ACCOUNTING AND FINANCIAL, INFORMATION AND LANGUAGE AND COMMUNICATION SUPPORT FOR THE SUSTAINABLE DEVELOPMENT OF THE AGRICULTURAL SECTOR: SCIENTIFIC, METHODOLOGICAL AND PRACTICAL PRINCIPLES

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The monograph examines the scientific problems of accounting and taxation development, analysis of production and economic activity, mechanisms for ensuring the economic security of agribusiness entities. The theoretical, organizational and methodical foundations of modern learning technologies in higher educational institutions and professionally oriented language training of specialists in the agricultural sector are revealed.

The collective monograph was published within the framework of the State Budget research topics “Innovative development of accounting, taxation and control in the system of ensuring the economic stability of enterprises” (state registration number 0121U109731) and “Finance, banking system and insurance in integrated rural development” (state registration number 0119U001573), “Information technologies and mathematical methods for the development of the agricultural sector of the economy” (state registration number 0120U105338), “Linguistic and professional training of specialists: lingual, social, cognitive, communicative and cultural aspects” (state registration number 0122U001178).

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Preface

Problems of functioning and development of agrarian enterprises are constantly studied by scientists, agrarian economists and practitioners. This is quite understandable and correct due to permanent, extremely dynamic changes in factors, mechanisms and tools of management. The effectiveness of management largely depends on the quality, reliability and completeness of its accounting and information support, analysis and control of economic activity and other business processes.

An effective system of accounting, auditing, taxation and control is an important factor for ensuring the economic stability of agricultural enterprises. This allows to identify financial risks, to manage resources effectively and ensure compliance with legislation and standards. Availability of effective financial mechanisms and access to credit resources is a key factor for stimulating the development of agricultural enterprises. The coherence and appropriate organization of accounting, analytical and financial support provide not only the qualitive information service for managers of different levels, but the effective functioning of the whole economic entities.

The creation of an innovative system of higher education is aimed at ensuring the competitiveness of the agrarian economy by training qualified specialists with high productivity, mobility, creativity, as well as by creating, implementing and spreading new ideas and technologies.

The materials of the monograph are aimed at scientific research, generalization and development of recommendations on possible ways to solve the main problems of accounting, financial, information and modern learning technologies in higher educational institutions and professionally oriented language training of specialists in the agricultural sector are revealed.

Realizing that not all aspects of the research topic have been comprehensively reflected in the collective monograph, and some provisions and conclusions may be the subject of scientific discussion, we hope that the theoretical generalizations, conclusions and recommendations developed in this study will be used by scientists, teachers, graduate students and students of higher educational institutions of agrarian and administrative profiles, employees of public administration and local self-government bodies, entrepreneurs and other interested persons who are interested in this issue.

In this monograph, the authors summarize and supplement the results of many scientific studies and developments on the construction of accounting, financial, information and language and communication support for sustainable development of agribusiness entities. The first section of the monograph “Mechanism for ensuring economic security of agribusiness entities” is devoted to highlighting the main problems and areas of their solution to ensure economic security of agribusiness entities: Vasilieva Lesia – paragraph 1.1, Volchans’ka Liudmyla – paragraph 1.2, Yurchenko Sergey – paragraph 1.3, Atamas Oleksandr – paragraph 1.4, Tkachenko Oleksandr – paragraph 1.5. The second section, “Development of the system of accounting, taxation and analysis of production and economic activity of agribusiness entities”, highlights the scientific, theoretical, organizational and applied foundations of accounting in the activities of the entity: Karamushka Daria – paragraph 2.1, Dubyna Olena – paragraph 2.2, Bardadym Mariia – paragraph 2.3. The third section of the monograph “Financial policy and mechanism of its implementation in the system of ensuring sustainable development of agribusiness entities”, is devoted to highlighting the main problems and solutions to the financial policy of agribusiness entities: Brovko Larysa – paragraph 3.1, Sirko Anna – paragraph 3.2. The fourth section of the monograph, “Modern learning technologies in higher educational institutions” Nuzhna Svitlana – paragraph 4.1. The fifth section “Language and professional training of the specialist in agricultural sector” Piddubtseva Olga – paragraph 5.1.

