, a properly and logically developed system of managing the factors of influence on the effectiveness of the company is a measure of the success of the company not only in the short-term but also in the long run. There are two aspects of assessing the effectiveness of the corporation.

On the one hand, each participant is interested in the efficiency of functioning, on the other – a joint-stock company is interested in each participant and intends to gain some benefits for themselves. Therefore, there is mutual interest [6, p. 40].

The first and main investor of the joint-stock company is always

shareholders. When buying shares of the company, they plan to earn income in the form of an increase in the capital of the corporation and accordingly payment of dividends. In addition, the shareholders must receive regular and truthful information about the company in the form of financial statements in order to invest the correctness of their funds. Non-financial indicators also have a significant effect on shareholders' investment. It is the situation of the enterprise in the market, its rating among competitors, the reaction of the financial market to the company's shares, its image and reputation among consumers and suppliers.

*Table 1*

**Requirements for information necessary to build a system of indicators of management efficiency of joint-stock company**

Goal	1. What is this information collected for?
	2. • Why should information promote?
Data source	1. Where should the data come from?
Attitude towards the company's strategy	1. Are this data interconnected with others?
	2. • What strategy is information related to?
	3. • In what strategy will this data use?
Measurement	4. How can this aspect be measured?
	5. Is it possible to use a mathematical formula?
	6. Is the executor system clear?
	7. Is this formula unequivocally treated?
	8. Is the data measurement scale acceptable?
	9. How accurate are the data obtained?
	10. Does the measurement of this indicator stimulate the required behavior model?
Standards and levels of planned values	1. What level of efficiency is it advisable to achieve?
	2. How long does it take to spend your desired level?
	3. What are the values of this industry? Have competitors?
Responsible for measurement	1. Determining the position, name of the responsible person, his responsibility for collecting and ordering data

*Source: developed on the basis of [5, p. 135].*

At the end, shareholders should trust the management of a joint-stock company. The criterion for the assessment of the management is the fulfillment of the promises. Other investors of the enterprise are banks and potential shareholders that have similar approaches to the realization of their interests. Moreover, the requirements of such investors are higher, as they seek to make a profit for their investments in the first place and regardless of any internal or external problems of the organization [7, p. 235].

The interest of investors-credit institutions, banks lies in two planes: financial and non-financial. The financial indicators of the assessment of the activity of the enterprise include a number of ratios, in particular solvency, business activity, financial stability, etc. Most shareholders do not calculate these ratios, leaving it at the discretion of professionals. For them, non-financial criteria for assessing a joint-stock company are clearer and accessible.

These include the strategy used, the increase in income for the action, the experience of management, its professionalism and loyalty to the investor, the share of the company in the market, the use of the latest and progressive methods of doing business, professionalism and experience of executors (including middle-level managers), ability to attract.

To the work of talented people, the image and reputation of the company in the market of these services. In general, the creditor is not interested in the process of developing the strategy and its implementation, but the results of its functioning and implementation, which are in the organic and constant growth of the joint-stock company, optimization of costs, optimization of cost of capital, rationality of the ratio of own and attracted funds.

The interest of the joint-stock company in the lender lies in the field of financial dimension. First of all, the company expects capital investment to expand and improve existing activities or development of new areas of work. Secondly, the company distributes its risks with the lender. And thirdly, a joint-stock company must feel trust, commitment and support for its activities.

To determine the level of satisfaction of financial investors, it is advisable to develop a certain questionnaire, according to which the evaluation will be carried out at least once a year. Respondents should be interviewed by middle-level manager.

The task of the company in this case to obtain objective data on the interest of both internal and external investors in investing in corporation. A structured survey is conducted to collect the necessary information. The most appropriate contact method is selected for each interviewed method, such as mail, personal contact or using Internet. The sample is not accidental; the circle of interviewees is clearly outlined. It is advisable to develop closed alternative questions to simplify information processing. The approximate questionnaire may look like this (Table 2).

The issues may vary depending on the practice of the activity of each joint-stock company. The method of processing the questionnaire is quite simple: as a percentage of the total number of questions, the proportion of the answer is determined. Such an assessment is based on the normal distribution of random values. The investor satisfaction level is determined on a scale.

Table 2

### Determining the attitude of financial investors to a joint-stock company

The question	Yes	No
1. Do you get dividends/income annually?		
2. Are you satisfied with the level of dividends/income received?		
3. In your opinion, is the image of a joint -stock company in the market?		
4. Are the company's strong position in the market?		
5. Does the joint -stock company have a prospect of further growth?		
6. Do you get regular information about the company's activities?		
7. Do you trust the information received?		
8. Do you analyze the information obtained by calculating financial ratios?		
9. Do you plan to invest in a joint -stock company in the future?		
10. In your opinion, is information about the Company?		
11. Do you trust the company management?		
12. Are you satisfied with the level of professionalism of the heads of a joint -stock company?		

Source: developed on the basis of [7, p. 235].

That is, in this case, to determine the satisfaction of the investor on a scale to a certain level, you need to get the number of answers "yes" for the questions asked (Table 3).

Table 3

### The scale of satisfaction of investors

Level	low	average	high
0-40%	√		
41-70%		√	
71-100%			√
Number of answers "yes"	The level of satisfaction		
0-5	low		
6-8	average		
9-12	high		

The other interested party in the work of the corporation is consumers. Consumers should be divided into consumers of final products and intermediaries. The company is interested in getting the maximum information about its work in the market from consumers, which will allow it to identify the main trends and in the future to achieve increased profitability. Such data are obtained in the survey process. When constructing

relationships with clients, a joint -stock company should determine exactly who its consumers are [7, p. 235].

Most businesses sell their products to direct consumers through intermediaries: retail and wholesalers, brokers, dealers, distributors. It depends on the product produced by the enterprise and the scope of its activity. If the company is interested in the growth of profits and confidence of consumers in its product, then for consumers the main criteria for the assessment of the company are the quality, price, timeliness and availability of the necessary products.

Therefore, corporations in their work should be guided by the principles:

- expanding and updating the range of products (services) offered by different consumer groups;
- attracting new and profitable customers in consumption of goods (services) of their own production;
- fulfill the needs of consumers;
- guaranteeing the quality of consumed goods (services);
- price/quality ratio;
- increasing the share in target market segments [8, p. 590].

No scope of the enterprise is overloaded with as many information as consumer work. That is why companies need to be clearly aware of what data they need to meet the needs of consumers and which are superfluous. The work on the removal of outdated information should be carried out constantly, all indicators should be carefully viewed at least once a year and be in line with the new organization and realities of the market. Consumer satisfaction from the goods received (performed services) can be measured by such indicators as the number of advertising from customers, the commitment of the trade brand, the degree of satisfaction of the work of the corporation staff, the percentage of consumers returning on new batches or types of goods, etc. [9, p. 201].

All these indicators are closely related to the planning and management process at the enterprise. Effectively planned work with consumers guarantees the availability of the necessary resources, training of staff the best methods of work, maintaining the required level of production capacity. Inadequate distribution of resources, high staff turnover and lack of proper methods of work and evaluation of its efficiency do not contribute to the proper service of consumers, and, consequently, full satisfaction of its needs [10, p. 112].

Summarizing the above, you can draw the following conclusions:

1. The effectiveness of a joint-stock company is the ratio of the income and expenses of logistics, financial, labor and information resources. Only a comprehensive approach to the corporation can increase the efficiency of the company as a whole.



2. Higher management should be initiative, be able to creatively analyze, combine theoretical and practical skills.

3. A large role should belong to the staff, its ability to analyze their work in terms of achieving the goals of the corporation, to provide for the prospect of company development and their own professional ambitions.

4. The timely fulfillment of mutual obligations to debtors and creditors, which is conditioned by the honesty, culture and image of the company in the market, should be observed.

5. The selection of a single team of managers, managers should be based on the following criteria: deep knowledge, honesty, use of physical and mental abilities in favor of the enterprise, devotion of the company.

6. Ensuring stable work of the team is possible only in the case of improving the social status of employees, their confidence in the future, which implies the demand of management not only to subordinates but also to themselves.

7. It is necessary to constantly use the achievements of scientific and technological progress, the development and implementation of highly efficient projects.

8. The criterion for evaluating the effectiveness of the relationship between the joint-stock company and the state is the timeliness and completeness of payment of compulsory payments, providing complete information about their own activities.

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## **STRATEGIC GUIDELINES OF THE SUSTAINABLE DEVELOPMENT MANAGEMENT MECHANISM WITHIN THE AGRICULTURAL ENTERPRISE**

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The agricultural sector has been and remains the backbone of Ukraine's economy. Russia's military aggression since 2014, the occupation of Crimea, the loss of agricultural land, and powerful industrial and agricultural facilities in eastern Ukraine have caused a crisis in the Ukrainian economy, and the COVID-19 pandemic has only exacerbated these negative trends in Ukraine. At the same time, in 2022, the full-scale invasion of Russian troops caused significant losses, destruction, relocation of production facilities, and sowed death and destruction. Against this backdrop, it is important to identify possible mechanisms to overcome the crisis, analyze Ukraine's experience and opportunities to stabilize the situation. That is why defining strategic guidelines for the development of the Ukrainian economy in the context of global challenges and military aggression, ensuring the effectiveness of the mechanism for managing the sustainable development of an agricultural enterprise, is extremely important.

Today, the development of an agricultural enterprise is determined by an effective and planned management system. Any changes in the management paradigm lead to conceptually important transformations. In the context of martial law, fierce competition, a changing environment, and global challenges, domestic agricultural enterprises need to arm themselves with innovative methods to ensure sustainable development [6; 7].

However, under current conditions, it must be stated that most Ukrainian enterprises are not able to compete with similar foreign business entities, as the process of searching for and testing effective management concepts is still ongoing.

The competitive environment is known to have a significant impact on the functioning of an agri-food enterprise, as its existence requires market certainty through the timely implementation of measures to find and develop mechanisms for implementing sustainable development. Given that competition is an imperfect and irrational phenomenon, the process of ensuring the development of all areas of the enterprise's economic activity should be carried out permanently in the context of ensuring sustainable development.

For this purpose, an agricultural enterprise needs to simultaneously assess, control and forecast its sustainability in order to achieve the main goal of ensuring the integrated use of endogenous factors in production development. The necessary basis for this should be the simultaneous integration of all areas of the agricultural enterprise and its structural units engaged in production and economic activities.

The efficiency of an enterprise depends on many parameters – the production development degree, division and cooperation of labor, use of scientific and technological progress results, economic resources, forms of stimulating highly productive labor, etc., but, first of all, on the degree of mutual integration of these factors during their use [4].

Thus, the global integration processes, the global economic and environmental crisis, and the progressive transition to post-industrial forms of development for many countries have led to a number of unresolved theoretical and practical issues related to enterprise management.

In particular, V. Vasylenko notes that the strategy for ensuring sustainable development of an enterprise is a process in which there is a targeted change in the structure and functionality, which leads to a change in the qualitative state of the enterprise, allowing it to successfully pass critical points and move to a new stage, thereby creating a «cyclical-continuous» development [9].

Currently, the concept of sustainable development management has gained great relevance in Ukraine. It is becoming clear that sustainable development at the macro-system level is possible only if a particular agricultural enterprise is sustainable.

Under current conditions, the problems of ensuring the sustainability of many agricultural enterprises have become relevant due to a number of factors:

- military situation in Ukraine;
- forced relocation of enterprises;

- general decline in production dynamics;
- transformation of logistics routes;
- change in the geography of product sales;
- uncertainty of financial positions;
- multi-vector nature of the modern domestic and global economy, etc.

Thus, an enterprise is considered sustainable if it secures an optimal market share and at the same time achieves the highest possible level of income and profit. An economically sustainable enterprise should have a ratio of assets to liabilities such that the net income received from the sale or use of existing assets is sufficient to cover its current liabilities.

The priority tasks of sustainable development management and the ability of an enterprise to withstand various risks are determined by the socio-economic conditions of the present and future. At the same time, this necessitates the functioning of both a sustainable enterprise and the entire industry. However, this process is quite complex and lengthy, and therefore requires a comprehensive study by experts [3].

Depending on many factors (specifics of the industry, nature of environmental impact, strategic decision-making, degree of organization and management of internal factors, individual characteristics of the agricultural enterprise, etc.), the mechanism of sustainable development management may consist of the following components: organizational and managerial, technological, production, financial, economic, investment and other components considered in a particular context.

In the process of creating a sustainable development management of an agri-food enterprise, it is necessary to take into account not only the above components and the peculiarities of their interaction, but also the availability of experienced and professional personnel management. An equally important role is played by the development and successful implementation of the enterprise's external and/or internal competitive policy.

Researchers note that management effectiveness also depends on the relevance of the chosen strategies to the goals of the enterprise, the optimization of strategy implementation processes, staff motivation to achieve goals, staff qualifications, technology, and management style [5].

However, practice shows that these factors are often ignored, and management decisions made within the industry are not always effective.

It must be stated that the full-scale invasion of Ukraine changes the conditions for the functioning of domestic agricultural enterprises, which has an extremely negative impact on the sustainable development of business entities.

At the same time, market uncertainty in the work of the enterprise, multiplied by the need for a socio-economic orientation of the development vector, actualizes the need to develop its own mechanisms for managing the

development sustainability.

We are convinced that in order to ensure stable performance indicators, a comprehensive study of the sustainable development in all areas of an enterprise's activity is necessary, taking into account its interaction with the sectoral and intersectoral business environment. Under these conditions, the enterprise needs to reasonably analyze, model and control the management mechanism of sustainability, thereby ensuring the rational use of internal production resources, controlling the changing activities of all subsystems caused by the simultaneous influence of external factors and the adoption of managerial and organizational decisions.

We agree with the opinion of experts that in order to assess the effectiveness of management of sustainable development of an enterprise in the strategic perspective, it is advisable to study the level of internal sustainability of the enterprise. Considering the enterprise from the point of view of the process approach, it is possible to establish a hierarchy of internal sustainability elements and correlate its elements with each other in such a way that it will be easy to make the right management decision regarding further development only through the analysis of a separate group of indicators. Of course, such a system will look different for an enterprise of different size and form of ownership, but classically, the following four interrelated components can be distinguished, which are of equal importance: economic, social, environmental, and risk sustainability [8].

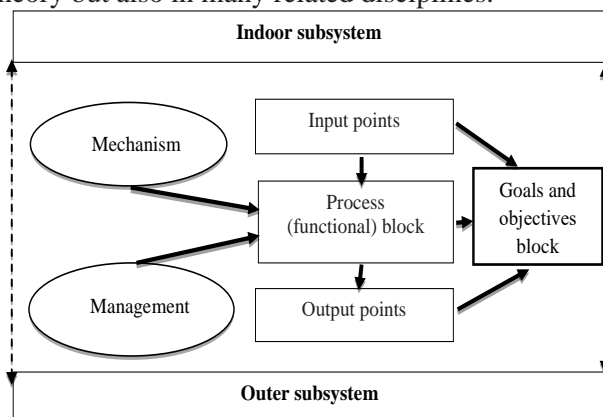
This leads to the following statement: the development management mechanism is a prerequisite for implementing a strategy for sustainable socio-economic development; it is a complex multicomponent economic entity, the study of which involves the analysis of all components. The management effectiveness directly depends on the nature of the problem to be solved. In this regard, experts suggest that the mechanism of sustainable development management should be divided into two stages:

- ensuring the sustainability of the enterprise;
- achieving sustainable development.

In our opinion, it is necessary to consider the «mechanism» in the context of socio-economic, financial, organizational, production, technological and managerial spheres of agricultural enterprises. Summarizing the above material, we argue that the mechanism as the first component of the sustainable development process allows, with the help of management tools (the second component), to realize the main function in the right mode – to transform the initially laid down parameters into the final ones (Fig. 1).

Thus, the mechanism of sustainable development management appears as a multidirectional systemic influence of the leading system on the subordinate elements within the available resource potential, which is determined by strategic planning and forecasting. This definition, in our opinion, is the

most correct and logically sound, and therefore can be applied not only in economic theory but also in many related disciplines.



**Fig. 1. Mechanism as a component of sustainable development management within an agricultural enterprise**

*Source: compiled by authors*

We argue that the «sustainable development management mechanism» is an integral element of the entire management system, which is able to comprehensively influence the factors that directly affect the result of production activities. In practice, the management mechanism can be successfully implemented only if a well-organized management system is developed that is capable of ensuring systemic decision-making.

The mechanism that ensures the management of sustainable development is the management process itself. Accordingly, the sustainable development management mechanism» implies an enterprise's functioning in such a way that all its areas of activity are controlled and the main production and economic indicators are regulated within the required range. To develop such a mechanism means, first, to launch a specific process adapted to a whole range of priority economic tasks, and second, to determine the availability of necessary resources. This development procedure should be carried out in the following sequence:

- analyze the input parameters of available resources;
- assess the output parameters of the management process (composition and interaction of the main characteristics of sustainable development management);
- to implement management with the use of regulations, targeted programs, and relevant instructions;
- to form the main resource of the management mechanism [1; 2].

The analysis of the performance within the agricultural sector in

the context of the sustainable development concept involves a detailed consideration of the sustainable development management mechanism as a set of elements that, when grouped, form the relevant subsystems, perform the relevant functions and use separate tools to achieve the set tasks (ensuring socio-economic and environmental sustainability).

Summarizing the results of the above study, it is worth noting that despite the general economic situation in Ukraine, the agricultural sector remains one of the dominant industries.

Today, the external environment creates high competitive requirements, which, in the context of current economic and social conditions, actualize the problem of developing effective tools for managing the sustainable development of an agricultural enterprise. Practice shows that the current problems cannot be solved without developing an effective mechanism for ensuring the sustainability of enterprise development.

At present, the functioning problem of the economic development at macro and micro levels has become more urgent due to the military situation in Ukraine, which is why there is a need to combine conceptually important aspects of theory and practice aimed at solving problems of developing and improving the existing mechanism for managing the sustainable development of an agricultural enterprise.

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## **SITUATIONAL MANAGEMENT AT THE ENTERPRISES OF THE AGRARIAN SECTOR OF ECONOMY**

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The adaptability of modern socio-economic systems to an innovative model of management can only be provided by complementing the existing mechanism of functioning elements of the situational type, which will allow the organizational, economic, technical solution of a complex of problems. In this case, it is necessary to have a reliable basis-effective situational management at all levels of management, its reasonable methodological base and time-tested concepts, which will be presented in a timely and effectively break through the sprouts of new socio-economic reforms. In addition, despite the optimistic forecasts in the country, the positive impact



of reforms on the state of the national economy is still insufficient, and the potential of economic growth in Ukraine has not been fully realized. The current state of development of many economic entities and some industries is unanimously defined as a crisis. The reason for the crisis of many enterprises in Ukraine is not only a decrease in the solvent demand of buyers, first of all, the population (which is the result of crisis development in certain sectors of the economy), but also inadequate market requirements the level of situational management of economic entities [1].

Structural shifts in the economy, the instability of the environment, the rupture of sustainable production relations, the change of ownership and restructuring of enterprises have put domestic enterprises in a difficult position and require the revision of established stereotypes of management thinking and the transition to new forms and methods of management system. This is also related to the continued process of differentiation and integration of structures, methods and other elements of production management systems, which are currently observed in the world community [2, p. 20].

Therefore, industrial and economic problems of optimization of new relationships (external and internal), the problems of their intersection in organizational, economic and scientific and technical aspects are inevitable. In other words, the production system must adapt to long-term existence in a timely manner in order to meet the redeemed demand. The situational approach to managing enterprises both in general and in the agricultural sector in particular remains relevant. Since the 1950s, the number of new tasks caused by changes in the environment has steadily increasing. Some of these tasks are fundamentally new and cannot be solved by traditional methods. Their complexity and novelty create a growing load on the highest level of control, which increases the likelihood of surprises and crises. Since the 1980s, the firm cannot recognize new phenomena that develop rapidly, until they become widespread, does not have time to respond to changes and falls into crisis.

Foreign managers characterize the crisis situation in the following circumstances:

- 1) the presence of threats to high-national goals and values;
- 2) the effects of suddenness for the persons responsible for overcoming the crisis;
- 3) acute time shortage to respond to threat [2, p.22].

The need to manage situations can arise in almost any organization, when extraordinary (force majeure) circumstances external or internal force forces management to make immediate decisions.

According to Professor V. Vasylenko management in a crisis can be defined as a process that allows executives, plan, organize, direct and control urgent operations when solving urgent problems facing the firm. Therefore,

situational management should provide results – planned or casual through a healthy organization, which is achieved through the management process skillfully put by people. In order for the organization to succeed, the manager must be able to anticipate the possibility of emergence of certain production situations, be prepared for them and act adequately to the circumstances formed [3, p. 22-25].

Thus, on the one hand, the beginning of the new millennium became a symbol of hope and change for the functioning and development of all organizations. These are the new achievements of science and technology, the flourishing of the world economy, the age of the information explosion. Along with the positive characteristics of the 21st century, there are negative phenomena that become large. One of the main causes of the crisis in the activity of socio-economic systems and society is the lack of proper level of management in general and situational management in particular. At the same time, in our opinion, situational management is an independent branch of science and professional activity, aimed at providing any organizational structure of the set goals through the rational use of all resources, in accordance with the situation that has developed over a period of time. Therefore, in the period of Ukraine's transition to civilized market relations, the issue of studying effective management, which meets the specific conditions of the situation become especially relevant. Situational or case (CASE), an approach to management, as well as systemic, is a faster way of thinking than a set of specific actions [1].

The method was developed at the Harvard School of Business (USA) and offers future managers to quickly solve problems in a particular situation. This approach requires the optimal solution that depends on the ratio of the factors available. If process and systematic approaches in management are more appropriate to use in a quiet environment and in the process of systematic manager activity, then the situational approach is more often used in non-standard and unforeseen situations. This approach preserves the concept of management process, applicable to all organizations. However, the situational approach recognizes that although the overall process is the same, the specific techniques that the manager should use to effectively achieve the goals of the organization can vary significantly [2-4].

Management should determine which structure or management is most suitable for this situation. Moreover, since the situation may change, management should decide how to change the organizational structure accordingly to maintain the efficiency of the organization. The manager performing the work, the systemic complexity of which is very high, the activity of functional units, solves organizational, economic and production and technical problems that arise in cooperation with other organizations. And the higher the level of the manager, the more units and organizations

he is subordinated, the more different problematic situations he must solve. Analysis and synthesis of emerging problem situations, integration of activity functionally or subject-specialized links, and constitute the function of management [4-6].

The implementation of management function is a complex scientific and practical problem. First of all, because it is necessary to have a description and ranks of emerging problem situations, to develop an algorithm for solving problems, to form an appropriate regulatory framework. The criteria for choosing a particular strategy for solving the emerging problem should also be defined, which is due to the availability of resources and the possibility of maneuvering them. The manager, the manager should be able to anticipate the causes and sources of situations and have a pre-designed mechanism for their modeling, which will allow the existing resources to choose the best options. Foreign experts believe that a characteristic feature of business life was the general increase in instability as the main cause of the emergence and development of crisis situations.

Domestic scientists V. Vasylenko, V.Shostka noted that the object of situational management is at the same time all elements of the enterprise: means of production, labor, labor and management, finance, investments, external and internal environment. That is, it is a type of comprehensive management of the enterprise. The peculiarity of situational management is that the subject of management is only preventive measures of a certain plan, that is, the choice of actions that prevent the emergence of critical situations in enterprises, not its development. In other words, the use of this type of management is to prepare the place and create the conditions for the subsequent improvement of the activity of the business entity. It is a kind of link between all types, methods and hierarchy of management in general, which is a prerequisite for improving the efficiency of the socio-economic system. The main task of situational management in the system of strategic and tactical management of the enterprise is to transfer corrective actions in the direction of development of the enterprise and the allocation of resources that ensure the implementation of strategic goals [3, p. 24].

Thus, the main purpose of situational management is to study the methodological tools for its effective use in the management of socio-economic systems in accordance with the situation. The main thing is that the main task of situational management is to prevent crisis situations in general, and as a last resort, in effective and rapid localization and elimination. Costs and means for the early creation of reserve (situational) control systems, preparation of anti-crisis measures, creation of the necessary reserves are often more profitable than ineffective gradual (sometimes false) actions of managers to overcome the crisis based on previous experience, intuition and enthusiasm [7].

It is important to apply a situational approach in the modern practice of functioning of the agricultural sector of the economy of the country and regions. The processes of optimization of forms of agricultural activity are still continuing, which necessitates the study of the processes of formation of optimal size of agricultural enterprises, organizational, regulatory and scientific support of their functioning and development. The analysis of the structure of organizational and legal forms of management in dynamics is given in Table. 1.

*Table 1*

**Dynamics of development of organizational and legal forms of management in Ukraine, units**

<b>Group of enterprises</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Deviations 2021 from 2017</b>	<b>2021 in % by 2017</b>
Business societies	594438	649735	691539	724339	760136	165698	127,9
Private enterprises	200295	199990	200285	200160	199963	-332	99,8
Cooperatives	26975	27524	28071	28596	29337	2362	108,8
Farms	45035	45654	46929	47803	48868	3833	108,5
State-owned enterprises	3893	3822	3750	3713	3664	-229	94,1
Other forms of management	479991	371710	380053	390837	395041	-84950	82,3

*Source: developed on the basis of [8, p. 216]*

The results of the study show that during 2017-2021 there was an increase in the total number of economic entities of various organizational and legal forms in Ukraine, respectively for 201985, or by 16.4 %. In terms of groups of enterprises, the number of companies increased the largest by 27.9 % and cooperatives by 8.8 %. In addition, the total number of private and state enterprises in Ukraine decreased by 5.9%. Therefore, the main organizational forms of management are business companies (limited liability companies are dominant), private enterprises and farms. An important economic condition for the development of agricultural enterprises is their distribution by size. The analysis of their distribution in 2021 in the size of Khmelnytsky region shows that the share of small enterprises ranged in all areas of economic activity from 94.2 to 94.7%, in particular in agriculture, respectively from 93.2 to 94.8%.

Analysis of the distribution of enterprises of Ukraine that carried out agricultural activities in 2021 by the size of agricultural land showed that the vast majority of enterprises, 9371 enterprises, or 23.8% of their total number, had a size from 100.01 to 500.00 ha. They had 2290.3 thousand

hectares of agricultural land, accounting for 11.0% of the total area of agricultural land. The size of agricultural land was more than 5000 hectares had 601 enterprises, which was 1.5% of the total. They used 5273.8 thousand hectares of agricultural land, which was about 25.3% of the total area of agricultural land.

In the Khmelnytsky region, the situation is slightly different. The largest share of enterprises, namely 25.3% (371 units) of their total number, had a size from 20.00 to 50.00 ha and used 13.5 thousand hectares of agricultural land, which was about 1.4% from the total area of agricultural land. The size of agricultural land was more than 5000 hectares of 38 enterprises, which was 2.6% of the total. They used 392.5 thousand hectares of existing agricultural land, accounting for about 40.4% of the total area of agricultural land. This is explained by the specifics of the current stage of development of agro-industrial production of Ukraine, when integration processes occur and often agricultural enterprises are part of agroholdings.

The production structure of agricultural production, which has developed in Ukraine under the influence of natural and socio-economic factors, is an important condition, which must be taken into account when constructing the organizational and economic mechanism of diversification of the activities of agricultural enterprises for the future. It is determined on the basis of the structure of monetary revenues and other economic indicators (structure of acreage, the structure of the livestock, the structure of the cost of manufactured products at constant prices of 2016). The production structure of agricultural enterprises of Ukraine is dominated by the production of crop products, the share of which in the structure of cash in 2020 was 77.3%. The structure of crop products was dominated by cereals and legumes (33.9%) and industrial crops (26.5%). The share of the main products (meat, milk) for agricultural enterprises remains insignificant, respectively 12.0 and 6.7%, respectively [9].

In the context of the enterprises of Khmelnytsky region, there is also a tendency of predominance of production of crop production, the share of which in the structure of cash in 2020 was 81.8%. In the structure of crop products, the largest share was cereals and legumes (37.4%), as well as industrial crops (29.5%). The share of the main types of livestock products (meat, milk) for agricultural enterprises also remains insignificant, respectively, 5.9 and 8.9% [9]. Along with this, one of the tasks of situational management is to provide good functional results-planned or accidental, with the help of a healthy organization (ie a team that works in a favorable socio-psychological atmosphere) 1. During the period under study, the financial result before tax in agricultural, forestry and fisheries of Khmelnytsky region increased by UAH 3055008 thousand, or by 163.2%; In particular, agricultural enterprises and the provision of related services

increased by 3071699 thousand UAH, or by 166.7%. In general, in the enterprises of Ukraine the financial result before tax increased by UAH 3185207 thousand, or by 172.5%.

Therefore, situational management theories give some recommendations on how to manage in specific situations. There are four mandatory stages that must be carried out by the manager in order to achieve effective management in each particular situation First, management should be able to analyze the situation in terms of what requirements for the organization make the situation and what is characteristic of it; Secondly, the appropriate approach to management should be chosen, which would most and best meet the requirements put forward to the organization; Third, management should create potential in the organization and the necessary flexibility in order to be able to go to a new management style that corresponds to the situation; Fourth, management should make appropriate changes that allow you to adjust to the situation. On the basis of generalized materials, in our opinion, it makes sense to distinguish the main alternative concepts of situational management. First, situational management is regarded as situational management, that is, management, which is in some way predicting danger, analyzing its symptoms and measures to reduce the negative consequences, its elimination and use of experience for subsequent development. Secondly, situational management is regarded as adaptive management-an alternative to achieving one goal in making and implementing a management decision and taking into account unforeseen circumstances. Third, situational management is regarded as anti-crisis management.

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## **PROBLEMS OF INTRODUCING INNOVATIONS IN THE CONDITIONS OF INITIATION OF INTERNATIONAL ECONOMIC ACTIVITY (ON THE EXAMPLE OF LLC "EQUIPMENT FOR BUSINESS")**

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Innovations are the objects of implementation or the process that leads to the emergence of something new – innovation. This term was first introduced into the scientific lexicon by J. Schumpeter, which literally means "the embodiment of a scientific discovery, a technical invention in a new technology or a new type of the product" [1]. Innovations are ideas and proposals (in many cases based on the results of the relevant special scientific research and engineering developments) that can become the basis for creating new types of products or significantly improve the consumer characteristics (technical, economic, etc.) of the existing goods, the creation of new processes, services or anything that can improve the "quality of life" of mankind [1, p. 640]. The word "innovation" itself comes from the Latin one "innovare" ("restoration", "renewal"). The English word and the concept of "innovation" corresponds to our "introduction of something new" or "introduction of innovations". That is, the practical use of innovation from the moment of its production and distribution as new products or services is an innovation (innovation). Innovation refers to a new order, a new custom, a new method, an invention, a new phenomenon (a discovery).

In addition, the innovation was considered by J. Schumpeter as a new function of production, its new combination: the innovation that is not yet widespread in social production; innovations, introduction of new ideas,



technologies, types of products, etc. into the organization of products, production, management of the enterprise and the industry; something that is perceived as new, as an innovation; the form of controlled development of the existing systems.

This term has become widespread in American management, but today it is actively used in Ukraine. In principle, any socio-economic innovation, as long as it has not received mass, that is, serial distribution in the field of labour, production and management, can be considered an innovation. In the recent years, a special kind of innovative entrepreneurship has appeared – risky or venture. These are mostly small firms engaged in the dissemination of new technologies, that is, the technical innovations primarily in the knowledge-intensive industries. In the market economy, the methodology of a systematic description of innovations is based on the international standards. The basis for the international comparison of indicators of science and technology, analysis of their organization and funding, scientific and technical policy is the Frascati Manual "Proposed standard practice for surveys, research and experimental development." The first recommendations were adopted in Frascati (Italy) in 1963. Within the framework of the Organization for Economic Co-operation and Development (OECD), a group of national experts was created, which prepared these official recommendations on the indicators of science and technology. Due to the changes in the strategy of scientific and technical policy at the national and international levels. The accumulation of practical experience in the countries of the OECD; revision of international statistical standards – the provisions of the Frascati Manual are periodically clarified. The 5th last version of these provisions was adopted in 1993. If we consider the system of innovation, then it is quite wide and finds its use in any branch of the national economy. As for the classification of innovations, there are many options for classifying the innovative processes developed by the domestic and foreign authors. At the same time, as the most important signs are most often considered the degree of novelty, scope, nature of use, purpose, etc. In addition, experts even on one basis distinguish the various types of innovation. Thus, according to the scope of application, economic, organizational, technological, commodity and social innovations, technical and social innovations are distinguished. Depending on the depth of change, some authors divide innovations into radical (basic), improving, modificational (separate). Taking into account the spheres of activity, innovations can be technological, industrial, economic, trade, social, organizational, etc. According to the reasons for the emergence, innovations are divided into reactive and strategic. Reactive innovations are the innovations that ensure the survival of a company in the competitive environment. They appear as a reaction to new transformations on the part of competitors, so that thanks to them the company can continue to exist in



the market. Strategic innovations are the innovations, the implementation of which is proactive in order to gain the competitive advantages in the future. By the nature of the needs that are met, innovations can be focused on the existing needs or on the formation of the new ones. The basis of the process of introducing innovations includes creation, introduction and dissemination of innovations characterised by the scientific, technical and moral novelty. Innovations are also manifested in the improvement and the change of management systems and the organization of production processes in the context of the establishment of international economic activity. New organizational structures, methods of developing management decisions, forms and methods of stimulation in enterprises are constantly being developed, mastered and implemented.

The process of introducing innovations involves a series of sequential actions, as a result of which the innovation develops from a specific idea to a finished product, which is then used in everyday life. The process of introducing innovations begins with the emergence of an original scientific idea, then it is gradually introduced into the production, sale, distribution and consumption of the finished innovative product or the nanotechnology. To ensure an effective process of innovation the following tasks should be completed:

1. Assessment of world trends in the scientific and technological development.
2. Development of a strategy for innovation policy and mechanisms for its implementation.
3. Formation of strategic goals of innovation.
4. Development of plans and programs for innovative projects.
5. Development of the organizational and production structure of management of the innovative activities.
6. Planning the organization of the innovation process.
7. Observation (control) over the implementation of stages, stages of the innovation process in time and synchronization of all types of activities.
8. Training of the relevant personnel for innovation.

Extremely important is the problem of managing the process of choosing the optimal combination of financial resources to ensure the effective implementation of innovations. Due to the limited financial resources, the implementation of fundamentally new developments and the renewal of production facilities is not applicable for everyone. LLC "Equipment for Business" is an enterprise that is actively engaged in innovative activities, because one of the activities is the development and the implementation of modern means of computer technology, radio electronics, telecommunications, advanced computer-aided design technologies and technological processes in the various sectors of the national economy.

If we talk about the innovations that were implemented in the enterprise in order to facilitate and make the workflow more efficient, then we can consider the following innovations: 1. To automate budgeting, the Galaxy system was introduced at the enterprise, which is formed on the basis of the MRP II concept, which provides for a single mechanism for supply, marketing and production; long-term and operational planning; consolidation of plans; automatic combination of planned and actual indicators with the calculation of deviations; planning and arbitrary structure of time periods; end-to-end redevelopment when demand or state of production changes. This system contains a module "Budget Management", which is designed to automatically form planned and actual budget indicators based on primary production, economic and accounting documentation. 2. Introduction of the "IC logistic" system, which is designed to automate transport logistics in order to increase the profitability of logistics operations. The system makes it possible to manage the process of transportation of inventory items along the chain "supplier – warehouse – customer" and it is focused on the enterprises that want to optimize and to manage transportation in the best way. "IC logistic" allows you to solve the most typical transport and logistics problems:

- inefficient use of models and types of vehicles;
- increase in vehicle mileage due to the lack of optimal routing algorithms;
- lack of control over the location of the vehicle condition of the cargo during transportation;
- lack of a system for the formation of an up-to-date system for assessing the effectiveness and the quality of work performed in order to make the necessary management decisions.

In the process of evaluating the innovation activity of LLC "Equipment for Business" a number of problems were identified that inhibit the innovative activity of the enterprise.

First of all, this is due to insufficient funding for research and development and the lack of effective incentives for innovation. In addition, there are significant obstacles from the customs legislation to the sale of innovative products abroad.

After all, the state does not provide the real support on its part for the development of innovation in Ukraine and to some extent (due to the bureaucratization and the significant restrictions) also slows it down. Small businesses that are more mobile in their operations and development can create new productions based on innovations. As noted above, LLC "Equipment for Business" pays great attention to research work in the field of computer technology and software development. The main problems that arise in this case and the proposed ways to solve them are given in the Table. 1.

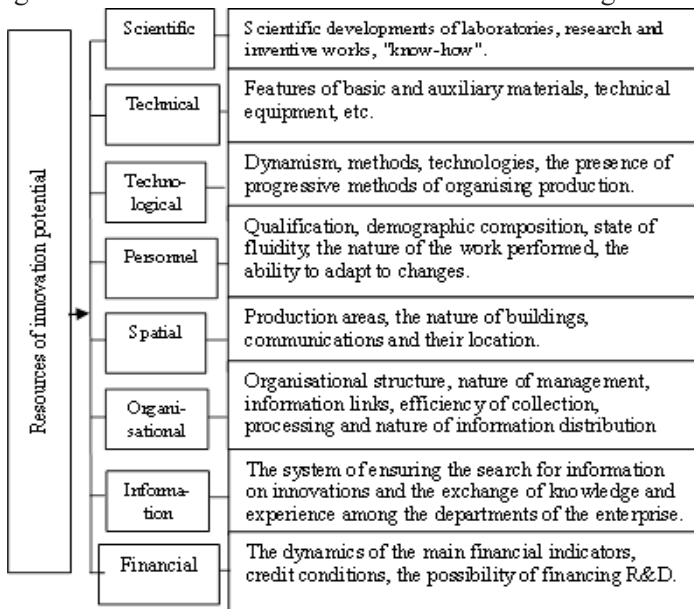
Table 1

## Problems of innovation implementation at LLC "Equipment for Business" in the context of initiation of international economic activity

№	Problems of initiation of innovations	Ways to solve the problems of initiation of innovations
1.	Lack of own financial resources and long-term loans from commercial banks.	<p>Attraction of external sources of financing, in particular foreign investors;</p> <p>Submission of projects of the enterprise for state and other grants;</p> <p>Use of retained earnings from the entrepreneurial innovative activity;</p> <p>The use of depreciation, including through the accelerated depreciation;</p> <p>Use of savings in the form of income from investments in securities and shares;</p> <p>Use of proceeds from the sale of patents, licenses and other rights to objects of innovation;</p> <p>Formation (participation in) of regional innovation clusters.</p>
2.	Insufficient qualifications of employees, the personnel problem	<p>Promoting the training, retraining and advanced training of personnel in the field of scientific, scientific, technical and innovative activities;</p> <p>Introduction of new educational programs at the state level, improving their quality and competitiveness on the basis of new information technologies, updating the structure and content of higher education in the direction of studying issues of innovation, namely: state regulation of innovation, strategic management, innovation marketing, technological audit, innovation financing;</p> <p>Participation of employees in fairs, conferences, etc., which relate to the direction of the main activity of the enterprise.</p>
3.	Insufficient information support about innovative activities of domestic and foreign enterprises.	<p>Information and analytical support of innovation activity on the part of the state;</p> <p>Creation of a special unit (or an official unit) in the enterprise that would monitor the situation regarding the development and implementation of innovations both at domestic enterprises and abroad;</p> <p>Conducting marketing research in order to create research and serial samples of new (improved) equipment or technology.</p>
4.	Abolition of tax and customs privileges for subjects of the innovation activity, lack of guarantees for the investor	Tax regulation and stimulation of innovation at the state level; Antimonopoly regulation and competitiveness in the field of innovation.
5.	The stimulating role of pay for labour is underestimated.	<p>Encouraging the development of creative abilities of employees of the enterprise;</p> <p>Investments in human capital, which must be carried out</p> <p>Social and medical insurance of employees by entrepreneurs;</p> <p>Creation of special funds for bonuses for the development and production of new products;</p> <p>Stimulation based on the results of the balanced system of the indicators, involving the formation of a set of the indicators that reflect the performance of senior managers responsible for the various functional areas of the enterprise. These indicators relate to finance, customers, internal processes and personnel, according to which performance evaluation criteria are developed.</p>
6.	Low level of trust in innovative products in general	Popularisation of innovative products among the target audience through advertising, media, etc.

Source: developed on the basis of [2; 3]

So, as can be seen from the Table 1, there is a fairly large range of the problems that impede the implementation of innovative activities by the enterprise and the entry of its products into the foreign market. In addition to the above, we can also mention the following problems: high interest rates and loans; lack of information on the introduction of innovative technologies; little experience in innovation; significant contradiction of the legislation regulating the innovation process in Ukraine; bureaucracy at the state level; lack of the real state support; mass emigration of skilled labour; lack of a mechanism for technology transfer; imperfection of the methodology for evaluating the effectiveness of innovative projects; underdevelopment of venture business institutions. In addition, one of the equally important problems is the irrational use of the available resources of the enterprise. The readiness of the enterprise for the perception of innovation can be carried out with the help of components of innovation potential, where the resources are defined as the means necessary to achieve the goals of implementing and mastering innovations. These resources are listed on the Fig.1.



**Fig.1. Resource component of the innovative potential of the enterprise**

*Source: developed on the basis of [1; 3]*

Consequently, increasing the efficiency of using the available resources of the enterprise and their optimal combination will help accelerate the development and implementation of innovations. In the competitive environment LLC "Equipment for Business" it is necessary to improve the

mechanism of foreign economic operations. To improve the work of the enterprise, and in particular to improve the mechanism for the implementation of foreign economic operations, there is proposed:

- research of domestic and international regulatory framework in the field of foreign economic operations;
  - monitoring the market situation to reduce business risk;
  - diversification of export directions of finished products in order to insure the risk of lack of profits.
- to solve the problems of introducing innovations at LLC "Equipment for Business" it is proposed:
- attraction of the external sources of financing of innovative programs;
  - optimization of the use of own resources;
  - promoting the training, retraining and advanced training of personnel in the field of scientific, scientific, technical and innovative activities;
  - stimulating the development of creative abilities of workers.

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## **STRATEGIC MANAGEMENT OF RESOURCES OF AGRICULTURAL ENTERPRISES**

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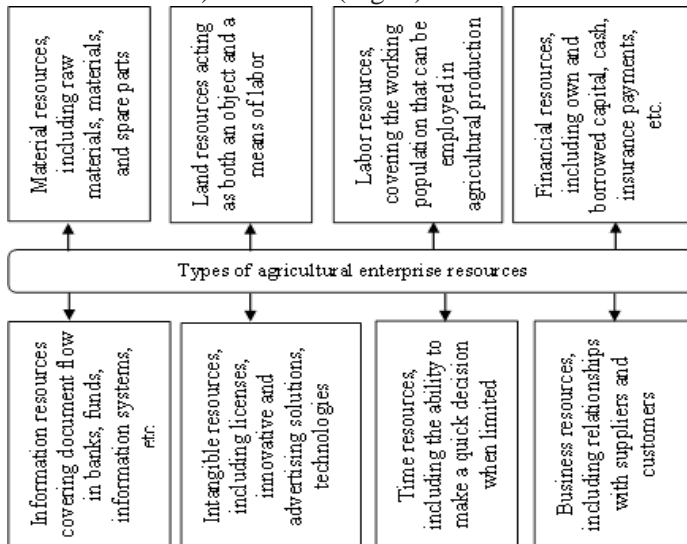
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The formation of the resource potential of the agrarian sphere as a whole and its individual components is an extremely urgent issue in both scientific and practical terms. Solving the important tasks of the functioning of the

national agro-industrial sphere as one of the components of the socio-economic development of society requires special approaches, since we are primarily talking about the production of food and agricultural raw materials, as well as ensuring food security, which requires the rational use of resources.

The agricultural sector of the economy is resource-intensive, where a large number of labor, material, technical, and natural resources are used. Their quantitative and qualitative composition, the ratio between labor, material, technical and natural resources, on the one hand, and the level of both total and per-resource return – on the other, determine the size of the resource potential of an agricultural enterprise.

Currently, there is a rather extensive classification of enterprise resources: by physical content, by purpose in the production process, by the degree of use in the production process, etc. [3]. Currently, scientists add to the standard classification, which includes natural (natural forces and substances used in production), material (means of production), intangible (objects of industrial and intellectual property), labor (working population) and financial (money) informational (document management within the enterprise and income from external sources) and time (affecting the organization of activities) resources (Fig. 1).



**Fig. 1. Types of agricultural enterprise resources**

*Source: developed on the basis of [5; 9]*

Land resources are the basis of material and spiritual production and are necessary for all branches of the national economy. However, their role in

different spheres of social production is not the same. If in agriculture it is the main means of production, then in industry, in addition to extraction, it is also a spatial basis [7].

The role of land in agricultural production is determined by the fact that it has a specific unique property – fertility. Thanks to this property, the land actively affects the process of agricultural production. There is a distinction between natural, artificial and economic fertility, which is divided into absolute (determined by the yield of crops per hectare of sowing) and relative (quantitative ratio of the harvest to its production costs). The chemical and physical composition of the soil and its other important characteristics determine the fertility of land plots, and therefore the income of landowners and land users, since the choice of agricultural crops and their yield depend on this unique property of the main means of production in agriculture [2].

Let's investigate the factors that affect the state, efficiency and formation of the process of using resources of agricultural enterprises (Table 1).

*Table 1*

**Factors influencing the formation, condition and efficiency of land resource use of agricultural enterprises**

<b>Factors that affect:</b>	
<b>on the state and efficiency of land resource use of agricultural enterprises</b>	<b>on the formation of the process of using land resources</b>
the scale (dimensions) of the land plot;	types of soil in the relevant area, which is characterized by the land resources located;
material and technical base of a separate agricultural enterprise;	specialization of the economy;
level of renewal of fixed assets;	the level of competition in the region and beyond;
provision of the economy with energy resources;	planned crop rotations;
level of implementation of innovative technologies in agricultural production;	level of application of innovative technologies of agricultural production;
the state of the organization of agricultural activity in enterprises;	motivation to strengthen the management of the efficiency of the use of land resources;
diversification of agricultural production;	financial condition of the farm;
integration;	investment climate;
availability of qualified workers in the farm;	the level of credit provision of the enterprise;
level of labor organization;	state support for agricultural production, improvement of land resources.
stimulation, motivation, level of their influence;	
meliorative regime;	
state of land irrigation, etc.	

*Source: developed on the basis of [4; 10]*

Therefore, the material and technical base, the implementation of innovative technologies and qualified workers have a significant influence on the state and efficiency of land resource use of agricultural enterprises, and on the formation of the process of land resource use – types of soil and crop rotation, the financial state of the enterprise and state support.

Thus, land resources of agrarian enterprises are agricultural plots owned or leased by the enterprise for agricultural activities. The main prerequisite and natural basis for the functioning of an agricultural enterprise is the high efficiency of the use of land resources, which are the most important factor in production and, thanks to fertility, have an active influence on the production process. Being the material basis of agricultural development, an invaluable national wealth, the land represented by agricultural land is a global factor of production, a base for an organic combination of other production resources.

Land actively affects the production process, is its most important constituent element. The level of resource potential depends not only on the size and structure of agricultural land, but also, to a large extent, on the economic fertility of the land involved in the production process. At the same time, it requires a special approach to the organization of its use, since, having limited dimensions, it is the subject of competition of various branches of the economic complex.

One of the main factors affecting the increase in the production of products in an agricultural enterprise and the improvement of the standard of living of the rural population is the use of labor resources [3]. The main problem of the development and effective functioning of labor resources is the curtailment of agricultural production, a sharp reduction in the acreage under labor-intensive crops.

The labor resources or personnel of an enterprise is a set of natural persons who are with the enterprise as a legal entity in relations regulated by the Labor Code of Ukraine and other legal acts on labor activity and employment [8].

In order to highlight the specific characteristics of the team, scientists characterize the labor resources of the enterprise with different concepts, although, as a rule, they are all interdependent: labor resources (usually characterize the potential workforce), human resources (reflect the active role of a person in the economy), personnel (qualified, full-time, composition of employees), personnel (has defined quantitative, qualitative and structural features) and workforce (physical and mental abilities that a person uses in the process of performing work).

Systemic transformative transformations of the agrarian sector of the economy in conditions of instability and uncertainty necessitate the adaptation of agrarian enterprises to the market environment [1].



The problem of providing the enterprise with finances is one of the most significant, since it is thanks to financial resources that the state of providing the enterprise with other types of resources is regulated, in particular: natural, material, immaterial, labor, etc.

Management of the financial resources of the enterprise is carried out, as a rule, by the financial or economic service of the enterprise, but the manager or owner of the enterprise remains responsible [8].

In addition to the three main resources of entrepreneurial activity (land, labor and capital), there is a special, fourth – entrepreneurial ability. Entrepreneurial abilities find their material embodiment in the income received by the entrepreneur.

In order for the started economic activity to continue to operate and develop, it must be organized daily, take risks, find sources of financing, buyers and suppliers. With the help of entrepreneurial abilities, economic resources are transformed into new value, which is formed in goods.

The main economic resource, which depends on the process and the result of agricultural work, is the technical and technological base of agricultural enterprises and its main link – the main means of production.

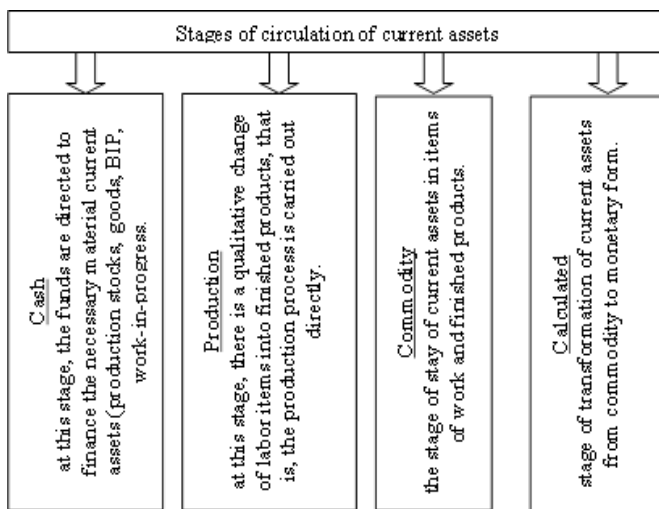
All production processes of agricultural production are connected with the material and technical support of agricultural enterprises.

Material resources – participate in the process of economic activity during one production cycle, at the same time they completely change their form and transfer their value to the expenses of the enterprise [8]. The composition of material resources includes fixed assets (used within one year, reducing their value due to physical or moral wear and tear) and current assets of the enterprise (once participating in the production process, fully transferring their value to finished products).

Current assets ensure the continuity and rhythm of supply, production, sales and financing processes. There are four stages of circulation of current assets (Fig. 2).

So, as we can see from Fig. 2. current assets simultaneously function at all four stages: monetary, production, commodity and settlement. To ensure the efficient operation of the enterprise, the number of current assets should be approximately equal in value at each stage of the cycle [6]. Violation of this proportion will lead to negative phenomena: a decrease in the speed of circulation; decrease in the volume of production and sale of other products [6; 8].

Intangible assets are part of the company's property, which characterizes objects of intellectual property and other similar rights belonging to the company: patents, computer programs, various licenses, certificates for the right to carry out activities or use property, inventions, know-how, property rights on the ground, etc.



**Fig. 2. Main stages of circulation of current assets**

*Source: developed on the basis of [8]*

The essence of management of intangible assets comes down to their timely acquisition and reproduction through depreciation, as well as skillful use in the process of carrying out production or other economic activities.

When managing the company's fixed assets, a number of problems arise, in particular, the fixed assets are formed when the company is created and serve for a long time, so their management must be considered from the point of view of the efficiency of their use in business turnover. Due to the fact that fixed assets are operated for a long time, they gradually lose their value due to physical wear and tear, and the transfer of the value of fixed assets to manufactured products, performed works, provided services occurs due to depreciation [8].

Detailed attention must be paid to the collection, analysis and use of information, as it is necessary to achieve the goal of the enterprise, by making timely decisions and solving operational, tactical and strategic tasks.

Taking into account the evolution of scientific knowledge and the variety of approaches to defining the essence of the concept of "resources", we notice that there is no officially accepted statement. The insufficient research of this concept and the need for further research into the content of the concept of "resources of an agrarian enterprise" are obvious. Therefore, within the framework of the conducted research, it is proposed to define the statement "resources of an agricultural enterprise" as a set of interconnected natural, material, intangible, financial, labor, time, and informational factors that, when interacting with each other and taking into account the influence

of factors of the external and internal environment, provide uninterrupted operation of the agricultural enterprise with the aim of obtaining maximum profit, taking into account the economic, ecological and social foundations.

Therefore, at the current stage of the development of the domestic economy, effective measures to increase the efficiency of resource use are needed to ensure the effective functioning of agricultural enterprises and the production of high-quality, competitive agricultural products. This can be achieved through the introduction of innovative and resource-saving production technologies and the improvement of the organizational and economic mechanism for increasing the efficiency of resource use. The effective use of resources is a necessary prerequisite for achieving a balance of economic, ecological and social interests of society, as well as a basis for ensuring national priorities for the development of the agricultural sector and ensuring the country's food security. Solving the problem of increasing the efficiency of the use of resources of agricultural enterprises requires a comprehensive approach to determining the strategic directions of rational land use; use of labor resources and capital; expansion of innovative activities, etc.

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## **MANAGING OF THE DEVELOPMENT DIGITAL HEALTHCARE AS A DIGITALIZATION COMPONENT OF THE ENTERPRISES IN THE HEALTHCARE SERVICE'S FIELD**

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One of the modern and priority spheres of life is the sphere of information technology, which was aimed at solving the strategic tasks of the state. In the context of global digitalization, the dominance of information technology, the target state of the healthcare sector, which was defined in the scientific community as "digital medicine" and "digital healthcare" [2; 5; 6; 9], is particular importance. As a result of the healthcare industry's digital transformation, scientists define it as a system of scientific knowledge and practical activities for diagnosing, treating and preventing diseases, preserving and promoting health and human performance, prolonging life, and alleviating suffering from physical and mental illnesses based on a digital healthcare platform that accumulates, maintains and develops a system of scientific knowledge in the field of medicine and access to medical services based on information and communication technologies. The development of digital medicine, which offers a whole segment of medical gadgets (thermometers, pedometers, medical bracelets, etc.) for healthy people and patients, has created a number of conditions for its development, including: modern digital technologies were being actively introduced into the healthcare sector; sophisticated medical equipment was used to treat patients, and medical treatment processes are being robotized, which leads to an actual reduction in the volume of medical manipulations; completely new popular treatment methods were emerging; there was widespread digitization of patient data and the entire healthcare facility, etc. [1; 2; 4; 10].

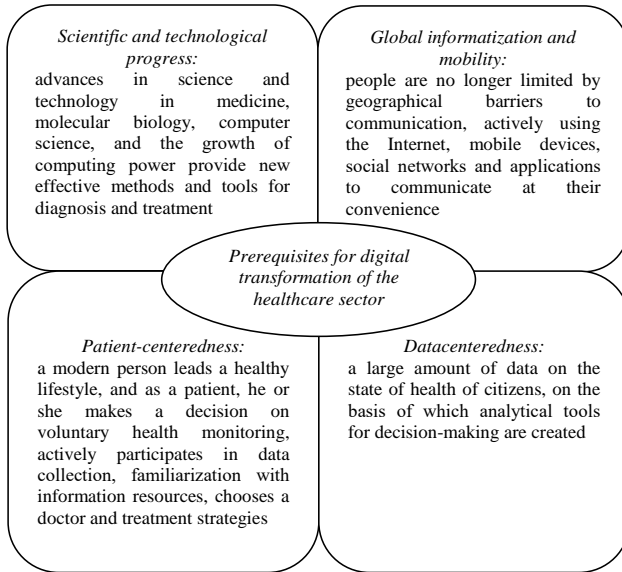
According to scientists, digital transformation should be aimed at identifying and preventing most threats to life and health through timely preliminary diagnosis and monitoring of health status, providing primary medical consultations and services of medical personnel at the place of request, initiating emergency medical services and referral for in-depth medical examinations to high-tech medical centers [1; 4; 6; 10].

Instead, digital healthcare is a sub-sector of healthcare, which, in the aggregate of organizational, legal, economic, medical, scientific and technical measures, based on medical organizations of all levels and forms of ownership, additionally ensures the preservation and promotion of public health, in particular through the provision of medical care. Digital healthcare includes the use of information and communication technologies for healthcare, including patient treatment, research, training of healthcare professionals, disease tracking and public health monitoring. The functioning of digital healthcare was primarily aimed at implementing state support measures for the development of digital medicine, its ecosystem and digital transformation [1; 4; 8; 9].

The digital transformation of the healthcare sector was an inevitable process that has become widespread due to the emergence of new digital technologies. Organizational and methodological approaches to the digitalization of this sector and the formation of digital skills have determined its strategic nature, directions of the healthcare system's development on a national scale, and focus on international best practices [6]. The competency-based approach to the digital transformation of the healthcare sector contributed to increasing the adaptability of the relations in existing system to the conditions of the new technological order, and provided the possibility of introducing end-to-end technologies into management decision-making processes to improve their efficiency [5].

In addition, healthcare's digitalization is also a strategic task of the state, as digitalization processes were actively supported at all levels of government. Among the current trends in the development of medicine that stimulate the creation of new innovative digital healthcare systems, the following should be highlighted: development of high-tech medical care; creation of new means monitoring physiological parameters (e.g., a smartphone is becoming the basis of digital health for many); creation of implantable medical devices; development and implementation of remote monitoring tools, etc; formation of Internet navigation systems for citizens in the healthcare system; disease prevention and healthy lifestyle promotion through innovative means such as clinical telemedicine, intelligent systems, medical information systems, mHealth (mobile healthcare and the "medical Internet of things", eHealth; effective assessment and control of the quality of medical care; the possibility of conducting elements of distance education; support for scientific clinical decisions; remote trade in medicines and medical devices [1; 4; 6; 8; 9].

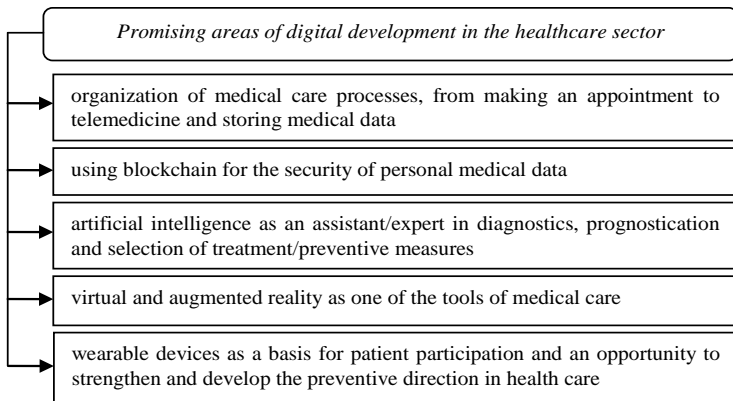
It was advisable to outline the main prerequisites for the digital transformation of the healthcare sector, including scientific and technological progress, global informatization and mobility, patient-centeredness and data-centeredness (Fig. 1).



**Fig. 1. Prerequisites for digital transformation of the healthcare sector**

*Source: developed on the basis of [1; 4; 6; 8; 9]*

At the same time, digital transformation is not about the isolated use of certain applications; it involves global and widespread changes. Those affect each individual patient, (starting with the unborn baby) and the state regulation of the healthcare system in general. Currently, experts identify several of the most significant and promising areas of digital healthcare development (Fig. 2).



**Fig. 2. Promising areas of digital development in the healthcare sector**

*Source: developed on the basis of [2-5; 7; 10]*

The growth of modern trends in global digital transformation in the Ukrainian healthcare system will generate significant benefits for society, as presented in Table 1.

*Table 1*

**Benefits of implementing digital transformation of the healthcare system in Ukraine**

Advantages	Implementation results
Improving services for patients	The main goal of digital transformation is to create more customer-centric services, and this will be of great importance in healthcare, as each patient's treatment can become more personalized, making it better for patients
Efficient data analysis	The use of technologies such as artificial intelligence or machine learning makes it possible to analyze data more efficiently and much faster than humans can. In addition, these technologies minimize errors, thereby increasing staff productivity
Modern work organization	Thanks to cloud computing and other digital tools, all data can be digitized. This allows for quick access to medical records, which enables doctors to make efficient decisions and provide more in-depth treatment. In addition, wearable devices can automatically alert patients and doctors in the event of an emergency to call an ambulance
Productive time management	Implementing various digital healthcare solutions saves a lot of valuable time. This is how many lives can be saved, thanks to round-the-clock communication with medical staff
A better environment for doctors	Technology provides access to a lot of data. It enables better communication and can provide important information for research. More in-depth research that would allow doctors to improve patient outcomes and lead us to the most important thing – better patient care

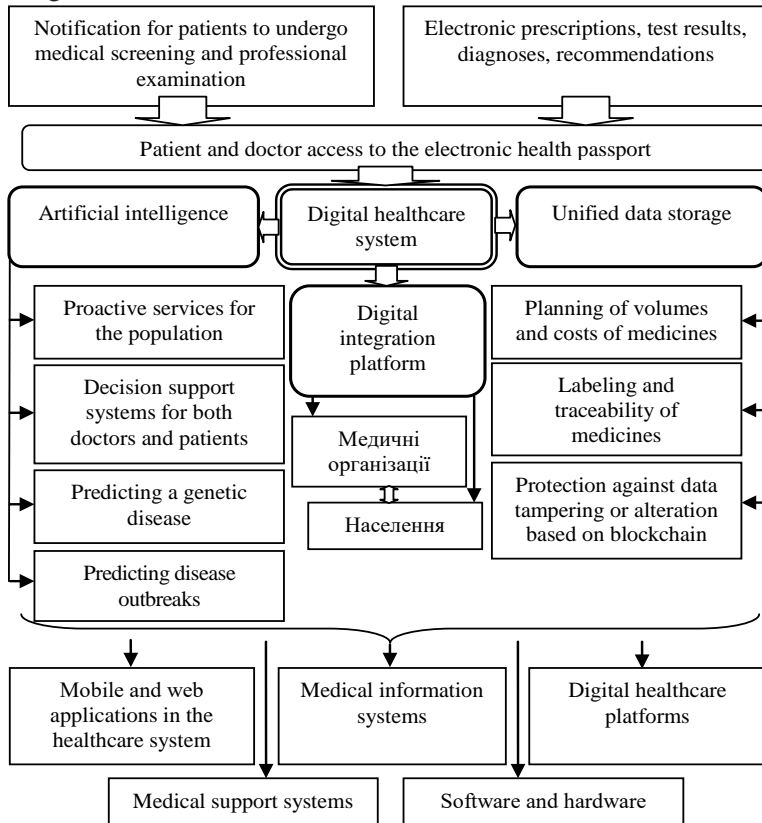
*Source: developed on the basis of [2; 6; 7]*

The use of digital and information technologies in the healthcare sector has had a significant positive effect on a number of indicators, such as the efficiency of medical staff, the quality of diagnosis and treatment in general, standardization of medical services, the effectiveness of management decisions, access to medical care, and others. The creation of a digital healthcare system is a complex task that involves the interaction of various entities in different areas in the healthcare sector, the use of modern tools and digital technologies, information systems, Industry 4.0 tools and other tools. The functional component of the digital healthcare system management is shown in Fig. 3.

As noted by researchers [1; 2; 5; 8-10], there are also obstacles to digital transformation, among which we should highlight:

- high costs of digital transformation, as it is a rather complex process that covers many areas of activity (from updating equipment and staff training to changing the operating model);
- obstacles to the rapid implementation of digital technologies in

healthcare facilities, which is due to a particular conservatism in this area, associated with a lack of understanding the processes of integrating digital technologies into medicine;



**Fig. 3. Functional component of digital healthcare system management**

*Source: developed on the basis of [1-10]*

- low "digital maturity" of the institutions, healthcare organizations, population, businesses and ecosystem partners.
- lack of digital skills among the staff of medical institutions, organizations, and their contractors;
- the problem of medical device's registration and licensing, which prevents the production of medical equipment from gaining momentum. Manufacturers were required to obtain registration certificates when making even minor changes to their products, which limits the ability of manufacturers to regularly update their products;
- restraining the spread of artificial intelligence by both technological and



ethical regulatory factors. One of the barriers is insufficient technological maturity: artificial intelligence algorithms need to be trained on large depersonalized datasets and then retrained to minimize possible errors. This raises the question of the distribution of responsibility for decisions made by artificial intelligence;

- the use of the latest technologies for the sake of treatment effectiveness leads to the problem of violation of patients right to privacy, confidentiality of personal data, and disclosure of medical secrets, which threatens to cause loss of privacy;

- one of the main problems in the transition from a traditional healthcare system to a digital model is the threat of losing access to quality healthcare. This is primarily due to the problem of digital inequality and differentiation based on the state of equipment with communication tools and solutions implemented at the regional level. On the one hand, healthcare information systems should help turn a previously passive audience – patients – into active participants in the healthcare market, but digital regional differentiation can have the opposite effect.

The global digitalization of healthcare inevitably raises issues that need to be addressed as soon as possible. This is primarily due to the fact that the formation and development of the healthcare system plays a key role in the well-being and stability of the country. Therefore, in addition to the obstacles, it is advisable to identify the basic prospects that can improve the transformation processes:

- impact on the social factor, aimed primarily at society. Healthcare professionals and healthcare management staff should be prepared to use the opportunities provided by informatization and digitalization. For health informatization measures to be more effective, it is necessary to introduce special courses in the curricula of medical schools to explain to future doctors and healthcare management professionals how information technology integrates with medical and management processes. Organizations that have succeeded in implementing digital transformation were able to share their best practices with the majority of healthcare facilities, which contributes to the formation of a digitalization ecosystem;

- impact on the economic factor associated with increased investment. In order to develop the digitalization process, especially in the healthcare sector, it is necessary to attract as much investment as possible and to constantly monitor its use. In order to implement innovative advanced technologies, healthcare organizations should cooperate with experts from the information technology sector. This will facilitate the development of innovative IT-solutions aimed directly at the industry itself; optimization and acceleration of medical processes. At the same time, the tools should not be too difficult to understand [1; 3-5; 7-10].

Thus, digitalization of healthcare ensures the transformation of public health and healthcare delivery systems allows expanding coverage and increases the efficiency of healthcare services, as well as to provide patient-centered care, and citizens become active partners of healthcare professionals in taking care of their own health.

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## **PART 3. CURRENT NATIONAL AND GLOBAL FUNDAMENTALS OF SOCIAL AND ECONOMIC SYSTEMS' DEVELOPMENT**

### **CLASSICAL AND INNOVATIVE METHODS OF TIME MANAGEMENT OF A MODERN MANAGER**

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In the context of the dynamic transformation of the internal and external environment, time management is one of the most productive tools for managing a modern manager's professional and personal time. Time management methods help to organize working hours, but are effective only if they were systematically followed. By following these principles, you can reduce emotional stress, feel successful and confident, and allocate time in such a way that you can get everything done on time.

Awareness and desire to improve the quality of work allows you to upgrade your qualifications, improve your professional skills, open up opportunities for learning and self-development, and identify non-standard approaches to solving problems. In your personal life, it allows you to plan your vacation, allocate time for housework, upbringing, and self-care [2; 3].

Using time management methods allows managers to: avoid a significant number of urgent, routine tasks and cases; increase work motivation; distribute work according to the degree of importance; prevent the aimless use of time; avoid excessive fussiness in business; learn to concentrate their attention; and use the help of other employees.

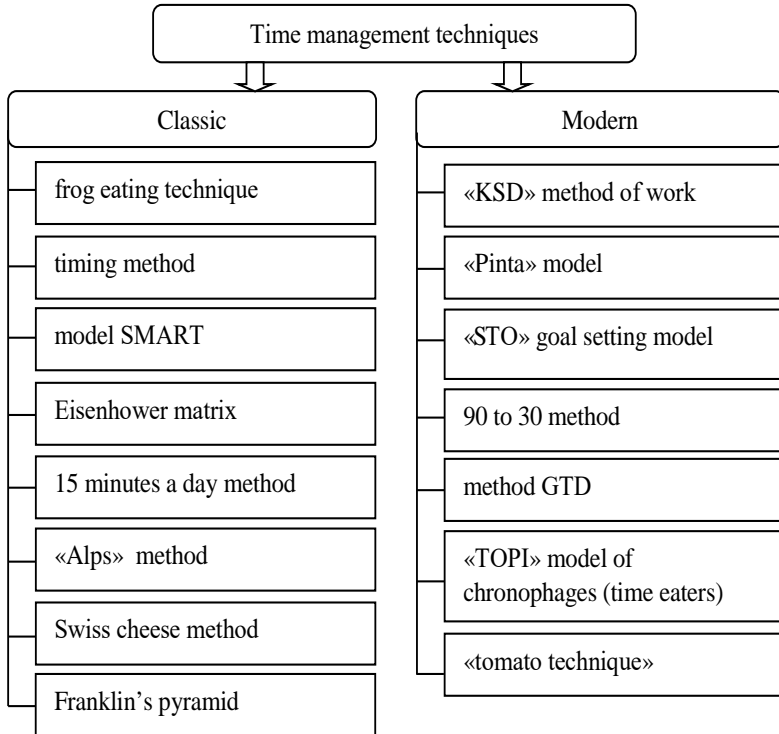
In general, there is nothing special about time management that was surprising or seems fundamentally new. Simple, yet effective techniques are not only useful for modern managers of organizations, but also create high motivation for their use.

The use of various classical and modern time management techniques allows not only saving working time, but also increasing individual and overall productivity, shaping corporate culture, and develops self-discipline.

Based on the generalization, it was advisable to identify the most commonly used time management techniques, which should be divided into classical and more modern ones (Fig. 1).

The easiest to understand is the frog-eating technique. The method was

proposed by public speaker Brian Tracy. The essence of the technique was that from the beginning of the day, in the morning, it is necessary to perform the most unpleasant and difficult tasks, that is «eat a frog», because as the author of the technique himself said: «A person who eats a live frog every morning enjoys the feeling that nothing is happening... enjoys the feeling that nothing worse will happen to him or her today».



**Fig. 1. Classical and modern time management techniques**

*Source: developed on the basis of [1; 4-11]*

The next most popular technique is probably the timekeeping technique. The first step is to identify what your time was spent on by writing down the things you do several times a day and how long it takes to do them. The first stage can last from several weeks to several months, the main thing is that you have an understanding of what your time was spent on. The next stage involves checking the effectiveness of the time spent. Based on these assessments, you can increase the portions of your time that were spent with benefit and reduce the time wasted.

The SMART model of setting goals and objectives, which stipulates that each goal or objective must meet five characteristics: specific, measurable,

achievable, relevant, time-bound. By the way, there were modifications of the SMART model: specific, measurable, achievable or ambitious, relevant, time-bound or traceable.

The Eisenhower matrix is all about sorting and assigning time to tasks, and prioritizing. This matrix provides for the distribution of tasks according to two criteria: importance (important and not important) and urgency (urgent and not urgent).

The 15 Minutes a Day method. This method was applied to those tasks that are constantly postponed for various reasons: too boring, too complicated, too long, etc. This method involves setting aside 15 minutes of time a day to do the actual task or case. You need to work according to a plan.

The «Alps» method is a classic technique whose name comes from the Alpine mountains, thus creating an association with upward movement, with efficiency, with effectiveness. The algorithm of this method involves:

- making a list of 10-15 tasks for today;
- prioritizing the task according to the Eisenhower matrix or its derivative;
- clearly defining the time in minutes for each case. For longer cases, you need to allocate a certain amount of time, without assuming that they will be completed today;

- calculation of how much time is actually spent working. If the working day lasts 8 hours, then 30% of the time must be deducted from the total time for current, urgent and unplanned tasks.

- to fit in the remaining time (5.5 hours) to complete the highest priority tasks. If there is not enough time to complete all the tasks on the list, then some of them will obviously have to be postponed, others delegated, some combined, modified, and some tasks canceled altogether.

The Swiss cheese method is particularly effective when dealing with procrastination. The method consists in making a new «hole» in the cheese each time, i.e., completing only part of the task. Moreover, the «holes» should be in different places. Rules of the Swiss cheese method:

- after completing a part of the task, you cannot return to it, you need to complete another part of this task;

- a small amount of time (10 to 20 minutes) should be allocated for each piece of the task;

- try to make as many «holes» in the piece of cheese in different places as possible. There is no need to follow the sequence and logic of the task;

- when there are enough «holes» in the cheese, you can polish the activity, combining pieces of disparate work into a common cause. Now a piece of cheese with a lot of «holes» is not difficult to «eat».

Franklin's pyramid – this time management system is a pyramid consisting of 6 consecutive levels. At the top of the pyramid was the plan for the day (it should be made every day), below it was a short-term plan

for a week/month, and then a long-term plan for a year or several years. The three basic steps of the pyramid were large-scale planning, which includes a master plan for achieving the current goal, the global goal of life, and key life values. Franklin's pyramid is not just a time management method, it performs deeper and more serious tasks, helping to shape a person's life's guidelines.

To manage time effectively, you need to keep in mind the five important elements of the PINTA model: planning, execution, adjustment, training, and analysis. This framework describes a systematic view of time management. The PINTA model is not a separate method, but offers a holistic vision within which other principles and approaches can be used. A pint was not only a measure of volume in the traditional English system of measures (0.568 liters), but Pint is also the name of one of the three ships of the first Columbus expedition, from which the watchman Rodrigo de Triana discovered America in 1492. However, the model under study involves the phased implementation of five components of time management:

- planning, setting goals and objectives;
- fulfillment of the planned, organization of one's own activities and the work of others
- mood, self-motivation, formulation of meaning;
- training of skills and abilities;
- analysis of own actions, control and correction of employees' behavior.

The 90 to 30 method. The essence of the technique: 90 minutes of diligent continuous work, 30 minutes of rest. The main task when using this technique was to allocate these 90 minutes of work to the most important task scheduled for the day, and devote the following intervals to less important matters.

The GTD method. Getting Things Done – «how to put things in order». This technique was based on 2 elements – control and vision (vision prospect of tasks and assignments). With the right approach, GTD helps to fight multitasking and accomplish more tasks. The basic principle of the technique was «do it if it takes less than two minutes».

The STO goal setting model includes strategic, tactical and operational goals. Strategic goals were set for 2-5 years, possibly for a longer period. Strategic goals were important for managers and other professionals because they set the direction of their development and achievements for the future. Tactical goals should contribute to the realization of strategic goals and, accordingly, be subordinated to them. Tactical goals were set for a period of one month to one year. Operational goals were set for a period of several hours to several weeks. They, for the most part, should also be subordinated to tactical goals, which, in turn, should be coordinated with strategic goals.

The «KOD» method of dividing works (key areas (spheres) of activity). For convenience and consistency of time management, you need to divide your work into 5-9 KODs (key areas of activity). In each key area of activity, it was necessary to set tactical and operational goals and monitor their achievement. In this case, you will have a comprehensive view of the work done without losing sight of important, key areas. Of course, the KPIs can be changed (no more than once a quarter) in accordance with the priority of activities, using the appropriate methodology:

- initially set goals for the year;
- at the beginning of the second half of the year to set goals for six months;
- at the beginning of each quarter to set goals for the quarter;
- at the beginning of each month to set goals for the month;
- at the beginning of each week to set goals for the week;
- at the beginning of each day to plan your day.

The TOPI model of chronophages (time eaters) divides time management mistakes into 4 categories: technical, objective, psychological, and instrumental. Technical errors imply that both making and correcting these mistakes was a matter of planning and execution techniques. There was nothing particularly complicated about it, you just have to follow certain rules. Objective mistakes depend less on the individual and more on the social environment and circumstances. A psychological chronophages were most often a person who has no real business and who, not knowing what to do with his or her time, decides to fill his or her leisure time by eating up other people's time. Instrumental mistakes involve the incorrect use of time management tools. This type of error was very easy to fix – you just need to choose the right planning tool: CRM-system, Outlook, Google, Wrike, Trello, Todoist, TickTick, paper diary, etc.

The «tomato technique». Francesco Cirillo, an Italian, invented this method to properly alternate periods of intense work and short rest. The origin of the name was clear: imagine that your task is a tomato that you cut into four pieces. Each piece of tomato is 20-25 minutes of intense work.

First, you need to formulate the tasks that were planned to be performed, prioritize them (for example, using the Eisenhower matrix). Then, it was advisable to set a timer for 20-25 minutes and work on the task without distractions until the timer signal. After that, take a short break (5 minutes), and work intensively again for 20-25 minutes, and again a break for 5 minutes, again 25 minutes of work, again a 5 minute break, and the last 25 minutes of intensive work. After every 4th piece (after a whole tomato), you need to take a long break (15-25 minutes).

To implement any time management technique, it is advisable to adhere to the basic principles of time management, which were defined by grouping and generalizing:



1. Make to-do lists. You need to record the list of planned tasks in any convenient way (on paper, in a mobile application, in a diary). Further optimization involves specifying a clear time frame within which a particular task will be completed. This will provide a clear plan and instructions on how and when to complete everything. In addition, when tasks were recorded, the brain retains information better.

2. Divide «big» tasks into «small» ones. This was easier even psychologically – «big tasks» because a large task divided into separate tasks or operations allows you to systematically perform each one – and, as a result, quickly achieve the desired result.

3. Set priorities. Every day, you need to identify the most important thing to do and direct all resources and opportunities to it. You should do it first or return to it throughout the day. The main thing was that the task must be completed. In the meantime, it is possible to complete less important tasks that require urgent resolution. As a rule, the most important tasks are usually the most difficult or unpleasant ones. Therefore, procrastination may occur, i.e., delaying the moment, performing less important and urgent tasks, and using time to do small things. So, you should be guided by the rule – do the most important thing first!

4. Not to be distracted, which involves defining certain hours for productive work, during which distractions were prohibited and outside distractions are excluded. It is necessary to organize work in such a way that employees solve problems themselves no matter what, and the manager must work. It is also necessary to develop self-control: not to be distracted by calls, emails, and messaging, as they «eat up» several hours of personal time. It's better to set aside half an hour in the morning, afternoon, and evening to check all messages, communicate, and not go beyond this limit.

5. Clearly formulate goals. This can be achieved through the use of key business performance indicators (profitability, productivity, solvency, motivation, liquidity, performance of the enterprise, etc. – i.e., those indicators that have a specific dimension).

6. Set goals correctly. Any goal should be specific, relevant, achievable in a realistic period of time (not some time later), and measurable.

7. Set the bar high. It is necessary to set little more tasks than can be accomplished, or set earlier deadlines than planned.

8. Leave time to spare. So, plans and clear schedules are necessary, but force majeure can happen in any business. Therefore, you should not plan to complete tasks, especially large ones, in the shortest possible time. With this time left over, you can correct the situation if necessary, if there is a deviation from the plan.

9. While performing current tasks, do not forget about the main ones. You need to constantly remember the company's mission, and accordingly,



determine whether a particular current task was in line with the main goal.

10. Delegate authority. Even if it seems that you know everything better than anyone else, you don't need to fulfill the duties of other employees. The task of a manager is not to be scattered on small current tasks. You can safely delegate all the work to your subordinates, while you yourself were engaged in planning, developing long-term strategies, scaling your business, and other global tasks.

11. Learn to say no. Things you don't feel like doing, inexpedient, unprofitable things are real killers of a manager's time and the profit of any business. And all you need to do is learn to say «no» and refuse unfavorable offers!

12. Allow for rest. A tired manager is a threat to subordinates and an inefficient employee. Thinking about work night and day, rushing to the office on a day off, neglecting your personal life – all these are forbidden things in time management. It is still impossible to complete all the tasks in time, so at least a few times a week; you need to allow yourself to relax and unwind, to do what you like. This way, the manager will be able to «reboot», recover, and, accordingly, work many times more efficiently.

13. Live according to your own biorhythms. Throughout their childhood and adolescence, people were artificially re-educated to be «larks». Today, every effective leader is a business owner who lives in harmony with his or her body. What's the point if you're an owl, get up at 7:00 and go to lunch tired. In this state, you will still be unproductive. It's much more useful to get a good night's sleep and start working at 12 noon – and then live according to your own schedule. If you feel comfortable working at one in the morning, then work at one in the morning.

14. Motivation. In order to stick to the plan, it is important to be able to motivate yourself. Motivation can be positive or negative, in other words, you either need to encourage yourself or card yourself [1; 2; 4; 6; 8-11].

The introduction and use of classical and modern time management technologies helps to solve many problematic issues in the field of time management and personnel management with the subsequent development of recommendations for their solution.

Thus, time management technologies allow activating subordinates and the manager himself, finding reserves of personal time, developing thinking, directing them to efficiency, and improving the management system of the organization and individual performers. An essential feature of time management is that executives and managers themselves were focused on finding the most effective solutions through the most efficient use of working time. Changes initiated by executives are most effective because they will not cause opposition when trying to implement them in organizational activities.

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# STRATEGY OF SECURITY MANAGEMENT OF COMPETITIVENESS OF INNOVATIVELY ORIENTED ENTERPRISE IN THE CONDITIONS OF DIGITALIZATION

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In order to find the main strategic competitors of innovatively oriented enterprises, their managers need to collect the information from which the strategic aspects of the activities of competing enterprises will be visible with the help of strategic research. Information is also needed regarding the activity of competing enterprises on the market, including the global one.

In the process of research, the main, priority competitors of innovation-oriented enterprises are revealed, the study of which is given primary attention. Priority competitors are determined depending on the chosen strategy of an innovatively oriented enterprise (for example, for a leader, priority competitors are other leaders on the market; for an applicant, leaders, etc.). The following are the main areas of search for priority competitors:

1. research on safety competitiveness of products;
2. research on the safety competitiveness of marketing activities;
3. studying the safety competitiveness of the innovation-oriented enterprise as a whole.

When studying the safety competitiveness of a product, it is compared with a competitor's product by a number of attributes: purpose; reliability; economic use of material, energy and other resources; environmental friendliness; security; manufacturability of repair; after-sales service and others. As for the analysis of the safety competitiveness of strategic activity and its comparison with the similar activity of priority competitors, the comparison is carried out according to the elements of the strategizing complex: product safety, price, bringing the product to the consumer, promoting the product. The level of safety competitiveness of the enterprise is determined by a number of indicators of its potential: production and scientific and technical; financial and credit; goods and sales; socio-economic.

In the study of the problems of competition and competitors, the analysis

and study of the factors of the safety competitiveness of innovatively oriented enterprises stand out. When assessing factors of security competitiveness, strategic intelligence data and information obtained from relevant sources are of great importance.

The final aspect of the study of competitors is the analysis of the secure competitive positions of an innovatively oriented enterprise on the market and their comparison with the positions of competitors. Such an analysis in the conditions of digitalization involves the implementation of such operations:

1. determination of the security competitive positions (that is, comparative characteristics of the main security parameters of the enterprise and its products in relation to the competitor) of the enterprise based on the study of its potential;

2. determination of safe competitive positions of the main, priority competitors of the innovation-oriented enterprise (determination of their potential, forecasted activity);

3. comparison of the security competitive capabilities of the enterprise and its competitors (priority competitor) based on the construction of the polygon of security competitiveness.

A number of indicators included in the polygon of security competition can be obtained from internal information of an innovatively oriented enterprise, as well as strategic intelligence data on competitors. Other indicators (for example, the effectiveness of advertising, the image of the company, etc.) can be obtained solely on the basis of the results of strategic research. The socio-economic significance of improving the quality and safety competitiveness of products lies in the fact that measures in this direction contribute to the formation of a more efficient management system under the conditions of market relations. The socio-economic effectiveness of increasing the level of quality and safety competitiveness of products is as follows:

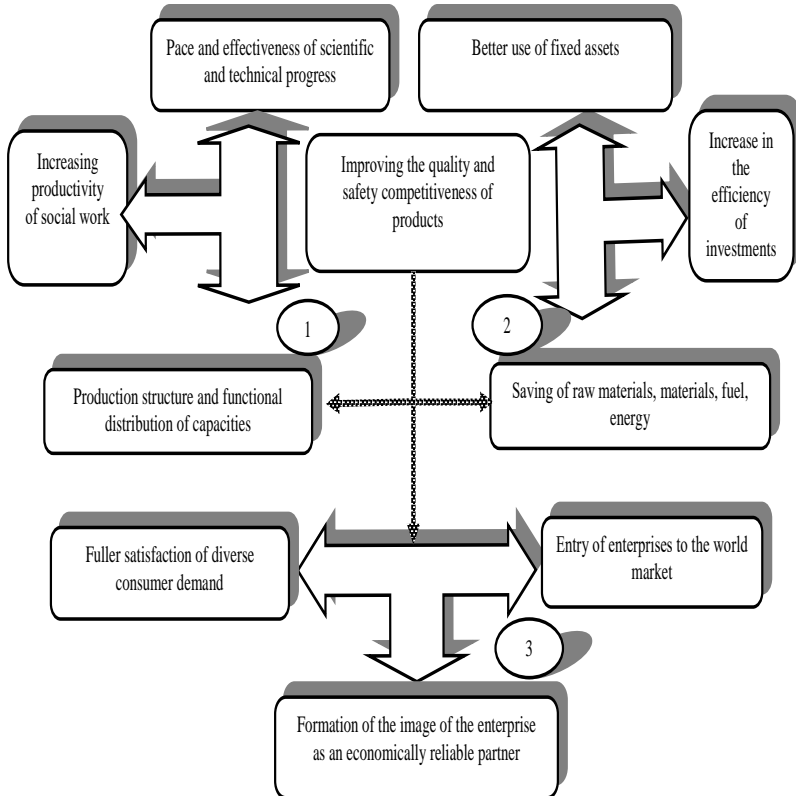
1. high-quality and competitive products always more fully and better satisfy social needs;

2. increasing the quality of products is a specific form of revealing the law of saving working time: the total amount of social labor costs for the production and use of products of higher quality, even if the achievement of such is associated with additional costs, is significantly reduced;

3. competitive products ensure the constant financial stability of an innovatively oriented enterprise, as well as obtaining the maximum possible profit;

4. the multifaceted impact of improving the quality and, as a result, the competitiveness of products not only on production and business efficiency, but also on the image and security competitiveness of the enterprise

as a whole, which is depicted in Fig. 1. The level of quality and safety competitiveness of products is influenced by many diverse factors. It is possible to achieve the necessary level of quality and safety competitiveness of goods sold on the respective markets in various ways.



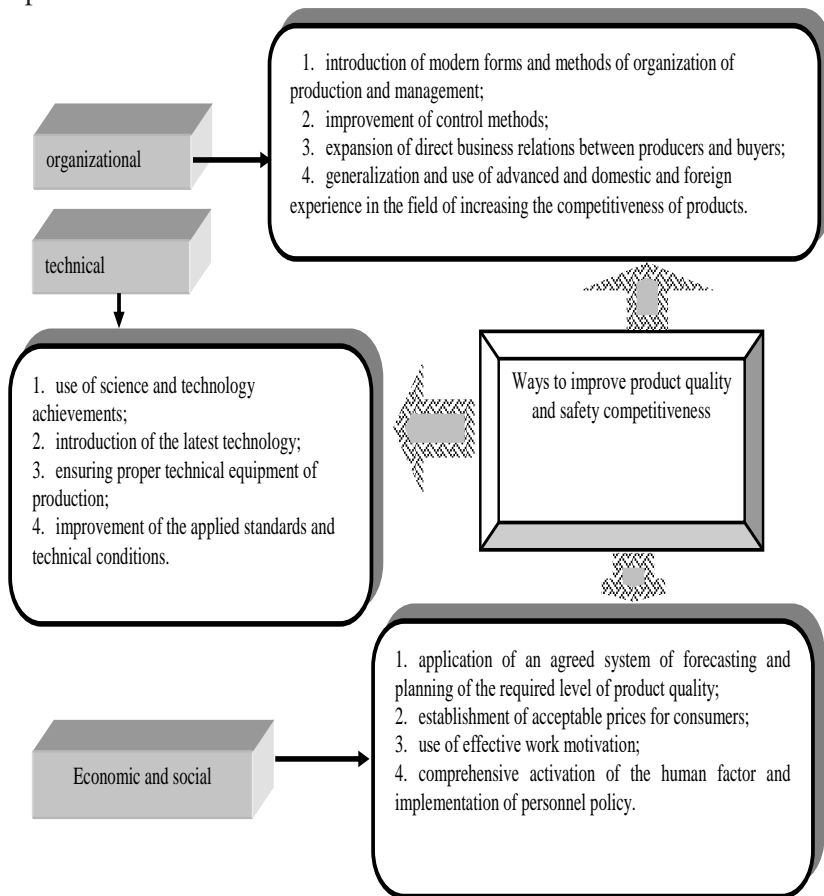
**Fig. 1. The multidirectional impact of improving the quality and safety competitiveness of products**

*Source: developed on the basis of [3; 5; 7; 9-10]*

The set of the most important specific methods (factors) of improving the quality and safety competitiveness of all types of products is shown in Fig. 2.

According to their content and direction, they can be grouped into four interrelated groups: technical, organizational, economic and social. Among the technical methods (factors) of improving the quality of products, the decisive place belongs to the constant improvement of the design of the technical and technological base of an innovatively active enterprise. This is due to the fact that the proper foundations of the technical level and quality

of products are formed in the process of their design. It is in this cycle that a complex of laboratory-research and design works is carried out, aimed at ensuring the necessary technical and economic parameters of product samples.



**Fig. 2. The main methods of improving the quality and safety competitiveness of the products of an innovatively active enterprise**

*Source: developed on the basis of [1; 2; 4; 6; 8]*

In order to achieve the designed level of quality of any product, under the condition of high technical equipment of production, application of the latest technology, strict observance of technological discipline, it is necessary:

1. reduce production costs. Low costs are good protection in a market with strong price competition. If an innovation-oriented enterprise bears low costs, it partially maintains the profit level;

2. reduce the cost of manufactured products;
3. lower the price (it will make it difficult for new competitors to win customers);
4. improve product quality;
5. develop a better packaging design;
6. more often carry out an advertising policy at an innovation-oriented enterprise.

Safety competitiveness is not related to the excellent characteristics of the product, but to its attractiveness to customers making a purchase. Private individuals or other enterprises can act as consumers of goods or services produced by an innovatively oriented enterprise. The manufacturing enterprise contributes to the consumer's profit, and therefore achieves a high security strategic competitiveness of its products by reducing the consumer's costs, or by increasing his income. If the first can be reduced by lowering the price of a consumer product, reducing the cost of its delivery, installation, debugging, reducing the cost of operating the product, then the increase in the consumer's income can occur due to the increase in the price of his finished products, in the case of the use of components that allow to improve the quality or which made it possible to produce fundamentally new products in conditions of digitization.

In direct connection with the means of increasing security competitiveness, there are two main methods of conducting strategic competition - price and non-price competition. The first of them consists of the fact that competing enterprises in the conditions of digitalization try to attract consumers by setting prices that are lower than those of the rival. In other words, in the case of price competition of an innovatively oriented enterprise, competition reduces the consumer's costs for the purchase of goods, thereby increasing his profit from the purchase. Which means, in the final analysis, the margin of safety competitiveness of its products increases. Non-price competition is also focused on achieving the same ultimate goal. But in this case, innovation-oriented enterprises compete not in reducing consumer costs, but in increasing the consumer value of goods. This can be achieved in many ways: by improving product quality, creating a fundamentally new type of product, improving service, activating advertising, etc. Numerous strategic studies have shown that, when making a purchase in the conditions of digitalization, most buyers focus on the "price/quality" criterion. The understanding of what "good quality" is for different people is very different: for some it is reliability, for others it is the volume of the batch, for others it is the possibility of crediting. But the selection algorithm is the same in most cases. A person weighs "whether the quality" of the product offered to him at a given price is satisfactory.

Thus, the safety competitiveness of the product is also assessed by private

individuals, the higher the share of unpaid utility received by the consumer as a gift. In other words, the same search for a profitable purchase is taking place, as in consumer enterprises, with the important difference that the benefit is understood by a person in a much more complex and multifaceted way than by an innovatively oriented enterprise. Each manufacturer strives to produce a product that has greater value for the consumer. After all, it is the size of the consumer value that determines the total size of the profit obtained by him and the margin of safe competitiveness.

However, it is not easy to produce products with high consumer value. These products should be cheap, of high quality, to be distinguished by novelty and at the same time have a well-developed design, in combination with good design and functionality, to be profitable for production. It is easy to describe such products, but practically it is almost impossible to produce them. It consists in the fact that the desire to achieve the best characteristics of the product in some respects forces us to give up other advantages to some extent. For example, a cheap product is usually inferior in quality to another product. In real life, it is impossible to achieve the highest indicators across the entire spectrum of properties. The reasons for this are objective and subjective in nature.

Thus, the success of an innovatively oriented enterprise in the market depends not only on its readiness to improve its products, but also on the reasonableness of the choice of those properties that are subject to improvement in the conditions of digitalization.

Many characteristics of innovation-oriented enterprises (size, degree of specialization, organizational structure, etc.) are mostly dictated by the features of the goods (services) they produce and, accordingly, the demands of those consumers they target. Operating on the market in conditions of digitization, an innovatively oriented enterprise must constantly choose the products with which characteristics it wants to produce. And, as a result, in a strategic perspective, it must constantly shape its own image, ensure that it is optimal for the business it is engaged in. Only in this case, an innovation-oriented enterprise will achieve strategic success in the conditions of digitalization.

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## **THEORETICAL AND METHODOLOGICAL ASPECTS AND THE ECONOMIC NEED FOR THE RESTRUCTURING OF ENTERPRISES**

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To determine the features inherent in the restructuring process, it is first necessary to find out its essence. To do this, let's analyze the most common approaches of scientists and economists to this issue (Table 1).

Table 1

**Results of the study of the essence of the concept of "restructuring"  
from the point of view of domestic and foreign scientists and  
economists**

<b>The authors</b>	<b>The essence of the concept of "restructuring"</b>
Mykhaylenko O.V., Kira M.O., Ivashyshyn A.F.	Restructuring is a process that is the basis of anti-crisis management of a business entity and is aimed at overcoming the crisis state of the latter.
Van Horn J., Yoon G.B., Gohan P.	The concept of restructuring is interpreted from three points of view:
	• restructuring – a set of measures aimed at eliminating problems related to production and management activities;
	• restructuring – a set of measures aimed at correcting or eliminating the problems of the financial activity of a business entity;
	• restructuring is a process directly related to the sale assets of a troubled business entity.
Ovsak O.P., Vasilyeva N.A., Okun B.A.	Restructuring is an integral component of the overall management system of the enterprise, aimed at making changes in the latter's activities depending on the requirements of the internal and external environment.
Kolisnyk R.M., Stetsko R.V., Vovk I.T., Bilyk V.I.	Restructuring is a continuous process aimed at increasing the level of financial stability, reliability and competitiveness of a business entity.
Novak I.V., Lomova S.I., Larionova K.L.	Restructuring is a process associated with changing the organizational structure of an enterprise and aimed at increasing the level of efficiency of the latter's activities.
Rumyk I.I., Shelest T.V., Majorchak I.A., Smykovchuk T.V.	Restructuring is a process related to the introduction of adjustments or a complete change in the business entity's strategy, which will meet the conditions of the internal and external environment.

*Source: developed on the basis of [1-10]*

Having analyzed the approaches of various scientists to the definition of the essence of the concept of "restructuring", we believe that the point of view of the authors of the third group is the most accurate, according to them, restructuring is a continuous process of making changes in the activities of the enterprise, adapted to the conditions of the internal and external environment.

In general, after analyzing the point of view of the authors of each group regarding the essence of the restructuring process, we can single out the following features inherent in it [1-10]: the consequence of restructuring changes should be an increase in the added value of the enterprise; restructuring should be carried out not only on enterprises that are in a state of crisis, but also on those that are successfully developing; restructuring is a continuous process. According to the signs of restructuring discussed above,

certain types of restructuring are distinguished, which are shown in Table 2.

*Table 2*

**Classification of types of restructuring**

<b>Classification sign</b>	<b>Types of restructuring</b>
By the duration of implementation	Short-term; medium term; long-term
According to the consequences of implementation	Local; large-scale
By the nature of implementation	Financial; technological; production; organizational; administrative, legal; innovative
For the purpose of conducting	Crisis restructuring; rehabilitation; stabilization; developing

*Source: developed on the basis of [1-5]*

The first three classification features of restructuring are typical and well known in scientific practice.

As for the last classification feature, namely "for the purpose of carrying out", its essence boils down to the following: crisis restructuring – a set of changes in the enterprise aimed at eliminating crisis phenomena, avoiding liquidation and bankruptcy of the latter; rehabilitation – restructuring aimed at overcoming the consequences of the crisis; stabilization – restructuring aimed at maintaining the appropriate level of financial stability of the enterprise; developmental – restructuring, which should be carried out at successful enterprises in order to expand market positions and increase the level of competitive advantages (diversification of activities and access to new sales markets) [4, p. 158; 6, p. 68].

Depending on the severity of the problems at the enterprise and, accordingly, the terms necessary for restructuring, operational and strategic forms of its implementation are distinguished. In most cases, operational restructuring is used if the enterprise is in a state of crisis. Strategic restructuring is mainly focused on expanding market positions and increasing the level of competitive advantages. Also, some authors single out the rehabilitation form of restructuring. This form occurs when the enterprise is insolvent and a bankruptcy case has been initiated against it [2, p.65; 3, p. 40].