We express our deep gratitude to the reviewers of the collective monograph:

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SECTION 1. MECHANISM FOR ENSURING ECONOMIC SECURITY OF AGRIBUSINESS ENTITIES

1.1. IMPROVEMENT OF THE RISK MANAGEMENT MECHANISM IN THE FINANCIAL AND ECONOMIC SECURITY SYSTEM OF THE ENTERPRISE

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Summary. The concept of formation of the mechanism of risk management in the system of financial and economic security of the enterprise is proposed, which can be used as a template, as a set of basic measures aimed at assessing and managing the risks of the enterprise, but this method will be valid for managing static and forecasted (serial) risks. A positive feature of such management is its universality for any enterprises.

The proposed possibility of ranking risks allows the risk management of enterprises to form a toolkit of risk assessment and management depending on the following dynamic conditions: if it is impossible to fully manage risk as a phenomenon, avoiding the development of catastrophic consequences ensures the support of indicators, which leads to risk within controlled value limits, most often, according to level of influence and other characteristics. From this it follows that the risk itself does not have a destructive effect, in the conditions of a risk event, which develops with the cooperation of several factors. The most significant from a dynamic point of view are the factors of place, time, and action.

A creative (creative) model of dynamic enterprise risk management was developed, based on the principles of three lines of protection (operational management, internal control (first line), compliance, risk management (second line), internal audit (third line)), a distinctive feature of which there is a modularity that allows you to synchronize the assessment of the enterprise's external environment, the setting of development goals and the identification of potential risk events, the implementation of which allows you to carry out current and final monitoring of risks and to preemptively respond to a risk event using the appropriate risk level of the toolkit.

Keywords: mechanism, enterprise, risks, management strategy, financial and economic security

The relevance of the research topic is determined by the need to implement intensive transformations in the real sector of the economy of Ukraine, associated with the transition to a new level of economic and economic relations, modernization of corporate management systems, and the introduction of new information and

production technologies.

In these conditions, problems in the field of control and risk management at modern enterprises are most acutely manifested. Solving this problem refers to the type of complex multi-criteria tasks and actualizes scientific research work by overcoming various obstacles in the following areas: the predominance of conservative risk management models, which are the cause of the low efficiency of modern risk assessment and limit control horizons; transformation of the external and internal business environment; low rates of adaptation of the regulatory framework and standards regulating activities in the field of internal control, audit and risk management. The presence of a large number of local regulatory documents, sometimes contradicting each other, leads to the emergence of confrontations and conflicts of various nature and complicates the procedures of analysis, assessment and risk management, thereby reducing the efficiency of business processes.

In order to overcome the mentioned obstacles, systematic improvement of the management of risk analysis, assessment and control processes using more effective tools is necessary. At the same time, it is important to emphasize that in the conditions of intensive development of information and knowledge-intensive technologies, an approach to dynamic risk management of enterprises using approaches, concepts, methods and tools from various fields of knowledge - innovative and creative management, psychology, marketing, etc. is allowed.

In modern conditions, due to the need to create prerequisites for a technological breakthrough, and the rapid development of information and communication systems, risk owners - managers and owners of enterprises, when choosing a strategy, consciously take risks, assuming and taking into account possible losses, because they have a powerful incentive - profit , specific entrepreneurial income, which has a direct connection and correlation with the degree (probability and quantitative value) of risk. This type of profitability is associated with a conscious risk and the received profit is much higher than usual, as a rule, in forms of innovative entrepreneurial type of economic activity.

Against the background of the generally accepted definition of risk as "the threat of damage and losses associated with the specificity of both natural phenomena and the activities of human society", a broader interpretation of risk as an economic category - a potential event that may "happen or not to take place". In the event that the event does occur, three economic outcomes are possible [3]:

1) negative (losses, damages);

2) zero;

3) positive (gain, benefit, profit).