Not all enterprises that are in a state of crisis are able to restore and continue their activities. In order to overcome crisis phenomena, it is necessary to have a certain stock of material, financial, labor, informational and other types of resources in the amount determined by the nature and depth of the crisis.

In order to determine whether it is expedient to carry out restructuring measures at the enterprise, we suggest applying a method based on the calculation of an integral indicator.

Under the restructuring capacity, we propose to understand the ability

of the enterprise to implement a number of measures of a financial-economic, production-technological or organizational-legal nature, aimed at overcoming the crisis situation and stabilizing further activities.

The method of assessing the restructuring capacity consists in the calculation of a certain set of financial ratios, taking into account the weighting factors. The peculiarity of this method is that it is adapted to the peculiarities and specifics of the activities of domestic forestry enterprises.

Therefore, when assessing the restructuring capacity of the enterprise, we suggest calculating the integral indicator, which is based on the calculation of financial ratios, which are shown in Table 3.

*Table 3*

**Normative values and weighting coefficients of indicators of the model for assessing the restructuring capacity of the enterprise**

Indexes	Recommended values	Weighting coefficients
Solvency recovery coefficient, $X_1$	1.0	0.1
Total liquidity ratio, $X_2$	2.0	0.2
Coefficient of autonomy, $X_3$	0.5	0.2
Coefficient of financial stability, $X_4$	1,168	0.1
Coefficient of provision of current assets with own funds, $X_5$	0.216	0.05
Asset turnover ratio, $X_6$	0.568	0.12
Fund return, $X_7$	1,792	0.03
Profitability of the enterprise, $X_8$	21,12	0.1

*Source: improved by the author*

For each of the above indicators, normative values and weighting factors are determined.

The integral indicator for assessing the restructuring capacity of the enterprise has the following form:

$$Ic.c = 0,1 \times X_1 + 0,2 \times X_2 + 0,2 \times X_3 + 0,1 \times X_4 + 0,05 \times X_5 + 0,12 \times X_6 + 0,03 \times X_7 + 0,1 \times X_8$$

where Ic.c. – the coefficients of the model.

If the value of the integral indicator for assessing the restructuring capacity is less than 1, this indicates the impossibility of implementing certain restructuring measures for financial recovery. In the opposite case, i.e. when the value of the integral indicator is greater than or equal to 1, the enterprise has every opportunity to implement the restructuring plan

The results of the calculation of the integral indicator of the restructuring capacity of the State Enterprise "Horodnytske Lisve Gospodarstvo" for the year 2021 are shown in Table 4. The obtained value of the integral indicator of the restructuring capacity of the State Enterprise "Horodnytske lisvestvo"

allows us to assert the possibility and necessity of financial recovery.

*Table 4*

**Results of the calculation of the integral indicator of the restructuring capacity of the State Enterprise "Horodnytske lisove stvostvo" in 2021**

Indexes	Normative (recommended) value, units	Weighting coefficients, units	Actual values, units
X <sub>1</sub>	1.0	0.1	0.435
X <sub>2</sub>	2.0	0.2	0.67
X <sub>3</sub>	0.5	0.2	0.6
X <sub>4</sub>	1,168	0.1	0.6
X <sub>5</sub>	0.216	0.05	0.37
X <sub>6</sub>	0.568	0.12	5.2
X <sub>7</sub>	1,792	0.03	1.6
X <sub>8</sub>	21,12	0.1	0.15
Ic.c	≥1	-	1,029

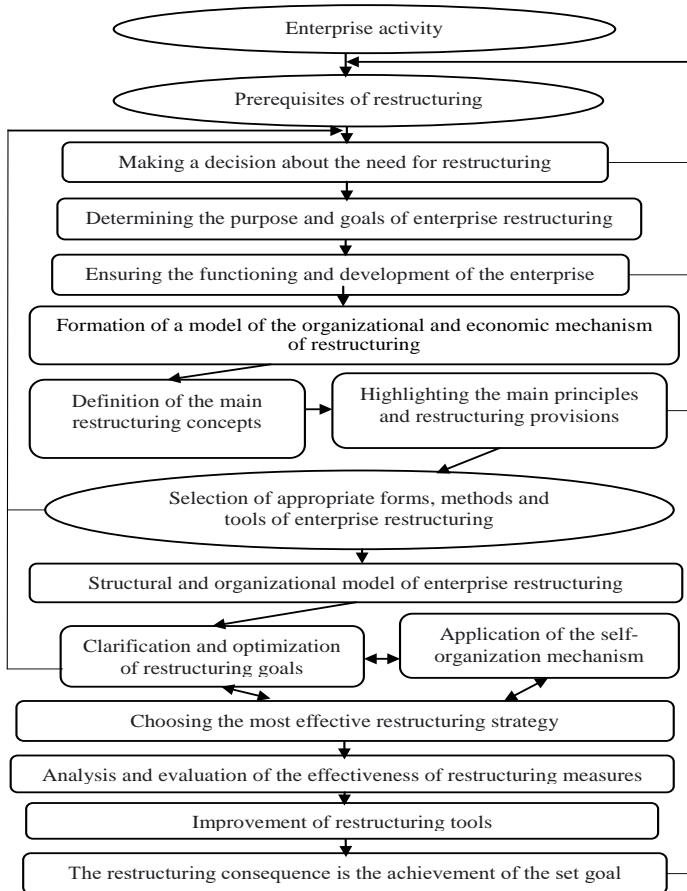
*Source: developed by the author*

In the process of developing an effective enterprise restructuring mechanism, the following conditions must be taken into account: the restructuring mechanism is an integral element of the general enterprise management system; the restructuring process always has clearly defined goals and objectives, and also involves the implementation of functions of planning, organization, motivation, regulation and control; the restructuring process is always determined by certain factors.

The main elements of the improvement of the restructuring mechanism of the enterprise, including the SE "Horodnytske liseve stvostvo", are presented in Fig. 2.

The main provisions to which the restructuring process of the enterprise, including the State Enterprise "Horodnytske Lisvestvo" must comply, include the following: the structure of the restructuring goals of the enterprise must be optimal; the interests of the participants in the restructuring process should be coordinated as much as possible; the organizational and legal form of the enterprise's activity must correspond to the conditions of the operating environment and the interests of the participants in the restructuring process; the restructuring process of a strategic nature requires the use of innovative approaches and technologies; mandatory systematic control and monitoring; availability of an objective informational basis of the restructuring process; application of the most effective analytical tools in the process of enterprise restructuring, etc. Compliance of the restructuring process with the above

provisions is a guarantee of its effectiveness and efficiency.



**Fig. 2. Block diagram of improvement of the enterprise restructuring mechanism**

*Source: developed by the author*

A more in-depth study of the factors necessary to restructure the enterprise, as well as specific measures for its implementation, will be a promising direction of further research.

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# **FORECASTING THE EFFICIENCY OF SECURITY MANAGEMENT OF THE COMPETITIVENESS OF AN INNOVATION-ORIENTED ENTERPRISE IN THE CONDITIONS OF A DYNAMIC BUSINESS ENVIRONMENT**

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It is expedient to evaluate and forecast the effectiveness of safety management of the competitiveness of an innovatively oriented enterprise using the benchmarking method. Benchmarking is a complex multifunctional method of strategic planning. Although benchmarking already has a long enough history of its development, it is constantly evolving and gaining more and more popularity among domestic enterprises in the conditions of a dynamic business environment. The advantage of benchmarking is that it is aimed not only at finding and defining differences between competitors, identifying leaders and the reasons for their success in the market, but also forms a new philosophy of strategic planning. It allows not only managers, but also the entire team of the enterprise to move away from the most difficult stereotypes.

For most innovation-oriented enterprises, benchmarking is not news, as it is reproduced within the framework of competitive analysis. However, benchmarking is a more detailed, formalized and structured function than a competitive analysis method or approach. This is a necessary function of the success of any enterprise. Thus, benchmarking develops the analysis of security competitiveness, which is limited to the study of competitors - their products, costs and technologies, characteristics, economic and financial indicators, relations with customers and suppliers. All this is necessary to find the most profitable products for the enterprise and its security.

All subsystems of a business entity are exposed to the influence of the external environment in which the entity operates. For the effective use of personnel and innovation potential of the enterprise in the conditions of digitalization and change management, it is important to arrange the factors most influential on the potential, determine the connections between them,



mechanisms to counteract negative factors and, at the same time, intensify the influence of positive ones. The formation of a differentiated system of factors influencing the personnel and innovation potential of the enterprise in terms of mega-, meso-, and micro-levels will enable the specialists responsible at the enterprise to single out the indicators that determine its value. The practice of the functioning of a typical enterprise shows that when conducting a diagnosis of the effectiveness of the activity, the management staff first of all determines the deviations of the actually received data from the planned ones, the rates of growth of the basic parameters of the activity and, in general, the effectiveness of the main functional subsystems of management.

The dynamics, changes in the structure of the entity's economic activity, and their range are determined by the safety and organizational indicators selected at the enterprise. In this way, the relevant specialists of the enterprise involved can quantitatively assess the pace of innovative development processes at the enterprise. Sometimes the qualitative definition of activity is not taken into account, but this aspect is important in determining the level of security competitiveness, based on the fact that product quality is one of its defining elements.

Considering the main parameters of the system for diagnosing the types of capabilities of a typical enterprise, it is worth noting that for management personnel, there is a determination of the degree of possible risks that affect the formation and use of personnel and innovation potential. The most effective method of diagnosing personnel and innovation potential is the combined method, which involves the use of deterministic mathematical dependencies between indicators and a number of factors, taking into account the action of internal and external factors and the state of management of a typical enterprise.

There is a set of external exogenous factors that affect both the activity of a typical enterprise and the level of its personnel and innovation potential. Among them, it is worth highlighting: the constant increase in the level of inflation in Ukraine, the increase in the size of the national debt, significant fluctuations in the exchange rate, the reduction of the country's gross domestic product, the need for changes in the legislative principles of enterprise management, the activation of investment and innovation processes, the search for mechanisms to improve foreign economic activity, the presence of disparities (imbalance) of supply and demand on the market, the need to improve antimonopoly activities on the part of the state, implementation of an effective investment policy.

The fundamental factors that influence and determine the personnel and innovation potential of a typical enterprise are differentiated in terms of financial support, management system, enterprise personnel, selected

management methods, marketing, production, product sales, and general efficiency. Economic diagnosis of an enterprise is an analysis and assessment of the economic indicators of the enterprise's work based on the study of individual results, the lack of complete information in order to identify reserves and clarify the prospects for its development and the consequences of safe management decisions.

Given the existence of quite a variety of approaches to diagnosing the human resources and innovation potential of a typical enterprise, it is worth noting that the selection of the methodology that will be used to analyze the enterprise, taking into account its situation and specifics of activity, plays an important role in this process.

Benchmarking shows a manager where there are cost and quality problems in his business or in the market. There is experience in using benchmarking to establish a strategy for enterprise success in a dynamic business environment. At the same time, the following questions are in the center of attention:

1. who, which company is at the top of the competition?
2. why own enterprise is not the best?
3. what should be changed or preserved in the enterprise to become the best?

When benchmarking is carried out, employees work in teams consisting of representatives of different enterprises. The most important component of the employees' and the company's activities is planning with an orientation to the creation of value, as well as competence in the field of working with clients, technology and entrepreneurial culture in the conditions of a dynamic business environment. At this stage, security competitiveness benchmarking and strategic benchmarking are applied.

First, it is necessary to choose a competitor of the innovation-oriented enterprise. After choosing a competitor and the type of competing products, the next step is to determine the most important characteristics that, from the point of view of benchmarking competitiveness, are decisive: product quality; packaging design; assortment positions; sale price; environmental friendliness; advertising campaign; prestige; taste qualities; safety, logistical availability.

The next task is to create a checklist, in which, according to the specified characteristics of the product, it is necessary to include a score for each of them. It is advisable to choose a scale from 1 to 4 for point evaluation (with 1 being the minimum score, and 4 points being the maximum) – Table. 1. Preliminary analysis of the checklist shows that the product of the model competitor is generally ahead of the product of the model innovation-oriented enterprise by 3 points (29 points – 26 points = 3 points). The main characteristics that ensure the advantages of a model innovation-oriented

enterprise are: the price of products, this means that an innovation-oriented enterprise sets a lower price than its competitor.

*Table 1*

**Checklist of comparative assessments of safety competitiveness characteristics of products of a model innovation-oriented enterprise and a model competitor**

№	Expert assessment (point)	The name of the characteristics	
		Innovatively oriented enterprise	Competitor
1	Quality	3	4
2	Lot size	3	4
3	Delivery	4	4
4	Price	4	3
5	Safety	4	4
6	Possibility of credit	2	2
7	Reliability of partnership	4	4
8	Logistical availability	3	4
Total points		26	29

An innovation-oriented enterprise must improve its characteristics to the level of a competitor, namely: improve the quality of products; to make better storage conditions.

The next step of our task is the construction of a scheme that consists of concentric circles divided into equal sectors by rays emanating from the center, the number of which corresponds to the characteristics given in the checklist. Each ray is marked with a scale from 0 to 4 (or the maximum value in points that we determine when using the method of expert evaluations). Next, after marking each beam with the corresponding characteristic from the checklist, we put points on it corresponding to the number of points given in the letter.

For any innovation-oriented enterprise in a dynamic business environment, the problem of competitors is very serious. On the one hand, the presence of competitors creates a competitive situation on the market, stimulates the activity of an enterprise that seeks to take a leading position. On the other hand, any innovation-oriented enterprise tries to defeat a competitor, to overtake it in the process of competition, having won established positions on the market and, if possible, squeezing competitors out of it. The main strategic directions of competitor research:

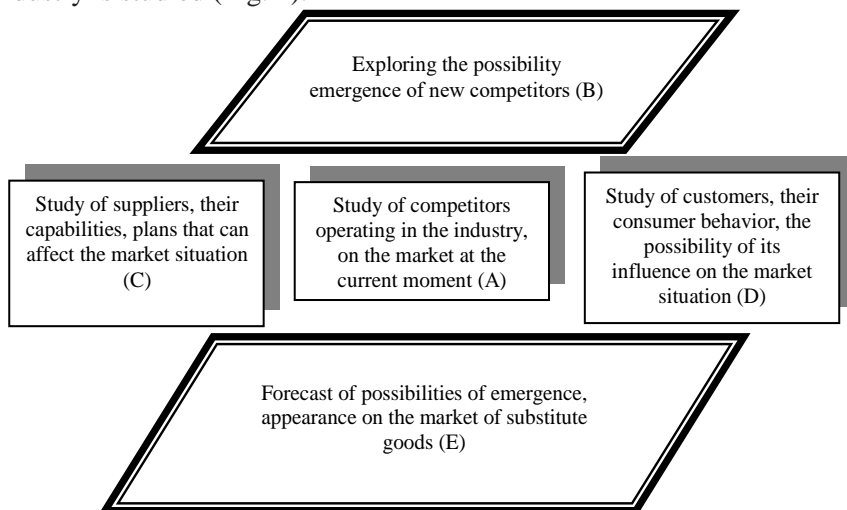
1. research of the competitive arena;
2. finding the main competitors of the enterprise from the point of view of security and forecasting its level;

3. study of the main, priority competitors according to such characteristics as the safety competitiveness of the product, marketing, innovative development of the enterprise;

4. study of the factors of security competitiveness of the enterprise;

5. analysis of the company's competitive positions based on a comparison of its potential with the potential of competitors in a dynamic business environment.

The research of the competitive arena is carried out on the basis of its structure. According to this approach, first, the attractiveness of the industry in the long term is investigated; secondly, the competitive position of the enterprise and its products compared to other enterprises operating in this industry is studied (Fig. 1).



**Fig. 1. Strategic analysis of the object of security research of competitors**

*Source: developed on the basis of [1-10]*

The organization of such a study involves not only the identification and assessment of existing competitors (A), the value and prospects of the attractiveness of the industry, which are determined:

- B – opportunities for the emergence of new competitors;
- C – by changing the positions of suppliers who can revise the terms of supply and dictate prices;
- D – changing the positions of buyers, consumers regarding goods, services, enterprises;
- E – the appearance on the market of product substitutes, alternative goods and services.

Based on the structure of the object proposed above, it is obvious that when organizing a security study of the competitive arena (surveys, focus groups may be used) it is necessary to include in the program of work an analysis of all possible situations on the market. It is necessary to study not only existing competitors, but also the positions of suppliers and consumers, the possibility of the appearance of alternative goods and services.

As for the innovation-oriented enterprise, in the dynamic business environment, many new competitors have appeared, and of course, buyers change their views on the choice of supplier, but still return to using proven suppliers.



**Fig. 2. Elements of strategic management of security competitiveness of an innovatively oriented enterprise**

According to the results of the research, a typical innovation-oriented enterprise in the conditions of a dynamic business environment should increase the competitive potential of all weak points: finance, management organization and marketing. From the point of view of strategic management of security competitiveness, the enterprise should pay attention to the following areas of activity in the sphere of its control: lack of evaluation of the effectiveness of the implementation of the strategy of competitiveness management; inefficient marketing system of information support for competitiveness management; lack of diagnosis of competitive risks in the company's activities; lack of a system for identifying and supporting the company's competitive advantages in the field of competitiveness management; lack of practice in developing measures to adjust and clarify plans and tasks in the field of competitiveness management; lack of practice in developing proposals for improving the effectiveness of competitiveness management.

The most optimal is a competitive strategy, because it will lead to the achievement of the goal of an innovatively oriented enterprise in the conditions of a dynamic business environment. It is also possible to apply a functional strategy, that is, a production strategy, to develop a production cycle.

Due to this strategy, managers will be able to more effectively forecast and control its functioning.

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# ORGANIZATIONAL AND ECONOMIC MECHANISM OF MANAGEMENT OF COMPETITIVENESS AND SECURITY OF AN INNOVATION-ORIENTED ENTERPRISE

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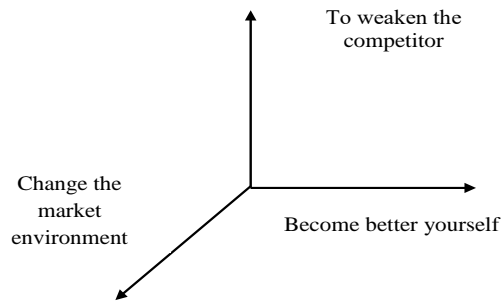
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The strategic stability of an innovatively oriented enterprise in the market is possible only under the condition of its competitiveness, security and ability to adapt to changes in the market environment. There are three main ways to obtain secure competitive advantages: to become better yourself, to directly weaken competitors, or to change the market environment itself (Fig. 1).

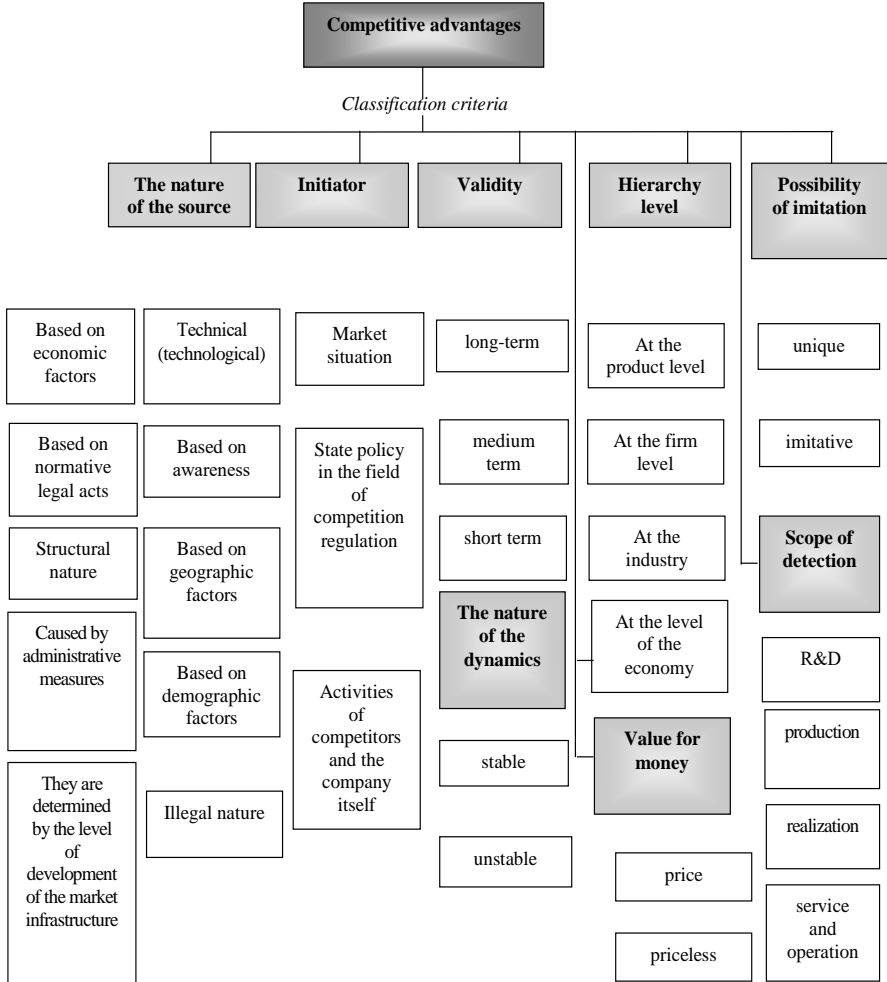


**Fig. 1. Ways of obtaining secure competitive advantages of an innovatively oriented enterprise**

*Source: developed on the basis of [3; 7; 10]*

The main points of the analysis of safety competitiveness (study of the market, customer requirements, determination of technical and economic parameters to be studied, comparison of each of the parameter groups) of products are related to the constant study of the market, both before the start of the program to create a safe product, and in during its implementation. In order to be safely competitive, an innovation-oriented enterprise must have

some safe competitive advantages (Fig. 2).



**Fig. 2. Classification of security competitive advantages of an innovatively oriented enterprise**

*Source: developed on the basis of [1; 2; 8]*

In the first case, an innovation-oriented enterprise applies a set of measures aimed at improving its own security activities. For example, improving the quality of products, reducing their cost price. In the second case, the activity of an innovation-oriented enterprise is aimed at directly weakening competitors. With the exception of criminal and semi-criminal measures that are widely used in domestic practice. When evaluating security competitive



advantages (compared to other innovation-oriented enterprises operating in this market, as well as the advantages of one or another sales channel), the following are taken into account:

- market share;
- distribution network coverage;
- number of sales staff;
- level of training of sales representatives;
- sales support;
- the size of the advertising budget and the effectiveness of advertising;
- inventory level; speed of delivery, level of trade mark-ups, quality of customer service;
- the degree of customer commitment to the retail network;
- breadth of trade range;
- protection from risks and threats [4].

The safety competitiveness of an innovatively oriented enterprise is determined using three groups of indicators that reflect the competitiveness of safe products produced and the efficiency of safe use of resources.

The first group includes indicators that characterize economic parameters – cost price, product and consumption price, payment and delivery terms, warranty terms and conditions, etc.

The second group includes indicators that characterize the state and use of live labor, basic production assets, material costs, working capital, as well as the financial state of an innovation-oriented enterprise.

The third group is safety and regulatory parameters, which show whether the product complies with the standard, norms, rules that regulate the boundaries from which this parameter has no right to leave. They include reliability indicators, product life, failure-free operation, durability, and repairability. Normative parameters also include ergonomic parameters (hygienic, physiological, psychological, etc.), which demonstrate the compliance of the product with the qualities of the human body and human psyche, determine the convenience of work, the rate of fatigue.

As a result of the organization of the organizational and economic mechanism of product competitiveness management, the following decisions can be made:

- change in the composition, structure of materials used (raw materials, semi-finished products), component products or product design;
- changing the order of product design;
- change in product manufacturing technology, test methods, manufacturing quality control system, packaging, storage, transportation, installation;
- change in prices for products, prices for services, maintenance and repair, prices for spare parts;

- changing the order of sale of products on the market;
- change in the structure and size of investments in the development, production and sale of products;
- changes in the structure and volumes of cooperative supplies in the production of products and prices for component products and the composition of selected suppliers;
- changing the incentive system for suppliers;
- change in the structure of imports and types of imported products.

The method of organizing the organizational and economic mechanism of competitiveness management as an integrated result of the action of a wide range of factors involves carrying out several stages of calculations [5; 9].

At the first stage, a comprehensive indicator of perceived quality is determined. This indicator, unlike the well-known comprehensive quality indicator, takes into account the improvement of the technical level and quality of the new product only within the limits that meet the needs of the consumer. Completing the tasks of the first stage involves, firstly, the selection of an analog and, secondly, determining the importance of the parameters of the new product and the analog (the sum of the weights is equal to one). Thirdly, the determination of parametric indices of the quality of the new product for each indicator in comparison with the analogue and taking into account the values of "consumer needs". At the same time, the parametric index of a certain indicator is defined as the ratio of the numerical value of the analog indicator to its value in the new product or vice versa.

The second stage of the organization of the organizational and economic mechanism for managing the competitiveness of a new product is a comparison of the consumption prices of the new product and its analogue. Special attention is paid to the consumption price of the product, and not to the price of its manufacture (sale), since, especially for complex technical products, operating costs (one of the components of the consumption price) may exceed the actual sale price several times. Therefore, even at a lower price (at the same level of quality), the product may lose in comparison with competing products, if their consumption price is lower due to lower operating costs. In addition to the quality and price factors of competitiveness, there are other factors that can significantly affect its overall level (promotion, product service support).

Thus, it is obvious that the exact determination of the general level of security competitiveness is impossible without determining the appropriate level for "service" factors, which is carried out at the fourth stage.

Analysis of the influence of these factors on the degree of motivation of the consumer to buy makes it possible to highlight the most important of them: delivery conditions, service, payment conditions, advertising and

the image of the enterprise. The indicators by which these factors should be evaluated are: for terms of delivery – the term of delivery of goods to the consumer and the accuracy of its compliance; for service maintenance - the warranty period, the period of provision of spare parts for post-warranty maintenance, complete maintenance; for terms of payment – the availability and amount of discounts and the availability, amount and term of the loan. The level of advertising is assessed by the degree of information security of consumers [6]. Note that the zero value of the numerator will lead to the fact that the overall level of security competitiveness will be completely determined by the quality-price competitiveness index, adjusted for its weight. In turn, the zero value of the denominator, which makes formula (1) mathematically incorrect, will most likely be evidence of an incorrectly chosen analog, since it should, by convention, be widely represented (dominant) in the market. And this, obviously, cannot happen with zero values of all the named indicators. At a minimum, it should be known to consumers.

Obviously, a product can be considered competitive if the condition is met  $I_{\kappa}^3 \geq 1$ . When  $I_{\kappa}^3$  is significantly greater than one, it is evidence not only of the high competitiveness of the product, but also a certain sign of a possible underestimation of the price of the new product. We will remind that it was included in the calculation at the level of the minimum allowable rate of return on production for the manufacturing enterprise. In this case, it is appropriate to increase the sale price in such a way that the condition is fulfilled:

$$1 \leq I_{\kappa\phi}^3 \leq I_{\kappa}^3, \quad (1)$$

where  $I_{\kappa\phi}^3$  – is the general index of competitiveness, determined taking into account the external marketing environment and, in particular, the ratio of supply and demand in the market, the capacity of the selected market segment, the elasticity of demand in relation to the price, etc.

Undoubtedly, the decision regarding the price will be made by the managers of the manufacturing company based on the review, including the chosen marketing strategy of bringing the product to the market.

The search for the main competitors of innovation-oriented enterprises, the assessment of their strategic opportunities in the conditions of digitalization should be carried out according to a typical scheme:

1. preliminary determination of the list of all real and potential competitors of the enterprise;
2. the maximum possible collection of information about all aspects of their activities using various methods of strategic research and strategic intelligence (from statistics, advertising sources, conference materials,

consumer surveys, in the process of visiting competitor enterprises, etc.);

3. assessment of potential strategic opportunities of competing enterprises, their propensity to expand in the market;

4. constant security monitoring of competitors, systematic accumulation of data on their activities on the market, including the global one;

5. forecasting the behavior of real and potential innovation-oriented competitors on the market based on the information collected in the process of strategic research;

6. organization, if necessary, of special actions of strategic commercial intelligence.

The proposed methodical approaches to the organization of the organizational and economic mechanism of competitiveness management enable manufacturers to see its safe competitive advantages and weaknesses already at the design stage of a new product, and therefore to determine the main emphasis in further work to eliminate them. In addition, they make it possible to calculate the optimal prices at which this product can be sold, and the expected amount of profit, and to determine the economic feasibility of investments necessary for the development and development of this new product, and, ultimately, to make a decision about the feasibility or impracticality of its further development developments. Even in the latter case, the termination of these works at an early stage minimizes unproductive costs and prevents the deterioration of the position of an innovatively oriented enterprise in the global market.

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## **PECULIARITIES OF ENTERPRISE'S DIGITAL DEVELOPMENT STRATEGIES**

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In the last decade, the rapid development of Internet technologies has led to the expansion of the electronic environment in all areas activity. The transition to the information civilization contributed to the emergence and development of the digital economy. Digital technologies have become an indispensable tool for running and developing modern business, a significant competitive advantage of enterprises, and a reason for changing requirements for conducting production and economic activities. The significant growth of technology requires companies to transform their management, production, marketing, financial and economic activities, document management, and human resources systems. Due to the growing scale of the global economic crisis, the global pandemic, and the military and political aggravation, the role of digital technologies was especially growing, as they enable businesses to reduce costs, optimize production and management business processes,

expand existing and develop new markets, increase the personalization of advertising messages, and, as a result, improve the overall performance of market participants.

The relevance of the transition process and enterprise's activities transformation in the digital environment is actively studied in the scientific works of both foreign and domestic scholars [1; 4; 6; 8-11]. At the same time, the topic of forming and implementing a digital strategy as one of the ways of digital business transformation in a dynamic competitive environment remains insufficiently studied, which necessitates further research and identification in the key aspects of digital strategy formation for domestic enterprises.

From a practical point of view, it was worth noting that most large enterprises have already embarked on the path of business digitalization. However, most of them do not yet have a comprehensive digital development strategy – companies are implementing packages of pilot projects to implement individual digital solutions. This approach makes it possible to evaluate the application of a digital solution in practice, but often leads to a dispersion of resources and a shift in focus to secondary tasks. For most large companies, the concept of business digitalization is associated with the implementation of a digital strategy and the introduction of digital technologies that have become available to businesses in recent years. The prerequisites for the development and penetration of digitalization were the decline in the cost of technology and computing power, as well as the increased availability of high-speed data transmission. At the same time, it should be noted that different levels of technological, organizational, and economic readiness of enterprises lead to sectoral unevenness in digitalization.

Therefore, the levels of enterprise's digitalization can be divided by levels (Table 1). It is important to understand that the process of digital transformation was a change that affects the fundamentals of the current business, which leads to certain risks, the impact of which must also be taken into account when planning a transformation strategy. Deloitte consultants have identified the following risks:

- «obsolescence» of the implemented technologies or failures in their operation;
- incorrect implementation of technologies or insufficient attention to their implementation;
- risk of digital systems hacking;
- risk of personal information leakage;
- contradictions between the strategy and the implemented digital technologies;
- risk of state laws violation in the field of technology [3].

Table 1

## The levels of enterprise's digitalization

Maturity level	Processes	Technologies	Employees
Level 0. Basic infrastructure. Technologies that do not produce business effects on their own, but are necessary for implementation. advanced technologies.	no direct impact on the processes.	creating infrastructure for the following implementations: industrial WiFi, local area networks.	employees do not need additional digital competencies.
Level 1. Computerization. The process is automated by any IT system. Data is entered into the system manually.	- elimination of paper forms and media; execution of processes through system interfaces; - automatic data transfer.	- implementation of basic production and enterprise management systems; - integration of systems for automatic data transfer.	employees trained to work with the systems in their area of responsibility.
Level 2. Connection. Process operational data is automatically entered into the system without human intervention. Related systems are integrated. Controlling influence is carried out remotely.	- formalization of the processes for implementing the production's digitalization (systematic and detailed description); - processes for involving external participants and stakeholders in the digitalization of production to ensure connectivity.	- developing ways to integrate existing systems and technologies with future elements of production digitalization; - creating a single information space and data flows, connecting systems.	- creating a culture of inclusiveness, involving employees in the development of the target vision; - division of roles and areas of responsibility; involvement of employees with competencies in business, IT and production.
Level 3. Transparency. Key process indicators are visualized on dashboards and monitored in real time.	- formalization of data flow management processes; - processes for active exchange of knowledge and data between all process participants; - creating a cross-functional data exchange network.	- improving the accuracy and analytical quality of data, reducing the amount of unnecessary information; - implementation of data mining systems; - integration of data exchange systems, for example, integration of artificial intelligence visualization systems with data sources.	- training employees to work with data systems, various devices and interfaces; development of digital skills; - development of a knowledge management culture.
Level 4. Predictive. Implementation of predictive systems/ advisors that allow predicting future states.	- developing processes for analyzing historical and current data and using the information for optimization; - establish procedures for regular optimization initiatives.	- implementation of real-time systems for analyzing activities that automatically perform analytics, generate warnings and recommendations; - introduction of digital twins for prototyping and optimization testing.	- organizing cross-functional and data sharing sessions to work on current issues and ways to optimize based on new data; - engaging additional data analysts.
Level 5. Adaptability. Implementation of systems that have a corrective effect on equipment independently or as part of a corporate system to maximize efficiency.	- development of processes for autonomous decision-making by systems; - development of day-to-day processes for regular forecasting and planning of future production.	- integration with external showcases of supplier and customer data; - use of artificial intelligence systems.	- developing a culture of continuous improvement and innovation; - introducing those responsible for the relevant areas of predictive analytics and adaptability.

Source: developed on the basis of [1-4; 7]

A McKinsey research on the implementation of Industry 4.0 elements concept at industrial enterprises and digital transformations can lead to an increase in such indicators:

- increase in productivity through the use of robots by 45-55%;
- reduction of equipment downtime by 30-50%;
- reduction of time to market by 20-50% [5].

Another study conducted by Capgemini Consulting shows what happened to the performance of enterprises when combining digital technologies and making changes in management models (Table 2).

*Table 2*

**The impact of digital transformation on business performance**

Use of new technologies	Changes in management models	Characteristics of the organization	Results (on average, compared to competitors)
-	-	enterprises at the beginning of transformation	profit is down by 24%
+	-	enterprises that follow digital fashion	Profit is down by 11%
-	+	conservative enterprises	Profit is increased by 9%
+	+	digital leaders	Profit increased by 26%

*Source: developed on the basis of [2; 5]*

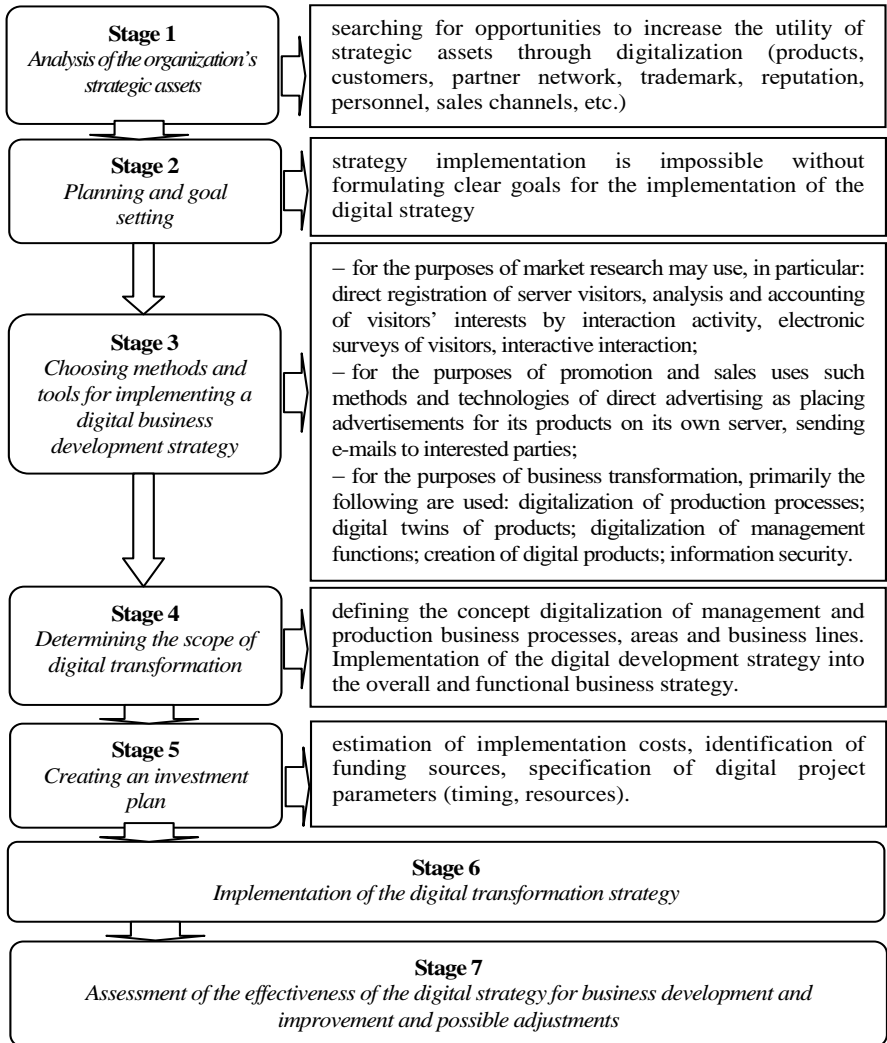
A digital transformation strategy is a complex concept. The strategy includes a study of the current state of the company and setting goals for development. When creating a strategy, experts also study the industry and digitalization trends. The result is a document with a roadmap for digital transformation and recommendations for choosing tools and KPIs for the process.

The process of forming a digital strategy for enterprises is based on the classical provisions of strategic management, but also includes some peculiarities. Thus, the formation of the digital strategy of enterprises was shown in Fig. 1.

According to the above algorithm for forming a digital strategy, the process of strategic transformation should begin with the modernization of the current strategy, as this element determines the others. To this end, it is advisable to use the approach developed by the Boston Consulting Group, which was created directly as part of the study of the digital business transformation problem and takes into account the impact of technology and disruptive innovations on the activities of enterprises in the digital environment. It was based on 2 factors: «Predictability» and «Malleability». The first concept characterizes the ability of an enterprise to predict market dynamics and the behavior of competitors, the second – the ability of an



enterprise or its competitors to influence the market.

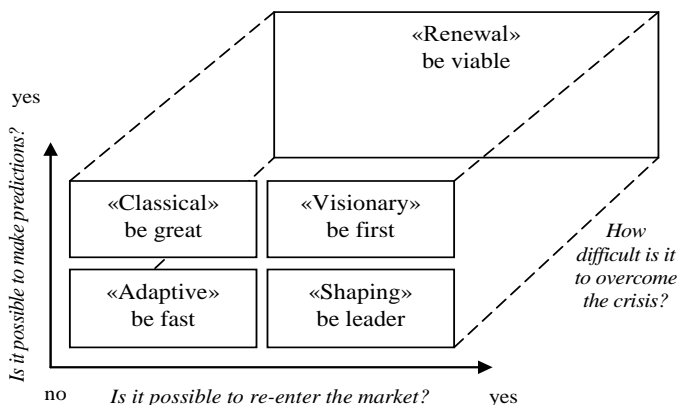


**Fig. 1. Stages of forming a digital strategy for enterprises**

Source: developed on the basis of [1; 2; 4; 6; 7-11]

Depending on the strength and combination of these factors, BCG consultants offer 4 types of strategic styles. At the same time, if the company was in crisis, there is a fifth style – «Renewal».

The system of strategic styles is called the «Strategy Palette». This scheme is shown in Fig. 2.



**Fig. 2. «Strategy palette» with reference to digital transformation processes**

*Source: developed on the basis of [1; 4; 7]*

These strategies can be characterized as follows:

- «Classical» – the classic strategic style should be applied when the market is fairly predictable, but the company and its competitors cannot change the established sales mechanisms, products, and customer behavior. In this case, it is worth using classic tools for digitalizing the strategy, as well as building a business model based on the company’s resources and analysis of the external environment, using standard planning tools, developing strategic goals for 5-10 years, and working to improve the efficiency of internal processes. An example of such a market is the oil industry. This market was difficult to enter, business models have been stable for decades, the product was studied, and buyers were predictable. Nevertheless, oil reserves have their limit, and in what is likely to be several decades, companies in the oil and similar industries will have to change their market behavior and look for ways to diversify or completely transform their business;

- «Adaptive» – an adaptive approach to strategy development involves working in an industry that is poorly predictable and beyond the influence of individual businesses. In such an industry, planning a year in advance may not be effective because customer needs can change much more frequently. The strategic style for this industry involves a daily analysis of the environment. A good example is the retail sale of branded clothing;

- «Shaping» is a difficult word to explain literally in the context of strategies, but it can be understood as the strategic style development based on the desire to change the industry through its own products and developments. For example, the software industry, with its many startups and large enterprises, offers new solutions and ideas every month, many of

which may be a surprise to other market participants. This industry requires short-term planning, large investments in development, and work on the company's brand;

- «Visionary» – this style is based on foresight analysis. This style is suitable for industries that have clear predictability. By analyzing the external environment, companies can take risks and try to develop a product that will be in demand only after a certain period of time. Accordingly, in the context of this style, enterprises need to steadily generate cash flow based on current products, while investing a significant portion of funds in the «product of the future». It is important to understand that such developments should not be made public;

- «Renewal» – this style is not related to the flexibility and predictability of the market and is essentially a crisis management strategy. The main emphasis is placed on the need to understand the causes of the crisis eliminate them and then choose one of the four styles mentioned above [1; 2; 4; 7; 10].

Thus, modern strategic guidelines for the development of business innovative forms were built with due regard to the specifics of the digital economy configuration. The access to knowledge, skills, and opportunities to replicate a product or image gained as a result of such integration creates strategic competitive advantages for business, regardless of its specific forms. Digitalization makes it possible to create and use means of production based on appropriate technologies, but also to use the means of the previous technological structure in the form of software adequate to it. This makes it possible to increase the efficiency of the entire structure of the production complex, starting with the production of goods, logistics interactions of structural parts, and marketing strategies, as well as to optimize and facilitate management processes at a modern enterprise.

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## **METHODOLOGICAL PRINCIPLES OF ASSESSING THE INVESTMENT ATTRACTIVENESS OF THE ENTERPRISE IN THE CONDITIONS OF EUROPEAN INTEGRATION**

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In order for the enterprise to have constant development, it needs an inflow and attraction of external capital. Since any investors are more than interested in the profitability of their investment by individuals, when choosing an investment object, investors need to carefully calculate the risks and profitability of this investment. Investors strive to reduce the chances of

losses to a minimum and get the maximum benefit from investing their own funds, so they evaluate the effectiveness of investments, that is, consider and evaluate such a concept as the investment attractiveness of an enterprise.

The relevance of this work is due to the fact that at the moment there is no objective method of assessing the investment attractiveness of the enterprise, capable of reliably reflecting the possible problems of functioning and the risks of investing in the enterprise. The existing methods of assessing the investment attractiveness of an enterprise take into account either an insufficient number of factors necessary for assessment, or an excessive number of factors subject to assessment, as a result of which it is quite difficult for the investor to isolate the necessary information and make the right decision.

The task of the scientific work is to conduct an analysis of the existing methods of assessing the investment attractiveness of the enterprise, to identify their advantages and disadvantages, as well as to evaluate the factors affecting the modernization of the method of investment attractiveness of the enterprise.

When writing the work, the works of foreign and domestic authors were used, who were engaged in researching the investment attractiveness of the enterprise, among them we can single out U. Sharp, M. Scott, D. Morris, T. Copeland, Y. Brigham, F. Berger, I.I. Roizman, E.I. Krylova, V.A. Moskvyna, V.V. Bocharova, I.A. Blank and other authors. Sources that reveal the theoretical basis of the concept of investment attractiveness of the enterprise were T.M. Guskova, V.O. Tolmachova, I.I. Roizman and I.V. Hryshina, V. Mashkina, L.M. Putyatina and M.Yu. Vanchugova, V.M. Vlasova and M.G. Yehorova, N.V. Sergeeva, I.M. Veretennykova and V.V. Yanovsky, G. Prybutova. All the listed authors paid attention to the study of the concept of investment attractiveness of the enterprise with a different approach to its interpretation. The sources that were used in this work when considering the factors included in the assessment of the investment attractiveness of the enterprise are the works of R.A. Rostyslavova, K.V. Baldina, A.M. Asaula and N.I. Pasiadi, V.M. Askinadzi and V.T. Maximova.

At the moment, the concept of investment attractiveness is quite new, as it appeared relatively recently in the economic literature. The term investment attractiveness is used, first of all, to characterize and evaluate investment objects, comparative analysis of processes and rating comparisons. The analysis of different points of view on its interpretation made it possible to conclude that, in the modern sense, there is no unified approach to the essence of this economic category.

The investment attractiveness of the enterprise is an unconditional factor of the effective functioning of enterprises of various organizational and

legal forms. A high level of investment attractiveness forms and strengthens visible and hidden advantages over its competitors [1].

Increasing the efficiency of the enterprise's functioning and its investment attractiveness can be carried out at the expense of:

- creation of new factories in points with the most available raw materials and close to consumers of finished products;
- implementation of innovative projects;
- expansion and differentiation of production scales;
- modernization of production and its technical rearmament with resource-saving and less expensive equipment.

The investment attractiveness of the enterprise is a general indicator of the investment object from the point of view of investment profitability, development prospects and the level of investment risks.

In order to make decisions regarding the implementation of investment investments, it is necessary to compare the expected positive income in the future with the actual costs of capital investments. The applied significance of issues related to the determination of the investment attractiveness of enterprises cannot be doubted, since without making investments in business entities, economic growth and its stabilization are not possible. Solving this problem ensures the viability of the enterprise as a whole.

Therefore, every year, the assessment of the investment attractiveness of the firm becomes more and more important and relevant [1]. In the era of modernization of production and the introduction of innovations, investment attractiveness as a possibility of prospects for enterprise development under the influence of the investment process is very relevant. The concept of an enterprise's investment attractiveness is a set of performance indicators that reflect the profitability of monetary contributions to the development of the company. The investment attractiveness of the firm includes a set of financial and economic indicators that evaluate the external environment of the enterprise, the level of its positioning on the market, and the possibilities of results. As mentioned above, there is no definition of the concept of "investment attractiveness" in economics, it contains a large knowledge base and methodology, but is abstract. After all, for example, a bank and private capital require completely different indicators. First of all, for banks, the solvency and speed of return of funds at the enterprise are considered, and for the shareholder, the payback in the total income of assets from the active and planned operation of the enterprise is more important [2]. In general, it should be noted that, despite the fact that there is no consensus in scientific works regarding the interpretation of this concept, the opinions of domestic authors significantly complement each other. For banks, the solvency and speed of repayment of funds at the enterprise are considered, and for the shareholder, the payback in the total income of assets from the active and

planned operation of the enterprise is more important [2]. In general, it should be noted that, despite the fact that there is no consensus in scientific works regarding the interpretation of this concept, the opinions of domestic authors significantly complement each other for banks, the solvency and speed of repayment of funds at the enterprise are considered, and for the shareholder, the payback in the total income of assets from the active and planned operation of the enterprise is more important [2]. In general, it should be noted that, despite the fact that there is no consensus on the interpretation of this concept in scientific works, the opinions of domestic authors significantly complement each other.

One of the conditions for the development of the enterprise's investment activity is the presence of an investment policy. The investment policy of the enterprise is a complex, interrelated and interdependent set of activities of the enterprise, which is aimed at its development in the future, obtaining profit and other positive effects obtained as a result of investment investments [2]. Investment policy, like investment potential, does not have a firmly fixed terminological definition, some authors are inclined to the fact that investment policy is a component of the organization's financial strategy, others believe that a set of interdependent types of enterprise activities more accurately conveys the meaning of this term. In general, the investment policy of the enterprise is an important lever of influence on business activity and is part of the general economic policy of the enterprise. It includes the choice and method of implementation of the most rational ways of investing in order to ensure high growth rates of its constant development, expansion and renewal of its production potential. Investment policy implies the establishment of long-term goals of the enterprise, determination of the most promising and most profitable investments of investment funds, development of priority directions for the development of the enterprise, assessment of investment projects, development and analysis of financial, technological, marketing forecasts, assessment of the consequences of the implementation of investment projects. Investment policy acts as a tool for the development of the enterprise, its main task is to find the optimal way of using investment resources, the appropriate combination of various sources of financing, to achieve a positive effect on the economically suitable directions of the development of the enterprise. The investment policy of the enterprise is, in fact, the choice and assessment of the consequences of the implementation of investment projects. The investment policy acts as a tool for the development of the enterprise, its main task is to find the optimal way of using investment resources, the appropriate combination of various sources of financing, in order to achieve a positive effect on the economically suitable directions of the enterprise's development. The investment policy of the enterprise is, in fact, the choice and assessment of the consequences of



the implementation of investment projects.

The foreign experience of increasing the investment attractiveness of the enterprise proves that all the above-mentioned directions of development allow companies to become market leaders and attract a large amount of capital investments. At the same time, even non-profit investments improve this indicator, creating new infrastructure and paving the way for efficient infusions.

Currently, the need to assess the investment attractiveness of the enterprise does not cause doubts among any of the subjects of investment activity. The analysis of the investment attractiveness of the enterprise is a mandatory procedure that precedes the calculation of the expected effect from the funds invested in the object. A preliminary assessment of the capabilities of the economic system designed to ensure the expected efficiency of investment is one of the most important attributes of the system approach to the organization of the investment process.

Due to its lack of study and disagreement among scientists, even regarding the very term "investment attractiveness of the enterprise", there is no way to objectively evaluate it. The evolution of the term included a gradual transition from private to joint. Many, interpreting this concept, include the purely financial side, the amount of profitability and risk, while others consider the investment attractiveness of the enterprise to be a multifunctional system where there are many factors that can affect the effectiveness of investing funds. . In connection with such a difference in the interpretation of the concept itself, the methods of assessing the investment attractiveness also differ significantly, many believe that only the financial assessment of the enterprise is sufficient, others approach the fact that the analysis of the investment attractiveness of the enterprise should be expressed in a systematic approach that covers more and more a more complete set of factors that affect the quality of the evaluated system. Currently existing assessment methods take into account different data, in which the processes of processing and analyzing the received data differ.

Market methods for assessing investment attractiveness are built taking into account external information about the organization.

Historically, these methods were the first to emerge and were based on the company's capitalization indicators. They have been actively used in developed countries since the mid-60s of the last century by portfolio investors, as a rule, the market approach to assessing investment attractiveness is used for companies whose shares are listed on the securities market. Applying the methods of the market approach, economists analyze the profitability of capital, the share price on the stock exchange, the level of dividends and calculate such indicators as the added market value, the total profitability of shareholders, the Tobin coefficient and others.



Many scientists develop and then successfully apply methods based on the concept of the accounting approach. This approach is based on the analysis of internal information and includes key financial and economic indicators of economic activity. The most common indicators are indicators of solvency, financial stability, liquidity, business activity and profitability. Due to the fact that when calculating these indicators, accounting reports are used, the approach justifies its name – accounting.

The indicator characterizing the stability of the organization's financial condition is usually financial stability. The coefficients of financial stability help to determine the financial independence of each element of assets and all the property of the enterprise.

Indicators of the enterprise's business activity characterize the degree of efficiency and intensity of use of assets or liabilities. Business activity ratios give an idea of how quickly a firm receives funds for goods sold and how quickly it pays its accounts payable. With their help, you can learn about the turnover rate of own capital, that is, determine the activity of the funds that shareholders risk. And also find out the duration of turnover of working capital and material stocks, which is an extremely important indicator that characterizes the financial condition of the organization and the degree of efficiency of its management. It is customary to compare indicators of business activity with average industry indicators, since their values change significantly depending on the branch of the enterprise [5].

The methods used in practice, the method of analysis based on internal and external factors, and the comprehensive assessment of investment attractiveness also belong to the systematic approaches to the assessment of investment attractiveness. At the initial stage of the analysis method based on external and internal factors, the Delphi expert method is used to highlight the main internal and external factors of the company's investment attractiveness. Next, a regression model is built taking into account the influence of many factors. At the stage, an analysis of attractiveness takes place, taking into account the established factors. At the final stage, recommendations are developed. This approach allows you to thoroughly understand the issue, but when selecting and analyzing factors, the subjective opinion of the expert often comes to the fore, which can significantly reduce the accuracy of the assessment.

The most profound and time-consuming is the assessment of the investment attractiveness of the enterprise by the method of complex comparative analysis, because within the framework of this methodology, the analysis of the investment attractiveness of not only the enterprise itself, but also the investment attractiveness of the industry, region, and country as factors affecting the investment attractiveness of the enterprise is carried out.

Of special interest at the current stage of development is the valuation method based on the value approach, where the market value of the company is the main criterion of investment attractiveness. If in classical economic theory the main goal of the enterprise was profit maximization, then in modern economic theory it is maximization of its value. The basis of this methodology is the coefficient of undervaluation or revaluation of the enterprise on the market of real investments as a ratio of different stability (real value to market value). It is proposed to calculate real stability as the sum of the value of the property complex and discounted income minus payables. However, as can be seen from the above analysis of the methods, none of them fully covers the possible field of factors affecting investment attractiveness, determined on the basis of the theoretical model of the firm chosen for the purposes of this study. In the course of the method of assessment of investment attractiveness, the efficiency of investments is evaluated. Enterprises with an average degree of investment attractiveness are characterized by an active marketing policy aimed at effective use of existing potential. Moreover, those enterprises whose management system is focused on value growth successfully position themselves on the market, those that do not pay due attention to the factors of value formation, lose their competitive advantages.

Enterprises with below-average investment attractiveness are characterized by low opportunities to increase capital, which is primarily due to inefficient use of existing production potential and market opportunities. Enterprises with low investment attractiveness can be considered unattractive, since invested capital does not increase, but only acts as a temporary source of support for viability, without determining the economic growth of the enterprise. For such enterprises, an increase in investment attractiveness is possible only due to qualitative changes in the management and production system, in particular, in the reorientation of the production process to meet the needs of the market, which will improve the image of enterprises on the market and form new or develop existing competitive advantages. As a result of the research, having studied the existing methods and approaches to assessing the investment attractiveness of the enterprise, their advantages and disadvantages, it is possible to highlight the main points that could make the model of the investment attractiveness of the enterprise more clearly characterize the main factors affecting it, and more objective in the assessment final level of investment attractiveness of the enterprise:

- the assessment of the investment attractiveness of the enterprise should include the analysis of the financial state of the enterprise, as the main factor for a comprehensive assessment;
- the analysis of internal factors affecting the investment attractiveness of the enterprise should be based on information of interest to the investor,

which gives a complete description of the internal state of the organization;

- for a comprehensive and complete assessment of the level of investment attractiveness, an analysis of external factors is necessary;
- the calculation of factors must be carried out in a single measurement system in order to obtain the final value of the real integral indicator of investment attractiveness, comparable to other potential investment objects.

In order to make decisions regarding the implementation of investment investments, it is necessary to compare the positive income expected in the future with the costs of capital investments. The applied significance of the questions regarding the determination of the investment attractiveness of enterprises cannot be doubted, since without making investments in business entities, it is not possible to grow the economy and stabilize it. Solving this problem ensures the viability of the enterprise as a whole.

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## **MANAGEMENT SYSTEM OF ENTERPRISE'S MARKETING SECURITY AS A COMPONENT OF ECONOMIC SECURITY**

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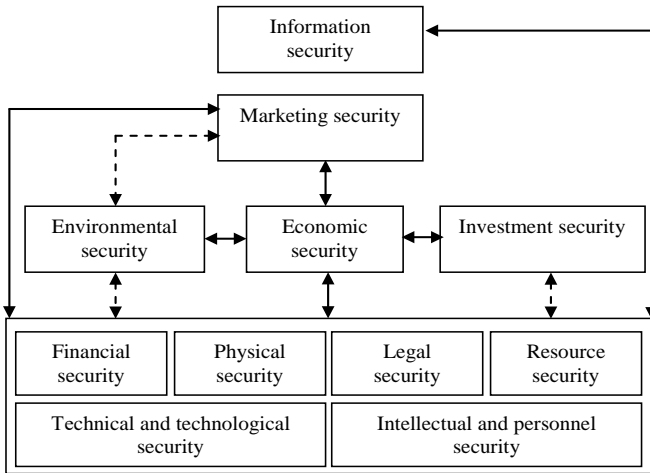
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The issues of enterprise's economic security in modern conditions are particular importance, especially for identifying potential threats and ensuring the protection of their activities, which involves the application of whole range different measures. The system of economic security itself is a system that ensures the achievement of business goals in the current market and business environment, which contributes to the most efficient management and use enterprise's resources to protect against the impact of various destructive factors. The purpose of creating an economic security system was to effectively protect the vital economic interests of the relevant entity.

Ensuring economic security is a continuous and complex process that requires significant resources and means, combining and organizing the efforts of all personnel of enterprises and their counterparties. When creating an effective economic security system, it should be borne in mind that it has many specific components and subsystems, the effective operation each of which ensures the effective operation of the entire system. It should be noted

that the structure of the economic security system and the number of its functional components were individual for each enterprise and depend on the type and scope of its activities, the specifics of its structure, existing risks, threats and hazards. However, summarizing the authors' work [1; 6; 7], it is advisable to distinguish 10 classical components of the enterprise economic security system (financial, physical, political and legal, intellectual and personnel, technical and technological, resource, investment, environmental, innovation, information and marketing security), the interrelation of which was shown in Fig. 1.



**Fig. 1. Components of the enterprise’s economic security system and its interconnection**

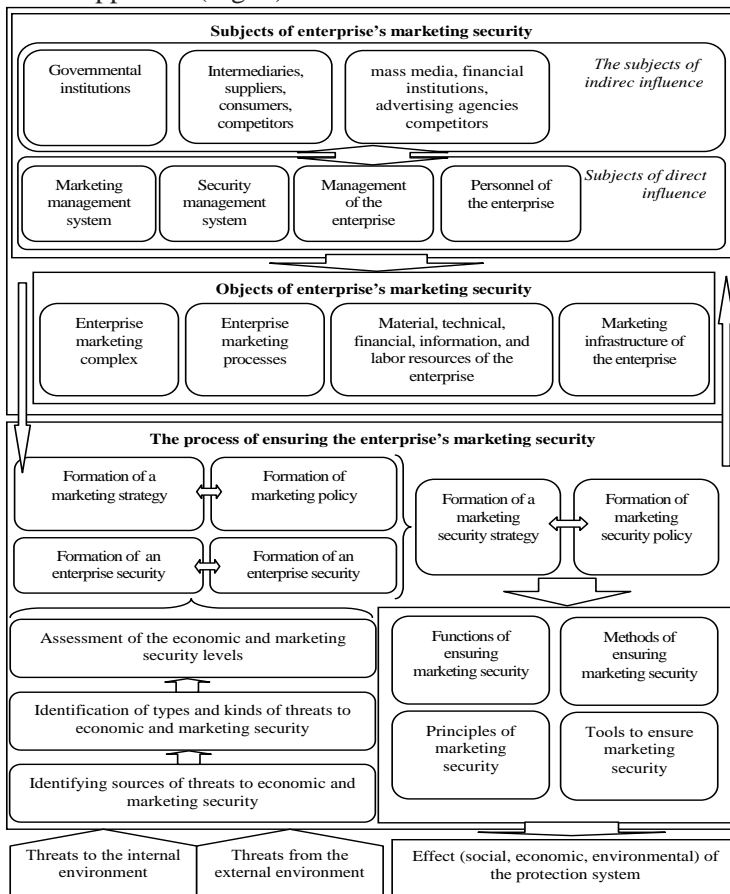
*Source: developed on the basis of [1-7]*

Threats to economic security include those that are directly related to the implementation of marketing aspects of activities, in particular, a set of economic threats associated with the incompetence of managers in marketing, commercial, and communication issues, including incompetent actions in the field of product promotion, advertising, obtaining information about the target audience, low efficiency of the marketing strategy, etc.

Therefore, the enterprise’s marketing security as a component of economic security was to protect the enterprise from an inefficiently chosen model of behavior in the market by avoiding mistakes in product, sales, communication or pricing policies. Therefore, it was advisable to define marketing security as a system of identifying, analyzing and preventing threats from internal and external elements of the enterprise’s marketing complex. The internal elements of the enterprise’s marketing complex include: product, price, placement, promotion [5]. The external elements of

the enterprise's marketing complex include: environment (intermediaries, suppliers, consumers, competitors, government agencies, mass media, financial institutions, advertising agencies, etc.), competition, market environment (economic, political and legal, demographic, technological, information), institutional factors and other factors [5; 6].

The enterprise's marketing security reflects the relationship and compliance of the internal capabilities of the enterprise with the market environment, since it was the internal elements of the marketing complex that should be effectively combined with each other and take into account the impact of external elements [1]. Therefore, the modern marketing security system should include the main traditional elements that correspond to it in a systematic approach (Fig. 2).



**Fig. 2. Enterprise's marketing security system**

Source: author's development

The subjects of marketing security should be divided into two categories: subjects of indirect influence, which include the external environment of the marketing complex, namely: the environment (government agencies, intermediaries, suppliers, consumers, competitors, media, financial institutions, advertising agencies, etc.

The subjects of direct influence include those persons who were involved in ensuring the security of marketing at the enterprise, namely: the marketing subsystem of the enterprise (marketing department, marketing service, etc.), the security management system of the enterprise (division, department, service, etc.), the enterprise's management and its personnel. All of these entities, at different levels, should take measures to protect against threats, identify sources of threats, minimize the impact of the threat, and take other actions.

The objects of this system include the already mentioned enterprise marketing complex, management and production business processes of marketing, the infrastructure of the enterprise marketing system itself, and the resource potential that ensures the implementation of marketing to an economic entity (material and technical, financial, information, labor).

The process of ensuring marketing security itself involves a combination of systemic and functional approaches. From the standpoint of the functional approach, it was envisaged to identify the sources of threats to marketing security in the context of an enterprise's economic or general security. In the future, it was planned to determine the types and kinds of these threats, their classification in order to further determine the directions of their leveling, elimination, prevention, and minimization of the consequences their occurrence. To do this, it was necessary to determine the ability of an enterprise to ensure its marketing security by assessing of marketing security level's. Most indicators of marketing security in the scientific literature were considered only through the prism of market and interface security indicators [1; 2; 3; 5; 6; 7]. Such indicators reflect only the current state of marketing security and are not forecasting tools for the launch of new products. They also do not provide complete information for the formation of the company's marketing strategy, in particular, when promoting new, innovative products. Such indicators should be adapted or new ones should be proposed, specifically for the needs of the enterprise to promote innovative products, serving as a reliable methodological basis for marketing security as a component of the enterprise's economic security system. That is, they should measure the risks associated with three areas of influence on the enterprise, namely:

- market and consumers;
- the existing state, product (brand) of the enterprise
- innovation [3; 5; 6; 7].

Table 1

**Indicators for determining level of the enterprise's marketing security**

Indicators	Description of the calculation formula	Target value of the indicator
Market return on assets ratio	The ratio of the company's net profit to the company's assets	Striving for growth
Competitiveness of products (services)	The ratio of the price of the company's product to the price of a reference product	$\approx 1$
Market share of the enterprise	The ratio of the company's sales volume to the total sales volume of goods the same category on the market	Striving for growth
Rhythmic sales	The ratio of actual sales for a certain period to the planned sales for the same period	$\approx 1$
The coefficient of the company's advertising policy efficiency	Ratio of advertising costs to gross profit	$> 15\%$
Profitability of the company's interaction with the environment	Average value of financial and non-financial benefits	$> 1$
Satisfaction of stakeholders with interaction with the company	The average value of the environment's subjects' assessments	Tends to 1
The level of relations between the enterprise and its environment	The average value of partnership's duration, partnership's fulfillment, partnership's obligations, partnership's effectiveness indicators.	$> 1$

Source: developed on the basis of [3; 5; 6; 7]

Therefore, marketing security indicators should play an important role in information and analytical support to prevent destructive factors related to both innovation and marketing activities.

Subsequently, based on the overall security strategy and policy of the enterprise and based on the key provisions of the marketing strategy and policy, the marketing strategy and policy was determined taking into account the calculated level of marketing security.

It is proposed to consider the following classifications of marketing security strategies:

- the first classification divides the card security strategy into four types: growth strategy (GS), adaptation strategy (AS), security strategy (SecS) and survival strategy (SurS);

- the second classification allows to distinguish within these strategies the following types of marketing security strategies: strategy of proactive threat counteraction (SPTC), strategy of passive threat protection (SPTP), and strategy of adequate response to threats (SART).



Taking into account the proposed classification of marketing security strategies and the classical approach to the formation and typification of marketing management policy, the author proposes to identify the main areas within which a marketing protection policy of an economic entity can be created and implemented:

- marketing policy of the enterprise was aimed at protecting the goods (services);
- marketing policy aimed at protecting the enterprise's image (brand);
- the company's marketing policy was aimed at protecting the marketing infrastructure;
- the company's policy was aimed at protecting marketing management processes and marketing processes themselves;
- the company's marketing policy was aimed at resource potential.

This functional level determines the system level, which involves the formation of a marketing security management model that will perform the following basic functions: checking the strategic security plan for sustainability, analyzing the vulnerabilities of the marketing infrastructure, taking into account two factors: the degree of risk and the degree of control over this risk by the enterprise, emergency planning, preventing unexpected events, reducing losses, and others.

Methods of ensuring marketing security were divided into technical, administrative, legal and physical.

The system of marketing security of an enterprise should be formed on the basis of such principles as foresight, legality, coherence, development, systematicity, economic feasibility, etc [6].

The principles of an enterprise's marketing security should be understood as timely detection and prevention of possible threats to marketing security; measures to ensure marketing security should not contradict current legislation; marketing security should be formed on the basis of the integrated use of all available enterprise's forces and means.

Thus, marketing security was set as functions, methods, techniques and tools used to solve problems of maximizing consumer satisfaction and maximizing profits from the sale of products (works, services). The starting point for using marketing to ensure economic security is that no enterprise can feel economically secure if its products were not in demand by the market. Therefore, a relevant marketing forecast, an effective sales policy, and effective product promotion measures were all key methods of ensuring an enterprise's economic security. At the same time, it would be advisable to define marketing support for economic security of enterprises as a set of methods, indicators, techniques, tools for maximizing profits from sales and meeting market needs of consumers through the formation of a secure marketing strategy that meets the internal capabilities of the enterprise,

external requirements that take into account its development needs, through the promotion of existing and new products and the reliability of relations with all market participants.

An important element is obtaining economic, social and other types of effect from the system of protection of marketing activities, which in general can be manifested in:

- promoting the effective adaptation of the enterprise to the changing conditions of the marketing complex;
- identification and prevention of real and potential threats to the security of marketing activities;
- minimizing the negative consequences of economic risk from ineffective marketing;
- maintaining the financial stability of the enterprise in the course of its current activities and in the long term.

Therefore, the mechanism for counteracting threats to marketing security should be based on the interaction and coordination on the all department's efforts, services of the enterprise, government agencies, external organizations, i.e. all institutions that can have a positive impact on improving the marketing security of the enterprise.

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# DIGITAL MARKETING MANAGEMENT OF THE ENTERPRISE BASED ON IT-INFRASTRUCTURE AND DIGITAL TECHNOLOGIES

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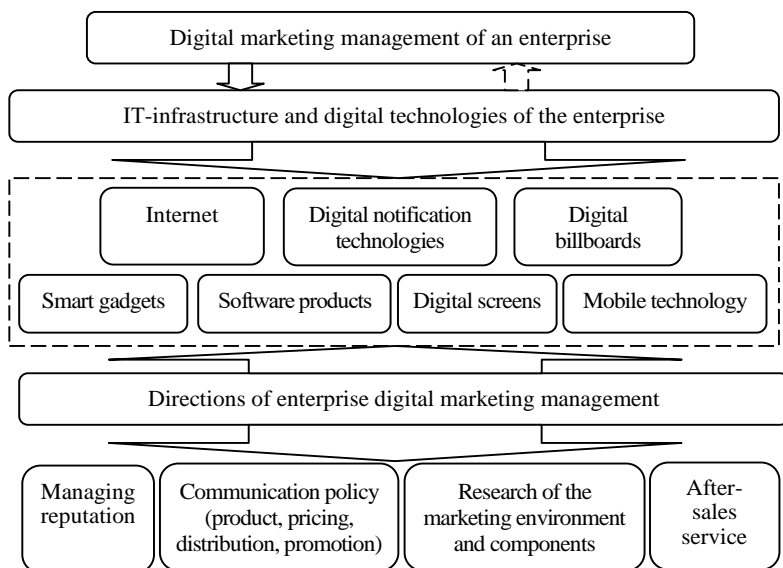
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Digital marketing management at an enterprise is the application of strategic marketing management methods in the context of market digitalization, in order to create an effective organizational structure, personnel management, planning and organization of management and production processes, as well as cost optimization to meet the spiritual and material needs of customers and increase sales. In general terms, digital marketing management ensures the presence and promotion of an enterprise, brand, product or service in the digital environment.

The basic areas of digital marketing management include: developing a comprehensive strategy for promoting a product in the digital environment; managing website development, design, media and contextual promotion; managing work with online communities; organizing offline events; managing advertising for digital TV or online radio, etc. However, there was one more important point: digital marketing is almost primarily about analytics, as the digital environment makes it easy to collect data. Marketers analyze information about users and their behavior: demographics, interests, online activities, advertising sources of referrals, etc. With the help of such data, digital marketing managers can better understand the target audience and determine the effectiveness of specific management tools or the digital marketing strategy in general. That's why experts call analytical systems among the most important tools in their arsenal [9].

An important prerequisite for effective digital marketing management was to understanding the nature of digital media channels. Taking into account the diversity of technologies, digital marketing management services plan multidimensional market business processes aimed at expanding the ties between companies and consumers. Thus, digital marketing management is the methods of using digital media space's channels and tools in the activities of business entities to interact with customers in order to study and satisfy demand and make a profit.

Fig. 1 shows the applications scheme of the toolkit IT-infrastructure and network technologies in the marketing activities of companies.



**Fig. 1. Directions of enterprise digital marketing management based on IT-infrastructure and digital technologies**

*Source: developed on the basis of [3; 6; 9]*

The general algorithm of digital marketing management includes the following stages:

1. formation of strategic ideas in accordance with the set goals;
2. development of the concept, tasks and expected results of the digital marketing system;
3. studying opportunities for realizing the goals of digital marketing management;
4. preparation of a marketing plan;
5. conducting marketing research;
6. calculation and analysis of performance digital marketing system's indicators;
7. implementation of measures according to the digital marketing plan;
8. monitoring of market and financial indicators;
9. evaluation of the efficiency of enterprise management (Fig. 2).

The practical aspect of managing marketing's digitalization tasks should be carried out in the following stages:

- assessment of the digitalization state of the enterprise's marketing and the e-commerce's level in the region and the country as a whole (points 1, 2 and 3);
- development of a marketing digitalization management plan, market

research management (points 4, 5 and 6);

- measurement of results by key performance indicators for managing the digitalization of marketing activities aspects (points 7, 8 and 9).

- assessing the digitalization state of marketing business processes in organizations and certain aspects of their management involves determining

- the degree of production, products and services digitalization;

- the scope of information provision through the creation of databases on the goods, services, prices, etc;

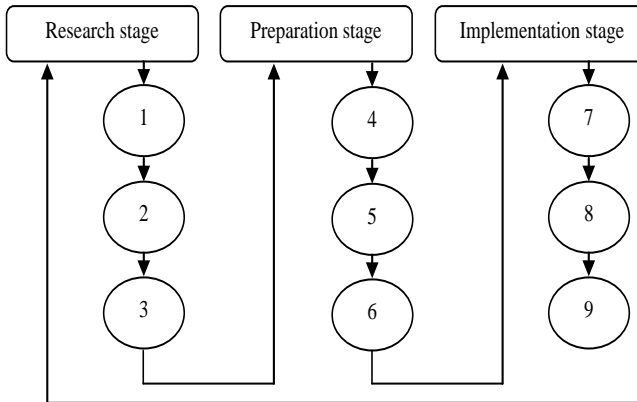
- the degree of Internet communications and provision of information to market participants development;

- the number of Internet advertising and PR-corporate and departmental websites and blogs, promotional websites (demonstration sites), development of advertising networks and special platforms for social and commercial advertising;

- expediency of functioning automated process control systems (APCS): manufacturing execution system (MES); enterprise resource planning (ERP) and customer relationship management (CRM);

- volume of electronic trade through electronic means of communication;

- the degree of e-government tools functioning, i.e. the organization of interaction between the state and participants in the market of information and communication technologies.

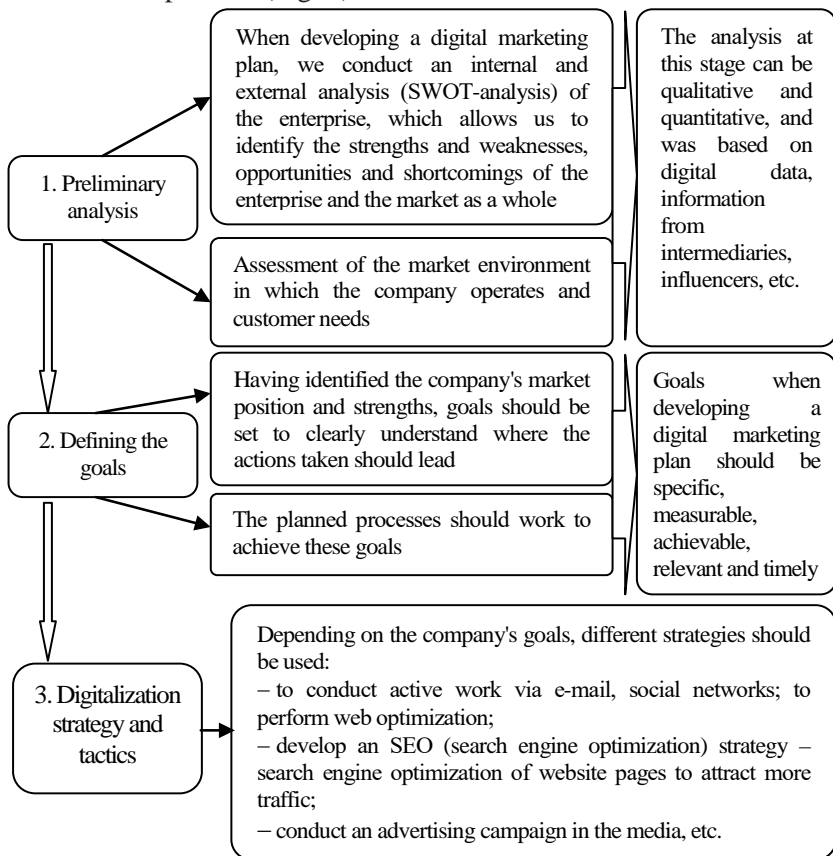


**Fig. 2. Stages of digital marketing management**

*Source: developed on the basis of [1; 2; 5]*

A digital marketing management plan is a document that details all the stages of planning digital marketing activities, which, among other things, sets out in detail: short-term, medium-term, and long-term enterprise's goals, strategies for achieving these goals at the digital level, channels for using marketing tools, and plans for the enterprise's action and development.

In general, an enterprise's digital marketing management plan contains three basic components (Fig. 3).

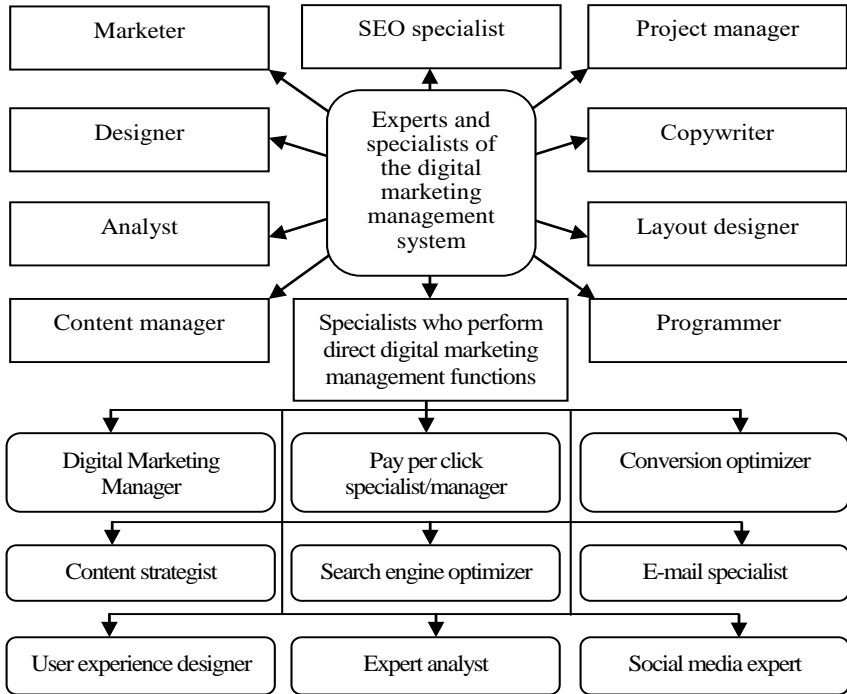


**Fig. 3. Stages of forming a digital marketing management plan for an enterprise**

*Source: developed on the basis of [1; 4; 10]*

The growing capabilities of IT-technologies, the Internet, social networks, messengers, and the overall digital environment of modern enterprises have led to the emergence of new roles in the digital marketing management field. Therefore, the digital marketing management system may include specialists and professionals who were conditioned by the emergence of this field of activity (Fig. 4) [1; 6; 7; 8].

If we consider the personnel who perform certain direct functions of digital marketing management at the enterprise, it is advisable to distinguish among them:



**Fig. 4. Digital marketing management system specialists**

*Source: developed on the basis of [1; 6; 7; 8]*

1. Digital marketing manager (DMM) – plays a key role in conducting and promoting digital campaigns to increase brand awareness virtually. Primary responsibilities include planning the project layout, developing the project schedule, setting goals, and managing project finances. The Digital Multimenter identifies and analyzes new digital advancements, and effectively manages campaigns to promote the organization's products or services. As a result, maximizing leads and navigating online traffic to increase penetration rates.

2. Content strategist (CS), whose main role is to develop attractive content that meets business goals and target customers. Hence, CS informs consumers about the brand in a compelling and informative way to increase brand value. As customers seek more relevant information through search engines, CS is forced to track topics of interest to customers using various analytical tools to maximize site views. Hence, CS should be experienced and have an understanding of search engine optimization (SEO).

3. Conversion rate optimizer (CRO) is one of the most important roles in digital marketing management. Its management function facilitates the

acquisition of new customers by changing and developing the components of an organization's website, which allows businesses to maximize the chances of converting their "site visitors" into "leading customers" and "key accounts". So, CRO optimizes the performance of a web page by analyzing the behavior of site visitors and takes appropriate steps (conversions) to change or modify the web page.

4. Pay Per Click (PPC) Specialist/Manager – monitors advertising campaigns, which include strategy development, development, execution, SEO, and evaluation of the advertising impact. PPC specialists must be aware of current trends to understand consumer keyword choices, making the necessary changes to get the right results. Since the ads have a direct link to the organization's website, PPC managers must offer "intriguing" reads to website clickers to create brand value and convert them into customers.

5. Search engine optimizer (SEO, search engine marketing specialist, SEM). An SEO/SEM specialist plays an important role in the success of digital marketing. An SEM specialist evaluates and makes changes to a company's websites for effective search engine rankings, which increases the number of search queries and, consequently, traffic to web pages. SEO specialists should evaluate website performance and traffic using Google Analytics and update Google's algorithm to get the desired results.

6. An E-mail Marketing Specialist (EMS) is a virtual marketer who consolidates customer information by building e-mail lists and conducts advertising campaigns by initiating e-mails. EMS ensures that the message was delivered in an accurate and relevant format to potential customers. Accordingly, these written messages must be informative and persuasive to generate brand value for potential customers.

7. Consumer Experience/User Experience (UE) Designer, who is not only experts in technology and design, but also has a good understanding of human attitudes and mindsets. UE designers create websites, products/services, and apps so that customers can follow the progress of their purchase list. This helps companies to improvise sales, retain existing customers, and attract new customers.

8. Analytic expert (AE). Technological advances have led to the emergence of machine intelligence in the form of Artificial Intelligence (AI) and the Internet of Things (IoT). As a large amount of data and information was collected using these computing technologies, it needs to be efficiently sorted, organized and analyzed. AE systematically categorizes, sorts and evaluates this data, providing businesses with information to interpret and execute on their advertising campaigns.

9. Social media expert (SME). With the emergence of various online channels such as Twitter, Facebook, Instagram, and others, many people are actively working with these platforms. Consequently, social media



environments allow companies to interact with their customers on a larger scale. The role of SMEs is to promote the company's presence on these platforms, increase brand awareness, communicate with target customers, follow developments, and maintain a community of existing customers. This requires SMEs to develop effective promotion strategies on all networking platforms, develop and update company pages on social media, and thus improve the visibility and presence of companies to achieve social participation [1; 3; 4; 6; 7; 8; 9].

Thus, with the change in the concept of marketing, the functionality of marketing managers was expanding, new requirements were being put forward to them, as digital marketing itself is a niche industry and an extremely profitable area, which necessitates the need for qualified specialists to work in the field of digital marketing management, including managers, marketers or specialists with new job responsibilities.

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## **ASSESSMENT OF THE LEVEL AND METHODS OF INFORMING RESIDENTS OF TERRITORIAL COMMUNITIES BY LOCAL SELF-GOVERNMENT BODIES AS AN ELEMENT OF THE MODERN PARADIGM OF REGIONAL MANAGEMENT**

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The era of digitalization, which is characterized by the rapid development of the digital transformation of society, has contributed to the development of a wide variety of communication tools and methods of information dissemination. After all, information plays an extremely important role in the modern world, and modern means of communication make it possible to quickly convey information to a wide range of target audiences. The COVID-19 pandemic, and later the war in Ukraine, demonstrated the importance of information provision with the help of modern digital means of communication. The importance of the problem has also been demonstrated for the information support of the activity of local self-government bodies. Still, today, in the conditions created by the Decentralization reform in Ukraine, the issue of informing residents of territorial communities by local self-government bodies about their activity is becoming more and more practical. After all, the transfer of powers from the state government to local self-government bodies implies the possibility for the latter to make critically important decisions regarding the development of the community and manage its finances. This necessitates the delivery of appropriate information to the residents of the community to remove all issues of the shadow economy, which violates the trust of the residents. Yet, local self-government bodies and officials are accountable, controlled, and responsible to the residents of their territorial communities. They must periodically, but not less than twice a year, inform the population about the implementation of socio-economic and cultural development programs, the local budget, on

other matters of local importance, and report to the residents of territorial communities about their activity.

In the modern information society, the practice of e-governance is rapidly spreading and is being established as a way of organizing government activity with the help of internal and external information networks, which significantly increases the quality of the information policy of the local government and contributes to better information provision to community residents. Electronic governance ensures the functioning of government bodies in real-time (online), as well as provides people with easy access to the information and services they need, regardless of physical distance and the time of day. Ideally, e-government can ensure that citizens receive administrative services 24 hours a day, seven days a week, without walking away from their personal computers.

In turn, the satisfaction of the residents of a territorial community with the quality of informing by local self-government bodies creates strong communication and stimulates the desire of residents to participate in the active life of the community [12]. In particular, if LSGBs publish important data, such as community development, health care, education, recreation, crime, and interesting stories about its citizens, this creates trust among citizens. In the course of this issue, it is necessary to emphasize the important role of information and communication technologies as tools for strengthening communication between the local self-government body and the residents of the community, because it allows reporting information to different categories of residents in different ways [9].

Close two-way communication between the residents of the territorial community and the local self-government body is an extremely important tool that makes it possible to develop rural areas in new directions with an innovative approach. Considering the fact that the objects of critical attention from the local government in the context of their information policy get more attention from the public, this information must be objective, complete, reliable, and submitted on time. The information about the activity of local self-government bodies can be obtained by mass media from these bodies directly or through their information services or be collected by mass media employees.

The problem of assessing the level of informing the residents of territorial communities by local self-government bodies on their activity is becoming more and more relevant among scientists and practitioners today, since it is in the process of assessment that the level of informing residents is determined as a reference point for making relevant decisions by local self-government bodies regarding the improvement of their information and communication policy, in particular methods and ways of informing.

The purpose of the research is to assess the level of informing the

residents of territorial communities by local self-government bodies about their activity and to determine residents' satisfaction with the methods of informing them.

The main tasks for achieving the goal set in the research are:

- to propose a methodology for assessing the level of informing the residents of territorial communities by local self-government bodies about their activity;
- to assess the level of informing the residents of territorial communities by local self-government bodies about their activity and to investigate whether the level of informing the residents by local self-government bodies with an administrative centre in the village and the city is the same;
- to determine whether the residents of the community consider the methods of informing that are used by local self-government bodies to be convenient.

Studying the professional literature on the issues of communication between local self-government bodies and residents, in particular, determining the methods of informing and assessing their level, it should be noted that the issue is characterized by a high level of publication activity of both domestic and foreign scientists and practitioners. This indicates their growing interest in the development of theoretical and practical aspects of this research and substantiates its growing relevance for modern society. However, each of the authors directs their vector of attention to the research of various narrow issues of this theme. In particular, [6] believes that the development of society and information technologies, and globalization require more intensive communication of the community with local authorities. The subject of such communication is the discussion of the budget, various capital projects, the drafting of municipal acts, the development of partnerships between local authorities and residents, and direct communication with residents to form trusting and constructive relations between residents and local authorities. High-quality communication affects the elimination of various barriers, shortens geographical distances, and strengthens social cohesion. The research shows that the use of various communication channels, including social networks, leads to greater inclusiveness, but on the other hand, they can be dangerous due to the possibility of hacking or misinformation. The issue of the use of digital communication tools by territorial communities and their impact on improving the quality of public services is disclosed in the publications of scientists [9], and [12]. In the area of this issue, the results of the research demonstrate that the use of information and communication technologies by residents of rural areas significantly affects the possibilities of community development. The well-being of a rural community depends on the initiative and organization of the people who live there, and their ability to develop ideas, find resources, manage decision-making processes,

and implement social innovations. The residents of such communities always prefer high-quality communication and use various methods of obtaining information from local self-government bodies (LSGBs). While developing this issue, the research [7] examines the impact of the Internet in rural areas on the interaction between residents. In particular, how the Internet use by young people living in rural areas affects their community participation and social capital. The results suggest that Internet use helps rural residents to spread information about local events and maintain social relationships. At the same time, the use of the Internet by young people living in villages is an impetus to change their place of residence, giving preference to cities.

High-quality communication and timely informing the residents of different communities by the government or local authorities is especially important in crisis conditions, also during the COVID-19 pandemic [2]. This led to a greater spread of information technologies in society, in particular in the public sector and local self-government bodies. After all, social information technologies improve the interaction of the government and local authorities with residents, as they offer numerous opportunities for quick information provision, increase transparency and trust, create new forms of the participation of residents and involve them in solving public issues, as well as improve inter- and intra-organizational cooperation [3].

In European countries, the functions and spheres of influence of local self-government bodies differ [4], and this leads to a different approach to conducting their communication policy. Local self-government bodies should implement various forms of social dialogue, actively promoting the involvement of citizens in the fulfillment of social tasks of the community.

The research of practical aspects showed that the development of a communication strategy for local self-government bodies is effective. The implementation of measures within the framework of such a strategy increases the level of their interaction with citizens. A communication strategy allows for covering different segments of citizens, choosing the most appropriate communication channels, and improving communication with residents in crisis situations. However, on the other hand, all these factors are limited by the size of the municipality and the financial resources allocated for communication.

The information base was a sociological survey as part of the project "Information asymmetry in the interaction of local self-government bodies and residents of rural areas: analysis of the causes of occurrence and ways to overcome it", which was implemented with the financial support of the Konrad Adenauer Foundation (Germany, 2021-2022). The survey conducts by using the questionnaire method among residents of rural areas in eight territorial communities in the Southern, Central, and Western regions of Ukraine. The error of representativeness is  $\pm 5.2\%$ . The final sample was

3018 people (residents over 14 years old).

The results of a survey of residents regarding the level of their information by local self-government bodies is given in the Table 1.

Table 1

**The results of a survey of residents regarding the level of their information by local self-government bodies**

Answer Choices	Number of responses	Percentage of responses
Very well informed	419	13.88%
Well informed	882	29.22%
Mediocre	1048	34.72%
Badly informs	517	17.13%
Very poorly informed	152	5.04%
<b>Result</b>	<b>3018</b>	<b>100.00%</b>

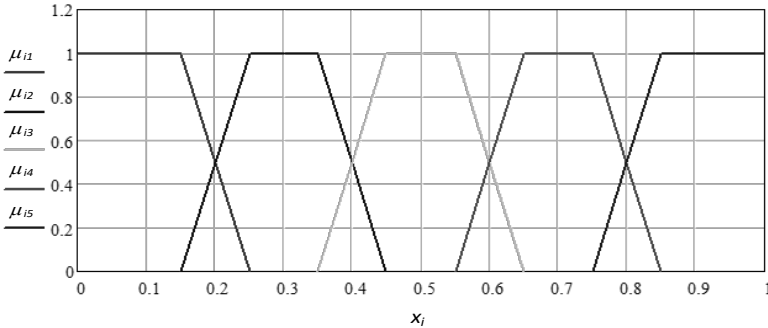
Source: formed by the authors based on the results of a sociological survey

For the convolution of the respondents' Answer Choices, we will use the five-level fuzzy 01-classifier, which is built on the 01-carrier and allows us to describe the five values of the linguistic variable given above. To describe subsets of the values of the linguistic variable "Information level of residents", we will use a system of five trapezoidal membership functions:

$$\begin{aligned}
 \mu_{11}(x_i) &= \begin{cases} 1, & \text{if } 0 \leq x_i < 0.15 \\ 10 \cdot (0.25 - x_i), & \text{if } 0.15 \leq x_i < 0.25 \\ 0, & \text{if } 0.25 \leq x_i \leq 1 \end{cases} \quad \text{Very poorly informed} \\
 \mu_{12}(x_i) &= \begin{cases} 0, & \text{if } 0 \leq x_i < 0.15 \\ 10 \cdot (x_i - 0.15), & \text{if } 0.15 \leq x_i < 0.25 \\ 1, & \text{if } 0.25 \leq x_i < 0.35 \\ 10 \cdot (0.45 - x_i), & \text{if } 0.35 \leq x_i < 0.45 \\ 0, & \text{if } 0.45 \leq x_i \leq 1 \end{cases} \quad \text{Badly informed} \\
 \mu_{13}(x_i) &= \begin{cases} 0, & \text{if } 0 \leq x_i < 0.35 \\ 10 \cdot (x_i - 0.35), & \text{if } 0.35 \leq x_i < 0.45 \\ 1, & \text{if } 0.45 \leq x_i < 0.55 \\ 10 \cdot (0.65 - x_i), & \text{if } 0.55 \leq x_i < 0.65 \\ 0, & \text{if } 0.65 \leq x_i \leq 1 \end{cases} \quad \text{Mediocre} \\
 \mu_{14}(x_i) &= \begin{cases} 0, & \text{if } 0 \leq x_i < 0.55 \\ 10 \cdot (x_i - 0.55), & \text{if } 0.55 \leq x_i < 0.65 \\ 1, & \text{if } 0.65 \leq x_i < 0.75 \\ 10 \cdot (0.85 - x_i), & \text{if } 0.75 \leq x_i < 0.85 \\ 0, & \text{if } 0.85 \leq x_i \leq 1 \end{cases} \quad \text{Well informed} \\
 \mu_{15}(x_i) &= \begin{cases} 0, & \text{if } 0 \leq x_i < 0.75 \\ 10 \cdot (x_i - 0.75), & \text{if } 0.75 \leq x_i < 0.85 \\ 1, & \text{if } 0.85 \leq x_i \leq 1 \end{cases} \quad \text{Very well informed}
 \end{aligned} \tag{1}$$

Since to assess the level of informing residents of territorial communities by local self-government bodies, a linguistic variable was used in the questionnaire, which can take five values: "Very poorly informed", "Badly informed", "Mediocre", "Well informed" and "Very well informed", then it is advisable to use the theory of fuzzy sets to find the resulting estimate.

In formulas (1),  $x_i$  is the 01-carrier, and the membership functions built on the basis of this system are shown in Fig. 1.



**Fig. 1. The standard five-level fuzzy 01-classifier is built on trapezoidal membership functions**

Source: constructed by the authors on the basis of formula (1)

The nodal points of the standard five-level fuzzy 01-classifier  $B_j$  are, on the one hand, the abscissas of the maxima of the corresponding membership functions on the 01-carrier, and, on the other hand, they are uniformly distant from each other on the 01-carrier and are symmetric with respect to the nodal point 0.5, and these are the points 0.1; 0.3; 0.5; 0.7; 0.9. These points act as weights when aggregating the system of indicators at the level of their quality states. Thus, nodal points reduce a set of non-standard classifiers (with their asymmetrically located nodal points) to a single classifier of a standard form, with a simultaneous transition from a set of non-standard carriers of individual factors to the standard 01 carrier.

The essence of the five-level fuzzy 01-classifier is that if nothing is known about the indicator, except that it can take any values within the 01-carrier, and it is necessary to make an association between the qualitative and quantitative evaluations of the indicator, then the proposed classifier makes this is with maximum credibility. At the same time, the sum of all membership functions for any  $x_{is}$  equal to one, which indicates the consistency of the classifier.

The resulting quantitative assessment of the level of informing residents of territorial communities by local self-government bodies will be carried out according to the following convolution formula:

$$g = \sum_{j=1}^5 \beta_j \mu_{ij}(x_i) d_i, \quad (2)$$

where  $B_j$  are nodal points of a standard five-level fuzzy 01-classifier;  $M_{ij}(x_i)$  is the value of the membership function of the  $j$ -th qualitative level relative to the current value of the  $i$ -th basic indicator;  $d_i$  is the share of respondents who gave the  $i$ -th answer option  $i = \overline{1, n}$ , where  $n$  is the number of surveyed respondents.

For the results of the survey given in the Table 1, calculations will look like this:

$$g = 0.9 \times 0.1388 + 0.7 \times 0.2922 + 0.5 \times 0.3472 + 0.3 \times 0.1713 + 0.1 \times 0.0504 = 0.559.$$

To recognize the level of informing residents of territorial communities by local self-government bodies, we will use the same standard five-level fuzzy 01 classifier. The rule for recognizing the parameter  $G$  "Level of informing residents" based on the value of the generalizing indicator  $g$  calculated according to formula (2) is presented in the Table 2.

Table 2

### Classification of levels of informing residents

$g$ values	$G$ parameter levels	Degree of estimation confidence (property function)
$0 \leq g < 0.15$	Very low	$\mu_1 = 1$
$0.15 \leq g < 0.25$	Very low	$\mu_1 = 10 \times (0.25 - g)$
	Low	$\mu_2 = 1 - \mu_1$
$0.25 \leq g < 0.35$	Low	$\mu_2 = 1$
	Low	$\mu_2 = 10 \times (0.45 - g)$
$0.35 \leq g < 0.45$	Average	$\mu_3 = 1 - \mu_2$
	Average	$\mu_3 = 1$
$0.45 \leq g < 0.55$	Average	$\mu_3 = 10 \times (0.65 - g)$
	High	$\mu_4 = 1 - \mu_3$
$0.55 \leq g < 0.65$	High	$\mu_4 = 1$
	High	$\mu_4 = 10 \times (0.85 - g)$
$0.65 \leq g < 0.75$	Very tall	$\mu_5 = 1 - \mu_4$
	Very tall	$\mu_5 = 1$

Source: formed by the authors

Since the calculated value of the generalizing indicator  $g = 0.559$  falls in the range of  $0.55 \leq g < 0.65$ , then the level of informing residents is 91% average ( $M_3 = 10 \times (0.65 - 0.559) = 0.91$ ) and 9% high ( $M_4 = 1 - 0.91 = 0.09$ ).

Similarly to the methodology described above, we evaluate the level of



informing residents with the administrative center in the village/city.