Thus, the task of risk management in modern conditions consists in solving the problem associated with the need to maximize the probability of realizing a positive result while simultaneously limiting the negative aspect, especially in conditions formed under the influence of the processes of globalization, hypercompetition, technical rearmament and intensive development of modern information technologies.First of all, it is necessary to investigate the problem of the impact of risks on various aspects of the activity of a business entity (enterprise) in a historical

context and summarize the results of the analysis of theoretical material and practices of the application of various methods of risk assessment and management, as well as to confirm the assumption that the most effective and economically justified is a combined approach to risk control and management, which allows for the development of new principles that combine techniques, methods and procedures of risk management that are different in terms of dynamics and scope and task.

The development of the risk management system to a certain extent repeats the evolution of the reliability management system - when "... the study of the reliability of individual elements and subsystems was replaced by reliability design, starting with the design and structure of the system and ending with the creation of a self-organizing system that has increased reliability and survivability (even in conditions of unreliability of individual elements)" [7].

In some theories, risk is associated with the concept of "danger" and is defined as an objective regularity that determines the processes of quantitative and qualitative changes in mega-macro-, meso- and micro-systems, which are perceived as a threat to the vital interests of society. According to its genesis, the degree of probability, danger, precisely as a perceived threat, has a natural and social origin [1]. Given that threats are conditionally divided into potential and real, depending on conceptual ideas, the same events in different conditions can be evaluated differently, sometimes diametrically oppositely. To neutralize threats, various models of global, subregional, and national security are being developed and improved, institutional, economic, and technical systems are being created, and significant resources are being attracted to ensure it.

In order to form a clear idea of modern risks and to further develop measures and techniques for responding to them, we explore the concept of "risk" as a deeper phenomenon, which differs significantly from its traditional perception that risk is a manifestation of various types of threats and challenges associated with with economic, social and political activity of various economic and economic forms.

The peculiarity is that "risk" is defined on the one hand as "the danger of something", and on the other - as "to take a risk (French) - to venture at random, into a wrong business, at random, to dare, to take a risk, to do something without proper calculation , to give in to chance, to act boldly, boldly, to bet (from a game)" [5].

Consider how the problem of risk management is reflected in existing theories:

1. Theory of optimal management. An attributive general sociological characteristic of any kind of expedient, reasonable human activity that takes place under conditions of strict resource limitations and the possibility of choosing the optimal way to achieve perceived goals in conditions of informational uncertainty. No genius, no human abilities can destroy (eliminate) risk. There are only ways to mitigate its consequences [1].

2. The theory of systematicity. A static, natural property inherent in any type of expedient activity. It appears in the form of a probability value that characterizes the uncertainty of the implementation of the key functions of the entity of economic activity, the direction and conditions of the implementation of which are not completely clear to the management of the enterprise [9].

3. Theory of cyclicity. Crisis phenomena in the economy, in the active phase, lead to a decrease in the growth rate of the economy for more than six months. The level of uncertainty and risk in the economy and society is directly related to the stage of development of the crisis "emergence - development - peak - stabilization - fading" [7].

4. Theory of socio-economic dynamics. Changes in the economic and economic systems of a higher order may be in conflict with the economic interests of specific subsystems. The balance of local markets for products, services and management models is largely determined by changes in the economic and economic systems of a higher order, which may be in conflict with the economic interests of specific subsystems. It allows "to assess and forecast risks in conditions of asymmetric redistribution of information, to study them as constantly changing in time, space and quality" [4]. The probability of occurrence and the level of destructive or stimulating impact of most types of risk "depend on polysystemic effects that are completely beyond the control of decision-makers regarding the choice of standard economic policy instruments" [2].

5. Theory of risks. Risk is the result of asymmetric distribution of economic information and polysystem effects [7]. Based on the symbiosis of various assessment methods, the structure, scale and level of negative consequences of exposure and implementation of the following types of risks can be predicted as accurately as possible: consumer risks; industry; territorial; political; social Risks are assessed through a system of qualitative and quantitative indicators that demonstrate the improvement or deterioration of the situation, and the probability of occurrence of events based on the same objective changes can be perceived by different control groups in the range of "negative - neutral - positive" [4].

6. Theory of non-equilibrium processes. In balanced systems, risks (a set of threats and opportunities) are deviations from the initial state, which for all elements of the system have the same probability and are equal to the sum of the risks of the subsystems. It allows to study the regularities of the appearance, growth and impact of risks in more detail [5]. In this way, the concept of static risks is formed, which implies the use of a static model of risk management.

7. Theory of probability.In dynamic systems, risks are manifested and described differently, since different elements of the system have different probabilities. Causal methods used in risk analysis allow to explain the origin and estimate losses. The initial calculation of such losses is based on the Bayes formula [2].

On the basis of the conducted analysis, it should be noted that for this study, the definition of risk as a set of destructive and motivating factors that affect an enterprise that carries out its activities in certain market and economic conditions is the most appropriate, as it best meets the tasks set.

Uncertainty exists regarding the time parameter (t), and the source of risk in this case is not the fact of reducing the impact of the risk event itself, but rather the expectation of when this event will happen. Based on this, the economic category "risk" is proposed to be defined as a threat of a potentially possible, to a certain

extent, probable loss of resources or a decrease in the amount of income compared to the basic option, which is calculated for the rational use of resources in this type of business or economic activity. In the economic context, the realization of risk is expressed as losses in the form of additional costs or profitability below the values that the entrepreneur expected. The consequences of risk realization are most often manifested and recorded in the form of specific financial losses or the impossibility of obtaining the expected (estimated) profit or planned financial result.

Let's highlight the purpose of risk management. The main goal of enterprise risk management is to preserve the value of the company. For this, it is necessary to solve the following tasks: ensuring the safety and continuity of all processes carried out at the enterprise, preservation and rational use of material and technical means, information protection, physical, environmental, industrial safety, etc.

This target setting allows us to imagine a refined definition of the risk management of the enterprise as a structure that carries out an assessment and analysis of risks that directly or indirectly affect the current and prospective activities of the business entity, and is also responsible for comprehensive control of the flow of risk management processes and the results of the actions performed and events. The tasks of risk management include the development and planning of measures for the dynamic management of risk and its components in order to preserve the value (stock, market), stability and manageability of the company in conditions of uncertainty and turbulence of the internal and external environment.

Such properties of risk are distinguished as: generality, systematicity, probability and dynamics. Separately, we note the category of abstract risks, which theoretically and objectively can be realized, but only with the obligatory presence of a set of necessary and sufficient conditions, and concrete risks, which have a "quantitative assessment of possible losses over time, to minimize which subjects have in their administrative and material resources are necessary for disposal" [6].

In the conditions of the modern economy, risk is a key element of entrepreneurship as a process of creating a new good (goods, services). Entrepreneurship processes take place in conditions of permanent resource limitations, and should objectively be based on a dynamic platform of constructive, effective and creative management aimed at competition, including using special advantages - innovations. Characteristic features of entrepreneurial risk are uncertainty of place, time and action (impact), as well as emotional aspects. There is also a great influence of changes occurring in the external and internal business environment, including under the influence of artificially formed factors.

Risk for enterprises is the predicted possibility of adverse situations occurring during the implementation of plans and budgets of the enterprise. In this way, it is objectively impossible to calculate the alternative results of the impact of risks on the activities of enterprises under different variants of the development of events in the dynamics [2]. From the known types of audit and control aimed at identifying and assessing risks, we will single out the most applicable at enterprises: accounting audit; revision; compliance (compliance); operational audit; risk-oriented audit.