For the results of the survey given in the Table 3 calculations will look like this:

$$g_v = 0.9 \times 0.1331 + 0.7 \times 0.3229 + 0.5 \times 0.3396 + 0.3 \times 0.1509 + 0.1 \times 0.0535 = 0.566.$$

$$g_c = 0.9 \times 0.1486 + 0.7 \times 0.2396 + 0.5 \times 0.3604 + 0.3 \times 0.2063 + 0.1 \times 0.0450 = 0.548.$$

Table 3

**The results of a survey of residents with an administrative centre in a village/city**

Answer Choices	Communities, with the administrative centre in the village		Communities, with the administrative centre in the city	
	Number of responses	Percentage of responses	Number of responses	Percentage of responses
Very well informed	254	13.31%	165	14.86%
Well informed	616	32.29%	266	23.96%
Mediocre	648	33.96%	400	36.04%
Badly informs	288	15.09%	229	20.63%
Very poorly informed	102	5.35%	50	4.50%
<b>Result</b>	<b>1908</b>	<b>100.00%</b>	<b>1110</b>	<b>100.00%</b>

Source: formed by the authors based on the results of a sociological survey

Since the calculated value of the generalizing indicator

$g_v = 0.566$  falls in the range of  $0.55 \leq g < 0.65$ , then the level of informing residents with an administrative centre in the village is 84% average ( $M_3 = 10 \times (0.65 - 0.566) = 0.84$ ) and 16% high ( $M_4 = 1 - 0.84 = 0.16$ ). The value of  $g_c = 0.548$  falls in the range of  $0.45 \leq g < 0.55$ , and therefore, the level of informing residents with an administrative centre in the city is 100% average ( $M_3 = 1$ ). The results of calculations indicate a somewhat lower level of informing residents by local self-government bodies with an administrative centre in the city compared to residents of communities whose administrative centre is located in a village.

For the results of the survey given in the Table 4 calculations will look like this:

$$g_a = 0.9 \times 0.1866 + 0.7 \times 0.4641 + 0.5 \times 0.2679 + 0.3 \times 0.0766 + 0.1 \times 0.0048 = 0.65.$$

$$g_{na} = 0.9 \times 0.1312 + 0.7 \times 0.2646 + 0.5 \times 0.36 + 0.3 \times 0.1865 + 0.1 \times 0.0577 = 0.545.$$

Since the calculated value of the generalizing indicator  $g_a = 0.65$  falls in the range of  $0.65 \leq g < 0.75$ , then the level of informing residents living in the administrative centre of the community is 100% high ( $M_4 = 1$ ). The value of  $g_{na} = 0.545$  falls in the range of  $0.45 \leq g < 0.55$ , and therefore, the level of informing residents who live in the settlement – not the administrative

centre of the community, is 100% average ( $M_3 = 1$ ).

Table 4

**The results of the survey of residents who live in the administrative centre of the community/settlement – not an administrative centre**

Answer Choices	Administrative centre of the community		The settlement is not an administrative centre	
	Number of responses	Percentage of responses	Number of responses	Percentage of responses
Very well informed	78	18.66%	341	13.12%
Well informed	194	46.41%	688	26.46%
Mediocre	112	26.79%	936	36.00%
Badly informs	32	7.66%	485	18.65%
Very poorly informed	2	0.48%	150	5.77%
<b>Result</b>	<b>418</b>	<b>100.00%</b>	<b>2600</b>	<b>100.00%</b>

*Source: formed by the authors based on the results of a sociological survey*

The results of calculations indicate a higher level of informing residents by local self-government bodies, who live in the administrative centre of the community, compared to residents who live in a settlement that is not an administrative centre, which was to be expected.

The coefficient of similarity (similarity) of the structures of two objects or one object according to two features is calculated according to the formula:

$$P = 1 - \frac{1}{2} \sum_{j=k=1}^m |d_j - d_k|, \quad (3)$$

where  $d_j, d_k$  – respectively, the shares of structures of two distributions of objects or features.

If the structures are the same,  $P = 1$ . The greater the deviations of the structures, the smaller the value of the P coefficient.

According to the results obtained during the survey (see Table 5), the coefficient of similarity of the structures of respondents' answers is equal to:

$$P = 1 - 0.5 \times 0.292 = 0.854.$$

Therefore, the structures of the answers are quite close, which indicates that local self-government bodies use methods of informing community residents about their activities, which are quite convenient for the latter.

The development of digitalization has significantly expanded the possibilities for improving and facilitating the activity of state authorities and local self-government. Modern information technologies simplify work with large data sets, automate basic business processes, and improve interaction with residents, partners, and other stakeholders. The research shows that the

use of digital communication tools and means contribute to the improvement of the quality of service to the population of a territorial community [9]. The need to intensify the information and communication policy of local self-government bodies was caused by changes in the conditions of their functioning due to the impact of the pandemic and the active phase of the Russian war. Various types of messengers have gained active development; in particular, various groups and communication channels (Viber, Telegram) quickly began to be created. Most of the local authorities quickly respond to today's challenges and create or improve their official Facebook pages, community websites, and groups in various messengers.

Table 5

**Ways of informing residents about the activities of territorial community authorities, which are most often used by the local self-government body/which residents consider the most convenient**

Ways of informing residents about the activities of territorial community authorities (Answer Choices)	It is used by the local self-government body		Residents consider it the most convenient		Calculated data $ d_j - d_e $
	Number of responses	Share of responses (a <sub>j</sub> )	Number of responses	Share of responses (a <sub>e</sub> )	
Meetings/meetings of council representatives/departments, elders / communal services with community residents	1162	0.167	1403	0.186	0.019
Bulletin boards, including electronic ones	766	0.110	794	0.105	0.005
Leaders of religious or public organizations, street committees, condominiums, youth councils, etc.	611	0.088	469	0.062	0.025
Mass media (e.g., local newspaper, online publication, radio, TV)	992	0.142	1275	0.169	0.027
The official website of the territorial community council	1227	0.176	855	0.113	0.063
Social networks (Facebook, Instagram, etc.)	1821	0.261	1569	0.208	0.053
Messenger group (Viber, Telegram, etc.)	331	0.048	832	0.110	0.063
YouTube channel	36	0.005	319	0.042	0.037
Other ways	19	0.003	21	0.003	0.000
<b>Result</b>	<b>6965</b>	<b>1.000</b>	<b>7537</b>	<b>1.000</b>	<b>0.292</b>

Note: respondents could choose no more than three Answer Choices

Source: formed by the authors based on the results of a sociological survey

Theoretically, this has activated information and communication activity, making it possible to quickly convey information to residents about important issues or needs of the community, the feedback from community residents is also effectively provided. However, in practice, this has created new risks, in particular, the appearance of false information, and overloading with all kinds of unnecessary or oppressive information. It was the active development of various communication channels that became an effective tool for spreading fakes and provoking an information imbalance in the community, especially in wartime conditions. Among the reasons for this situation, it is the emergence of a large number of new telegram channels in localities, which, in particular, are created by the residents themselves, and, in conditions of low media literacy, are filled with information from unreliable sources, negative comments and outright fakes [10]. Therefore, the task of local authorities, local journalists, and activists is to spread media awareness, and increase the level of “informational hygiene” of residents, increase trust in reliable and official channels of communication.

Conclusion. In today's conditions and the rapid development of information technologies, the issue of timely dissemination of information is extremely relevant, in particular for local self-government bodies in the area of their information provision to community residents. A wide range of means of communication available today makes it difficult to choose the right way of informing community residents about the activity of the local self-government body, which would be the most convenient for them. Such prerequisites created the need to assess the level of informing community residents by local self-government bodies. The work proposes a methodology for assessing the level of informing the residents of territorial communities by local self-government bodies about their activity, which was based on the theory of fuzzy sets and was tested on the residents of rural areas in eight territorial communities in the Southern, Central, and Western regions of Ukraine. The survey was conducted by the questionnaire method. The error of representativeness is  $\pm 5.2\%$ . The final sample consisted of 3,018 people (residents older than 14 years), the average age in the entire sample was 42.9 years, (min=14 years; max =84 years), and women made up 52.05%. The results showed that the level of informing the residents with the administrative centre in the village is 84% average and 16% high, and the level of informing the residents with the administrative centre in the city is 100% average. Also, the results of the research showed that local self-government bodies use those methods of informing community residents about their activity that are quite convenient for the latter. So, the authors have achieved the goal, and the task has been completed. This research has limitations; in particular, the remoteness of communities and their mobility are not taken into account.

The researched communities are relatively compactly located. However, there are many rural communities that are geographically far from each other, including mountain communities.

The results of the research will be useful to local self-government bodies in improving the information policy of the community and to active researchers of the life of residents of rural areas.

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## **FEATURES OF DIGITAL DEVELOPMENT STRATEGIES AGRI-FOOD ENTERPRISES**

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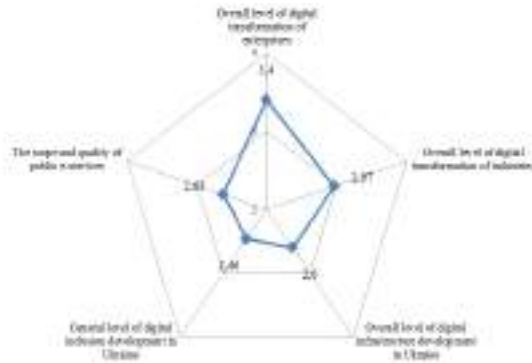
The use of IT and digital technologies in agriculture is not only about using computers, communications and other individual technical means and technologies. Innovative digital and information technologies make it possible to control the entire crop or livestock production cycle: smart devices measure and transmit parameters such as soil, plants, and microclimate. All this data from sensors, drones, and other devices is analyzed by special programs [1; 2]. Mobile or online applications help farmers and agronomists determine the right time for planting or harvesting, calculate fertilizer schemes, predict yields, and facilitate many processes. The effectiveness of digital and information tools and technologies in modern agribusiness was confirmed by the fact that about 70% of farms in the US, Canada and Europe were already using smart technologies for agriculture.

Domestic farmers were at a lower level than these figures, but the demand for «digital» is growing, and practitioners and theorists were confident that digitalization will help the Ukrainian agro-industrial complex to make a powerful development [3].

The implementation of digital technologies, methods, and tools in all areas of economic activity were taking place with particular rapidity and speed (Fig. 1).

According to analysts, it is likely that by 2025, up to 40% of the global economy will have fully digitalized its structure. The practical application of agricultural digitalization in developed countries has made it possible to identify the areas in which the digitalization of this sector is taking place:

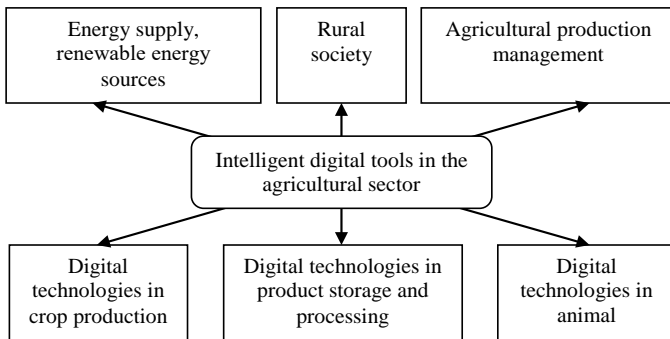
- an innovative method in agriculture using the latest technologies to improve the quality of the crop;
- system of monitoring the state of wildlife and their habitats;
- management of a technical mean’s range designed to increase labor productivity in agriculture;
- intelligent self-diagnostic function, when the system itself analyzes all measurable processes occurring in the greenhouse [3; 5; 6; 10].



**Fig. 1. Indicators of the Ukrainian's Digital Transformation Index components in 2021**

Source: developed on the basis of [3]

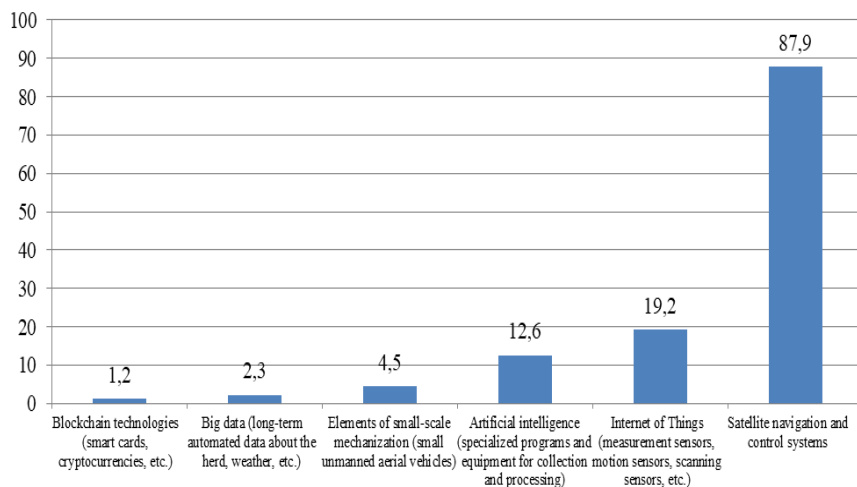
The main areas of digital technologies application in agriculture were shown in Fig. 2.



**Fig. 2. Main areas of digital technologies application in agriculture**

Source: developed on the basis of [7; 9]

Fig. 3 shows the application of the main tools of the digital economy in the agri-food sector of Ukraine.



**Fig. 3. Statistics on the use of the main the digital economy in the agro-food sector of Ukraine**

*Source: developed on the basis of [3; 5; 6; 10]*

In the context of the digital transformation agri-food sector, the issues of identifying special factors of influence on innovation processes in agricultural sectors, the possibility of effective use modern resources to enhance digital development were becoming relevant. This was due to the fact that the digitalization of production and management processes is a mechanism for economic growth of business entities, and innovations ensure efficiency, effectiveness, growth in production volumes, etc.

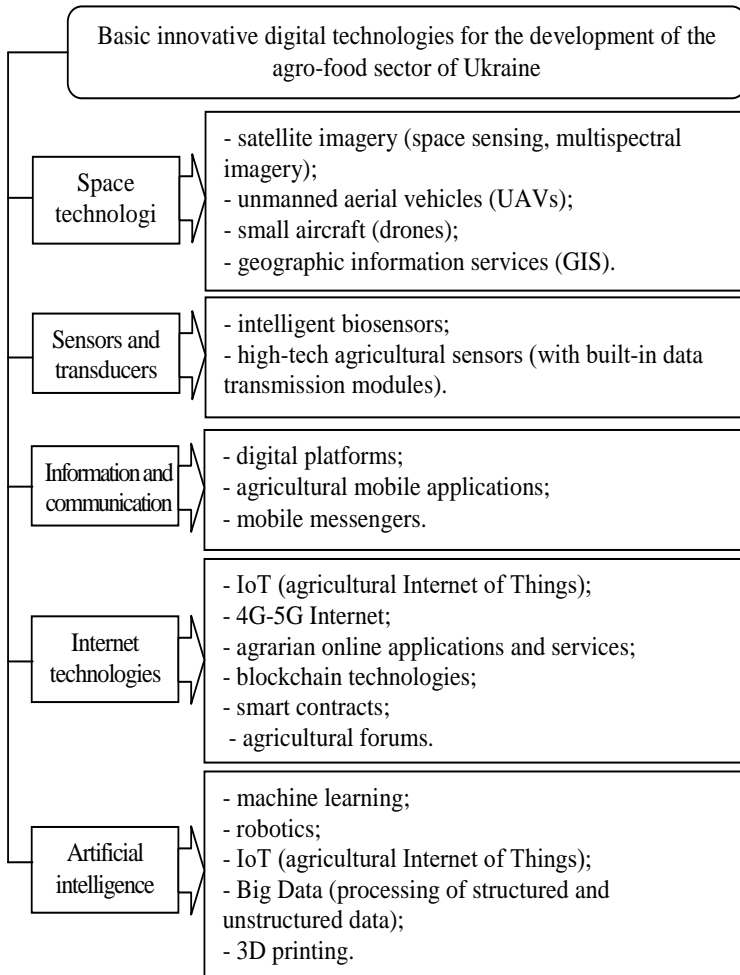
Given the above, the basic innovative digital technologies that can be used in the domestic agricultural sector should be proven and effective innovations (Fig. 4).

Digitalization can provide significant economic, social, and environmental benefits, and the use of digital innovation technologies can contribute to the functioning and efficiency of agri-food systems:

- the use of mobile applications that allow farmers to receive the most up-to-date information on agricultural prices, reduce market disruptions and help plan production processes;
- digital solutions that can support farmers in terms of timely response to disease and pest outbreaks, crop failure, and climate change: farmers can receive notifications reminding them of necessary actions in advance, taking into account the weather forecast;



• an example of the application of IoT technology in agriculture is precision farming. The use of agricultural machinery control systems for sowing and fertilizing allows to reduce the cost of seeds, fertilizers, and tractor fuel, and to reduce the time spent on field work;



**Fig. 4. Classification of basic innovative digital technologies for the development of the Ukrainian’s agro-food sector**

Source: developed on the basis of [3; 5; 8-10]

• variable rate technology and the use of unmanned aerial vehicles help to reduce water and pesticide consumption, as well as labor and resource costs;

- an important place in agriculture is given to enterprise resource planning software: it allows optimizing any process from procurement to production and sales. The use of such software allows the farm to respond organically to environmental issues, adjust the system accordingly, and increase financial returns;

- blockchain technology has been used to identify low-quality food products in food supply chains, which allows for timely and effective measures to be taken. This technology also allows providing consumers with information about the origin of food products, which provides its users with a competitive advantage;

- artificial intelligence technologies that help farmers assess field conditions and monitor each stage of the production cycle. These technologies are also transforming the agricultural sector into a digital cluster, as farmers no longer need to be physically present to assess their farms, but can use data from satellites and UAVs. Artificial intelligence technologies are also able to optimize the use of resources based on predictive modeling, justify timely decisions, and ensure round-the-clock operation of monitoring systems;

- agricultural robots ("agrobots") may radically change technological processes in agriculture in the near future. Field agrobots help farmers measure water consumption and optimize irrigation; lightweight, small-sized robots can replace heavy tractors, which will gradually reduce soil compaction, restore their ability to be saturated with air, and increase their efficiency [1; 3-5; 9; 10].

Therefore, the main tasks of the agri-food enterprise's digital transformation should be:

- transition to digital agriculture, which was based on the use of precision farming methods, active use of digital technologies to increase labor productivity in agribusiness entities;

- integration of objective data flows from agricultural producers of all management's forms in order to ensure global planning in the industry and provide balanced recommendations to agri-food market participants, including using artificial intelligence;

- creation of a publicly accessible structured bank of knowledge and technologies by agricultural sector and region;

- development of mechanisms and measures to support the implementation of digital systems in the agricultural enterprise's activities;

- ensuring the traceability of agricultural products from the producer to the final consumer (tags, chips, identifiers, technologies, devices, systems);

- stimulating domestic developments and providing access to various digital open platforms (digital field, herd, equipment management, greenhouses, etc.);

- creation of conditions for the business transition entities to an end-to-

end production cycle with minimization of the number intermediaries and the size of the trade margin;

- introduction of online trading platforms and systems for the promotion of agricultural products;
- formulation of proposals for adjusting regulatory acts and regulatory and technical requirements for the transition to digital technologies;
- development of educational and methodological complexes (standards, methods, programs) for training;
- the global ones in order for Ukraine to become a leading exporter of agricultural products.

It is also necessary to emphasize that currently in our country there is a significant shortage of specialists working in the field of information technology in the field of agriculture, while in countries with a competitive agricultural sector the level of specialists with this competence is quite high [1]. The foregoing indicates that it is necessary not only to identify the key areas of digitalization implementation, but also to develop a methodological approach to assessing the quality of this process, which has universal criteria for agribusinesses of different specializations [8].

Digitalization will change all components of the agri-food chain, and resource management of any element of the system will be based on optimization, individual approach, reasonableness and predictability. Full traceability and coordination will be ensured in value chains, and, accordingly, optimal models for managing agricultural land, crops, and livestock will be created. Digital agriculture will create systems characterized by high productivity, predictability, and the ability to adapt to changes, including those formed by a changing climate, which in turn can help increase food security, profitability, and sustainability of agri-food businesses [2; 3].

It should be emphasized that digital technologies also significantly change the process of making management decisions by the heads of agricultural organizations. Therefore, the use of digital platforms facilitates decision-making processes for both production and economic tasks of the agro-industrial sector of the economy in the communication's form between business entities. With the introduction of digital technologies in agriculture, both the level and quality of management decisions will undoubtedly increase, which will allow identifying and implementing existing reserves in agricultural organizations [2].

Thus, the transition to a digital economy and the widespread introduction of digital innovations was defined as one of the key factors of economic growth in rural areas. Achieving the development goals of the agri-food sector was inextricably linked to the consistent implementation of digital innovations in management, social and business processes. In agriculture, digitalization can be a decisive factor in reducing information, operational

and transaction costs, rational use and saving of resources, increasing productivity and generating new sources of income for domestic producers.

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## **PART 4. LEGAL, PERSONNEL, SOCIOCULTURAL AND EDUCATIONAL ASPECTS OF MANAGING SOCIETY**

### **SAFE MANAGEMENT OF PERSONNEL AND INNOVATION POTENTIAL OF THE ENTERPRISE IN THE CONDITIONS OF GLOBALIZATION, TURBULENCE OF THE BUSINESS ENVIRONMENT AND DYNAMIC CHANGES**

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Enterprises use different approaches to the management of personnel and innovative potential, including systemic, marketing, functional, reproductive, regulatory, complex, integration, process, quantitative and qualitative, administrative, behavioral, situational. Summarizing the review of literary sources, we will give a comparative description of these approaches (Table. 1).

Taking into account the advantages and disadvantages of each approach, we come to the conclusion that the system approach is the most effective in the management of personnel and innovation potentials, because it allows you to find possible alternative solutions to complex problems and tasks and choose the most effective of them; to develop and implement constantly operating traditions and rules of development in the organization; to identify cause-and-effect relationships between the already achieved and expected state of technology, product quality, personnel professionalism; provides for the possibility of the absence of standard solutions to complex situations and the search for new, non-standard ones; leads to more efficient use of all company resources; allows you to gain competitive advantages by implementing changes in management in the conditions of globalization, turbulence of the business environment and dynamic changes.

From the standpoint of a systemic approach, the management of personnel and innovative potential of the enterprise is an open system that

is formed under the influence of external and internal environmental factors, and includes elements that in their interaction ensure the accumulation of creative ideas, the development and commercialization of innovations, their transfer and diffusion. Such elements are the controlling and controlled subsystems of management, communications between them, methods of managerial influence of the subject on the object of management.

*Table 1*

**Comparative characteristics of approaches to security management of personnel and innovative potentials**

Approaches	Advantages	Disadvantages
Systemic	Identification and clear formation of specific goals; the goals of an individual subsystem do not conflict with the goals of the entire system	External environment Requires adaptation of the system to changes
Marketing	Allows to improve the quality of system output through analysis of market and consumer needs	Requires significant costs for market research and analysis
Functional	Creation of original objects that will satisfy the needs of consumers. Emergence of new technical solutions to meet current and future needs	Significant expenditure of time and money on the variability of decisions in the section of each functional block of the system of management of innovative activities
Reproductive	To improve the quality and competitiveness of the product, marketing research is conducted	Difficulties in forecasting parameters and indicators for determining profit
Situational	The possibility of changing the methods of object management depending on the situation that has developed, which allows you to avoid interruptions in the organization's activities	Significant costs of money and time due to changing the way objects are managed accordingly for each new situation that arises

*Source: developed on the basis of [3; 5; 9]*

The model of the management system of personnel and innovation potentials of enterprises, which consists of the following elements: object of management – personnel and innovation potentials of the enterprise; subject of management of innovative personnel and potential of the enterprise; the management mechanism, which includes: the goals of forming personnel and innovation potentials, management functions, management methods, management decisions; communication channels.

Subjects of the management apparatus with personnel and innovation potential influence the object of management through the formation and formalization of management decisions, which are aimed at the implementation of the functions of planning, organizing, motivating, controlling and regulating innovative activities with the help of certain management methods.

The external environment (consumers, suppliers, intermediaries, competitors, investors, legislative acts, the level of equipment and technology) influences the object of management, i.e. the innovation potential and all processes related to it, and determines the system input and output parameters.

Having analyzed the properties of the systems, we can highlight the following properties of the management system with personnel and innovative potential of the enterprise, which ensure the innovative development of the enterprise in the conditions of globalization, turbulence of the business environment and dynamic changes (table. 2).

*Table 2*

**Properties of the safety management system of the safety and innovative potential of the enterprise**

<b>Properties</b>	<b>Characteristics of properties</b>
Integrity	A set of elements, which is considered as a system and constitutes a certain whole, which has common properties and its own behavior. Removing even one element from the system, or replacing it with a worse one, can lead to a decrease in efficiency, or even to the destruction of the system. Also, this property involves aligning the goals of the management system with the mission of the organization, as well as making decisions about innovative changes from the point of view of usefulness for the organization as a whole.
Reliability	Continuous functioning of the system despite possible adverse conditions of existence and threats.
Structurality	The set of components and their connections in the innovation activity management system should be mobile and easily adaptable to changes in the requirements and goals of both the system itself and the organization as a whole.
Adaptability and development	The ability of the system to adapt to changes in the external and internal environment and to develop under their influence, because the organization exists in conditions of constant changes in social, economic and political situations.
Openness of the system	Interdependence and interconnection (exchange of information and resources) of the innovation management system with other systems of the organization and the external environment.

*Source: developed on the basis of [4; 6; 10]*

The effective functioning of the enterprise depends on its management system, the effectiveness of which, in turn, depends on the level of balance of its main subsystems and their ability to realize the formed potential. Since all subsystems of the enterprise are interconnected and interdependent, changes in some parameters of one of them cause certain changes in its other subsystems. The system of personnel and innovation potential management, which is one of the management subsystems, is no exception.

Coordination of the functioning of various local subsystems in the

enterprise security management system usually occurs at the level of creating a tree of goals, developing rules and procedures, as well as establishing criteria for the selection and implementation of management decisions.

Forming the management subsystem with personnel and innovation potentials of the enterprise, coordination of its functioning at the level of creating a tree of goals can have three such options:

- option a) – the set of goals of the personnel and innovation potential management system (C) lies within the set of goals of the enterprise management system (C);

- option b) – the set of goals of the personnel and innovation potential management system (Si) lies within the set of goals of a certain local subsystem of enterprise management (Cpn);

- option c) – the set of goals of the personnel and innovation potential management system (C) lies within the set of goals of several or all local subsystems of enterprise management (Cp1, Cp2, Cp3, Cpn).

Regardless of the chosen option for coordinating the system of goals, their implementation also requires the coordination of the formation of the management system with personnel and innovation potential at the level of rules and procedures created in the enterprise.

General corporate rules and procedures are common to all management subsystems of the enterprise, and the rules and procedures of each local subsystem complement the general corporate rules and procedures.

These levels of coordination depend linearly on the properties of security management subsystems.

Therefore, the main goals of the management system of personnel and innovation potential of the enterprise are: effective organization of the innovation process and ensuring its continuous functioning; bringing a competitive innovation to the market; production of existing products by a new efficient method.

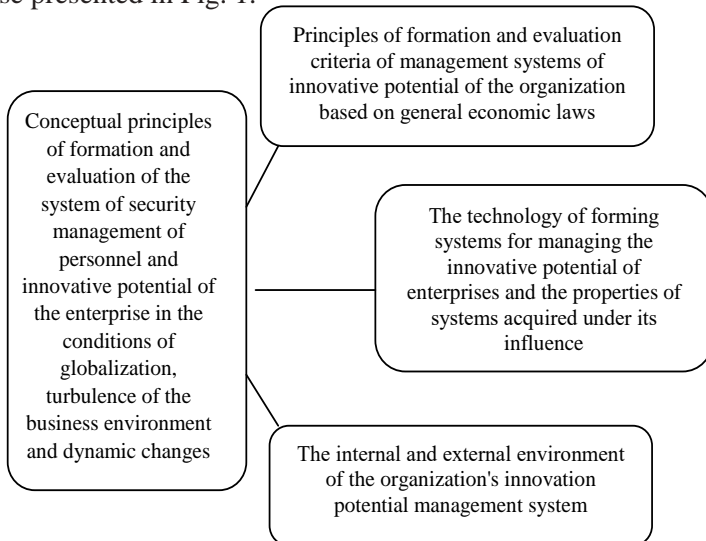
Accordingly, the tasks of the personnel and innovation potential management system are formed in relation to the goals, as a component of the overall security management system of the enterprise, the main of which are the following: development of strategic innovation policy and mechanisms for its implementation; formation of strategic, long- and short-term goals for the realization of personnel and innovation potentials; development of plans, programs, projects and their implementation; planning of the organization of innovation development processes (innovation process); observation (control) of the implementation of stages, stages of the innovation process in time and synchronization of all types of activities; selection and placement of personnel, creation of a creative atmosphere and motivation of intellectual work; complex formation and use of personnel and innovation potentials of the enterprise; organization and cooperation of innovative programs,



acceleration of their development; creation of temporary target groups for the comprehensive solution of innovative problems – from the idea of serial production of products; observation and assessment of global trends in scientific and technical development.

It is possible to single out the tasks that must be achieved in the formation of the management system of personnel and innovation potential of the enterprise: the clarity of the formulation of the goals of the enterprise's innovative activity and their comprehensibility for the team; cooperation of team members; optimal information provision; exchange of ideas and information between team members; participation of each team member in the process of achieving the goals of innovative potential, awareness of their importance; rational distribution and cooperation of labor, specialization of work; the impossibility of imposing the manager's ideas on team members; the orientation of innovations to increase the profitability of funds invested in the use of new technologies and the creation of innovative products.

Taking into account the above, we come to the conclusion that the main elements of the concept of formation and evaluation of the management system of innovative activity of the enterprise in the conditions of globalization, turbulence of the business environment and dynamic changes are those presented in Fig. 1.



**Fig. 1. Conceptual principles of formation and evaluation of the security management system of personnel and innovative potential of the enterprise in the conditions of globalization, turbulence of the business environment and dynamic changes**

*Source: developed on the basis of [1-2; 7-8]*

The purpose of forming a safety management system with personnel and innovation potentials of the enterprise is to build a management system that ensures the economic efficiency of investment in innovation and ensures the rationality of engineering and technical production processes, as well as management processes at a high organizational level. The conducted research made it possible to determine the principles of formation and evaluation of the management system by personnel and innovation potentials, the use of which is a necessary condition for the effective functioning of this system.

Enterprise managers, after a certain period of operation of the innovation management system, evaluate the personnel and innovation potentials and their management system in order to determine its efficiency and effectiveness. Evaluating the effectiveness of the management system by personnel and innovation potential is an important component of the regulatory decision-making process in the field of innovation. The results of the assessment determine the choice of promising directions for the development of the safety management system with personnel and innovation potentials capable of ensuring an increase in the safety competitiveness of the enterprise in general.

Also, in order to evaluate the personnel and innovation potential management system, it is necessary to compare the final results of innovative activities and the functioning of all elements of this system with certain predetermined criteria that characterize the objectively necessary state of the personnel and innovation potential management system. The results of the management entity's activity are determined by the goals it faces. In this regard, the evaluation of the management system by personnel and innovation potentials can be carried out by determining the degree of achievement of the main goals and the degree of implementation of functions that ensure the achievement of these goals.

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**IMPROVING THE ORGANIZATIONAL CULTURE OF AN  
INNOVATION-ORIENTED ENTERPRISE IN THE CONTEXT  
OF SAFE MANAGEMENT OF PERSONNEL DEVELOPMENT,  
MIGRATION RISKS AND DIGITALIZATION**

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The insufficient study of organizational culture at enterprises, the lack of systematicity in the existing models of foreign authors led to the lack of a generally accepted methodology for assessing organizational culture based on a systemic approach, which would allow enterprise managers to comprehensively assess the organizational culture of an enterprise in the context of security management of personnel development, migration risks, and digitalization.

Therefore, for an innovatively oriented enterprise, in order to increase the level of its security competitiveness and performance, we suggest using

the following algorithm for evaluating organizational culture, which will allow us to propose changes in the security management of personnel development.

At the first stage, it is advisable to carry out a qualitative assessment of organizational culture. Analysis of internal organizational processes and organizational cultural values at an innovation-oriented enterprise should include the following components:

Analysis of factors of the external and internal environment that affect the organizational culture of an innovatively oriented enterprise.

The main factors of the external environment that influence the organizational culture of an innovation-oriented enterprise: the level of security; national culture and mentality; business partners; competitors; shareholders and owners; investors; current legislative acts; international and domestic political, economic, social situation; scientific and technological progress.

The main factors of the internal environment that affect the organizational culture of an innovation-oriented enterprise: safety of production; the head of the enterprise; the time period of the enterprise's existence on the market (stage of the life cycle); the size of the enterprise; the field of activity of the enterprise; level of education and qualification of employees; resources available to the enterprise; features of the technology [1; 3-5; 8-9].

At the second stage of quantitative assessment of the enterprise's organizational culture, it is necessary to build profiles of the organizational culture of an innovatively oriented enterprise using the appropriate stages:

Expert assessment of the organizational culture of an innovatively oriented enterprise. For an expert assessment of the organizational culture of the enterprise, we will use an assessment table that requires scoring six points, each of which has four alternatives (A, B, C and D), between which we will distribute 100 points.

The first step in filling out the evaluation table is to assess the current state of the enterprise's organizational culture.

The second step is to assess the desired state of the organizational culture of the innovation-oriented enterprise, based on the vision of the organizational culture of the enterprise in five years in the context of the security management of personnel development, migration risks and digitalization. Filling the "Desired state" column will be based on the elimination of "problem areas" of the enterprise's organizational culture.

Completing the evaluation table is based on the collected and generalized expert evaluation of the organizational culture by the employees of the management apparatus of the innovation-oriented enterprise.

Scores give us a general tendency towards the dominance of a certain type of organizational culture of the enterprise. In other words, the received

point estimates helped bring to the fore those features of the enterprise that determine the type of organizational culture characteristic of an innovation-oriented enterprise [2; 6-7; 10].

Let's proceed to the statistical processing of the received data – fill in the matrix presented in the table. 1.

*Table 1*

**The matrix of the results of the point assessment of the organizational culture of a model innovation-oriented enterprise**

Answers by column "Current status"					Answers according to the "Desired state" column				
№ question	Alternative				№ question	Alternative			
	A	B	C	D		A	B	C	D
1	20	5	15	60	1	20	10	50	20
2	20	10	20	50	2	20	10	45	25
3	25	5	20	50	3	25	10	40	25
4	30	10	20	40	4	30	25	30	15
5	10	10	30	50	5	10	25	40	25
6	25	15	20	40	6	25	15	40	20

*Source: calculated by the authors*

To analyze the received data and build profiles of the organizational culture of an innovatively oriented enterprise, it is necessary to fill out the work form proposed in the table. 2.

*Table 2*

**Worksheet for statistical processing of point assessment of organizational culture in a model innovation-oriented enterprise**

Answers by column "Current status"			Answers according to the "Desired state" column		
Alternative	Total points	Average score (Sum of points: 6)	Alternative	Total points	Average score (Sum of points: 6)
A	130	22	A	130	22
B	55	9	B	95	15
C	125	21	C	245	41
D	290	48	D	130	22
Everything:	600	100	Everything:	600	100

*Source: calculated by the authors*

At the first step of statistical processing of the received data, it is necessary to add up the scores of all answers A in the column "Current status" for six points in the table. 1, and then divide the received amount by 6, i.e.

calculate the average score for alternative A. The calculations are repeated for alternatives B, C and D. The second step consists in adding up the scores of all answers A in the "Desired state" column by six items of the table. 1 and dividing the sum by 6, that is, the average score for alternative A is calculated again, but for the "Desired state" column. The same calculations are repeated for alternatives B, C, and D for the Desired State column.

Analyzing the results of statistical data processing, we see that:

- the current state of the organizational culture of a model innovation-oriented enterprise is characterized by the dominance of alternative D = 48 points, alternative A received 22 points, alternative C = 21 points, and alternative B = 9 points received the least.

- the desired state of the organizational culture of a model innovation-oriented enterprise is characterized by the dominance of alternative C=41 points, alternative A received 22 points, alternative D=22 points, the least – alternative B=15 points.

2. Building profiles of the organizational culture of an innovatively oriented enterprise.

Consistency of the organizational culture of an innovatively oriented enterprise. Under the cultural coherence of the enterprise, we will understand the equilibrium state of various aspects of the organizational culture of the enterprise. According to the results of the table. 1, we can see that the ratings of the four alternatives A, B, C, and D when answering each of the six questions in the "Current Status" column have a consistent trend – alternative D is dominant, alternative B is the weakest. Therefore, the organizational culture of an innovation-oriented model enterprise is agreed, because according to the results of the data analysis of the table. 1 strategy, leadership style, reward system, success criteria, dominant enterprise characteristics, and employee management approaches tend to emphasize the same set of cultural values.

When considering the future of a model innovation-oriented enterprise in the long-term perspective in the context of the security management of personnel development, migration risks and digitalization, such a profile of organizational culture is very useful in establishing what kind of leadership attributes can be most valuable, which behaviors are most likely to be perceived as correct and rewarded. what kind of management style will prevail. However, in addition to the market type, the organizational culture of an innovation-oriented enterprise should be characterized by an average level of expression of clan, market and adhocratic types of culture. The clan type of organizational culture should remain the second most dominant, its score has not changed. Therefore, it is expedient for the management of the model enterprise to continue to focus attention on preserving the values of the collective spirit, a healthy psychological climate, and the development

of each employee's personality.

Let's move on to the third stage of evaluating the organizational culture of an innovatively oriented enterprise – a comparative analysis of the constructed profiles of the organizational culture. Building the current and desired organizational culture profiles is not an end in itself for evaluating the organizational culture of an innovation-oriented enterprise. At the preliminary stage of the assessment, the current and desired profiles of the organizational culture of the innovation-oriented enterprise were analyzed according to the parameters of the type, the strength of the dominant types of culture, the homogeneity and coherence of the organizational culture. At the third stage of the assessment, we will move on to a comparative analysis of the constructed profiles of the organizational culture of an innovatively oriented enterprise.

Comparison of profiles of the current and desired organizational culture of an innovatively oriented enterprise. For greater visibility, it is advisable to plot the current and desired profiles of the company's organizational culture on one diagram. Deploying both profiles of organizational culture on the same chart allows you to compare the extent to which the current culture matches the desired one, and also provides an opportunity to determine exactly what needs to be changed to achieve compliance.

To quantitatively compare the profiles of the organizational culture of the model enterprise, we will calculate the deviation of the estimates of the alternatives of the desired and current culture (table. 3).

*Table 3*

**Deviation of assessments of the profile of the desired organizational culture of a model innovation-oriented enterprise from the current profile of the culture**

Profile of the current organizational culture		Profile of the desired organizational culture		Deviation of average scores $\Delta$ (column 4-column 2)
Alternative	Average rating of the alternative	Alternative	Average rating of the alternative	
A	22	A	22	0
B	9	B	15	+ 6
C	21	C	41	+ 20
D	48	D	22	- 26

*Source: calculated by the authors*

According to the results of the calculations in the table. 3 we can see that due to a decrease in the assessment of the hierarchical type of culture by 26 points, there was an increase in the assessment of the adhocratic type of culture by 6 points and the market type of culture by 20 points, the

assessment of the clan type of organizational culture in the desired profile remained unchanged. So, as a result of shifting the profile of the desired organizational culture relative to the profile of the current culture, there was a change in the dominant type of organizational culture of the model innovation-oriented enterprise – from the hierarchical type (48 points) in the profile of the current culture to the market type (41 points) in the profile of the desired organizational culture of the enterprise. Note that the shift in the dominant type of organizational culture took place vertically – hierarchical and market types of culture are not opposed to each other, since they do not oppose each other diagonally, but are vertically adjacent (along the axis "Stability and control"), and therefore the change in the dominant type of culture is not should cause a serious confrontation of values and resistance among employees. As a result of comparing the profile of the current and desired organizational culture of a model innovation-oriented enterprise, significant differences between these profiles were revealed.

During the analysis, the following tasks were identified, the solution of which will contribute to the reorientation from the existing hierarchical to the desired market organizational culture: the need to change the emphasis in the activities of the model enterprise from internal focus and integration to external focus and differentiation in combination with the necessary level of stability and control; the need for senior management to review formal rules and procedures – their qualitative and quantitative changes, improvement of the organizational structure of the model enterprise and reduction of its "bureaucratization"; the need for the company's management to focus on achieving results, fulfilling tasks, competitive pricing and market leadership; the management of the enterprise should continue to focus attention on preserving the values of the collective spirit, a healthy psychological climate and the development of the personality of each employee; the need for top management to encourage innovativeness, innovation, personal initiative and freedom of the company's employees, as well as directing the team to a dynamic, new, innovative direction of work.

A comparative analysis of the organizational culture profiles of an innovatively oriented enterprise with the proposed averaged profiles confirmed and substantiated the need to change the current enterprise culture: reorientation to a new dominant type – a market organizational culture (by reducing the dominance of the hierarchical type in the current corporate culture of the enterprise). In addition, when making changes to the organizational culture of an innovatively oriented enterprise, it is important to preserve the strength of the manifestation of the clan type of culture and slightly increase the strength of the manifestation of the adhocratic type of organizational culture.

Improving the organizational culture will provide an opportunity to



strengthen the processes of organizational citizenship formation within the framework of personnel development management of an innovatively oriented enterprise in the context of the security management of personnel development, migration risks and digitalization.

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# **MARKETING MANAGEMENT OF STAFF DEVELOPMENT OF AN INNOVATION-ORIENTED ENTERPRISE IN THE CONDITIONS OF DIGITALIZATION, DYNAMIC CHANGES AND SECURITY CHALLENGES**

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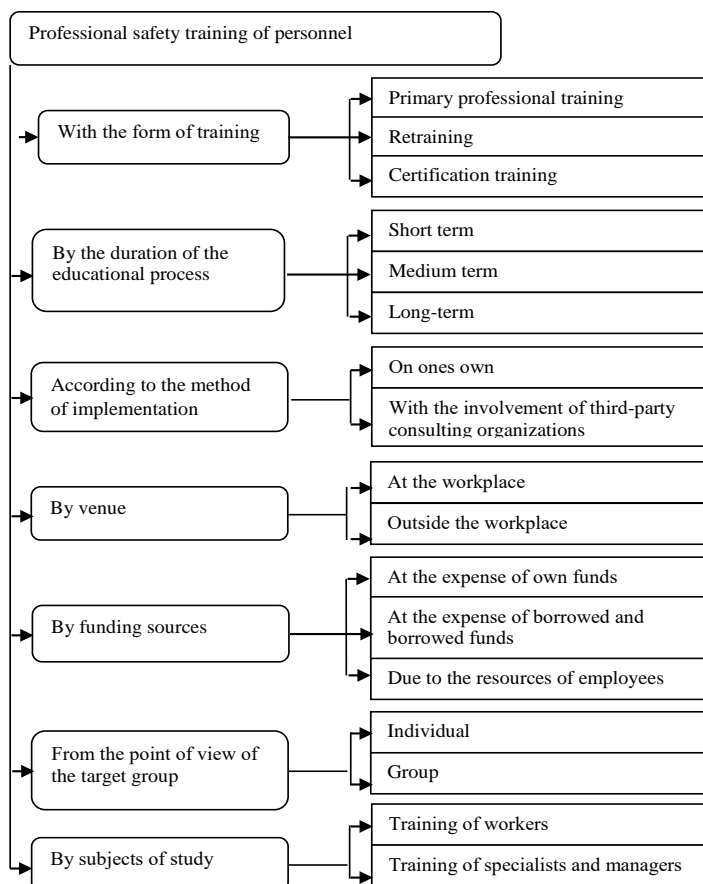
Under the conditions of the post-industrial society, the development of intellectual, knowledge-intensive technologies, the role of the human factor in economic activity is growing. Taking this into account, the means of achieving a high level of security competitiveness of any innovation-oriented enterprise is the search for hidden reserves of increasing the effective activity of personnel, which is realized, first of all, through the establishment of a system of its continuous development and marketing.

In turn, marketing management of employee development becomes a central link of management and a leading factor in the success of an innovatively oriented enterprise of digitization, dynamic changes and security challenges both on Ukrainian and global markets. It is advisable to classify the professional training of personnel taking into account a number of classification features (Fig. 1).

In our opinion, from the point of view of the set goal, the marketing assessment of personnel can be carried out in various directions, among which it is worth highlighting:

- assessment of the level of labor adaptation of employees;
- evaluation of the effectiveness of educational activities;
- personnel evaluation for the purpose of forming a reserve of managers;
- assessment of the suitability of the employee's qualifications for the position held by him (attestation), etc.

The evaluation results are important for improving the programs of a specific training event, as well as for the further planning of professional training of employees and the development of the system of continuous education of personnel of an innovation-oriented enterprise.



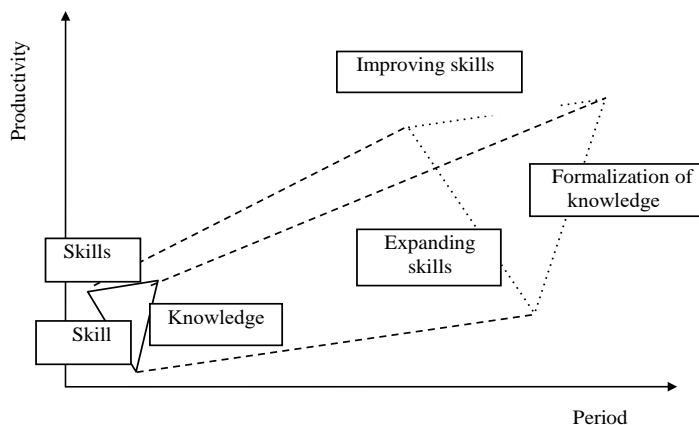
**Fig. 1. Classification of professional training of personnel of an innovatively oriented enterprise**

*Source: developed on the basis of [4; 10]*

The result of purposeful development of personnel is an increase in labor productivity (Fig. 2).

In practice, the necessary level of personnel development is determined by the requirements for increasing labor productivity, which changes with the development of the production system. In the last century, labor productivity was increased through investments in new equipment and improvement of work organization methods. In the conditions of digitization, dynamic changes and security challenges, the improvement of personnel development management of an innovatively oriented enterprise is aimed at increasing labor productivity by investing capital in personnel training, creating a

reserve of personnel, and introducing new principles of labor organization and marketing [1].



**Fig. 2. Interrelationship of personnel qualification characteristics, labor productivity and marketing development of an innovatively oriented enterprise in the conditions of digitalization, dynamic changes and security challenges**

*Source: developed on the basis of [2; 8-9]*

To establish an effective system of marketing management of personnel development, all the above-mentioned components of this process (adaptation, professional training, career advancement and evaluation of employees) must be used in a relationship and interaction, organically combining with the motivation of employees and corresponding to the strategic line of development of an innovatively oriented enterprise.

Under the conditions of the growing role of the human factor in the modern production process, one of the most important tasks of modern management systems is the development of employees' abilities in order to ensure a high level of safety competitiveness and profitability of innovative Ukrainian enterprises. In this regard, there is a need to develop new approaches to management decision-making, as well as the latest effective technologies, means and methods of professional development of personnel in conditions of aggressive marketing.

It is possible to distinguish three main features that unite most of the definitions of this category and are the basis of the process of marketing personnel management, namely:

- 1) attitude towards human resources as a source of income;
- 2) creation of space for activity and opportunities for development for each employee so that he can make his contribution to the common cause;

3) integration of personnel and social policy of the enterprise into its general strategy.

In the conditions of digitalization, dynamic changes and security challenges, the main component of marketing personnel management of an innovatively oriented enterprise is the creation of conditions for expanding knowledge, improving qualifications, continuous self-improvement and self-development of employees. The growing role of scientific knowledge in society, the development of science-intensive, intellectual technologies requires flexible and adaptive use of human resources of an innovatively oriented enterprise, increasing the creative and organizational activity of employees, and the formation of a humanized organizational culture [3]. Taking this into account, the problems of modernizing classic systems of marketing management with personnel development processes and introducing new management models focused on the continuous development of the intellectual, cultural and creative potential of employees of innovatively oriented enterprises are of particular importance in modern production. Effective management of personnel development is the main factor in the future success of any enterprise.

Considering the fact that most of the mentioned factors fall simultaneously in relation to each of the above qualification signs, let's consider in more detail the sign of economic content, since it is it that exerts the most significant influence on the processes of marketing management of personnel development in the conditions of digitalization, dynamic changes and security challenges. The methods of labor organization used by an innovatively oriented enterprise have a significant influence on the marketing management of personnel development. Increasing the productivity of personnel requires enriching the content of their activities through the diversification of performed functions, since highly specialized repetitive operations cause fatigue and loss of interest.

In order to establish an effective system of marketing management of personnel development, in addition to the above, psychophysiological factors that require knowledge of the special characteristics of the human body should also be taken into account. The need to identify the hidden capabilities of personnel and reserves of the human body requires appropriately qualified managers who could manage these processes. By using appropriate mechanisms of influence on the employee's physical and intellectual reserves, it is possible to use his natural capabilities that are not revealed in a normal situation. At the same time, it should be noted that effective marketing management of personnel development requires taking into account the combined integrated impact of the analyzed factors, and not each of them in particular. After all, individual factors combined into a system give it a new quality, that is, create a so-called synergistic

effect, which is higher than the sum of the effect of separate, independently acting elements. The cumulative effect increases if the system of marketing management of personnel development is organically "integrated" into the general strategy of marketing management of innovatively oriented enterprises [5]. In this regard, strategic issues of personnel development are of particular importance.