The first three types of control include procedures for identifying and

managing risks limited to the controlled environment. In the first case, it is the financial activity of the enterprise, in the second - control of the availability and preservation of material assets, in the third - compliance of the enterprise's activities with existing legislation, regulations, professional and technical standards [5]. Compliance allows you to build a management system and carry out the work of the enterprise in accordance with internal and external rules, standards, and requirements. The most promising in terms of integration into the management system of modern enterprises is risk-oriented audit, which involves expanding the framework of the control environment and extends to all types of activities, business processes, internal and external relations, defines corporate ethics. A risk-oriented audit solves the tasks set before it in the company in the following main directions:

- assessment of the effectiveness of the internal control system;
- assessment of the effectiveness of the enterprise's risk management system;
- assessment of the effectiveness of corporate management.Methods for solving these problems can be applied in various areas of economic and economic activity associated with increased risk, provided that they are amenable to mathematical modeling, quantitative and qualitative assessment, further development of effective mechanisms and tools for countering negative trends and the consequences of risk implementation.

Let's highlight and explore two unique functions of dynamic risk - stimulating and protective.

The stimulating function has two main aspects: constructive and destructive. The first is manifested in the fact that risk plays the role of a special catalyst in solving economic and business tasks. The second aspect is expressed in the fact that making and implementing decisions with unreasonable risk leads to adventurism [8].

The protective function also has two aspects: historical-genetic and socio-legal. The first consists in finding forms and means of protection against possible undesirable consequences. The essence of the second aspect is the need to introduce risk legitimacy categories into the legislation [1]. It is necessary that the subject taking the risk has firm confidence in the legal protection of his interests.

We emphasize that under risk administration we understand a set of risk management measures, which includes actions aimed at: a) changing the configuration of risk - its classification features and the direction of influence on the structural and functional elements of the production and economic system; b) editing the risk architecture - changing the key elements-risk factors and their combination for the purpose of managing risk events within the limits acceptable for the enterprise in terms of quantitative parameters and comfortable in terms of qualitative indicators; c) simulation of the risk situation - artificial controlled development of the risk situation with the aim of obtaining information about the processes of flow and identifying destructive effects on the current and prospective activities of the enterprise. Modeling is a part of the main measures of risk assessment and management.

When assessing risks, it is necessary to take into account that the higher the degree of influence over time of polysystemic factors on economic processes, the

more difficult it is to predict the dynamic probability and scale (value) of both aggregate risk and individual (private) risks based on methods of a mathematical model of risk assessment. To solve this problem, we are investigating scientific and practical approaches to enterprise management in the conditions of the development of uncertainty and the increasing impact of risks on the economic and economic activity of enterprises.

We will analyze the peculiarities of the development of risk management of enterprises in the conditions [2]:

- internal heterogeneity and multifaceted processes. In the conditions of a constantly changing macroeconomic situation in the world economy, the widespread use of statistical risk assessment methods, which are based mainly on such a principle as homogeneity (a large number of repeatedly repeated similar events), is impossible;

- a high level of concentration and limited opportunities for alternative choices of development and socio-economic behavior (multiplicity) of processes. For example, in the case of relations with the utility system, the consumer technically cannot refuse the consumption of some resources (for example, heat), even if he does not need the supplied volumes and the means to pay for it, which leads to an increase in the overall value of non-payment risks;

- growing integration interdependence. The higher the level of economic, political and social interdependence (correlation) between system elements, the more complex the risk takes and the more difficult it is to assess and manage.The risk acquires the characteristics of each element that makes up its structure, it becomes less noticeable to the specialist analyst. In this way, the effect of "risk mimicry" under the environment and living conditions is manifested.

Let's consider the risks that appear as a result of the accumulation of regressive potential. This approach to risk assessment has a sufficient historical tradition and originates from the theories of historical and technological progress, in which the main attention was focused on the study of the characteristics of the destructive consequences of risk implementation.

In the publications of research scientists and practitioners [5-7] on the topic of risk management, it is noted that the growth in the scale and complexity of the structure of economic activity leads to constant quantitative and qualitative transformation, changes in the vectors of internal and external relations, and as well as various types of business and personal relationships, which are objectively difficult to adapt to both individually and at the level of social groups and communities without any losses or damages. Accordingly, in conditions of "chaos", the risk of social and economic degradation, both individual and group, develops and increases. The strengthening of risk factors in the situation of the development of crisis phenomena leads to the growth of social dissatisfaction, accordingly, the number, volume and severity of potential threats to social stability increase. When developing a model of anti-risk behavior, the following feature should be taken into account: any result of economic activity, even if it generally contributes to the growth of social wealth, contains the potential for regressive development.Let's consider the stages of development of approaches to risk management, highlighted by the author based on

the analysis of scientific and applied literature, regulatory and legislative documentation. Thus, it is possible to distinguish two historical approaches.

- the "bottom-up" approach used from the 1970s to the end of the 1990s;
- the "top-down" approach, which was developed in the XXI century.

Within the framework of the "top-down" approach, a system capable of analyzing various risk factors in a single coordinated and integrated environment - corporate risk management (Enterprise-Wide Risk Management, ERM) was formed. This format is most often used in leading domestic and foreign companies.

Existing risk management standards, for example, developed by the Federation of European Associations of Risk Managers (FERMA), are aimed at systematizing the processes of control, assessment and analysis of risks. Adoption of the standards was necessary to reach agreement on several issues, namely: the terminology used; processes of practical application of risk management; organizational structure of risk management; objectives of risk management.

In this document, risk is defined as "the combination of the probability of an event and its consequences" (ISO / IEC Guide 73) [3].

When implementing alternative options for business projects, the second component of risk is manifested - opportunities, namely: under certain conditions, there is a possibility to exceed the expected profit, to receive an additional reward.

The need for risk management is caused, among other things, by the manifestation of a number of reasons that objectively shape the conditions for the development of unfavorable or difficult to predict events. In a certain combination of circumstances, the economic entity does not achieve (does not achieve in full) the set goals and with a high probability will suffer a loss, including material, financial and reputational losses.

In the absence of an adequate response, the enterprise may be on the verge of ruin, bankruptcy, serious claims from the regulator or state authorities.In the methods used in modeling the algorithm of behavior under the influence of the risks described above, tools for smoothing critical indicators are currently used [1]. This technique provides, on the basis of the received data for risks and events, the construction of a range of frequencies for the quantitative assessment of risks. In this way, it is determined which of the currently active risks has the greatest destructive effect. The cumulative effect of the influence of the risk group is also taken into account.

Risk assessment through a system of quantitative indicators allows minimizing (in some cases, optimizing) only the general costs of attracting resources to various reserve or compensation funds. The results of the study of the practices of a number of companies in the financial and non-financial sectors allow us to suggest that destructive risks cannot be accurately quantified, because information about them is mainly probabilistic in nature and, taking into account the insufficient integration of specialized information and computing systems, remains inaccessible to the majority of business entities objects [5].

In our opinion, a dynamic approach to research as a basic principle allows us to consider risk as a form of uncertainty of the result, which is connected, as mentioned above, with a special type of economic activity - entrepreneurship.

It is necessary to highlight the specific characteristics of risks, the corresponding properties of equifinal:

- hierarchy (supremacy and significance of some risks over others in the general risk flow);

- complexity (the ability of disparate risks to combine, integrate, complement, strengthen, or compensate for the impact on the object).

In conditions where the methods of identifying, analyzing and managing risks do not give the expected result, since the risks have "adapted" to countermeasure systems, it is suggested to improve existing or create new forms of impact on risk, mainly through changing the existing or forming a new active environment (both internal and external), as well as through the configuration of factors (architecture) of this environment. This is due to the fact that the nature of risk generation and the environment of its existence are constantly changing - the risk becomes more complicated, acquires new characteristics, including under the influence of man-made factors.

It is proposed to define a principled management position: in order for risk management to become economically justified and effective, it is necessary to be involved in this work at the early stages of risk initiation, before the development of risk events. Management and responsible employees responsible for internal control should improve their skills in timely detection, classification and assessment of alternative risk components - opportunities.The importance of such measures lies in the ability to achieve the maximum effect from the implementation of the function of internal control and risk management in economic, organizational, strategic and other aspects due to competent scientifically based risk administration.