The strategy of continuous personnel development meets the needs of the time to the greatest extent, because it implements the concept of continuous training of employees and provides an opportunity to create a favorable environment in which they would like and be able to use their own potential and improved abilities. Individual innovation-oriented enterprises use a marketing strategy aimed at developing the individual efficiency and potential of management personnel only. The choice of this variant of marketing management of personnel development is justified by the fact that the ability of an innovatively oriented enterprise to effectively implement any strategy depends, first of all, on the level of development of the abilities of managers at all levels. Individual innovation-oriented enterprises focus their attention on the importance and expediency of self-development of employees. At the same time, they determine the directions of such self-development in relation to the acquisition of the necessary knowledge, abilities, skills and types of behavior, stimulating employees with the help of economic and non-economic methods of motivation.

Unfortunately, the above-mentioned strategies are used today by a small part of Ukrainian innovation-oriented enterprises, as they require significant expenditure of financial resources. The majority of Ukrainian innovation-oriented enterprises do not pay enough attention to personnel development processes and are inclined to attract "ready-made" workforce with the necessary qualifications, or provide personnel training directly during work or as needed. That is, learning happens spontaneously, chaotically and only in those cases when it is absolutely necessary. This approach is unjustified, as it does not provide an opportunity to establish an effective system of marketing management of personnel development. In the absence of an independent personnel development management department, this function can be considered as a collective duty or the job duty of one person. However, if the HR manager is the only person responsible for employee development, training becomes one of many competing needs that rely on limited resource provision [2; 6; 7; 11].

An alternative to independent marketing management of personnel development for innovatively oriented enterprises is the involvement of third-party consulting organizations that specialize in managerial aspects of the development of enterprise employees.

Therefore, forming its own unique strategy for personnel development

of an innovatively oriented enterprise, each enterprise, first of all, faces the problem of choosing between several possible options: marketing management of personnel development in-house (using its own specialists in this sphere or through the creation of a corporate training center); using the services of consulting or outsourcing companies. The choice of one of the proposed options is very important, because it is a determining factor in the effective work of both individual employees and enterprises in general. Let's consider in more detail the individual advantages and disadvantages of using internal and external specialists in the field of employee development in the context of the possibility of building an effective system of marketing personnel management of an innovatively oriented enterprise (table. 1).

*Table 1*

**Advantages and disadvantages of using the services of external consultants and internal specialists for security management of personnel development of an innovatively oriented enterprise**

	External consultants	Internal consultants
Advantages	independence; objectivity; novelty of recommendations; use of past experience; availability of specialists from all areas of personnel management	availability of information; loyalty to one's own organization; lack of distrust of staff; knowledge of the specifics of the organization's work and internal problems
Disadvantages	significant time spent on studying all aspects of the organization's activities to solve a separate problem; the possibility of non-acceptance and resistance on the part of the staff; the presence of risks associated with the choice of a consulting company	the influence of interpersonal relationships on the objectivity of decision-making; lack of experience in solving similar problems in other companies

*Source: formed by the authors*

The most significant advantage of using the services of external specialists in the field of marketing management of personnel development is, first of all, the saving of financial resources, which is ensured due to the high professional competence of outsourcing and consulting companies. Additional factors that contribute to the reduction of costs of innovatively oriented enterprises in the conditions of digitalization, dynamic changes and security challenges when using the services of external specialists are the action of the effect of scale (representatives of the consulting company mainly work on several projects at the same time, which allows saving resources). Also, thanks to the effect of scale, the consulting company can place its main facilities in regions with cheaper labor. However, for some innovation-oriented enterprises in the conditions of digitization, dynamic

changes and security challenges, the creation of a geographically remote personnel administration center is economically unprofitable.

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## **MODERN MODELS OF ADAPTIVE MANAGEMENT FOR THE ENTERPRISE'S DEVELOPMENT**

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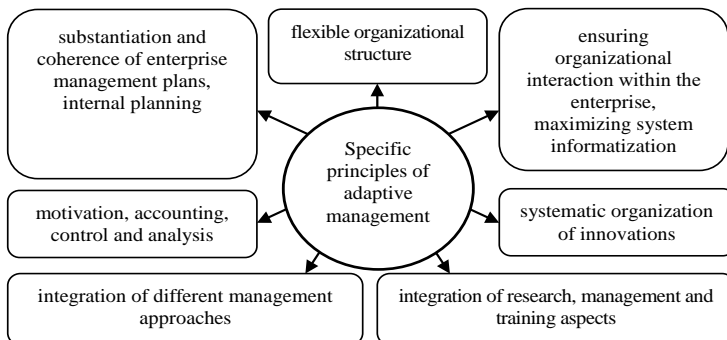
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A characteristic feature of the economic development's current stage was the high instability of the economic environment, which leads to instability of the organization's internal environment. It was often difficult for managers of modern business entities to make decisions: on the one hand, they can use the accumulated experience that ensures an increase in the efficiency of the using an internal enterprise's resources and gives high results in stable operating conditions; on the other hand, they can focus on the development of the environment, take into account globalization aspects, and move to management systems that were set up to use the opportunities of this environment. It should be noted that prolonged exposure to high uncertainty and risk forces managers of organizations to revise their behavioral strategies in the direction of finding management systems that would provide the enterprise with high adaptive capabilities to respond of various external changes. Instability, in turn, seems to be a form of manifestation growing qualitative uncertainty, and therefore, an enterprise must constantly monitor any changes in the factors of the external macro- and microenvironment with one goal: to manage the transformational trends of the internal and external environment, which necessitates a constant search for new, more effective theories, methods and tools for managing the activities of modern organizations. One of the innovative tools that allow implementation these processes was the using of adaptive management and its various models [3; 7; 11].

It should be noted that adaptive management was a separate type of management, namely, flexible, innovative enterprise's management capable of adapting to the new competitive and internal environment, with changes in plans and models depending on the situation (during the period of the enterprise's recovery from the crisis or when introducing innovations or in the case of organizational changes) using the latest management tools and methods. In addition, adaptive management accumulates knowledge about the state and development of the management system, methods and tools for its application in systemic objects, and allows moving from empiricism

in the management theory and practice to professionalism in the activities of managers, i.e. to the scientifically based performance of management activities. Considering the structure of the conceptual component of adaptive management, the following elements should be distinguished:

- the goal of adaptive management is to find the most effective options for making and implementing decisions aimed at the functioning and development of enterprises in a competitive environment;
- the task of adaptive management is to realize the goal of enterprise's functioning and development, based on the methodology formation, adaptive management process organization, development of theoretical and practical mechanisms for implementing management to stabilize the position of an industrial enterprise in a competitive environment, assessment of the management adaptability model based on the enterprise's ranking, using the adaptive model parameterization;
- the main method of adaptive management systems development is the analysis and generalization of enterprise's practical experience, that despite the competition in the crisis, turn the work on the development of management systems into highly intellectual work;
- the essence of the adaptive management process at the enterprise is considered as a sequence of the first of the three strategic management system formation phases. Therefore, adaptive management is seen as a way to ensure the fulfillment of the strategic goal, namely, the survival of the organization in a complex and uncertain environment;
- the adaptive management system is focused on achieving the strategic enterprise's goals and involves the application of specific principles in the management process (Fig. 1) [1; 4; 5; 7; 8; 10; 11].



**Fig. 1. Specific principles of the adaptive management system**

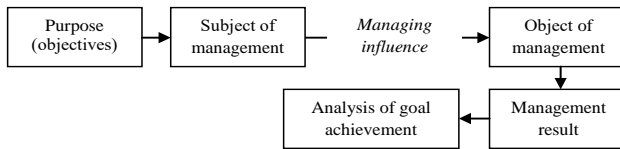
*Source: developed on the basis of [2; 4; 7; 10; 11]*

Since the basic provisions of the concept and methodology of adaptive management, as well as the categorical apparatus, were in the stage of active

development and have not been fully formed, the tasks of specifying and systematizing such theoretical and methodological categories of adaptive management as object, subject, functions, laws, principles and methods arise.

In order to identify and take into account the specifics of adaptive management, it is advisable to present the main types of management systems:

- open management (open-ended) – involves setting a management goal, according to which controlling influences were determined to achieve it. The structure of such management is the simplest (Fig. 2).

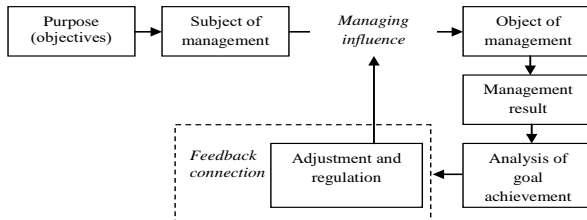


**Fig. 2. Structure of the open (open) management system**

Source: developed on the basis of [2; 3; 5; 9; 10]

Under this management, if the result deviates from the target value, an analysis was carried out to identify the causes of the deviation. At the same time, the task of correction wasn't set;

- management with feedback (closed-loop) also involves setting a management goal to achieve which controlling influences were carried out, but unlike the first type, this type of management provides for the possibility of adjusting controlling influences depending on their impact on the final result (Fig. 3).



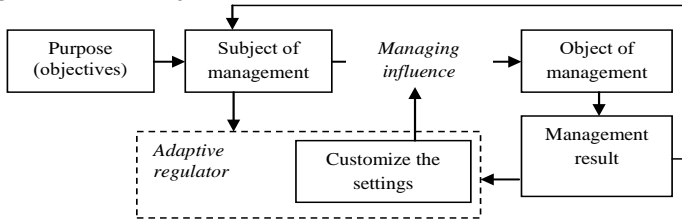
**Fig. 3. Structure of the closed-loop (feedback) management system**

Source: developed on the basis of [2; 3; 5; 9; 10]

The adaptive management structure provides for the development of management object's model, which was used to analyze possible management results, i.e., to develop a forecast of the results of management impacts depending on changes in certain parameters of the model (Fig. 4).

Therefore, adaptive control was a set of interrelated and interacting control methods that allow to implement control actions that can change

the parameters of the controller or the structure of the controller depending on changes in the parameters of the control object or external disturbances affecting the control object.

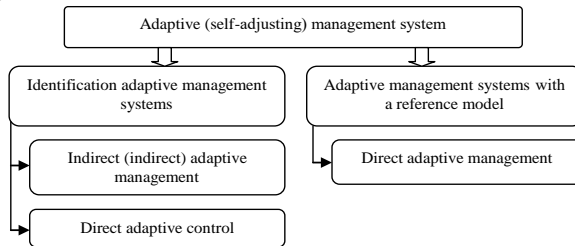


**Fig. 4. Structure of the adaptive management system**

*Source: developed on the basis of [1; 6; 7; 8; 11]*

The effectiveness of adaptive control was ensured by accurately building a control object model that takes into account not only the key parameters of the object itself, but also one that adequately takes into account the existing factors of the operating environment.

Generalizing the classification of adaptive control systems, it was advisable to distinguish direct and indirect adaptation, and, accordingly, direct and indirect adaptive control, which depends on how the adaptive algorithm works (based on the model of the controlled system or not) (Fig. 5).



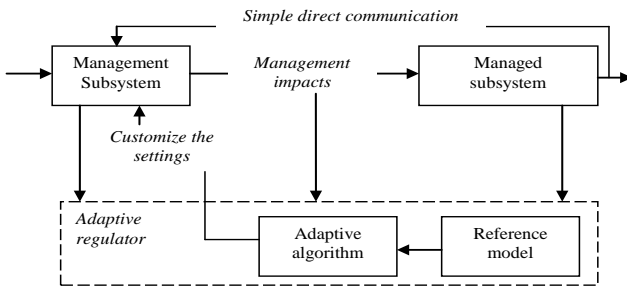
**Fig. 5. Generalized classification of adaptive management**

*Source: developed on the basis of [1-5; 7-9; 11]*

Adaptive systems with a reference model operate in accordance with the principle of direct adaptive management (Fig. 6). During direct adaptation, some reference model was set and tasks are formed to minimize the difference between the outputs of the object and the model by changing the controller parameters. In this case, the desired controller parameters were estimated directly without identifying the object model. There are various approaches to solving such a problem: using the method of gradients and based on the method of least squares [1-11].

In addition, studies on solving such adaptive control problems distinguish

between normalized and non-normalized approaches. In problems with external disturbances, robust estimation methods were used during direct adaptation: signal normalization, projection method, and estimation with a zone of insensitivity. In problems with objects that change their dynamics significantly, multimodel adaptive control with switching was used. Adaptive systems with a reference model at the present stage of adaptive management theory development were a well-developed class of adaptive systems that are most widely used in practical implementations and widely presented in the scientific literature [1-3; 6; 8-10].



**Fig. 6. Adaptive management system with reference model**

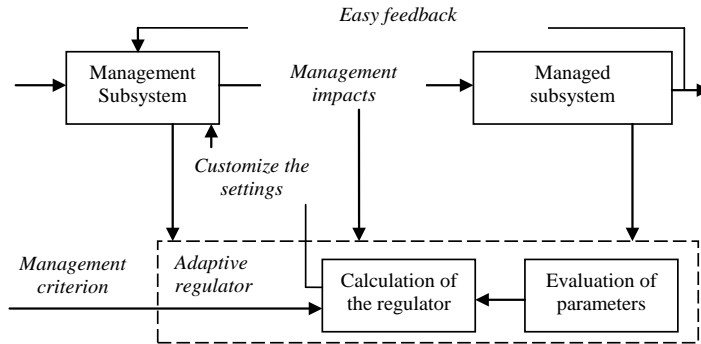
*Source: developed on the basis of [1; 4; 6; 7; 8; 10; 11]*

Instead, the implementation of the identification adaptive management system can be carried out according to an indirect or direct scheme (Fig. 7).

In the case of an indirect adaptive management scheme, the parameters of the controlled system were estimated, on the basis of the controller parameters which are calculated. When using a direct adaptive management scheme, the controller parameters were estimated using the properties of the feedback system. The indirect adaptive management scheme is usually called an explicit algorithm, and the direct scheme, respectively, an implicit algorithm. Indirect adaptation was essentially a combination of the procedures for identifying the parameters of an object and synthesizing a controller for it. This approach provides a very wide variety of adaptation methods. Both variants of the previously mentioned methods (gradient, least squares) and others (frequency, instrumental variables, state subspace method, etc.) were used for identification. Instead of searching for the controller parameters, the model of the control object was identified, which is used to determine the controller. Different methods were used for synthesis: variants of the pole positioning, method with the use of optimization schemes (LQ controllers) [1; 4; 5; 8; 10; 11].

Therefore, the approach to managing business entities that allows them to respond flexibly to changes in the environment and adjust their functioning to the prevailing conditions to ensure the greatest efficiency

of production and economic activity was defined in management theory as adaptive. At the same time, the level of development of management in domestic entrepreneurship is such that not every organizational structure was characterized by adaptability, not to mention complex and costly development processes.



**Fig. 7. Identification adaptive management system**

Source: developed on the basis of [2; 5- 8; 10; 11]

However, the management development of the entrepreneurial structures should be based on an adaptive approach, since development primarily involves adaptation to external conditions of functioning through the internal environment transformation, management structure and other factors that the management of the business entity can directly or indirectly influence.

Thus, adaptive management was a systematic process of continuous improvement of management strategy and practice by learning from the results of program implementation.

The main advantage of adaptive management was the fact that managers can manage under uncertainty and «learn by doing». As adaptive management evolves, managers develop a deeper knowledge and understanding of their system and determine which management techniques work best under different conditions.

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## **STRATEGIC SECURITY MANAGEMENT OF STAFF DEVELOPMENT OF AN INNOVATION-ORIENTED ENTERPRISE UNDER THE CONDITIONS OF MIGRATION RISKS AND DIGITALIZATION**

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Strategic security management of personnel development of innovatively oriented enterprises and organizations in conditions of migration risks and digitization is expedient to start with the analysis of profiles of the enterprise's

organizational culture. If a certain amount of discrepancy between the current and desired culture profiles is obtained, it gives a clear idea on which issues to focus attention on. In order to determine the core provisions and principles that describe which changes are expected and which are not expected as a result of the shift of emphasis in specific types of organizational culture of the enterprise, it is advisable to compile stories-illustrations to support the key values, desired orientation and principles of behavior that characterize the principles strategic security management of personnel development of innovatively oriented enterprises and organizations [1-10].

Stories-illustrations should characterize the core features of safety management of personnel development of innovatively oriented enterprises and organizations – corporate values, norms of behavior and moral principles that are generally accepted and shared by all employees of the enterprise.

In order to increase the effectiveness of the implementation of changes in the security management system of personnel development of innovatively oriented enterprises and organizations, it is necessary to develop a set of works to support the development of their organizational culture.

Ideally, it is necessary to create "cells" of organizational culture at innovatively oriented enterprises and organizations. Organizational culture working groups should be organized at enterprises, in which 2-3 organizational culture specialists should work. The organizational culture working group should systematically and constantly deal with issues of forming, evaluating, developing and managing the organizational culture of the enterprise.

Measures to support the development of organizational culture in conditions of migration risks and digitalization should be developed and implemented systematically and planned, the result of the implementation of these measures should be the formation in the eyes of employees of a unified image of the organizational culture of an innovatively oriented enterprise or organization.

We offer the following typical list of measures to support the development of the safety management system and personnel development of innovatively oriented enterprises and organizations:

Initiate conferences of labor teams of innovatively oriented enterprises and organizations, at which the regulatory framework for organizational culture will be submitted for approval and discussion: Code of organizational culture, Code of business conduct of employees, Code of relations with clients and business partners.

To carry out explanatory work and organize activities for training the workforce in the basics of organizational culture, in particular, the norms and rules of business ethics and behavior at innovatively oriented enterprises and organizations; norms and rules of appearance.



Control the appearance of employees of innovatively oriented enterprises and organizations, apply methods of punishment for violators.

Effectively apply not only in the festive, but also in the everyday life of the workforce, the core elements of the organizational culture of innovatively oriented enterprises and organizations: corporate colors, symbols, company logo, song and anthem of the enterprise.

Actively promote the invisible elements of the company's organizational culture among the employees of innovatively oriented enterprises and organizations: the mission, the main purpose of the activity, the development strategy, the basic principles of daily work, the main values and corporate holidays of the enterprise.

Organize conferences of the labor team to discuss problems, achievements and consider proposals for the development of organizational culture at innovatively oriented enterprises and organizations.

Organize "reception times" for employees of innovatively oriented enterprises and organizations in order to conduct consultations on the main aspects of organizational culture and accept proposals.

Develop and propose measures to the top management to preserve the values of the collective spirit, a healthy psychological climate, and the development of each employee's personality.

Develop a system of encouraging innovativeness, innovation, personal initiative, participation, involvement and freedom of employees of innovation-oriented enterprises and organizations.

To develop proposals for the top management of innovatively oriented enterprises and organizations regarding the revision of formal rules and procedures – their qualitative and quantitative changes, improvement of the organizational structure of the enterprise and reduction of its "bureaucratization".

Continue work on creating a history-illustration of the labor achievements of employees.

It is important to remember that the transformation of organizational culture will not happen if absolutely all members of innovation-oriented enterprises are not involved in the process, if they do not create their propensity for change and active support.

In the future, when solving the tasks of supporting strategic security management of personnel development of innovatively oriented enterprises and organizations in the conditions of migration risks and digitalization, it is necessary to take into account the determining role of three factors:

Personnel selection. The selection of employees at innovation-oriented enterprises and organizations should pursue the goal of identifying and recruiting people with knowledge, skills and abilities that allow them to successfully perform their work. In the final selection of employees,

preference should be given to those who are more compatible with the organizational culture and the system of values identical to the corporate ones.

Activities of the chairman and board members of innovatively oriented enterprises and organizations. The head and members of the board of enterprises and organizations, based on their own ideas, as well as ideas borrowed from reliable sources, develop a vision and set the general direction of their future activities.

The management of the enterprise should become a model of morality and ethics for the entire workforce of innovatively oriented enterprises and organizations.

It is then that the management's actions will contribute to the formation and strengthening of the organizational culture and will not cause resistance among the employees of this enterprise and organization.

Cultural adaptation and its main stages. No matter how effective the recruitment processes are, new employees cannot immediately familiarize themselves with the organizational culture of the enterprise or organization and behave accordingly. That is why it is necessary to help new employees in every possible way to adapt to the organizational culture of innovatively oriented enterprises and organizations.

Therefore, the implementation of measures to change and support the strategic security management of personnel development of innovatively oriented enterprises and organizations in the conditions of migration risks and digitization of an effective and strong organizational culture based on the strengthening of interpersonal and intergroup interaction.

To increase the effectiveness of strategic security management of personnel development of innovatively oriented enterprises and organizations, we offer:

- practice the work of the chairman of the board with a coach;
- to practice trainings of managers regarding communications, sales, personal growth;
- to introduce awards for rationalization;
- organize contests for better solutions to technological problems;
- to allow the use of the company's equipment outside working hours with payment for electricity and materials.
- In this way, the level of conflict and the amount of unused working time (including absenteeism) will be reduced. When improving the management of the socio-psychological subsystem, labor productivity increases by 25%.

The personnel and innovation potential management system of the enterprise, like any other management system, has the following qualities:

- interconnection and interaction of all system components;
- integrity, coherence and synchronicity in time;

- consistency with the mission and goals of the enterprise;
- adaptability, flexibility in relation to environmental changes;
- autonomy of elements of the organizational structure of management functions;
- multi-functionality and multi-facetedness, realized through the ability to readjust, reorientate;
- updates accordingly regarding environmental changes.

The task of the personnel innovation potential management system is to effectively manage the process of development, implementation, production and commercialization of innovations with the coordination of relevant decisions with the management systems of operational (production), marketing, financial and personnel activities.

The personnel and innovation potential management system is in a constant relationship and interdependence with other systems in the enterprise. In an enterprise that forms personnel and innovation potential, a necessary condition is the constant assessment of the safety management system by this potential, in order to avoid unplanned costs. It is also important to evaluate this system in relation to the management systems of other types of activities.

That is, it is necessary to evaluate the costs and their expediency for the functioning of each system. In the process of functioning of systems and their interaction, it is important to monitor this interaction in order to prevent unwanted consequences.

During the interaction of various management subsystems of the enterprise, the employees of these systems also interact with each other. To a certain extent, the result of their cooperation depends on the qualification and competence of the managers. Staffing of the management system with innovative potential is the necessary quantitative and qualitative composition of management workers, which is determined by various methods of calculating the number of workers in the management system.

The qualitative composition of workers, i.e. their composition by categories, professions, specialties, qualification level is calculated based on the professional and qualification distribution of works, recorded in the production and technological documentation of the work process.

Due to the same number of personnel, we get a higher gross income, the quality of work is better, control costs are reduced, and labor productivity is higher. Fewer shortages, thefts, production conflicts, technology violations. Management, due to the trust factor, can increase the level of fund armament, counting on careful treatment of funds and resource conservation (Table. 1).

A comparative assessment of the components of the effectiveness of strategic security management of personnel development of innovatively

oriented enterprises and organizations in the conditions of migration risks and digitalization demonstrates significant opportunities (Fig. 1). *Table 1*

**Modeling the effectiveness of strategic security management of personnel development of innovatively oriented enterprises and organizations in conditions of migration risks and digitalization**

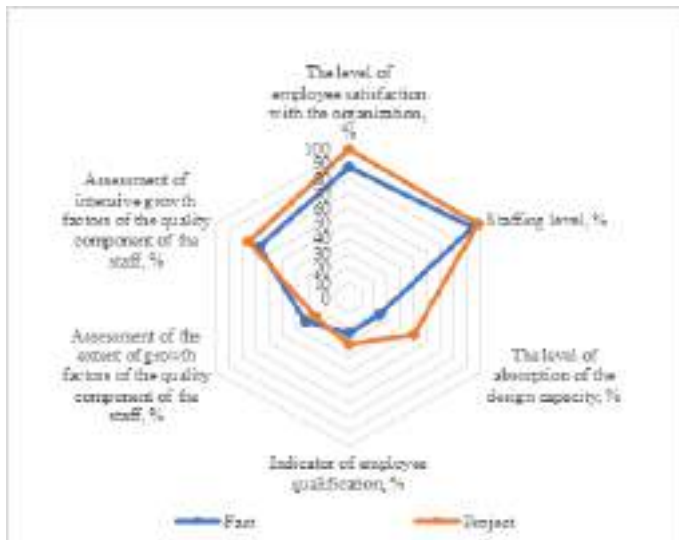
Indicators	Fact	Project
The degree of balance of jobs and the number of personnel, %	69,30	77,40
The level of employee satisfaction with the organization, %	88	100
Staffing level, %	94	98
The level of absorption of the design capacity, %	22,9	50,0
Staff turnover rate, %	29,24	20,0
Indicator of employee qualification, %	24	31
Assessment of the extent of growth factors of the quality component of the staff, %	32	25
Assessment of intensive growth factors of the quality component of the staff, %	68	75
Loss of working time, man-hours.	63644	58932
The cost of compensation for the lost 1 man-hour for the enterprise, hryvnias.	45,78	45,78
The possibility of saving the loss of working time during the implementation of the proposed measures, %	-	25
The economic effect of the implementation of organizational culture based on the principle of organizational citizenship, thousand UAH.	-	215,7
Costs for implementing organizational culture based on the principle of organizational citizenship, thousand UAH.	-	184,4
Efficiency coefficient	-	1,17

*Source: calculated by the authors*

Thus, the choice of a management strategy involves the formation of a personnel management policy, management tools and technologies for effective planning of the need for personnel, professional development, safety and motivational factors.

Optimization of the incentive system for the existing motivational profile of the enterprise or organization, in order to ensure the most constructive behavior of existing employees. According to estimated data, this system will lead to an economic effect of 215.7 thousand hryvnias from the implementation of measures to improve the personnel management system. for every 10 employees with labor productivity 800-1000 thousand UAH/person per year. The efficiency coefficient for the presented projects will be 1.17 (expenses of UAH 184.4 thousand for every 10 employees with labor productivity of UAH 800-1000 thousand/person per year). Therefore,

the complexity of the system of industrial relations between people who are part of the labor team requires both economic and organizational-administrative and social methods.



**Fig. 1. Comparative assessment of the components of the effectiveness of strategic security management of personnel development of enterprises and organizations in conditions of migration risks and digitalization**

Source: built by the authors

A rational combination of these methods is the key to an effective system of strategic security management of personnel development of innovatively oriented enterprises and organizations in conditions of migration risks and digitalization.

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## **SAFE MANAGEMENT OF THE SOCIO-ECONOMIC EFFICIENCY OF STAFF DEVELOPMENT OF AN INNOVATION- ORIENTED ENTERPRISE UNDER THE CONDITIONS OF GLOBALIZATION AND DIGITALIZATION**

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The prerequisite for the formation of competitive advantages in innovation-oriented enterprises in the conditions of globalization and digitalization, the improvement of their financial stability, the quality of

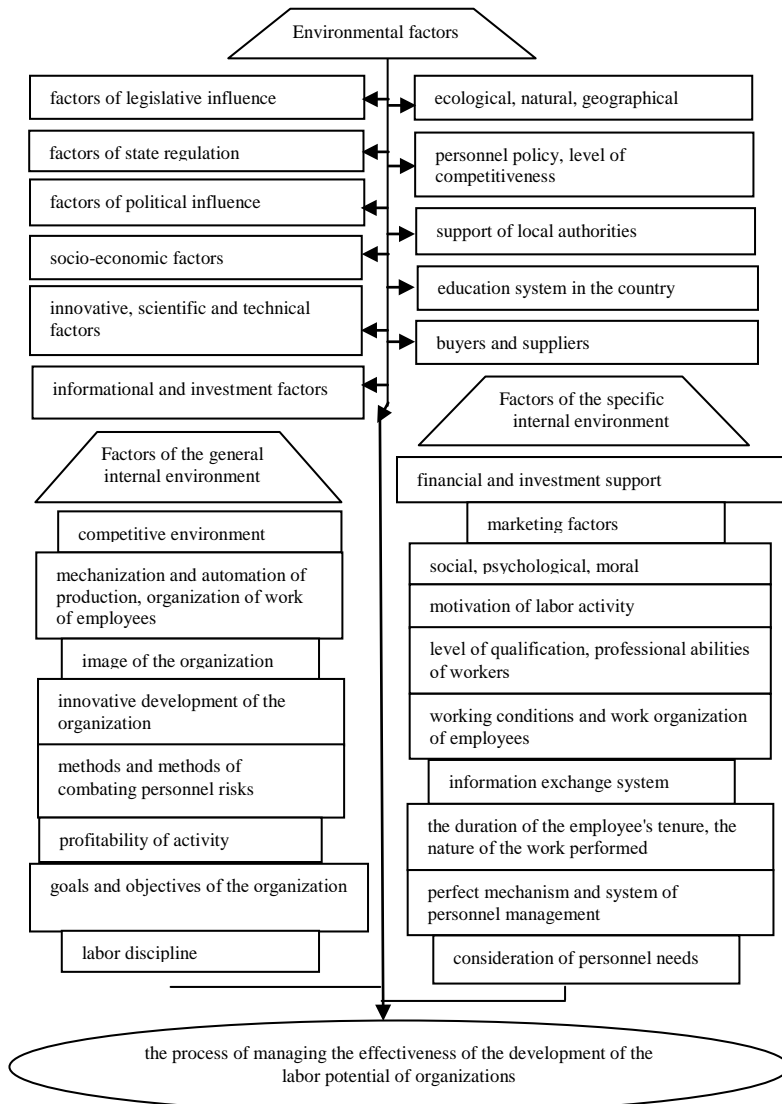
manufactured products, the volume of goods sold, the growth of profits and the satisfaction of consumer needs both in the domestic and foreign markets is the solution to the problem of effective use and safety management of socio-economic efficiency of personnel development. In addition, an urgent problem for any innovation-oriented enterprise is the provision of stable development, functioning, improvement of performance indicators, and personnel play a significant role in solving this problem.

Rational management and effective use of labor resources will contribute to the growth of labor productivity and, as a result, production volumes, expected financial results, reduction of costs, improvement of financial results of activities, general level of safety. It is the rational development of labor potential and its management that is an important factor that determines the level of security competitiveness, economic development of an innovatively oriented enterprise [1; 2]. Especially significant, under the conditions of deterioration of the results of the innovation-oriented enterprise, loss of competitive positions, increase in the likelihood of threats and risks, lack of support from state authorities, is the improvement of the process of managing the socio-economic efficiency of the development of labor potential. Therefore, economic growth, development, neutralization of environmental factors are possible on the basis of rational and safe use of labor resources. In this regard, the task of determining the essence of the concepts of personnel management, development of labor potential, scientific substantiation of the concept of managing the socio-economic efficiency of the development of labor potential in an innovation-oriented enterprise is relevant.

Along with the existing definitions of the concept of "socio-economic efficiency of labor potential development in an innovation-oriented enterprise" should be considered as a planning process; the organization of the work of employees, which is based on the application of management methods, methods, measures, principles aimed at the effective use of employees, their information support; creation of safe working conditions; labor stimulation; taking into account the effect of the market environment, threats, risks and guarantees an increase in work productivity; participation in collective decision-making and achievement of socio-economic effect; restoring the stability of functioning under the conditions of variability of the influence of factors of globalization and digitalization. This makes it possible to assess the effectiveness of the use and management of labor resources of an innovatively oriented enterprise.

Therefore, we singled out the most important factors of the influence of factors of the external environment, in particular globalization and digitalization, on the management of the socio-economic efficiency of the development of labor potential in innovatively oriented enterprises in

order to analyze the effectiveness of the development of labor potential and forecast the prospects for improving their management (Fig. 1).



**Fig. 1. Scheme of the influence of factors of the market environment on the safety management of the socio-economic efficiency of the personnel development of an innovatively oriented enterprise in the conditions of globalization and digitalization**

*Source: developed on the basis of [3; 7-10]*



Accordingly, with regard to the process of managing the socio-economic efficiency of the personnel development of an innovatively oriented enterprise and the analyzed approaches to the factors influencing personnel management, the main factors of the general internal environment affecting the personnel development were determined.

The factors of the competitive environment affect the innovation-oriented enterprise itself, the number of consumers of products, and among them the following should be highlighted:

- level of competition;
- level of product competition;
- product prices; production costs;
- features of entering the market;
- attractiveness and image of the organization;
- availability of substitute products;
- buyers.

The above affects wages, the attitude of managers towards employees, and working conditions. This affects the quality of the organization's products.

As for the factors of mechanization and automation of production, the organization of the work of employees, the following is meant:

- provision of the organization with modern equipment and technologies;
- equipping workplaces with high-quality safe equipment;
- scientific and technical armament of labor in order to facilitate the work of personnel, increase the efficiency of work.

Taking into account these factors of safety management of the socio-economic efficiency of personnel development of an innovatively oriented enterprise will allow to organize their work, increase control over the production of products, and increase the volume of production.

Such an approach to the formation of the process of safety management of the socio-economic efficiency of the development of personnel of an innovatively oriented enterprise provides the most complete consideration of influencing factors, their isolation, the study of the specifics of the functioning of organizations and is characterized by integrity, simplicity, unity, and will also contribute to increasing the efficiency of activities in the conditions of globalization and digitalization [4-6].

The main direction of improving the sequence of formation of this system is its development, taking into account the expediency of conducting safety management of the socio-economic efficiency of personnel development of an innovatively oriented enterprise, updating the management system, taking into account the peculiarities of the development of labor potential and market changes, possible problems in management, substantiating the expediency of using the system as a prerequisite growth of enterprise

profitability.

Today, every enterprise operates in dangerous competitive conditions. In the conditions of globalization, turbulence of the business environment and dynamic changes, the markets are saturated and diverse, which is why each company tries not only to maintain its positions (market share, sales volumes, profit), but also to improve them in a certain way due to changes in personnel, product, price, investment, marketing strategies and tactics. Quite significant results in ensuring safety competitiveness are achieved by those enterprises that implement innovations. Innovative activity involves the development, creation, proof of commercial use of innovations. Summarizing the review of literary sources [6; 8; 10] and our own research allows us to assert that innovative activity includes: adopting the best experience of leading domestic and foreign enterprises in solving production and economic problems, obtaining technologies and rights to the production of new types of products and using qualitatively new materials for licensing, franchising, leasing and other conditions; development of creative ideas, their transformation into prototypes, samples of innovative products, technologies; establishment of experimental and, depending on the type of product, single, serial or mass production of innovative products; dissemination on the market of innovative products, technologies, management innovations, as well as licenses and know-how.

The use of innovations in the conditions of globalization, turbulence of the business environment and dynamic changes allows with a high level of probability to increase the duration of the life cycle of both the organization in general and the technologies used and the products offered.

Also, the use of innovations by enterprises makes it possible to ensure stable positions on the market, reduce the cost of manufactured products and services provided, and increase the volume of sold products. The innovative development of the enterprise is often accompanied by the use of energy-saving equipment, new materials that are better than traditional ones in terms of quality parameters, automation of technological processes of manufacturing finished products. Innovations help the enterprise to optimize costs, achieve a decrease in the market price of goods and services.

That is, an enterprise that implements innovations has greater chances to acquire a high level of security competitiveness compared to other enterprises. It is important to choose the innovation that will provide the company with the greatest efficiency. Radical innovation is one such way that leads to economic growth through the creation of new business lines that bring new characteristics of goods and services to the market and can lead to the creation of completely new markets.

Enterprises involved in the innovation process are divided into [1; 2; 4]: 1) those who develop new ideas; 2) those who develop new ideas

and implement them in practice; 3) those who implement ideas developed by someone in practice; 4) those that fully or partially finance innovative projects. This classification should include enterprises that develop their innovations based on ideas developed by someone and implement them in practice, as well as those that are intermediaries in the innovation market.

The development of personnel and innovation potentials leads to an increase in the level of awareness of the company's workers about its goals, strategic and tactical development plans, trends in the industry, engineering-technological and managerial problems. Innovative activity prompts managers of the enterprise's management system to take clearly planned actions regarding the safe management of the processes of accumulation of innovative ideas, creation of innovative products and technologies, commercialization of innovations, including their transfer and diffusion. The management of innovative activity requires justification of the implementation of all innovations, especially those that should be the most successful in the future. This evaluation of innovations allows managers to choose and implement the innovation that will create a competitive advantage for the company in the market, as well as provide a level of income that will exceed the costs of its implementation. From the standpoint of the functional management approach, innovative potential is a specific function of managing an organization, which is realized through general management functions: planning, organizing, motivating management subjects to develop and implement innovative ideas, controlling and regulating the process of implementing plans for the development of personnel and innovative potential.

Making a decision on the introduction of an innovation, for example, mastering the production and bringing a new product to the market, requires a careful study of the market capacity, definition of the target segment, establishment of the stages of the life cycle of the new product, analysis of costs, forecasting of prices, volume of production and sale of the product, calculation of the economic effect of using innovations, evaluating the economic benefits of the enterprise from investing in innovative activities in comparison with the income it will provide and the costs that will be incurred. If the decision to introduce an innovation is economically justified, it is necessary to monitor the diffusion of the innovation, track the change in the level of innovativeness of the proposed product. Monitoring is necessary to identify the level of consumer reaction to price policy, the quality of innovative products, their service and warranty service.

The practical implementation of the sequence of formation in innovation-oriented enterprises can be successful under the condition that:

- creating a favorable climate for their implementation;
- coordination of work of management, management department,

personnel service (personnel service), security service;

- timely informing about the implementation of stages, which will make it possible to form and implement a management system and guarantee the rational development of labor potential, their abilities;

- creation of conditions for realization of labor potential;

- growth of financial indicators of innovation-oriented enterprises.

In general, the sequence of formation improved by the authors has both theoretical and practical significance, which consists in the formation of a system of safety management of the socio-economic efficiency of the development of personnel of an innovatively oriented enterprise and its practical implementation in its work for successful functioning in the conditions of globalization and digitalization.

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## **FEATURES OF THE BUSINESS ASSESSMENT OF THE ENTERPRISE'S PERSONNEL POTENTIAL BASED ON THE SYSTEM OF QUALITY INDICATORS**

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Increasing the qualitative component of the company's personnel potential involves evaluating employees. At the same time, it is important to evaluate not only each employee individually, but also the relationships in the team in order to find out what the personnel potential of the enterprise is as a whole.

Evaluating employees involves determining whether their business, professional and personal qualities meet the requirements of a certain position at the company. The results of the assessment are the basis for making decisions regarding hiring, promotions, ensuring internal transfers, organizing material and moral incentives, improving the management structure, monitoring the activities of the company's employees, etc. At the same time, before proceeding to the analysis of the features of the use of business assessment of personnel potential, it is necessary to examine the essence and content of this concept

Investigating the essence of personnel potential, we note that the concept of "potential" translated from the Latin word "potentia" means hidden opportunities that can become a reality in business practice thanks to work [1, p. 170]. Therefore, under the potential of the enterprise, it is appropriate to understand its potential opportunities to rationally use the resources available at the enterprise to ensure effective functioning under the condition of a high level of uncertainty in the external environment [2, p. 11]. Personnel is a set of qualified employees of the enterprise who have professional knowledge, skills, work skills and perform the tasks assigned to them.

Considering the concept of "personnel potential", N.S. Krasnokutska understands this category as a set of abilities and capabilities of personnel to achieve the goals of the long-term development of the enterprise [3, p. 112]. A similar opinion is held by O.V. Skoruk, who believes that personnel

potential is a set of potential abilities and capabilities of the company's personnel, which are used or can be used at a certain point in time to ensure the fulfillment of the tasks of the enterprise's long-term development and competitive advantages of the enterprise in the market of goods, services and knowledge. According to the author, the personnel potential of the enterprise is a factor of competitive advantage both in terms of personnel management and in relation to strategic management, since during its correct use any enterprise can achieve success in conditions of increased competition and increased risk of activity [4, p. 97-98].

Worth attention is the opinion of V.V. Bezsmeretna, who considers personnel potential as a set of qualitative and quantitative characteristics of the company's personnel, which include the number, composition and structure, physical and psychological capabilities of employees, their intellectual and creative abilities, professional knowledge and qualification skills, sociability and ability to cooperate, attitude to work and other qualitative characteristics [5, p. 49]. It is appropriate to agree with this position of the author, as she focuses on a comprehensive study of the personnel potential of the enterprise.

A somewhat similar opinion is held by T.M. Khayanok, who believes that the personnel potential should be considered as a set of individual, psychological, professional, qualification and other characteristics of the personnel of the enterprise, their complex of knowledge, abilities, skills, abilities, experience and reserve of opportunities that are involved in labor activity, taking into account the specifics of the industry for the realization of the set goals and objectives of production or the achievement of social effect [6, p. 66].

There is an opinion that personnel potential is the resource capabilities of workers, which they use to increase the efficiency of the enterprise's functioning [7, p. 68]. Such a definition does not quite accurately reveal the essence of this category, since it is not clear what exactly is meant by resource capabilities.

The conducted analysis of the study of the concept of "personnel potential" showed the presence of a significant number of different views on the interpretation of this term, which indicates its complexity and multifaceted nature. However, after summarizing the above definitions, it is possible to generalize that under personnel potential it is appropriate to understand the ability of employees to realize their potential opportunities and abilities in order to achieve effective development of the enterprise.

The experience of working with personnel at many enterprises shows that ensuring a high level of employee quality and creating a positive climate in teams are important factors in production efficiency and product competitiveness. Activation of innovative activity at the enterprise is

primarily the merit of its employees. New jobs are appearing, which requires highly qualified personnel for the enterprise, who are able to work in the conditions of new technologies. Today, there is a need to form a new effective system of work with personnel, a new personnel policy is needed, which should be implemented by professionals [8, p. 235-236].

The directions of employee evaluation may be different depending on the established goals and defined management tasks. Comprehensive assessment will create an opportunity to give an assessment to employees, based on subjective and objective factors, to assess the business qualities of employees, personnel potential, which should be used for the purposes of the enterprise.

The business assessment of the company's personnel involves determining whether the personal and professional characteristics of employees meet the requirements for a certain position. For this purpose, the necessary assessment criteria are determined. Evaluating the results and efficiency of work involves determining the compliance of the obtained work results, business qualities and characteristics of employees with the specified requirements for the activity at the enterprise.

Subjects of the evaluation are the heads of the enterprise at different levels of management, who are entrusted with the function of evaluation, based on the results, decisions will be made regarding specific employees and the conditions of their further work at the enterprise.

The recommended elements of business evaluation of the company's employees based on the system of quality indicators are shown in Fig. 1.

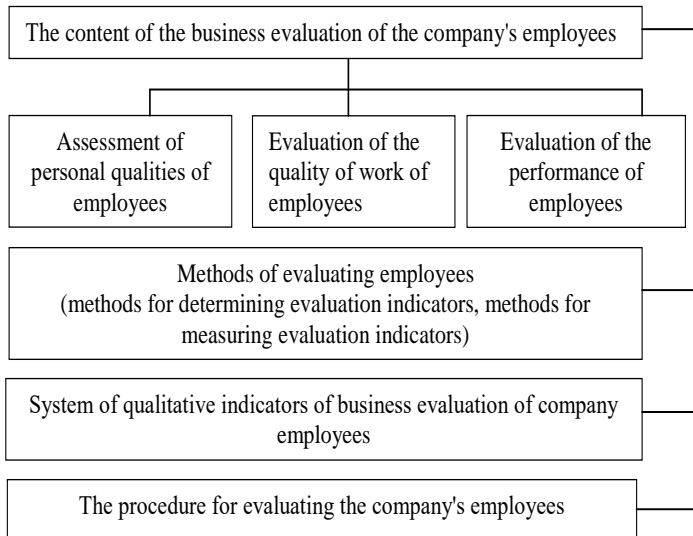
The main tasks of evaluating the company's employees:

- collection, analysis, processing of information on the activities of employees, the obtained results are used in administrative management;
- provision of effective management of the main activity of an individual employee, since the obtained assessment ensures operational regulation of the process of labor activity and contributes to its improvement;
- professional development of personnel, the opportunity for adequate financial incentives, advancement in the position, definition of the goals of professional training;
- ensuring labor motivation, assessment results serve to form adequate self-esteem aimed at increasing personal achievements;
- establishing the size of the fair remuneration, since it is possible to find out the fair level of remuneration if the employee's personal achievements are objectively assessed.

Evaluation of the company's employees should be carried out at all stages of work with the company's personnel:

- 1) when selecting a vacant position;
- 2) in the process of passing the test;

- 3) in the conditions of performance of current activities;
- 4) when conducting staff training;
- 5) in case of transfer to another structural unit of the enterprise;
- 6) when ensuring the formation of a personnel reserve;
- 7) at the stage of fire.



**Fig. 1. Recommended elements of business evaluation of employees based on a system of quality indicators**

*Source: worked out by authors*

Evaluation of the company's employees should be carried out in relation to:

- performance of functional duties, which is carried out in the case of strict regulation. Under such conditions, the evaluation procedure will have a disciplinary nature aimed at identifying and eliminating the reasons for non-fulfillment of job duties according to the instructions;
- the level of activity efficiency. It involves analyzing the specifics of work performance, the obtained results of decisions made, techniques and methods used;
- competences. It is evaluated according to the actual level of professional competence of the employee. At the same time, possible ways of improving the qualification level are determined, the need for training, etc. is determined;
- achievement of goals. It is evaluated in relation to managers and employees in relation to their own activities within the scope of management by objectives;
- behavior. They are evaluated by determining the deviations of the



personal behavior of employees from the established standards that regulate effective work.

The company's employee evaluation system should reflect:

- the purpose of the enterprise's activity;
- the current state of the operating environment;
- state and type of organizational management structure;
- established corporate traditions and company culture;
- features and characteristics of the company's employees.

Evaluation of the company's employees should be based on clearly defined indicators. The criteria for such an assessment must correspond to the goals of the enterprise, as well as the content of the work performed. Can have a quantitative and qualitative expression. At the same time, the system of indicators for evaluating the company's employees should be comprehensive. Groups of performance indicators:

1) the amount of work (indicators have a quantitative expression and reflect the amount of work. The parameter is evaluated by comparing the planned and actual level;

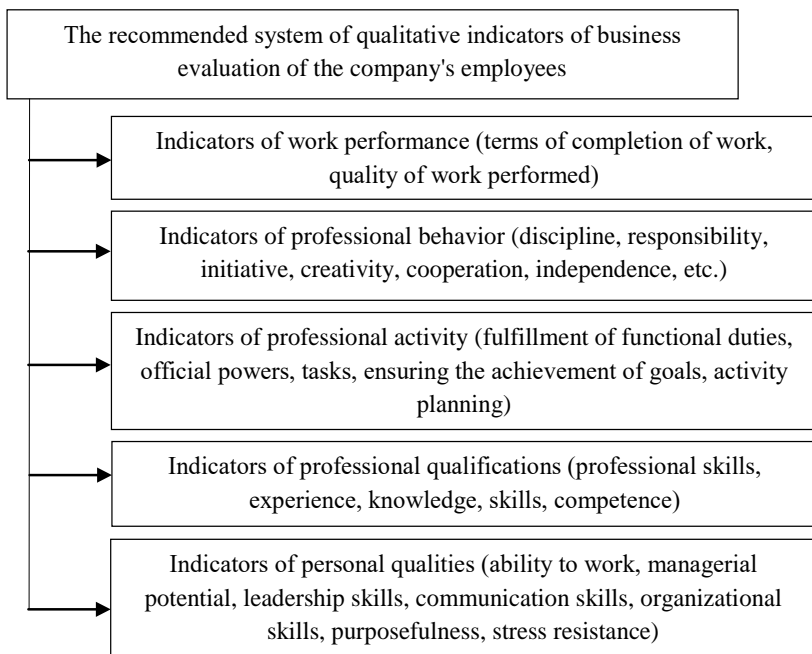
2) quality of work (indicators reflect the level of compliance with quality standards prior to the performance of relevant work). Quality indicators can also have a quantitative expression, for example, the number of claims and complaints, the number of defective products, etc. The parameter is evaluated by deviation from the norm and standards.

3) deadlines for work (indicators are a criterion of effectiveness, provided that high requirements are placed on the volume of work performed (mandatory performance under any conditions).

The recommended system of qualitative indicators of business evaluation of the company's employees is shown in Fig. 2.

Performance indicators are set for the company's employees in order to achieve goals based on the quantitative assessment of the results obtained regarding the performance of the work task and the corresponding deadlines.

For a significant number of works, it is impossible to use performance evaluation. In such cases, it is relevant to use indicators of the professional behavior of the company's employees, which make it possible to single out the work parameters that ensure the proper level of its performance. Indicators of professional activity are used under the condition that work results are not reflected in performance indicators. Indicators of professional qualification indicate the existing level of professionalism of an employee of an enterprise, namely, the level of preparation for performing work tasks, the level of mastery of professional skills, which are determined during certification. Indicators of the personal qualities of an employee of the enterprise are used at the stage of hiring, as well as for the purpose of determining the personal potential of the employee for further promotion.