It is suggested that the stated need be updated as much as possible and offered in the form of a direct call for active counteraction to existing threats. Risk management, based on formal work principles and widespread but outdated management methods, shows its insufficient effectiveness in modern conditions, and in order to maintain the competitiveness of enterprises and industries, it is necessary to carry out comprehensive management of the risk protection system, implementing dynamic methods, develop and improve the appropriate tools. First of all, due to the use of advanced and promising management technologies and the development of specific competencies of units that implement the functions of internal audit, control and risk management.

The multi-level structure of enterprise risk management, as a result of the development of the risk management system into new, more advanced forms, is increasingly used in the organization of the activities of modern companies and enterprises that seek to occupy high competitive positions in their business segments. The presence of a developed and mature risk management system allows you to avoid catastrophic consequences when realizing the risk of unfriendly mergers and acquisitions, as it provides for the mandatory implementation of special procedures for the analysis and assessment of such risks and proposals to the top management for ways to solve the identified problems and further control the results of anti-risk measures .

The degree of risk determines the probability of a certain scenario of the development of events. Quantitatively, the degree of risk is determined by a subjective assessment of the probable or expected value of the maximum and minimum income (loss) from the invested capital. At the same time, the greater the range between the maximum and minimum income (loss) with equal probability of their receipt, the higher the degree of risk. The uncertainty of the situation determines the factor of chance. Randomness is something that happens unevenly under similar conditions, so it cannot be predicted and predicted in advance. However, with a large number of observations of cases, it can be found that there are certain patterns in the world of cases. The mathematical apparatus for their study is provided by the theory of probability. Risk has a mathematically expressed probability that losses will occur.Relying on statistical data, it is possible to quantify with a high degree of accuracy the amount of risk, all possible consequences of any individual action and the probability of the consequences themselves.

The study of the problems of implementation and improvement of the dynamic model of enterprise risk management showed that the modern dynamic approach to risk management can be divided into two strategic directions that form the corresponding methods - passive dynamic and active dynamic.

The passive method of risk management involves responding to risk and organizing risk management processes as an object in real time, using modern tools and technical means.

The active method is more scientific and more progressive - here it is impossible to add forces and means that affect not the risk, but the environment and conditions of the formation and active influence of the risk, on the factors that generate threats and prospects. In this case, it is necessary to focus on the innovative approach of understanding and perceiving risk as a natural element. At the same time, risk is considered not only as an economic concept, but as a complex cybernetic (biomechanical) system that has signs of intelligence [5].

Note that the concept of active behavior in risk management is based on an accurate, balanced and generally optimistic assessment of prospects. Adherence to this concept of enterprise risk management requires, according to the theory of quality, large resource capabilities (intellectual and material), more advanced administrative tools and more effective procedures - in comparison with a traditional, generally accepted program.It is necessary to develop the risk management capabilities of the enterprise to promptly respond to changes in the risk flow and minimize the consequences that suddenly arise and intensively develop risks, which in turn necessitates the introduction of dynamic assessment and management tools into risk management practice. The priority should be active countermeasures aimed at eliminating undesirable results, changing the state of the active environment and the conditions for the emergence and development of the most unfavorable factors of potential dangers (threats), preventing the realization of extreme forms of negative impact of those phenomena that were not or could not be taken into account in advance attention In special cases, it is allowed to deliberately provoke the realization of the threat in a time period, scope and scale acceptable to the risk owner. This will

allow, for example, to reduce the consequences of uncontrolled risk growth in conditions of insufficient compensatory reserves with a steady tendency of risk accumulation.

When developing a risk mitigation program, it is suggested to emphasize the understanding that adaptive dynamic risk management should be implemented as a continuous process aimed at actively dampening the destructive impact of risks, while simultaneously supporting and strengthening the motivating aspects of risk.