**Fig. 2. The recommended system of qualitative indicators of business evaluation of the company's employees**

*Source: worked out by authors*

Thus, the business assessment of the personnel potential of the enterprise involves the identification of the conformity of the set of physical, psychological, personal and professional qualifications of individual employees to the main goals of the enterprise, and is also necessary for the development of a system for the development of personnel potential.

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## **EFFECTIVE USE OF PERSONNEL AND INNOVATION POTENTIAL OF THE ENTERPRISE IN THE CONDITIONS OF DIGITALIZATION AND CHANGE MANAGEMENT: SECURITY AND ORGANIZATIONAL ASPECTS**

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Among the safety and organizational factors influencing the improvement of personnel and innovation potential of a typical enterprise, there is also a subgroup of episodic factors, which are divided into internal (emergency situations, accidents; equipment breakdown, crisis financial situation) and external (natural disasters, raiding, terrorism, wars, etc.).

Within the framework of the research, we conducted an expert survey of leading managers and employees in order to determine the most influential factors on the processes of formation, development and improvement of personnel and innovation potential. Expediency of using Harrington's five-point evaluation scale, we suggest using this method when processing expert evaluations (Table 1).

To determine the complex influence of the set of factors of formation and improvement of personnel and innovation potentials ( $\kappa_f$ ) can be done using

the formula:

$$K_f = \sum_{i=1}^n (s_i \cdot v_i), \quad (1)$$

where  $n$  – is the number of isolated groups of factors influencing personnel and innovation potential;

$s_i$  – quantitative assessment according to the  $i$ -th group of defined impact factors;

$v_i$  – importance (level of influence)  $i$ -th of the group of factors.

$$s_i = \frac{y_i}{\sum_{i=1}^n y_i}, \quad (2)$$

where  $y_i$  – are the generalized points determined by experts for a separate  $i$ -th group of factors influencing the personnel and innovation potential of the enterprise.

*Table 1*

**Numerical intervals for expert evaluation according to the Harrington method**

The name of the degree of influence	Numeric interval	The average value of a numeric interval	Score for evaluation
Very high level (most significant)	1,0 – 0,81	0,905	5
High level	0,80 – 0,64	0,72	4
Satisfactory (average) level	0,63 – 0,38	0,505	3
Unsatisfactory level (low)	0,37 – 0,21	0,29	2
Very low level	0,20 – 0	0,1	1

*developed on the basis of [3; 6]*

Experts have determined that the greatest influence on the formation, use and improvement of personnel and innovation potentials of a typical enterprise is exerted by economic, political-legal and scientific-technical factors among the group of external factors. According to the determined results of the calculation of expert data regarding the influence of the main factors on the formation and use of personnel and innovation potentials of a typical enterprise, among the factors of the external environment, the highest influence was determined from the side of economic factors influencing the activity.

Social and natural factors have an average level of influence. As for the

factors of the internal environment on the development of personnel and innovation potential, the experts determined that technological factors have the greatest influence, organizational factors come second, and social and labor factors come third.

Among the group of factors of the internal environment, the highest points and weight were scored by such influencing factors as: the level of use of circulating resources, the level of use of financial resources, the level of provision of production processes at a typical enterprise with machines and equipment, as well as the level of the condition of the main means of production; progressiveness of technologies, level of innovation of production resources, loading of equipment, forms and systems of labor payment, level of motivation.

According to the results of the expert survey, those factors that scored the highest number of points were selected and systematized according to certain features.

In general, the main external factors of influence can be differentiated into economic, social and political conditions, each of which has a separate level of influence and causes, to one degree or another, an impact on the processes of increasing the personnel and innovation potential of a typical enterprise. For the formation and improvement of personnel and innovation potential, the features of the so-called "entry" into the system of market functioning, in particular, the attraction of resources and the "exit" – the realization of products and occupied competitive positions, are of great importance.

Accordingly, each component of the personnel and innovation potential of the enterprise must be provided with the necessary resource base, and in order to enter the market of competitive products, an effective mechanism for managing the personnel and innovation potential of a typical enterprise must be developed in the conditions of digitalization and change management.

For a typical enterprise, strategic management of the formation and use of personnel and innovation potential is an urgent problem due to the instability of the external and internal environment. In a competitive environment, it is impossible to do without scientific methods of analyzing the strategic position and development prospects, since growth from a virtually niche industry to a stable budget-generating industry can only occur if all resources are mobilized and exceptional competitive advantages are formed.

The main principles of the policy of security management of personnel and innovation potentials of a typical enterprise are as follows:

- taking into account the state strategic priorities of the comprehensive development of the agro-food sector;
- priorities of strategic goals and objectives;
- choosing a strategy implementation model taking into account the possibilities of attracting resources and conditions (internal local resources,

interregional integration resources, international integration);

- concentration of resources;
- partnership or alignment of interests of potential participants in strategy implementation;
- use of a program-targeted approach;
- responsibility for the implementation of the industry development strategy;
- legal regulation of the strategy;
- information support for the implementation of the strategy.

Qualitative risk distribution assumes that project implementation participants make a number of decisions that increase or decrease the number of potential investors. The greater the share of risk the participants intend to place on the investors, the more difficult it is for the project participants to attract experienced investors to finance the project. Most large projects are characterized by a delay in their implementation, which can mean for the customer such an increase in the cost of works that will exceed the initial cost of the project implementation.

The way out of such a situation is to transfer certain risks to an insurance company. The investor must determine the ratio between the insurance premium and the sum insured that is acceptable for him. An insurance premium is a payment for an insurance risk. An investor should not take the risk if the loss is relatively large compared to the savings on the insurance premium.

Diversification allows you to avoid part of the risk when distributing capital between various types of innovative activity. The availability of comprehensive information when making decisions determines the quality of forecasts and allows you to reduce risk.

The cost of complete information is the difference between the expected cost of any acquisition when complete information is available and the expected cost when the information is incomplete. Limiting is the establishment of a limit, i.e. limit amounts of expenses, sales, credit, etc. This is an important means of reducing the degree of risk. The essence of insurance is that the investor is ready to give up part of the income to avoid risk, that is, he is ready to pay for reducing the risk to zero [4-5].

The development and implementation of a strategy for managing the innovative potential of personnel and innovative potential of a typical enterprise should be a set of necessary measures that require the formation of a general safety culture and appropriate resource provision (at the state and regional level); development of a strategy for the safe functioning of the enterprise.

Having determined the threats and opportunities and the strengths and weaknesses of the personnel and innovation potential of a typical enterprise,

we will choose the kind of strategy that under such conditions will contribute to the introduction of innovative changes into the enterprise's work system and will ensure the maintenance of the process of implementing the innovation potential management model.

When choosing a strategy for using the personnel and innovation potentials of a typical enterprise, we must clearly define the stage of economic development, and in accordance with the defined stage of the life cycle, choose a strategy that will accelerate economic growth in the conditions of digitalization and change management.

The use of BSC (balanced system of indicators) to implement the strategy of using the personnel and innovation potentials of a typical enterprise not only minimizes the costs of developing a new product, but also makes it possible to extend its stay on the market, showing the directions of its development in view of changing consumer preferences. Both are especially important for a typical enterprise, whose financial capabilities are insufficient to implement large-scale and radical innovations, as a result of which a defensive strategy is usually chosen.

At the same time, despite the limited own possibilities of financing significant innovation projects, the strategy of using personnel and innovation potentials of a typical enterprise may also include actions of an offensive nature, if they are based on promising innovation.

This will allow, following the choice of an innovative strategy, to justify the directions of the marketing strategy of a typical enterprise on a specific product market in the conditions of digitalization and change management. In addition, it is necessary to understand how capital-intensive a new product is in this field, how expensive it will be to master its production, and whether the manufacturer can solve the problems of financing the innovation process.

To do this, it is necessary to identify, collect, record and analyze the information necessary for the rationalization of production, a reliable assessment of its personnel and innovation potential and, in general, to increase the efficiency of business activities through the adoption of an optimal innovative decision.

The evaluation of the new product according to the specified strategic aspects makes it possible to determine the commercial attractiveness of the innovative product. If research shows that a typical enterprise can master a new product and the terms of its mastery and the costs of this process are acceptable and provide adequate returns, then a decision is made regarding its further development.

The purpose of the economic analysis of the effectiveness of the adopted innovative decision in the system of strategic management of personnel and innovation potentials of a typical enterprise should be to identify the technical level of production of products and services, the factors

that determine it, and to develop, on this basis, recommendations for the formation of the concept of this strategy in the conditions of digitalization and change management [1-2].

The success of the implementation of an innovative project in a typical enterprise is evaluated by the achievement of the growth of the defined level of profitability and the planned level of profitability of the innovative product, that is, by financial indicators. Achieving their planned values is the basis for motivating project managers.

Thanks to the establishment of cause-and-effect relationships between the methods and results of the activity of all structural links involved in the implementation of an innovative project, their balanced work is ensured, which makes it possible not only to coordinate the course of innovation implementation in time and space, but also to take motivating measures to support such types of behavior of the participants of the innovation project, which ensure its implementation with minimal deviations.

Establishing clear criteria for evaluating work results enables managers of relevant functional units to timely adjust the process of implementing innovations, thus ensuring compliance with established deadlines and standards of work in a typical enterprise.

Effectiveness in detecting deviations is achieved thanks to the creation of a system of information support for the implementation of an innovative project in the conditions of digitization and change management. It is obvious that an important element of the proposed model is the result evaluation system and corresponding motivating measures that ensure the formation of the necessary type of behavior among employees, aimed not only at the performance of standard actions, but also at their improvement, if this can positively affect the progress of the implementation of the innovative project in conditions of digitization and change management. The development of green technologies and the use of alternative energy sources will also play an important role. Digitization of production involves the following effects:

- productivity increase by 3-5%;
- reduction of equipment downtime by 30–50%;
- optimization of inventory storage costs by 20–50%;
- increasing forecasting accuracy up to 85%;
- increasing the speed of product entry to the market by 20-50%;
- reduction of costs for maintenance of equipment and machines by 10-40% [7-10].

It is on such results that the strategy of innovative activity of a typical enterprise can be calculated:

- the share of expenses for the performance of scientific and scientific and technical works in the net income – 50 percent;
- the share of employees engaged in the production of an innovative



product in the total number of employees in the industry – 45%;

- the share of sold innovative products in the total volume of sold products is 40 percent.

The basis of a typical enterprise should be an innovative and investment model of development.

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## **MANAGEMENT OF PERSONNEL SECURITY DURING THE WAR AS A PREREQUISITE FOR THE ENTERPRISE'S DEVELOPMENT IN THE POST-WAR PERIOD**

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The war in Ukraine has led to the emergence of new threats and the intensification of existing ones. In particular, in the years preceding the martial law, domestic enterprises have already experienced a number of threats from their own staff, which in turn had a negative impact on their economic security, as personnel security is a component of it. The risk of financial losses, the risk of a decrease in the value of the company's assets and the security of the business entity as a whole depend on how effectively the management addresses the issues of personnel security.

Today, in our opinion, retaining highly qualified personnel in Ukraine and preventing their outflow abroad should become part of the state human resources strategy.

The question of who will support and develop the real sector of the domestic economy tomorrow was a pressing one. After all, there are entire professional layers in which competence, experience, and education take 10-15 years to acquire, and the loss of such personnel cannot be restored in a short time.

Thus, personnel security occupies a dominant position in relation to other elements of the enterprise security system, since it works with personnel, and they were primary in any of the elements. What does the concept of "personnel security" include? Let us consider the approaches to the interpretation of this concept by different scholars (Table 1).

Threats to the personnel security of an enterprise were created by factors of both the external and internal environment of the organization. External threats include:

- 1) a full-scale invasion of Ukraine, which resulted in deaths, the outflow of personnel abroad and to other regions of the country, and the physical and economic destruction of enterprises and organizations that provide jobs;

- 2) redistribution of personnel in the employment sector – recruitment to the Armed Forces of Ukraine, the presence of a large number of internally displaced persons, which creates a kind of imbalance in the labor market;

- 3) inflationary processes in the economy, which certainly affect the level of real wages;
- 4) lack of an effective state policy to create new jobs;
- 5) reduction in the number of full-time employees and increase in the share of part-time employees, which creates a strategic "gap" in the personnel strategy, as full-time employees work more diligently [6];
- 6) headhunting by competitors;
- 7) unstable political, economic and social situation in the country;
- 8) insufficiency of state programs for social protection of the population
- 9) unregulated mechanism of social partnership;
- 10) trends in the development and functioning of the labor market.

*Table 1*

**Semantics of the concept of "personnel security"**

Definition	Authorship, source
is the legal and informational support of the personnel management process: resolving legal issues of labor relations, preparing regulatory documents that regulate them, providing the necessary information to all personnel management units	O. Kyrychenko [1]
is the process of preventing negative impacts on enterprise security by eliminating risks and threats related to intellectual potential and labor relations in general	O. Lyashenko [2]
ensuring that the company has human resources, forming an effective human resources management system and communication policy. The intellectual component cannot exist outside of personnel security, as it is part of it	Migus I. [4]
the process of preventing negative impacts on the economic security of the enterprise by neutralizing the risks and threats associated with personnel, their intellectual potential and labor relations in general	Panchenko V. [5]
is the main component of the enterprise's economic security, the main purpose of which is to prevent and counteract the system of threats to the physical and psychological life of personnel, their professional activity and development, and the effective use of human resources	The author's definition

As for the internal threats to personnel security, we can include the following:

- 1) low qualification of specialists, including the management staff;
- 2) mismatch of employees' qualifications with their positions;
- 3) lack of an effective system of personnel selection;
- 4) ineffective system of ranking employees by the degree of classified access information and development of rules for working with such information;
- 5) ineffective organization of the advanced process training and personnel development in line with current challenges;

6) absence or insufficiency of measures to implement the enterprise's social policy;

7) low level, insufficiency, formality of measures in the labor protection field;

8) ineffective system of staff motivation (low salaries, ineffectiveness of the selected remuneration and motivation systems);

9) inappropriate involvement of qualified employees, lack of desire on the part of management to unlock and build their potential, and support their initiative;

10) absence or weakness of a corporate culture that creates a favorable atmosphere in the team;

11) ineffective social partnership at the enterprise level (domination of employer's interests).

O. Khalina and N. Kozachenko identify the following systems among the main aspects of ensuring enterprise's the personnel security: recruitment, loyalty, control [7, p. 137]. In our opinion, this list should include systems of labor organization and motivation.

The personnel recruitment system was a set of measures aimed at attracting and selecting applicants, taking into account the compliance of their competencies with the requirements of the vacant position and the enterprise's interests, its corporate culture, and the organizational goal's achievement [8]. Today, the hiring vector has shifted in favor of internally displaced persons. On the one hand, this was natural and provides advantages to the employer [9]:

- business and society as a whole should support citizens who find themselves in difficult life circumstances caused by military operations – this is the implementation of the social responsibility policy;

- in most cases, such employees try to show their best, try to be highly productive and work for results;

- they can demonstrate a new vision of processes at the enterprise, can assess shortcomings and often become initiators of innovations;

- they contribute to the development of competencies and management skills of the management, change its vision, and force it to look for new opportunities and solutions, as such employees were mostly hired into already close-knit teams;

- and, most importantly, in our opinion, the greatest motivating factor for employers is the possibility of receiving monthly payments from the state of UAH 6.5 thousand for each employed IDP.

On the other hand, one cannot ignore the threats that such a hiring system may lead to, in particular

- the desire for compensation may outweigh a moderate hiring system, in accordance with the competence and personality profile of the applicant,

which will subsequently have a negative impact on the final results of the company's activities;

- "blurring" of corporate culture and increasing the level of conflict in the team;

- most companies, especially in the current circumstances, lack an effective system of new employees adaptation and team building, so the emergence of such employees in an already well-coordinated team may unbalance its work;

- increased unemployment of the local population and, accordingly, their living standards in regions with a significant number of IDP's and lack of state support.

Ensuring employee loyalty involves developing a loyal attitude towards the enterprise through the use of various methods and techniques based on prioritizing employee's needs and interests. Let us consider the main factors that can ensure and increase the level of staff loyalty (Table 2).

*Table 2*

**Factors influencing the level of staff loyalty**

<b>Before the military aggression</b>	<b>During the military aggression</b>
• decent remuneration for labor;	• ensuring the best possible working conditions and stay in the workplace;
• safe conditions for cooperation between the employee and the employer;	• fair remuneration of labor, in accordance with the updated labor standards;
• fairness and honesty of the management in the process of the assessing employee's commitment level;	• employer's support for employees (material and psychological);
• decent and comfortable working conditions;	• joint (management and staff) volunteer activities;
• favorable climate in the team;	• empathy from the management;
• opportunity for professional growth and self-realization.	• transparency and honesty in management, organizational and production activities;
	• development of staff resilience;
	• moderate staff development policy, in accordance with the requirements of modernity

*Source: generalized by the authors based on [7; 10]*

Thus, there was a direct correlation between a company's socially oriented policy and employee loyalty. In other words, the better the company cares about its employees, the higher their level of loyalty to the company.

Control system was a set of measures based on certain rules and regulations, which are reflected in regulations, restrictions, regimes, technological processes, evaluation, control and other operations, and security procedures. This complex is directly aimed at eliminating the

possibility of causing damage and is usually practiced by the security service or other departments, but to a lesser extent by the personnel service. Labor organization is one of the most important management methods, as it coordinates and regulates the entire production process. Organization of labor at the enterprise level was the bringing of human labor activity into a system that ensures the achievement of the maximum possible useful effect, taking into account the specific conditions of activity and the level of responsibility [11]. At the same time, the ultimate goal of the labor organization system was to ensure the conditions for the rational and efficient use of staff labor in order to obtain a high-quality planned end result, taking into account the peculiarities of the business environment' development and functioning. As for the directions of rationalization of labor organization in peacetime and during martial law, in our opinion, there are also some differences (Table 3).

The personnel motivation system, as an aspect of ensuring the company's personnel security, includes a flexible system of incentives for both performance and initiative of personnel in all areas other than production. The system should encourage employees to pursue professional training, develop their talents and potential, increase labor productivity and career growth. This involves the use of a whole system of incentives, the choice of each, which should be determined by specific conditions and circumstances [12].

*Table 3*

**Directions for rationalizing the organization of personnel work**

<b>Direction</b>	<b>Direction Before military aggression</b>	<b>During military aggression</b>
Development and implementation of rational labor division and cooperation forms	+	+
Improving the organization and maintenance of workplaces	+	+
Improvement of the labor process, introduction of advanced techniques and methods of work	+	+
Improvement of labor standardization	+	+
Improving the organization of personnel selection	+	+/-
Improvement of the organization of training and professional development	+	+
Modernization of working conditions	+	-
Strengthening labor discipline and developing a conscious attitude towards it	+	+
Rationalization of work and rest schedule	+	-
Introduction of rational material and moral incentives forms	+	+/-

In the conditions of war, the system of staff motivation, in our opinion, should first of all ensure "war-work balance". Among the modern motivational problems that pose a powerful threat to the personnel security system, experts identify the following [13]:

1. Demotivation. "I don't understand the point of what I am doing". Actions of the manager and the employee: concentration on constructive moments, the value of work, the uniqueness and importance of a particular work activity; increased use of the most outstanding hard and soft skills in the context of the specific employee's competence.

2. Apathy. "I do not feel the result of my work". Actions: more careful organization of work, dividing the final result into partial results with specific intermediate results, setting priorities, regular joint summarizing of results and development of plans.

3. Defocus. "I can't focus and am constantly distracted". Actions: practicing techniques to "unload" the psyche, information hygiene, periodic (planned) switching from one job to another.

4. Insecurity. "I'm not doing enough". Actions: rational and moderate determination of the work scope, tasks, both by management and the employee.

5. Exhaustion. "I feel tired almost as soon as I start doing something". Actions: mastering the habit of identifying your own state, emotions and stress management.

6. Imbalance. "I am constantly between 'go ahead, work tirelessly' and 'relax, don't think about anything'". Actions: reduce the level of criticism and self-criticism, while cultivating responsibility, monitoring compliance with agreements and deadlines. Teamwork and effective delegation of authority are helpful here.

When creating an effective motivation system in today's environment, managers must recognize the need to:

focusing the team on a common idea;

- regular effective formal and informal communication with subordinates;
- realizing that it is inappropriate to set strict deadlines, but that it is necessary to reserve time for force majeure;

- awareness of how much the team has in the resource;

- social and psychological support for staff, development of their stress resistance;

- training in information hygiene skills;

- uniting around causes that bring the Victory closer.

Thus, ensuring and continuously maintaining the personnel security of an enterprise as a component of its economic security was a rather complex management process. How quickly Ukraine manages to restore the territory destroyed by military aggression, occupation and annexation will determine

the prospects for getting the country out of the protracted socio-political and economic crisis. For this purpose, all conditions for ensuring personnel security must be created within each enterprise of the organization. This will become the basis for the strategic development of a particular enterprise, organization and social development of the territory where it was located.

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## **SAFE DEVELOPMENT OF PERSONNEL AND INNOVATION POTENTIAL OF ENTERPRISES FOCUSED ON CHANGE MANAGEMENT IN THE CONDITIONS OF GLOBALIZATION AND DIGITALIZATION**

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The innovative activity of enterprises focused on change management is of an alternative nature. It can be carried out not only at any of the stages of innovation management (research – development – production – distribution (use in practice), but also outside it, in the process of acquiring patents, licenses, disclosure of know-how, useful ideas.

It is inappropriate to measure the effectiveness of the safe development of personnel and innovation potentials of enterprises focused on change management in the conditions of globalization and digitalization without assessing the ability of its practical implementation at the enterprise. Therefore, we note that the main thing in diagnosis will be the organizational and management component of strategic innovation management, that is, the ability of the company's management to quickly mobilize and organize its potential opportunities into a single integration system in order to obtain a synergistic effect.

The structured analysis of strategic innovation management allows to single out the following main internal components, namely:

- enterprise capabilities for the production of new or improved types of products or services (process and technological innovations);
- the company's capabilities to change social relations at the company (personnel innovations);
- opportunities of the enterprise to develop new management methods (management innovations);

- opportunities of the enterprise to create new mechanisms for promoting products to the market (market innovations);

- opportunities of the enterprise to acquire know-how, patents.

In the process of managing the intra-company innovation climate, special attention should be paid to the development of a strategic program of innovation management of enterprises focused on change management, which is implemented in the following directions:

- product innovation strategy (choice of type of nomenclature of manufactured products, assortment, change of production scale, improvement of product quality);

- market innovation strategy (choice of sales market structure and price formation methods);

- resource innovation strategy (introduction of innovative technologies for management of raw resource stock systems);

- technological innovation strategy (introduction of innovative technologies);

- integration innovation strategy (ensuring interaction of supplier-production-sales structures);

- investment and financial innovation strategy (attraction of external financial resources, return of the funds involved, investment of own available funds in the development of existing innovation potential) [1-10].

A comprehensive characteristic of the capacity of enterprises focused on change management for innovative activity is their personnel and innovation potential.

Material and technical resources are the material basis of personnel and innovation potential, determine its technical and technological base, influence the scale and pace of innovative activity. The formation of personnel and innovation potentials can be complicated by their acquisition. Therefore, it is important, especially in our conditions, to focus on the creation of non-material-intensive innovations, which will make it possible to use the existing raw material base, new types of materials, and waste disposal in accordance with the environmental requirements that society puts forward to manufacturers as comprehensively as possible.

The personnel component of the innovation potential can be characterized by such indicators as the total number of employees employed in R&D, the structural distribution of the number of personnel by types of activities, by qualification groups. An important factor is the attitude of workers to innovation processes, the development of their conscious desire to invest their knowledge and skills in the innovation sphere.

The evaluation of the innovative potential of enterprises focused on change management should be carried out using an appropriate system of indicators, which differ among themselves depending on the stage of

development and implementation of innovations.

An important feature of the innovative development of the enterprise is its ability to adapt to internal changes and external influences.

The innovative development of enterprises focused on change management is carried out on the basis of an appropriate strategy, which is based on the personnel and innovation potential of developed and mastered innovations, taking into account the influence of the external environment.

The effectiveness of the enterprise's innovative strategy depends on the quality of information obtained from the external environment and on the analysis of the internal state.

It should be noted that indicators of innovative activity are also widely used in domestic and foreign practice to assess personnel and innovation potential.

Special questionnaires with varying degrees of parameter detailing are developed to solve analytical problems using the assessment of personnel and innovation potentials of enterprises focused on change management. First of all, it is suggested to use more general block evaluation questionnaires, in which experts give their evaluations on a 5-point scale:

- 5 – a very good state, which fully meets the requirements of the normative model of achieving the innovation goal (classified as a very strong side of personnel and innovation potentials);
- 4 – good condition, which corresponds to the standard model and does not need to be changed (strong side);
- 3 – average condition, needs certain limited changes to bring to the criteria of the regulatory model;
- 2 – poor condition, in need of serious changes (weak side of personnel and innovation potentials);
- 1 – very bad condition, in need of radical transformations (very weak characteristics of personnel and innovation potentials).

Based on experts' assessments, integral indicators are derived for each of the blocks and for enterprises focused on change management as a whole. By comparing the ratings for individual blocks and the organization as a whole with similar average ratings for the industry and with the ratings of the best enterprises in the industry, it is possible to draw a conclusion about the strengths and weaknesses of the enterprises.

It is advisable to evaluate the personnel and innovation potential of enterprises focused on change management in the following sequence:

- analysis of the structure of personnel and innovation potentials;
- identifying the degree of use of internal innovative capabilities of the enterprise;
- assessment of the level of innovative activity of the enterprise.

The assessment of personnel and innovation potential is carried out

according to the scheme:

resource (R) – function (F) – project (P).

A project or program means the release and implementation of a new product (service), direction of activity.

When calculating the final indicator of the value of personnel and innovation potential of enterprises focused on change management, each input and output cluster factor is assigned a weighting factor –  $K_i$ , the value of which is determined with the help of experts. Each cluster-factor is assigned a value in points on a 9-point scale and all scores are entered in a table.

Next, the indicators of the assessment of personnel and innovation potential are calculated, in the determination of which their expert assessment for the past year is used, that is, the data of last year's assessment are the basis of comparison.

It is expedient to estimate the growth of personnel and innovation potentials according to the formula:

$$\Delta III = \sum_{i=1}^n \left( \frac{O_i^A}{O_i^B} K_i \right) = 7,35, \quad (1)$$

where  $O_i^A$  – evaluation of the  $i$ -th cluster-factor of the studied object in points;

$O_i^B$  – evaluation of the  $i$ -th cluster-factor of the comparison base in points.

Indicator of the intensity of innovative development:

$$I_{ip} = \frac{\Delta III}{\Delta T} = \frac{7,35}{360} = 0,02 ,$$

where  $\Delta T$  – time.

Effectiveness of innovative development:

$$I_{ip} = \frac{\Delta III}{B_T} = \frac{7,35}{53500} = 0,001 , \quad (2)$$

where  $B_T$  – is costs taking into account the time factor.

Next, we will assess the state of personnel and innovation potential of enterprises focused on change management. It includes three areas that can be expressed by a formula:

$$C = C^H + C^+ + C^-, \quad (3)$$

where  $C^H$  – a subset of the normal state of personnel and innovation potential;

C<sup>+</sup> – a subset of deviations from the planned trajectory, which contributes to the effective development of the personnel and innovation potential of the enterprise;

C<sup>-</sup> – a subset of deviations from the planned trajectory leading to a crisis state.

The state system allows you to describe the real state of personnel and innovation potential. To obtain the average values of experts' assessments, we will use the following indicators:

1. Grade point average:

$$X_i = \frac{1}{n} \sum_{j=1}^n x_{ij}, \tag{4}$$

where  $x_{ij}$  – evaluation of the  $i$ -th cluster of the factor by the  $j$ -th expert;

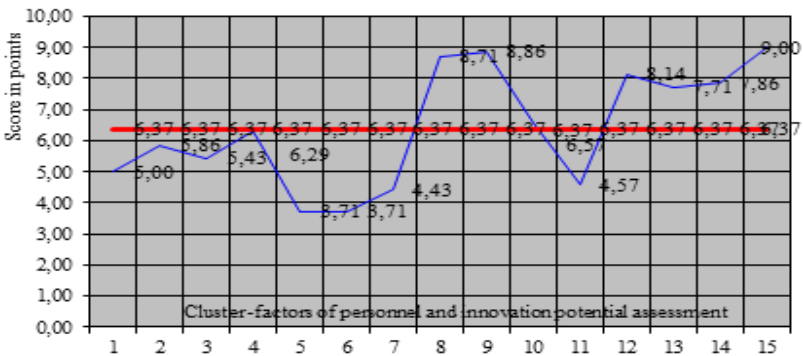
2. Dispersion of individual point estimates:

$$\sigma^2(x) = \frac{1}{n-1} \sum (x_{ij} - x_i)^2, \tag{5}$$

3. Coefficient of variation:

$$V_i = \frac{\sigma(x_i)}{x_i}, \tag{6}$$

Based on the obtained data, we will construct the graph "Diagnostic profile of personnel and innovation potentials of a model enterprise focused on change management" (Fig. 1). The subset of the normal state of innovative potential (CH) is 6.37 points.



**Fig. 1. Diagnostic profile of personnel and innovation potential of an enterprise focused on change management**

Source: developed by the authors

So, as we can see, the evaluations of the criteria of the first stage of the safety innovation process fell mainly into the subset that leads to a crisis state, and the evaluations of the criteria of the second stage of the innovation process fell into the subset that contributes to the effective development of personnel and innovation potentials of the enterprise, focused on reduction, localization and risk and threat prevention and change management. This means that the ability of the enterprise to master and commercialize the innovation is higher than the ability to create. The enterprise has a high technical and technological level, a qualified staff, a favorable market position on the market and a growing profit, thanks to which it can correct the existing negative factors in the course of its activities. A model enterprise focused on change management needs an increase in R&D funding, deductions for innovation activity, research and development in order to increase efficiency and increase the level of novelty of innovation. Management should also pay considerable attention to the development of modern management concepts and the system of rationalization. By introducing innovative developments into production, an enterprise focused on change management will be able to gradually take the position of a market leader in the conditions of globalization and digitalization.

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## **CONTEMPORARY APPROACH TO LEADERSHIP STYLE FORMATION DURING THE PROCESS OF GENERATION TRANSITION AT MODERN WORKING PLACE**

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According latest report the key global demographic trends today are: increase the lifetime, as well as the retirement age and also percentage of an aging population. According to UN data, expected lifetime for the world population as a whole was 45.7 years in 1950, 64.2 years in 1990, and 72.6 years in 2019; the retirement age in almost all developed countries reaches now 65-67 years [1]. These circumstances lead to a longer active economic life of a person than before, people work longer, and several

generation interact at the working place at the same time.

What is important is the fact that young people do not exert such pressure on labor markets as before. First of all, due to the fact that it is not enough and, besides, it is partially oriented to foreign markets. In addition, young people are more reserved than other generations when it comes to such motives as career, earnings, and responsibility. Instead, young people focus on such values as interesting work, free time, and a flexible schedule. The paradigm of sharing, not ownership, is also quite common among young people. In general, unprecedented age diversity will mean that age will either lose its decisive importance in the labor market, or will be present in the market in the form of expanded requests – "energetic young person", "experienced specialist", "expert in the prime of life", etc.

Nowadays actual tendency is the transition from Baby Boomer (BB) generation to generation X because the Baby Boomer generation will retire in the coming years, leaving the subsequent generation X to take over, continue and possibly change the jobs and positions through their own values and attitudes.

A lot of scientists investigate characteristics and features of different generations such as: Absolventa, Berkup, Einramhof-Florian, Holste, Mangelsdorf, Y. Scholz, Schnetzer Simon and other [1-15].

Let's discuss working conditions for a good cooperation in generation's transition at the working place.

There are some differences and similarities between the four generations currently in the labour market that are important for cooperation. In order to determine what demands are made on the work environment and what attitudes towards the employer are present, the following features are considered: attitude towards work, organisational structure, motivational factors, technology, cooperation, communication and technology.

According to the Edge study [4], generation BB is significantly more likely than generation X to have the freedom to conform at work while generation X has a higher need for authenticity and balance. It was also found that the three generations BB, X and Y place less emphasis on intrinsic motivation at work than previously thought. It was a widespread assumption that generation X is inquisitive and places great value on being able to learn at work. Generation X's attitude to work is inspired by social change in the company if it matches their personal passion and commitment. Whereas generation BB is more likely to be influenced by major social or political change. Generation BB people are seen as committed, MAs who enjoy working [2], who are willing to work hard and do overtime. This was confirmed by a study [5].

If we now compare the generations on the operational readiness, we can see that this has changed significantly over the generations. Since the



BBs were brought up in a time of discipline and obedience, they are ready to show full commitment in the field of work, because they are fixed to their professional success and the achievement of their personal goals. In return for payment they are also prepared to work overtime. The attitude of generation X, on the other hand, is somewhat different. Generation X, who are also characterised by a high level of commitment, but for whom time with family and friends is also important. Since they spent little time with their parents in their own childhood, as they spent a lot of time working, it is important to them not to repeat these mistakes. For these MAs, the flexible organisation of working hours is important in order to be able to organise their private life freely. For generation Y, the motivation to work is characterised by opportunities for personal development. Young people are interested in finding personal fulfilment in their professional life and to have professional success. However, unlike the Baby Boomers, they have little interest in fully committing themselves to professional life. They are eager to complete the tasks assigned to them, but they want to determine the implementation and time allocation themselves. Compared to previous generations, generation Z is anxious to complete their tasks in a fixed working time, not to work overtime, and to have a clear separation between work and private life. In exceptional cases, they are also willing to work overtime, but in return they demand a free working day [8].

In terms of loyalty to the employer, generation X is inclined to keep the job because of the positive relationship with colleagues. For them, unlike generation BB, it is not the opportunity for development that is in the foreground, but the atmosphere in the team. Generation Y is comfortable with the idea of having several employers in their professional life. Due to the economic volatility, the loyalty towards the employer has decreased [5]. Generation BB MAs are described as loyal, committed and competitive workaholics [9]. Due to their good education, generation Z is not dependent on a specific employer and thus also has the freedom to change jobs if the working conditions or well-being no longer suit them. This flexibility is an advantage for young adults, but a great challenge for companies and managers.

Parry and Urwin mentioned that generation BB is part of the understanding of their work ethic when taking on responsibility and because of their good leadership skills, they currently make up the majority of managers [9, pp. 79-80]. Generation X does have career success as a goal; however, due to their openness to a quick change of job, this is often not only possible with their current employer (compared to their predecessors, generation Y and generation Z have no ambition to take on major responsibilities. Generation Z in particular clearly shows an increase in rejection of taking on responsibility, because fewer and fewer young people

want to take on leadership positions even though they have a better level of education. Generation BB has a clear idea of how the younger generations a clear idea of how work is to be done and how assigned tasks must be completed. An understanding of other attitudes is often not present due to and the lack of knowledge about the younger generation. The younger ones want to organise and organise the completion of the tasks assigned to them themselves [8, p. 126]. Transparency, autonomy and flexibility are particularly important to generation Z in their professional environment and are considered non-negotiable. Without consideration of these factors, morale and commitment will be significantly reduced.

The personal motivation of the generations is shaped differently. Whereas the Baby Boomers tend to act out of personal interest, generation X cares about the impression they make on their environment. generation Y, like generation BB, has personal motivating factors such as luxurious status symbols and clothing. generation Z, on the other hand, is anxious to satisfy the wishes and ideas of their parents and to make them proud [8, pp. 14-23]. Whereas Einramhof-Florian identified a total of seven factors that contribute significantly to the work motivation of generation [5, pp. 61-65]: challenge in the workplace, remuneration for work performance, collegial working environment, company location, career opportunity, work-life balance, further training opportunities.

According to Edge study, generation X is less patient than their generation BB predecessors, as they are not willing to wait long for promotions, and they are clearly more dissatisfied with their careers progression. They usually demand immediate recognition for their work efforts through praise, promotion or more salary. Generation Y feels neglected in the recognition of their performance and feels that the respect they receive is too little [4, pp. 144-145]. Job stability, interesting tasks and the possibility of a fast career progression are strong motivating factors for generation Y, as they are willing to make a commitment to their professional success. For them, success, career and money are the most important things to get ahead in the consumer society. For generation Z, on the other hand career is not at the forefront of their motivation. They want to change the world and place more value job stability. However, it is also important for them to develop their own talents, to receive recognition or even a promotion. For generation BB and generation X, a high salary, as well as stability and security in the workplace are the most important motivating factors as the main motivators for generation Z are fun, passion and also money.

Generation X wants to be independent and self-reliant and sees hierarchical levels mainly as a career goal. To achieve these goals, they prefer to work for themselves and require very little management control. However, they expect to be told exactly what is expected of them so

that they can work efficiently on the realisation of the goals. Due to the lack of role models, due to their resignation because of the economic crisis, they are distrustful of the leaders and often question the existing authorities [8, pp.14-23, 142-143]. Generation Z, on the other hand, needs mentors as leaders in order to be able to share their ideas openly and to satisfy their desire for recognition. Whereas generation Y would rather be independent and prefer freedom of development [10, pp. 480]. Generation BB has grown up under clear hierarchies, subordinates itself to the existing structures and can work well with them. They want to adhere to the structures so that they can move up the career goals [8, pp.14-23, 142-143]. In comparison to other generations they perceive flat hierarchies as very important [13, p. 7]. The following generations are more sceptical about strict hierarchies. The younger generations were found to reject being subordinated by hierarchical structures. They prefer subordination on the basis of performance or expertise, which in turn reduces acceptance of the seniority principle [13, p. 11]. Generation Y wants performance to have significantly more weighting than age and work experience and therefore disagrees with the seniority principle practised in many companies for the most part. As the following figure below, generation Y is primarily against preferential treatment according to the seniority principle [13, p. 11]. The younger generations have no understanding for hierarchies, based on seniority and not on experience and knowledge.

When it comes to the introduction of new technologies, older people are often cited as the cause of conflict. It is said that they do not know what to do with it because of their age. Often they are unable to understand the application due to short learning times [13, p. 8]. Due to age, they are often described as technology-phobic, which can be attributed to the increasing scepticism in old age. However, this conflict can be used for improvements and adaptations. Generation BB is often assumed to have a low willingness to learn. Generation BB have often come a long way in professional life without technical aids, but they have now also recognised the advantages of modern technologies and are willing to learn how to use them. The younger generations are often confronted with digital tools from an early age and have learned to use them. They already know how to use the digital advantages. Generation X likes to use new tools to organise their lives efficiently. They are tech-savy, have learned to deal with technology from scratch. As a result, they readily use the new technological tools and digital communication media. Unlike generation Y who can use any new technology but lack an understanding of it. Generation Z is also very well acquainted with the use of technology and is considered to be constantly connected, which means that their attention span is considered to be strongly influenced [8, pp. 145-147].

Table 1

**The summary of the generational characteristics and factors related to the cooperation of generation representatives at the working place**

	<b>Baby Boomer</b>	<b>Generation X</b>	<b>Generation Y</b>	<b>Generation Z</b>
<b>Characteristics</b>	Team-oriented; communicative; promotion-oriented; performance-oriented; professionally self-sacrificing; ready for action; patient; sensitive to criticism; structured; social; helpful; committed; money-motivated; responsible.	Individualistic; family-oriented; solution-oriented; ready for action; impatient; flexible; egocentric self-reflective; independent; money-motivated; promotion-oriented.	Team-oriented; communicative; career-oriented; goal-oriented; self-confident; open-minded; versatile; inquisitive; adaptable; questioning; committed; money-motivated.	Team-oriented; communicative; project-oriented; critical; ready for action; willing to perform; environmentally aware; questioning; virtual; innovative; intelligent.
<b>Motto for life</b>	live to work	work to live	First live then work	Work is only one part of life
<b>Work-relevant characteristics of the generations</b>				
<b>Motivation</b>	Intrinsic (personal success)	Extrinsic (expectation of parents)	Intrinsic (materialism)	Extrinsic (social environment)
<b>Attitude towards the employer</b>	Loyalty; willingness to sacrifice; high work ethic; high commitment to work.	Ready for action, but not self-sacrificing; effective at work critical of existing structures	Universally applicable; values & goals; must be part of the personal; attitude; fit; personal fulfilment.	Loyalty; striving for self-realisation in private life.
<b>Expectations of the employer</b>	Stability; fairness; value stability; appreciate justice; opportunity for advancement.	Stability; open to criticism and feedback; local proximity and good accessibility; possibility of further training; opportunities for promotion.	Stability demands regular, constructive; feedback; opportunity for further training; opportunities for promotion; freedom of decision; interesting tasks.	Stability; demands regular, constructive; feedback; meaningful activities; project work; development opportunities.
<b>Behaviour towards hierarchy</b>	Authority is recognised; structures are adhered to.	Authority is accepted critical of authority.	Authority is questions existing structures.	Authority is ignored; breaks structures.

Generation BB is very interested in passing on their knowledge and experience to the younger generations, even if they have lost their knowledge edge due to technological progress. In general, it can be said that the exchange among each other is desired irrespective of generation and age. In a survey, those involved in generation BB mentioned respectful

interaction as a challenge, whereby the younger generations are considered to be the cause [13, pp. 7-8].

On the subject of collaboration, exchange and feedback the three younger generation X, Y and Z are clearly different from their BB predecessors. The generation BB likes to work in teams and exchange ideas personally, but is critical of feedback and tends to reject it. Generation X prefers to work for themselves and exchange ideas via digital means. They are open to feedback and constructive criticism [8, p. 165].

By comparison, generation Y is again more inclined towards teamwork and personal exchange. They demand open and regular feedback. Generation Z's thirst for information is a challenge for leadership, especially for older supervisors. Generation Z in turn has high expectations of their leaders, who need them for inputs and extensive feedbacks, they also prefer to conduct preferably face-to-face meetings. This generation likes to work on projects [2, p. 29].

The different preferences and attitudes are of great importance for generation transition because it shows that especially an employee of generation X is likely to be dissatisfied in teamwork.

Conclusion. The following is a summary of the generational characteristics and factors related to the work environment presented at the table 2. Today, employers and managers have to show flexibility, which requires large-scale systemic changes: cultural and operational, together with adoption of a new way of thinking, openness in demonstrating socially responsible behavior, creating a new corporate culture that would support cultural diversity, recognition, development and opportunities for alternative employment.

With generation Z, a completely new type of employee enters the labor market. Unlike previous generations who worked hard and made a commitment to their company, Generation Z does not want to give too much of themselves to the company. It tries to separate private life and work, to which it does not want to devote too much time. To organize the best interaction of different generations in the workplace, it is necessary to understand what employee behavior the company needs to achieve its goals, identify the "pain points" of employees that prevent them from being effective, and work with the problems of each generation, taking into account their needs, which, having one and the same source of the problem can be completely different. The direction of further research in this field is to identify the peculiarities of the interaction of generations in the conditions of online work.

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# INSTITUTIONAL SUPPORT OF THE FUNCTIONING OF THE CONSTRUCTION INDUSTRY OF UKRAINE

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The construction industry is unique in its coverage of various processes, from transforming raw materials into a specific manufactured material and then using such materials to create and sell the final product. Such stages are divided into three levels of processes, the effectiveness of which depends on the state of development of the economy and the development of institutional systems in this sector. Thus, in developed countries, the structures of the third level of processes will prevail, and in developing countries – of the first and second. The state of institutional development is formed through a set of organizations: public authorities, private and state-owned enterprises, and specialized state institutions in the construction field. Therefore, sufficient attention should be paid to the study of the features of the institutional system of the construction industry, determining the prospects for its development and promoting the creation of effective organizational structures adapted to today, both at the state and regional levels. The vector for increasing the development of the institutional structure at the regional level is explained by decentralization and the determined priority of regional development in the country's economic strategy.

Housing policy in the field of housing construction can be defined as a set of institutions and mechanisms, as well as interrelated legislative, organizational, and economic measures of the state's influence on the housing construction market, based on a single strategic goal and aimed at achieving the target indicators of the housing market, including meeting the needs of citizens in housing [1]. There needs to be more institutional development combined with a chronic shortage of resources and a lack of internal supply of innovative technologies for skilled labor, which is a crucial factor in increasing problems and challenges in the construction industry.

When considering the institutional system of the construction sector, it is essential to allocate separate levels of the hierarchy (Fig. 1), which also affects the formation of horizontal and vertical relationships. Including:

- the highest level is the macro level. Includes public administration;
- meso-level. There are regional authorities that regulate the use of land resources, and issue permits for the construction and commissioning of the facility, etc.;
- natural monopolies that dictate the size of tariffs for connection to

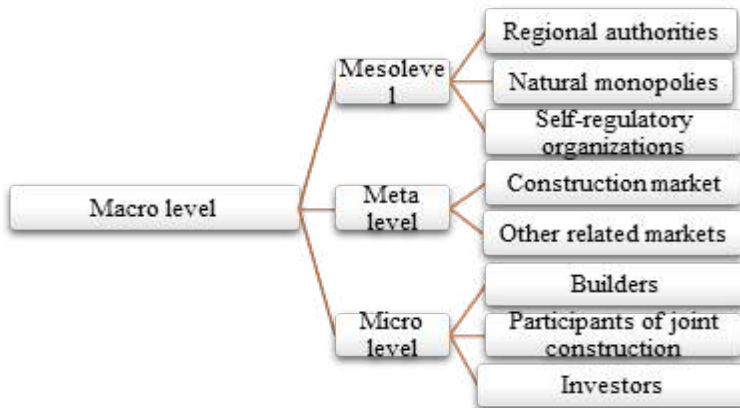


engineering infrastructure facilities; self-regulatory organizations in the construction industry that monitor compliance with construction norms and standards;

- meta-level – the organization of the housing construction market and its interaction with the commercial real estate market, the building materials market, the labor market, and the land market. This system of interaction at the meta-level can also include the institutional environment, which forms external conditions and determines the structure of links between the objects of the housing construction market [2];

- micro-level – includes developers, investors, and participants in shared construction who interact in the primary affordable housing market.

It should be noted that all micro-entities are influenced by decisions made at higher levels on both licensing of professional market entities and monetary policy, which has a direct impact on the implementation of construction projects and, accordingly, ensuring the circulation of working capital and the creation of funds for further development and implementation of innovative solutions.



**Fig. 1. Institutional structure of the construction sector**

*Source: developed by the authors*

The macroeconomic mechanism acts as a way of functioning of the construction industry as a whole and its individual enterprises and manages the mechanisms of pricing, financing, and lending, taxation, investment activity, development of business structures, regulation of relations of market entities for the purchase of construction resources and sale of construction products. Each of these mechanisms directly or indirectly affects the economic activity of the construction sector, and therefore, the state level of regulation of enterprise development at the macroeconomic level should be clearly worked out, interconnected, coordinated, and endowed with real



means and actions. As for the implementation of the policy of intersectoral cooperation in construction projects in the context of resource constraints, the implementation of this strategic management toolkit for the Ukrainian economy is a difficult task both in the domestic socio-economic environment and at the level of project stakeholders. [3, p. 142].

Relations in the field of construction are regulated by several normative legal acts, primarily the Constitution of Ukraine, the Civil, Commercial and Land Codes of Ukraine, as well as the Laws of Ukraine, which are listed in Table 1.

*Table 1*

**Main legislative acts in the field of construction**

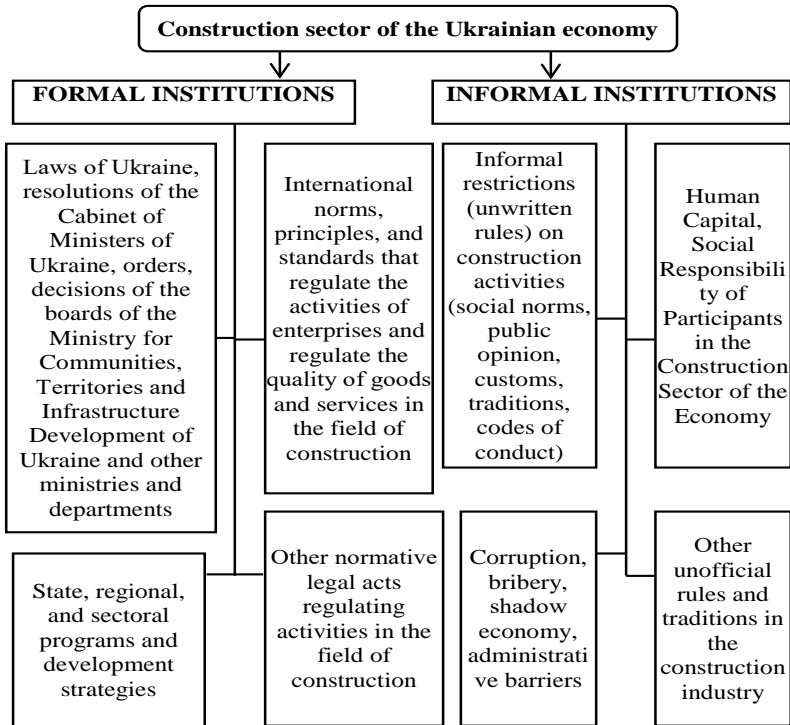
<b>Laws of Ukraine</b>	<b>Regulatory Issues</b>
About the basics of urban planning	It defines the legal, economic, social, and organizational principles of urban planning in Ukraine. It aims to form a full-fledged living environment while ensuring the protection of the environment, rational use of natural resources, and preservation of cultural heritage.
On Regulation of Urban Plan-ning Activity	It establishes the legal and organizational foundations of urban planning and aims to ensure the sustainable development of territories, considering state, public, and private interests.
On the General Scheme of Planning of the Territory of Ukraine	Approves the General Scheme of Planning of the Territory of Ukraine, which determines the priorities and conceptual solutions for planning and using the country's territory, improving settlement systems, and ensuring sustainable development of settlements, development of industrial, social, engineering, and transport infrastructure, formation of a national ecological network.
About architectural activity	It defines the legal and organizational principles of architectural activity. It aims to form a favorable living environment to achieve aesthetic expressiveness, economic feasibility, and reliability of buildings, structures, and complexes.
On Liability for Offenses in the Field of Urban Planning	Establishes the responsibility of legal entities and individual entrepreneurs (subjects of urban planning) for offenses in the field of urban planning.
About comprehensive reconstruction. quarters (microdistricts) of outdated housing stock	Determines the legal, economic, social, and organizational principles for the comprehensive reconstruction of quarters (microdistricts) with the replacement of obsolete residential and non-residential funds.
On Land Management	It defines the legal and organizational framework for activities in the field of land management and is aimed at regulating relations that arise between state authorities, local governments, legal entities, and individuals to ensure sustainable development of land use.
On Financial and Credit Mechanisms and Property Management in Housing Construction and Real Estate Transactions	Establishes the general principles, legal and organizational principles for attracting funds of individuals and legal entities into management to finance housing construction and the peculiarities of managing these funds, as well as the legal principles and features of the issue, placement, and accounting of certificates of real estate funds.

*Source: developed by the authors*

The lack of proper legal regulation of issues between institutional entities and the lack of maturity of the institutional environment in general in this

sector of the economy causes a situation where most developers-developers work under short-term contracts within the framework of temporary development-type structures, which negatively affects their ability to plan and develop in the strategic period.

Figure 2 systematizes the main components of the formation of the institutional system of the construction sector of our country's economy. They are divided into two types: formal and informal.



**Fig. 2. Components of the formation of the institutional system of the construction sector of the economy**

*Source: developed by the authors*

Formal ones have their documentary approval at the state level. Informal ones are formed based on a combination of human capital and restrictions and informal rules based on which people interact. The influence of social responsibility, public opinion, and corruption in the country is essential and regulating.

In the state management of construction, two central bodies are vested with powers, namely the Ministry of Housing and Communal Services of Ukraine and the Ministry of Regional Development and Construction of

Ukraine, acting based on relevant resolutions of the Cabinet of Ministers of Ukraine.

State management of construction, housing, and communal services is based on considering the interests of the state, regional levels, and local self-government, which is caused by the division of state property into national and local with the appropriate assignment of construction and housing and communal services to local self-government bodies. In managing the areas under study, the competent authorities perform their functions mainly through coordination, coordination, control, and supervisory powers in the current economic conditions.

As already mentioned, public administration in this area covers two essential components of the domestic economy:

- construction, which is a branch of material production that ensures the creation and reconstruction of industrial, communal, social, cultural, and residential facilities;

- the housing sector is focused on managing the housing stock and maintaining, constructing, and repairing communal facilities.

Construction management includes the implementation of a single profile policy in the industry, planning, and development of organizational and legal principles of design and construction, their actual, technical, and financial support, standardization, work with personnel, organization of safety and labor protection devices, implementation of measures to improve the quality of architectural and construction services, control over compliance with building codes, norms, and standards, etc.:

- construction is a branch of material production that ensures the creation and reconstruction of industrial, communal, social, cultural, and residential facilities. Construction management includes the implementation of a single profile policy in the industry, planning, and development of organizational and legal principles of design and construction, their actual, technical, and financial support, standardization, work with personnel, organization of safety and labor protection devices, implementation of measures to improve the quality of architectural and construction services, control over compliance with building codes, norms, and standards, etc.

- the housing sector is focused on managing the housing stock and maintaining, constructing, and repairing communal facilities. The housing stock is a set of residential buildings and residential premises independent of the form of ownership. It is divided into objects of the state, the public housing fund, the fund of housing and construction cooperatives, and private housing stock. Housing and communal services ensure the operation of housing and communal facilities, the selection of necessary personnel and their placement on the ground, the implementation of a unified technical policy in the industry, the implementation of measures to improve housing

and communal services of the population, industrial and socio-cultural facilities, as well as the development and provision of organizational support for management decisions.

It should be noted that the management of housing and communal services has its characteristic feature: the scope of powers granted to local executive authorities in managing this industry. Implementing the decentralization reform in the country has also affected the redistribution of functions between all subjects of the construction industry. The latter list includes executive authorities, local governments, enterprises, institutions, and organizations. The Ministry of Regional Development performs a wide range of tasks and functions. It deals with issues from making proposals for state and regional policy in the construction field to direct control to their implementation within its powers based on developed and approved state standards, norms, and rules. Within the limits of its powers, the said Ministry, based on the current legislation, issues its own orders and submits proposals for improving the legislation for consideration by the President of Ukraine and the Cabinet of Ministers of Ukraine.

There are departments of regional development, urban planning and architecture, housing and communal services, and departments of urban planning, architecture and housing and communal services at the district level to ensure the institutional hierarchy of state management of construction and housing and communal services at the regional level. These administrative bodies manage the spheres of construction and housing and communal services entrusted to them, are responsible for their development in the territory under their jurisdiction, and coordinate the activities of enterprises, institutions, and organizations belonging to the sphere of management of the relevant local state administration.

Direct state architectural and construction control was previously carried out by the State Architectural and Construction Inspectorate and the State Architectural and Construction Control Inspectorate, which was part of local urban planning and architecture bodies. However, with the reform in 2020, the State Inspectorate of Architecture and Urban Planning of Ukraine, the State Service for Urban Planning of Ukraine, and the State Urban Planning Service of Ukraine were established by the Government's decision. State Agency for Technical Regulation in Urban Planning of Ukraine [4].

The State Inspectorate of Architecture and Urban Planning of Ukraine (SIAU) is the central executive body implementing state policy on state architectural and construction control and supervision.

The State Service of Urban Development of Ukraine is responsible for the execution of documents that give the right to perform preparatory and construction works and acceptance into operation of completed construction facilities. The State Agency for Technical Regulation in Urban Planning

of Ukraine is a central executive body whose activities are directed and coordinated by the Cabinet of Ministers of Ukraine through the Minister for Communities and Territories Development and which implements state policy on technical regulation in urban planning. Minister for Communities and Territories Development of Ukraine Oleksandr Chernyshov noted that the reform of the urban planning industry, part of which was the creation of the SIAU, is based on three main principles – liberalization, digitalization, and strengthening responsibility. Obtaining permits in Ukraine has already been digitized, and there is no need to contact officials. If the developer has an adequately executed land plot and a properly executed project, he has the right to build on this plot without permission. It is only necessary to notify the state about the start of construction in a declarative way. Also, in the Unified State System in the construction field, a mechanism for deciding to inspect without the participation of an official has been introduced [5].

*Table 2*

**Comparison of functional tasks of SACI and SIAU**

Sign	State Architectural and Construction Inspectorate of Ukraine	State Inspectorate of Architecture and Urban Planning of Ukraine
Main task	Implementation of state policy in the field of architectural and construction control	Implementation of state policy on state architectural and construction control and supervision
Subordination	The Cabinet of Ministers of Ukraine, through the Minister for Communities and Territories Development	The Cabinet of Ministers of Ukraine, through the Minister for Communities and Territories Development
Excellent features	Control over compliance with legislation in urban planning, project documentation, state standards, and building codes and procedures for the commissioning of constructed facilities. Permitting and registration services. Licensing	Control only over specific categories of construction projects classified as high-risk consequences (CC3) and objects constituting a state secret. Initiates, following the established procedure, bringing officials of the objects of supervision to disciplinary responsibility
Structure	Central office. Territorial bodies	Central office. Territorial bodies
Type of Organ	Architectural and Construction Control Authority	Body of control and administrative appeal of decisions on registering the right to perform construction works and accepting objects into operation
The Human Factor	Many human relationships	Digitalization, reducing the impact of the human factor

*Source: developed by the authors*

Thus, the modern model of distribution of powers in the field of urban planning has the highest body of state administration, the Minister for Communities and Territories Development, which ensures the formation of policy in three areas:

- in the field of local self-government development, in the field of construction, urban planning, etc.;

- in the field of urban planning control and supervision. In particular, the implementation of state policy in the field of urban planning takes place through the activities of the State Service for Urban Planning, through the maintenance of registers and the issuance of certificates by the responsible executors of works on the creation of architectural objects and the relevant bodies of architecture and urban planning, local self-government bodies or united territorial communities; Implementation of state policy in the field of urban planning control and supervision is carried out by State Inspectorate of Architecture and Urban Planning of Ukraine.

- the formation of policy on technical regulation in urban planning is carried out through the functioning of the State Agency for Technical Regulation of Urban Planning.

The distribution of powers for urban planning supervision is shown in Figure 3.



**Fig. 3. Distribution of powers for urban planning supervision**

*Source: developed by the authors*

Another essential factor of a high-quality institutional system is international norms, principles, and standards that regulate the activities of enterprises and the quality of goods and services in the construction field. International standards are standards in a particular field of activity, adopted by a standardization organization, and are a reference for a wide range of users of a particular industry.

According to the Decree of the Cabinet of Ministers of Ukraine "On

Standardization and Certification", the State Building Codes (DBN) were equated to standards. This provision of the Decree of the Cabinet of Ministers of Ukraine was in force until 2004. In 2009, the Law of Ukraine "On Construction Standards" [6] was adopted, establishing that DBN is a normative act approved by the central executive body to form state policy in construction. State building codes are constantly updated, and their list is expanded, particularly in updating the requirements for buildings and structures regarding fire safety, mechanistic resistance, hygiene, health, environmental protection, safety and accessibility during operation, protection against noise and vibration, etc. The latest technologies and innovative solutions contribute to improving the quality of construction, and therefore, improving building codes is a natural reaction to these trends. The main thing in this aspect is the timeliness and relevance of the changes made.

The Law of Ukraine "On Standardization" [7] does not apply to construction standards. In turn, the Law of Ukraine, "On Construction Standards," does not apply to activities in standardizing building materials and products. Accordingly, today, the standards are not building codes but standards in the construction field. State standards in construction mostly start with "DSTU B D...", the complete list of these standards is contained in the electronic catalog of national standards.

Energy is efficient, and environmental design support is carried out using the voluntary LEED certification "Leadership in Energy and Environmental Design". The assessment according to the LEED standard is based on a 100-point scale according to five criteria: the place of green building, the efficiency of water use, energy and atmospheric air, eco-resources and eco-materials, and the high quality of interior design. A distinctive feature of the LEED assessment method from the BREEAM scheme is the involvement of a certification auditor at the stage of project development. The involvement of LEED assessors during the construction, commissioning, or overhaul phase is not envisaged [8]. The application of BREEAM and LEED certificates in Ukraine is an example that we do not stand aside from implementing international environmental standards, which are optional. Improvements in the construction industry are an obvious problem that affects the increase in productivity and efficiency. Now, experts measure construction productivity by how quickly and at what cost buildings and infrastructure can be built. This directly impacts the prices of housing and consumer goods, as well as the strength and sustainability of the national economy.

Sustainable construction today is seen as a means of maintaining a healthy economy that ensures quality of life and helps minimize negative impacts on the environment, human health, and biodiversity. This approach fits into the modern concept of sustainable development due to its ability to improve

the environment, energy efficiency, and the well-being of future generations. However, the construction sector will ensure sustainable development if it works based on innovative technologies. Modern Innovative construction projects that are environmentally friendly and capable of achieving the overall goal of sustainable development should include energy-saving schemes (such as improved insulation), technologies for creating natural energy (such as solar panels), and technologies using new building materials [8, p. 62].

Engineers from the world's largest companies are working on creating innovative materials that allow you to build houses with unique characteristics and unusual shapes quickly. In seismically dangerous countries, for example, projects of buildings capable of rising above the ground during earthquakes are being developed.

Ukrainian developers have yet to boast of such innovations. The bulk of new residential buildings in Ukraine are built in the old way – from brick concrete using unpretentious materials for façade decoration. Most often, they are ready to install smart home control systems and use geosystems that allow them to save on heating and air conditioning of buildings. Ukrainian consumers cannot afford an apartment in a building built using the latest technologies [9].

Development strategy plays a vital role in the modernization of the construction industry. Such a strategy aims to create innovative communication between construction enterprises, making it possible to use production resources efficiently and achieve a stable, balanced development. The construction industry can only be considered as a separate unit with the involvement of other sectors of the regional economy, which are closely interconnected at the scientific, technical, and resource levels. In modern conditions, an essential form of communication is regional clusters, which unite a group of interrelated industries, a set of enterprises based on a territorial association of suppliers of raw materials and manufacturers of finished products, connected by a technological scheme of production [10].

The construction industry can only be considered as a separate unit with the involvement of other sectors of the regional economy, which are closely interconnected at the scientific, technical, and resource levels. In this regard, Lavrukhina K.O. proposes to apply the concept of "innovative construction cluster", which is a group of interrelated construction organizations concentrated on a specific basis in a particular territory, which complements each other, form unique competencies and diffusion of knowledge and skills, work in an innovative environment, with the help of which they increase the competition [11].

We agree with the opinion of scientists [12, p. 144] that public-private partnership in the field of construction can become an effective form of



cooperation since this cooperation is based on the recognition of the fact that both parties can benefit from combining financial resources, innovative technologies, and material resources management to ensure sustainable development of construction.

The introduction of international standards in construction is a good tool for attracting additional investment, including from international organizations. International standards in construction are developed by the International Federation of Consulting Engineers (FIDIC), founded in 1913 in Belgium and is currently the most significant international organization in construction consulting.

There are several types of FIDIC contracts (books), each of which is distinguished by a specific color coding for ease of recognition and work with them. The choice of one or another FIDIC contract book depends on the specifics of the construction work and the specifics of the legal relationship between the parties to the project [13]:

- direct, fast, or cheap project – "Green Book";
- employers' design (traditional project) – "Red Book";
- employer design (Multilateral et al. providing financing) – "Pink Book";
- contractor's design (traditional project) – "Yellow Book";
- EPC project/turnkey – "Silver Book";
- design, construction, project operation – "Golden Book".

All FIDIC books define the role of an engineer, essentially as an agent of the employer. First, an engineer is responsible for contract management, issuing instructions and notices, monitoring the work, and acting as a certifier [13].

FIDIC contracts are used worldwide – this is a unique universal tool containing a clear action plan for each party to the contract, not only for the parties (customer and contractor) but also for the engineer and his staff, customer and contractor personnel, subcontractors, etc. FIDIC pro formas are very detailed; they touch on almost all issues that may arise during construction [14].

FIDIC rules are known all over the world. Therefore, introducing their use in Ukraine will significantly expand the potential opportunities for attracting international financial organizations for construction, which would not have previously risked owning significant funds without clear and transparent standards for developing construction contracts.

Self-regulatory organizations, an element of the institutional structure, are a non-profit voluntary association of individuals and legal entities in a particular industry. In this case, in the field of construction. Self-regulatory organizations in the field of architectural activity shall be registered by the executive authority following the procedure established by law and establish rules and standards for the implementation of professional and

entrepreneurial activities, which are mandatory for all members. They can also certify performers of works and the creation of architectural objects and be involved in licensing.

For example, in Ukraine, there is the All-Ukrainian public organization "Association of Construction Industry Experts", which is a voluntary public association founded in 2010 to influence the urban environment, prevent corruption, as well as to protect the rights and interests of members of the Association, regulating their activities to ensure the proper quality of goods, works, and services and guaranteeing the protection of the rights of consumers of products. The Association has already ensured the conduct of more than 3.5 thousand professional certifications. Specialists and the involvement of this organization in the implementation of democratic reforms will strengthen its institutional capacity (to gain experience in public dialogue, form horizontal and vertical ties between the main stakeholders, and build a coalition of self-regulatory organizations in construction) [15].

The development of the introduction of self-regulation institutions in the field of architectural activity takes place as an alternative mechanism to the state regulation of access to the construction market of performers of particular works. In addition to this Association, self-regulatory organizations' driving forces are the Guild of Engineers for Technical Supervision of the Construction of Architectural Objects, the Guild of Designers, and the National Union of Architects of Ukraine.

Informal restrictions (unwritten rules) of construction activities, which are based on social norms, public opinion, customs, traditions, and fashion trends, are also an institutional component of the residential real estate sector. For our ancestors, constructing a new house was one of the family's most meaningful events. Houses were built thoroughly, with the expectation of several generations. Many customs and rituals were associated with this event, helping to build a reliable home where well-being and harmony flourish. Now, most of the rules and customs that were observed in the old days are forgotten and irrelevant as materials and technologies have changed. However, the villagers still remember and adhere to many traditions, rules, and construction rituals created in past centuries [16].

The issue of housing construction in rural areas or simply outside the city has intensified with the pandemic, when people have been forced to work where they live, and the main request for purchasing new housing has become an ample personal space and the availability of jobs for each family member. The desire of citizens to lead an ascetic lifestyle has previously had a growing dynamic due to the high dynamism of life in large cities and information overload.

Analysts note a change in consumer needs. There are such trends in housing construction as:

- increasing the number of people who want to live comfortably and in safe conditions. We are talking about service on the territory of construction complexes and the level of external and internal infrastructure;
- multifunctional projects. Creation of residential complexes containing residential, shopping, entertainment, and office real estate;
- requirement for the presence of a green zone. Buyers choose objects with high-quality landscaping of the local area or the presence of a park or square within walking distance from the apartment is a good architectural solution.

Building identical block houses has been considered bad form in recent years, even for economy class. Developers are trying to diversify their projects to make them competitive and recognizable due to dynamic facades, bizarre shapes of buildings, asymmetrical glazing, and vertical landscaping. Even in residential complexes without an original architectural concept, developers take care of their characteristic appearance, for example, providing air conditioning baskets on the facades, etc.;

- ergonomics and comfort. So, spacious kitchens-living rooms turn one-room apartments into full-fledged "two-bedrooms", and particular niches can be used to equip a dressing room;

- eco-houses. Potential owners of eco-houses choose affordable or suitable housing in footage and safe materials that do not harm nature. With eco-construction, it is not enough to build just a wooden house. The new trend forces developers to change - replenish the professional team and look for innovative solutions. Developers are starting to look for an ecologist to join the team. It is needed to analyze the soil at the site of future construction. Eco-outsourcers are also appearing on the market. These are companies that help businesses make them more environmentally friendly. Such companies have an environmental engineer, a nature conservation specialist, and an Environmental Lawyer.

Global residential real estate market trends are increasingly proving their effectiveness and attractiveness to consumers. Hence, Eco-friendly technologies, intelligent houses, energy-efficient buildings, Child-friendly infrastructure, creative cities, Barn House houses, and much more are the types of requests of the population that the residential real estate market should respond to and, accordingly, manufacturers of building materials and developers.

Human capital is the informal factor that ensures the existence of the entire institutional system of the construction industry. In 2019, there were 29.6 thousand people in the construction sector. Construction enterprises, which employed 268 thousand people. Employees, and 22.9 thousand. Individual entrepreneurs, whose number of employees is 17.1 thousand. Persons. In total, the industry employs 312.3 thousand people. Persons

(3.6% of the total number of employed employees in business entities for all types of economic activity). For comparison, in the EU countries, this figure ranges from 4.5% to 6.5% [17].

When assessing the social responsibility of participants in the construction sector of the economy, according to V.V. Smachylo, the standard ISO 26000:2010 "Guidelines for Social Responsibility" is appropriate. Therefore, it is advisable to assess the social responsibility of the enterprise according to the following problems: organizational management (principles of social responsibility); human rights, labor practices; Environment, conscientious business practices, problems related to consumers, participation in the life of communities, and their development. Following the problems mentioned above, the scientist proposes to form indicators for assessing the social responsibility of a construction enterprise (SRBP), considering their industry specifics. Based on the recommendations on substantiation of the system of evaluation indicators of social responsibility of enterprise, it is necessary to distinguish partial and general, quantitative and qualitative, external and internal indicators of assessment, taking into account the efficiency and convenience for management, compliance with goals, criteria of international standards and industry specifics.

The last years of the development of the Ukrainian economy (especially 2019-2021) have been a time of significant changes and upheavals. The COVID-19 pandemic and its consequences have affected the development of all sectors of the economy, including construction, as this area is susceptible and vulnerable to the influence of external and internal environmental factors. March-April 2020 marked a decline in the implementation of construction projects. Due to lockdowns and border closures, the supply chains of building materials were interrupted, and work practically stopped, which affected global market trends. In particular, in the European Union, as of the fall of 2020, the drop was more than 4%.

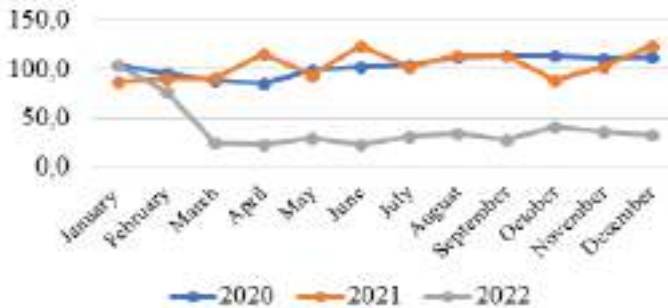
Moreover, although the industry began to recover in the summer, it did not reach its pre-crisis level. A new wave of COVID-19 in the fall of 2020 knocked down builders again. Residential real estate was the first to feel the effects of the coronavirus crisis. In the United States, for example, 12% fewer apartment buildings were built in 2020 than in 2019.

Ukraine is too dependent on global economic changes, so the global crisis has seriously affected the domestic construction industry. In particular, the pace of housing construction in 2020 slowed down significantly. Thus, the study of the latest trends in the construction industry and further prospects for the development of the real estate sector remains relevant because only the analysis of the industry's current state makes it possible to assess future development prospects.

The construction sector plays a significant role in the economy of every

country. Every country must build new housing, roads, pipelines, and commercial and industrial buildings. The construction sector in Ukraine occupies a significant place in the creation of the country's GNP (during 2017-2020, the share of construction in the structure of GNP reached 3%), in capital investments (more than half of the number of capital investments in the country in 2020 (52%) was directed to the creation of construction products) [18].

However, quarantine restrictions during 2020-2021. I have had a significant impact on the work of the construction industry. In addition, due to the closure of borders, there were problems with the timely receipt of imported construction materials, components, etc. This could not but hurt the volume of industry products (Fig. 4).



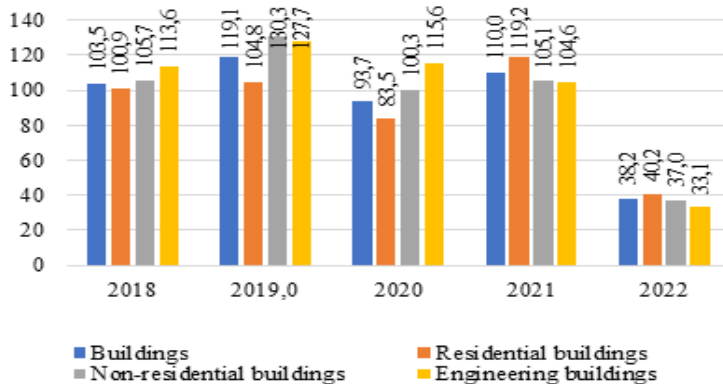
**Fig. 4. Indices of construction production in Ukraine in 2020-2021 (month before the corresponding month of the previous year)**

*Source: built by the author on data from [18]*

The housing sector was the most affected: the index of construction production for January-November 2020 in the residential real estate segment was 82.6%, compared to the same period in 2019 (Fig. 5). In the capital, the decline in construction was felt especially acutely because Kyiv is traditionally the flagship of the industry: in January-September, only 59% of the area of residential buildings that were erected during the same time in 2019 was put into operation.

As shown in Figure 5, the most significant decline occurred in April-May 2020, but in the summer of 2020, the industry reached 2019 and grew in the fall. If we analyze the indices of the construction industry by product type, we can see how much the construction products decreased in 2020. A drop in the index of construction products close to the indicators of the beginning of the year characterizes it. However, by the end of the year, the value had improved significantly, indicating a generally positive year. As we can see, in 2022, due to a large-scale military invasion, since March, there has been

a drop in the indicator to 24.3% from the leading month of the previous year. A slight improvement was observed in the future, with a peak value in October 2022, when the index was 41.1%. It can be emphasized that a slight revival in the construction industry in 2022 is still observed.



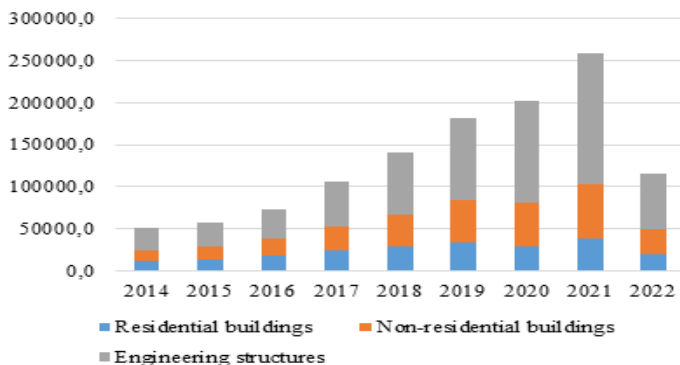
**Fig. 5 Gives the dynamics index of construction products in Ukraine in 2020-2022**

*Source: built by the author on data from [18]*

As shown in Figure 5, the most significant decline among all types of construction products occurred in residential buildings. At the same time, the volume of construction of non-residential facilities remained almost unchanged (99.3%), and the construction of engineering structures even outstripped the pace of 2019 (111.6%). These are the consequences of implementing the state program "Great Construction", within which more than 3.9 thousand square meters were repaired. For ten months of 2021, the volume of construction products produced in the "Transport facilities" category exceeded UAH 50 billion. Thanks to engineering structures, their growth in 2020 by 11.6% compared to 2019, the entire construction industry managed to compensate for the decline in the construction of residential buildings in 2020.

In general, it should be noted that the decline in 2020 is a consequence of pandemic processes and a general decline in business activity of business entities, which is confirmed by the intensification of construction in 2021 for all groups, especially for residential real estate, the index of which in 2021 was the highest compared to the lowest in 2020, which are taking place in Ukraine, for construction, where the group of engineering structures has suffered the most significant reduction.

Figure 6 indicates an increase in the construction of engineering structures throughout the analyzed period.



**Fig. 6. Volume of manufactured construction products (completed construction works) by its types, in million UAH**

*Source: built by the author on data from [18]*

As shown in Figure 6, the construction of engineering structures declined during 2014-2015, but since 2016, the upward trend has returned, which did not stop even during the pandemic year of 2020.

In 2021, there is one of the most significant increases in the volume of manufactured construction products for the entire period under study. Similar growth rates took place in 2016-2017, and after the pandemic recession, they returned in 2021. It is worth noting that in 2022, in terms of the structure of manufactured construction products, the construction work in the segment of engineering structures decreased the most, given that their share in the total volume in recent years was the largest: it was 54% in 2019, increased to 60% in 2021 and even with the most significant reduction of 58% during the war year, accounts for 56% of the total volume of construction products. A significant reduction was also recorded in the construction of non-residential buildings – a 53% decrease in volume. However, the reduction is 20% in the transport and communication buildings sector and 48% in industrial buildings and warehouses.

Figure 7 shows the dynamics of production of residential and non-residential buildings in Ukraine for 2010-2020. According to [18], the volume of construction of non-residential buildings exceeded the volume of residential construction. Both indicators tend to increase, but growth for the residential sector stopped in 2020.

As for the regional distribution of construction products by the nature of construction in January-September 2021, only in four regions of Ukraine did the volume of new construction exceed the volume of overhaul and reconstruction of buildings, namely in Volyn, Lviv, Kharkiv, and Kherson regions. In other regions, the volume of repairs and reconstruction exceeded



the volume of construction of new products.



**Fig. 7. Dynamics of production of residential and non-residential buildings**

*Source: built by the author on data from [18]*

It should be noted that in terms of the dynamics of production of residential and non-residential buildings after 2020, there was a break in the trend, which manifested itself in an increase in activity in the housing stock compared to non-residential, the priority of which in terms of volume growth took place from 2016 to 2020 inclusive. This situation is best reflected by the consequences of the global pandemic, which raised the question of the feasibility of withdrawing employees to offices, the lion's share of which belongs to the non-residential fund. The possibility of saving the cost of maintaining office space with the availability of online activities using appropriate digitalization tools is an excellent alternative to traditional business, which is now used by numerous leading companies in the world, successfully combining office and online work.

During the 25 years of Ukraine's independence, the construction industry's share in the economy (GDP) has declined and decreased by almost three times, to 2.2% in 2015. However, in recent years, there has been a positive development. In 2021, the GDP of the construction industry was 6.8%, which equates to the same indicator in the "healthy economy" of the European Union, where construction brings about 6-8% of GDP. In addition, the construction industry provides orders for more than 30 related sectors of the economy (from mining to interior design services). The view of construction as a system of interconnected markets, rather than a set of separate industries, helps to understand the problems of the economy in a new way and to find tangible ways of "recovery". The creation of a new, modern, and effective regulatory system for at least three markets – metal building structures, commercial and residential real estate – can create the basis for



the development of business sites, improve the overall energy efficiency of housing construction, and have a positive impact on the possibilities of reconstruction and construction of infrastructure facilities [24].

The construction sector is always sensitive to the deterioration of the economic situation in the country. However, industry segments may behave differently depending on the nature of the crisis and other circumstances. In 2020, internal problems and the coronavirus pandemic collapsed the dynamics of housing construction.

During 2021, the dynamics of the development of construction activities were quite unstable; there was a periodic slowdown and acceleration of the construction production index, but in the end, it was possible to surpass the previous year's results. The industry's activities were supported by stable support from the state (in particular, active financing of "Great Construction" projects aimed at improving transport and social infrastructure), which became the leading investor in conditions of weak investment activity. The prominent increase in the volume of completed construction works was observed at the end of the construction season when construction projects were implemented at a high pace to use budget funds against favorable weather conditions. In addition, a mortgage lending program was launched to create opportunities for Ukrainians to purchase housing on acceptable terms. The priorities of spending the population's funds also changed, which was reflected in an increase in the population's inclination to a more rational distribution of expenses and the preservation of saved funds through their investment in housing assets, which contributed to an increase in housing construction. As a result, at the end of 2021, the index of construction products increased by 6.8% (2020 +5.6%). According to the State Statistics Service, in December 2021, the growth of the index of construction products was 23.5%. The share of new construction was 29.6%, repair (overhaul and current) – 45.1%, and reconstruction and technical re-equipment – 25.3% [11; 23].

The development of construction was influenced by the factors listed in Table 3. If we talk about the regional cross-section, then in 2021, growth was observed in 13 regions, most of all in Ternopil (by 37.3% in 2021), Vinnytsia (by 20.1%), and Cherkasy regions (by 17.6%).

The significant growth is primarily due to the increased construction of engineering structures (infrastructure, industrial facilities, etc.) and residential buildings. The most significant reduction is in Chernivtsi (by 38.9%), Zakarpattia (by 26.1%), and Kirovohrad (by 22.3%) due to a reduction mainly in all types of construction products.

In 2021, Ukrainian enterprises carried out construction works of almost UAH 254 billion. The construction production index reflects an increase of 105.1% compared to 2020.

Table 3

### Factors influencing the development of construction

Salary No.	Influencing Factor	Actual data	Reference information
<i>Positive Impact</i>			
1	A change in the priorities of spending household funds in response to pandemic challenges, which was reflected in an increase in the population's inclination to a more rational distribution of expenses and the preservation of saved funds through their investment in housing assets and the launch of a state mortgage lending program	The volume of housing construction in 2021 increased by 19.2% (-16.5% in 2020)	According to the Ministry of Finance, as of February 3, 2021, 1593 loan agreements totaling UAH 1.371 billion were signed by authorized banks to implement the Affordable Mortgage 7% State Program, of which 20.81% were in the primary market. According to the NBU, mortgage loans in national currency provided to households as of the end of December 2021, compared to the beginning of the year, increased by 46%.
2	The improvement in the results of production activities of individual enterprises of the real sector was reflected in the revival of demand for non-residential buildings	The volume of construction of non-residential buildings increased by 5.1% in 2021, compared to +0.3% in 2020.	According to the State Statistics Service, for nine months of 2021, the share of enterprises that made a profit increased to 77.1%, compared to 74.6% for six months. Oct. 2021
3	The increase in funding for the State Road Fund, which is the primary source of implementation of "Great Construction" projects aimed at improving transport infrastructure, made it possible to show positive results in constructing engineering structures	+4.6% in 2021 compared to +15.6% in 2020	According to the State Treasury, in 2021, the financing of the State Road Fund was 1.7 times higher than in January-November 2020
<i>Deterrent effect</i>			
4	Increase in costs due to the rise in the cost of materials used in construction	The price index in construction increased by 17.5% (+3.7% in 2020)	According to the State Statistics Service, in 2021, the producer price index of metallurgical products increased by 43.8% (decreased by 4.8% in 2020), the production of rubber and plastic products, other non-metallic mineral products - by 12.1% (increased by 1.6%, respectively), mechanical engineering - by 10.5% (decreased by 3.2%).

Source: built by the author on data from [18; 19; 23]

In the construction sector, 29.6 thousand enterprises employ 268 thousand employees, and there are also 22.9 thousand individual entrepreneurs with 17.1 thousand employees. In total, 312.3 thousand people are employed

in this industry, which is 3.6% of the total number of employees working in various sectors of the economy. For comparison, in the countries of the European Union, this figure ranges from 4.5% to 6.5%.

It is necessary to create favorable conditions for the development of this industry, considering the population's interests as a consumer to ensure the growth of the national economy and improve its investment attractiveness. The experience of developed countries testifies to the importance and necessity of state regulation, which provides for the intervention of public authorities in the market mechanism to achieve the socio-economic development goals. Such regulation should consider the interests of all contact audiences and ensure the balance of their interests through specific leverage tools. The analysis of scientific sources on the issue of levers of state regulation of the residential real estate construction sector shows that the authors need to distinguish levers by groups or types of classification. Levers should be singled out because they characterize a separate link in the system of state regulation, which will make it possible to improve the effectiveness of the state housing policy and develop a strategy in various areas of its implementation. For a better understanding of the impact of levers of state regulation on the construction sector of residential real estate, Table 4 summarizes the classification features and the composition of levers tools. This study proposes allocating the following groups of levers: administrative-legal, financial-credit, tax, budgetary, and socio-informational. The use of levers of economic policy is the competence of subjects, which may include individuals, groups of people, and governing bodies. The object of influence can be various aspects of business processes in the construction industry. The influence of subjects can take both conscious and unconscious forms. Control levers manifest conscious activity and are carried out through the goal-setting phase.

Depending on the essential characteristics of the levers, the impact can be divided into two segments: regulation and management. Regulatory influence is realized by an arsenal of tools of indirect, managerial action—with levers that are not immanent to the object. These are administrative, command, and political methods in the economic system. The subjects of management in the sphere of urban planning are the Verkhovna Rada of Ukraine, the Cabinet of Ministers of Ukraine, and the central executive body authorities that ensure the formation of state policy in the field of urban planning, the central executive body that implements state policy in the field of urban planning, the central executive body that implements state policy on state architectural and construction control and supervision, bodies of state architectural and construction control, other authorized bodies of urban planning and architecture, local state administrations and local self-government bodies [21].

Table 4

**Classification of Levers of State Regulation of the Construction Sector of Residential Real Estate**

Leverage groups					
Levers-tools	Administrative and legal	Monetary	Financial	Social and informational	Budget
	Legal and regulatory framework	Mortgage lending	Tax Leverage	Information and reference activities	Targeted subsidies
Regulations	Norms/Regulations	Budget leverage		Subventions	Targeted Programs
	Standards			Monitoring activities	
	Sanctions	Monetary leverage		Government funding	
	Fines				
	– leverage of direct influence			– leverage of indirect influence	

Source: developed by the authors

Following the above list of authorities, the subjective influence on the enterprises of the construction sector includes such levels as:

- regional;
- state.

From 2015 to 2020, decentralization systemic reform of local self-government and territorial structure was carried out in Ukraine, which resulted in the creation of 1470 territorial communities and 136 districts. Attention should be paid to the current problems:

- lack of comprehensiveness of information necessary for managerial decision-making;
- insufficient qualification of employees of local executive authorities and local self-government bodies;
- low capacity of institutions to support regional and local development, noting its achievements, in particular, the formation of a new budget system and progressive budget equalization between hromadas.

The Law of Ukraine "On Amendments to Certain Legislative Acts of Ukraine on Decentralization of Powers in the Field of Architectural and Construction Control and Improvement of Urban Planning Legislation" created a new system of bodies of state architectural and construction control and transferred to the local level the absolute majority of powers related to the issuance of permits for the start of construction work and the commissioning of facilities. This has been repeatedly noted by the State Architectural and Construction Inspectorate of Ukraine, providing advisory assistance in acquiring the powers of local self-government bodies [21].

Urban planning issues should be fully dealt with by those who carry out local management. That is why urban planning reform focuses on increasing local self-government bodies' roles, powers, and responsibilities.

Such a lever of state regulation of the construction sector as monitoring activities is transferred to the jurisdiction of local authorities; such principles are included in the draft law No. 5655, which proposes new rules in urban planning. Let us present an expert vision of the direction of change: "Draft Law No. 5655 obliges the executive bodies of local councils to monitor construction in communities on an ongoing basis. For improper exercise of their powers, officials will bear certain responsibility. In addition, monitoring tools are changing – they are becoming digital and transparent. Since all the necessary information is contained in the Unified Electronic System in the Construction Sector (UESCS), it will not be difficult for the authorized bodies to verify the legality of construction. Also, through the e-system, the steps of all participants in the construction process will be recorded. All parties, including the executive bodies of local councils, will have electronic cabinets in the e-system and leave electronic signatures under decisions and documents" [22].

The functions of local authorities in the field of development monitoring are as follows:

- detection of unauthorized construction objects;
- constant monitoring of high-risk facilities;
- responding to reports of violations from legal entities and individuals.

According to experts, there is a tendency to artificially restrict competition in the construction sector at the regional level. Thus, it is noted that in the city of Kharkiv, in the process of reconstruction at the expense of the budget of housing facilities damaged as a result of hostilities, the company "Zhytlobud-1" received a monopoly position, which became the general contractor in the projects for the restoration of 135 high-rise buildings.

The state level is represented by the subjects of regulation, acting on a hierarchical principle and included in the block of executors of economic interests (according to the classification of A. S. Bulatov) [23]. The essential element of influence on the business environment is the mechanism for forming "rules of the game", which is implemented within the framework of the legislative function of the Verkhovna Rada of Ukraine. The development and implementation of state programs is of great program-targeted and applied importance.

Today, Ukraine is facing a crisis caused by the war. As of 14.06.22, 12900 apartment buildings (~13.5 million m<sup>2</sup>) and 107707 private houses (~1.9 million m<sup>2</sup>) were destroyed/damaged [24]. This puts forward specific requirements for systematic planning of the country's further development, which, in turn, requires a rethinking of construction strategies in the field

of residential real estate, taking into account innovative approaches and practices of urban planning, as well as the UN Sustainable Development Goals.

Based on the results of the system analysis of topical problems of construction and urban planning [24], we will present the main ones that require managerial decision-making at the national level:

- lack of a unified information system of urban planning cadastre;
- low percentage of urban planning documentation in digital format;
- termination of work on the development of urban planning documentation at the local level – comprehensive plans for the spatial development of the territory of the territorial community as a result of the military aggression of the Russian Federation against Ukraine (In 2021, 93 out of 1469 territorial communities, which is 6.3%, decided to develop comprehensive plans);
- curtailment of work on updating the necessary cartographic basis for the development of urban planning documentation;
- complexity and duration of obtaining urban planning conditions and restrictions (MOU), technical conditions for connection to engineering networks (TS), and permitting and registration procedures;
- inefficiency of the state architectural and construction control system, which increases corruption risks and reduces the investment attractiveness of Ukraine.

One of the functions of the state is to regulate competition in the construction services market. On the one hand, the declared principle of the globalized economy is liberalization, which provides for the free movement of all types of resources and goods, including services, and access to national markets not distorted by artificial barriers. On the other hand, it is possible to note the manifestations of protectionist measures with specific features for the construction industry.

The Directorate of Finance and Enterprise (DAFFE), in cooperation with the ECO, has developed indices for restricting foreign direct investment (FDI) for OECD countries [25]. The analysis includes construction services and is largely based on the OECD Code for Capital Liberalization. Caps are measured on a scale from 0 to 1, with the former implying complete openness and the latter denoting a ban on FDI. Restrictions on ownership (limits on foreign capital) carry considerable weight in light of their importance since, in order to trade in construction services, as a rule, there must be a representative office (branch) abroad. Capital is exported, and the production process and the final products must be built entirely in the host country. The following FDI regulation measures are included in the restriction indicators [26]:

- foreign direct investment limits;
- permits and inspections;

- restrictions on the composition of the Board of Directors;
- restrictions on the movement of labor;
- input and operational constraints.

The following priorities in urban planning are identified [24]: Judicentricism, rational spatial planning, ensuring a balance of settlement and jobs, sustainable urban mobility, inclusiveness, energy efficiency, environmental friendliness, transition to a circular model of the economy of community life support systems, comprehensive increase in the efficiency of resource use (including energy on both the consumption and supply sides) along with an increase in the share of local sources renewable energy and the construction of buildings according to the NZEB standard (buildings with close to zero energy consumption). Based on this, it is expedient to allocate another level of management in the construction sector, which has an indirect mechanism of influence and is implemented through the mediation of national institutions, namely, supranational. Its actualization is one of the globalized economic trends, consisting of the tendency to transfer power from the national regulatory system to supranational entities. The latter include, in particular, international governmental organizations, such as the UN, WTO, IMF, ILO, IOM, etc., and non-governmental organizations, among which we would like to focus on the activities of ISO. It is a non-governmental organization, the charter of which defines the task of its activities to promote the development of standardization and related activities in the world in order to ensure the international exchange of goods and services, as well as the development of cooperation in the intellectual, scientific, technical and economic fields. The principal regulations at the international level for construction companies are:

- information modeling of buildings. Data templates for construction sites used in the residential cycle of built assets. Concepts and principles (ISO 23387:2020) – the document defines the principles and structure of data templates for construction projects and takes into account the requirement to support digital processes for the exchange of information about any construction site;
- main industry classes for data exchange in the field of construction and facility management (ISO 16739:2018), an open international standard for building information model data;
- construction of buildings. Organization of information about construction work. Fundamentals of classification (ISO 12006-2:2015) – defines the basis for the development of classification systems for architectural environments;
- organization and digitization of information about buildings and engineering structures, including building information modeling (BIM). Information management through building information modeling.



Part 1. Concepts and principles (ISO 19650-1:2018) – the document provides recommendations for a framework for information management, including sharing, recording, versioning, and organization for all participants;

- organization and digitization of information about buildings and engineering works, including Building Information Modeling (BIM). Information management through building information modeling.

Part 2. Asset delivery stage (ISO 19650-2:2018) – the document defines the requirements for information management in the form of a management process in the context of the asset delivery stage and the exchange of information in it through construction information modeling;

- organization and digitization of information about buildings and engineering works, including Building Information Modeling (BIM). Information management through building information modeling.

Part 3. Operational phase of assets (ISO 19650-3:2020) – defines information management requirements for the operation and maintenance of assets (buildings and infrastructure);

- organization and digitization of information about buildings and engineering structures, including building information modeling (BIM). Information management using building information modeling.

Part 5. Security-Oriented Information Management Approach (ISO 19650-5:2020) – the document defines the principles and requirements for security-oriented information management at the maturity stage, which is described as "Building Information Modelling (BIM) according to the ISO 19650 series" and as defined in ISO 19650-1, as well as security- the targeted management of sensitive information that is received, generated, processed and stored as part of any other initiative, project, asset, product or service, or in connection with it;

- thermal insulation products for buildings. Lightweight expanded clay fillers formed on site. Part 1. Specifications for Bulk Products Before Installation – a document specifies insulation products before installation. This document also describes the product's characteristics and contains the procedures for testing labeling.

- Implementing international standards in the Ukrainian construction market creates more precise and transparent rules of the game, which can increase the country's investment attractiveness in the face of an urgent need to implement large construction projects. Some of them are planned to be implemented at the expense of international donors. Ukraine's recovery plan envisages three stages [27]:

1. Resistance. These are measures to restore the most important critical infrastructure facilities by the end of 2022;

2. Recovery – 2023-2025. This stage involves the reconstruction of social facilities and housing construction;



3. Modernization – 2026-2032, provides for measures for Ukraine's accession to the EU.

The first aid package of €668 million was allocated to the EU in the first month of the war. The second package of €1.6 billion will be used to rebuild damaged infrastructure and take urgent measures in the energy sector. According to current estimates, \$750 billion is needed for the 10-year reconstruction of the country [27]. Thus, much attention from international partners is focused on reconstructing the Kyiv region, where more than 27K infrastructure facilities were damaged, including more than 4500 residential buildings. It was from this region that the first large-scale reconstruction project was launched in January 2023. The Kyiv Regional Military Administration filed an appeal for the restoration of the facilities, and a special commission made a choice – which ones? In Irpin, Borodyanka, Hostomel, and the villages of Buzova and Myla, 18 apartment buildings will be restored, which will require more than \$19 million. Over \$12 million has been raised for this project through the UNITED24 platform [28].

Taking into account the world experience, the most common tool of urban planning regulation, which should be implemented in Ukrainian realities, is to put forward requirements for obtaining a construction permit with the mandatory inclusion in the project of a certain percentage of affordable housing, which can be transferred to local governments for granting ownership to specific households at prices below market prices. Alternatively, the application of such requirements in the case of specific conditions, for example, if the building density of a land plot exceeds a specific value, then such a building must have at least 20% of social housing (in terms of area or number of residential units).

As a result of the use of urban planning tools, it is possible to achieve the following requirements:

- correction of defects in the existing urban planning regulation, which leads to an insufficient supply of opportunities for housing construction, as well as to excessive payments to the budget;
- minimizing the impact of urban planning and housing construction processes, such as urban renovation and redevelopment, on the availability of existing low-cost housing;
- ensuring greater housing diversity and social differentiation in land use regulation and building design requirements to support economic well-being;
- ensuring the supply of affordable housing for low-income families in some regions of the city by including mandatory requirements for such construction in housing construction;
- using the possible benefits of specific urban planning solutions to address societal challenges, such as providing affordable new housing.

One of the stages of the modern development of economic processes is the formation of an innovative strategy of economic entities in the construction industry, which contributes to the growth of the level of competitiveness. When managing construction, it is necessary to consider the characteristic features of the development of the housing market, which affect the formation of a model of institutional and factor opportunities of the market and methods of their control. The housing market includes primary and secondary housing stock. Housing construction is about a roof over your head and a wide range of technological, industrial, and investment capacities, new jobs, filling budgets, etc. Given the number of families left homeless as a result of the war, Ukraine needs to take consistent steps towards restoring the damaged housing stock based on the principles of using advanced design and construction technologies, taking into account modern requirements for energy saving, infrastructure autonomy, and security, the comfort of living and landscaping of adjacent territories. Implementing strategic directions for the development of the residential real estate sector requires an integrated approach to using levers of state regulation.

Thus, qualitative changes in the institutional system of the construction industry of Ukraine are possible with investment in their development, which encourages the substantiation of investment decisions and the search for optimal mechanisms for the transition from the existing to the prospective system of institutions. Promoting the activation of various components of state support and regulation of the construction sector at the macroeconomic level will contribute to the development of the market mechanism, support the initiative of producers, and indirectly ensure the development of institutional systems at lower levels, which will ultimately provide favorable conditions for the functioning of all participants in the process.

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