The development of information technologies determines new opportunities for the implementation of the risk management system: minimizing the consequences of threats, organizing new (active) business processes; the use of current and prospective risk situations to increase entrepreneurial income. These opportunities are consolidated into a modernized concept of integrated risk management, which is based on the following principles [5]:

- a holistic study of the enterprise's risk landscape,
- identification of the current risk profile as a single complex,
- management of this complex using an improved general corporate strategy.

Adhering to these principles, the integration of risk management into the management system of the enterprise should be focused on managing the overall risk of the enterprise, and not on each type or type of risk separately.

The general principle of aggregate risk management in this case can be borrowed from the practice of comprehensive insurance. The economic sense is that protection against the aggregate risk is always cheaper than the sum insured for the risks separately, even when private insurance premiums (risk fees) are more acceptable from an actuarial (mathematical) point of view.However, this is true only in relation to probabilistic risks and on the condition that there are even minimal statistics on the events for which the insurance was carried out.

It is obvious that not all risks affecting enterprises are probabilistic. The complexity of risk assessment and management lies in the fact that events that develop under the influence of many risk factors of different types are explained by the theory of probability better (more adequately) than events associated with individual risks, the uniqueness of which does not allow to collect and systematize them statistics

Thus, influencing a separate private risk or a group of risks similar in certain parameters, it is possible artificially - virtually or in fact to create (configure) a new, specific, controlled in dynamics, space and time, and therefore maximally controlled, risk.

An artificially created and controlled risk in given conditions allows to influence another, already existing for the enterprise - actual risk, actively changing its qualitative and quantitative characteristics. By editing the existing aggregate risk in this way, it is possible to purposefully increase (strengthen) some private risks that affect the processes and business elements of the enterprise in the direction required by the enterprise. In this way, the controlled development of a risk event is carried out in comfortable and predictable values of place, time, action, quantitative and qualitative characteristics.

Taking into account the degree of integration of the risk management subsystem into the management of the enterprise, we get a positive effect - countering and minimizing more complex, from the point of view of manageability and economic consequences, risks due to the movement of the risk flow into a controlled channel or the realization of the risk in acceptable, calculated values that are safe for financial sustainability of the enterprise, excluding dangerous cumulation of consequences. The cost of risk management in this case will be more affordable than if each risk were managed separately.

The level of losses from the impact of risks at the enterprise depends on the "maturity" (level of personal and general competencies, compliance with the enterprise's development policy, etc.) of risk management. Strengthening the role and place of risk management in the enterprise's business processes leads simultaneously to its increase in price within the budgets of the company itself and to the reduction of losses, thanks to the development of the risk prevention and response system. This is fair and acceptable, provided that risk management is carried out qualitatively. However, this dependence is not so unambiguous and straightforward [2].

If we continue to intensively increase efforts in the direction of expanding the risk management function, then at some conditional level, the aggregate costs and the total costs of management will reach a minimum, and at a certain moment will begin to grow again. This is caused by the fact that after the selection and working out of the influence of the main risk factors and active types of risk that form the greatest loss, further influence on the nuances and insignificant aspects of the risk becomes more and more expensive from a financial and organizational point of view.Here it is appropriate to mention the Pareto law in its interpretation that "... 20% of the right efforts bring 80% of the total positive results."

At a certain stage, losses (costs) reach some conditional peak level, which is explained by purely technological reasons, and cannot be reduced by the risk management methods available to the management of the enterprise. Risk management is forced to ask the business owner - the risk owner about the need to switch to another technology with a lower level of losses, in accordance with the laws of stability (homeostasis), but for this it is necessary to completely modernize the risk management system, equipping it with a perfect toolkit with elements of self-regulation and adaptability, that is, to build an intelligent system of active risk countermeasures.

So, in our opinion, the most common methods of quantitative risk assessment are statistical, the method of expert assessments, calculation-analytical, normative, the method of cost feasibility analysis, the "decision tree" method, analog, sensitivity (vulnerability) analysis, scenario analysis, the simulation method modeling, risk analysis of possible losses.

We note that the above methods of risk assessment using objective probability, which are based on the use of the laws of distribution of random variables, although they are quite well developed from a mathematical point of view, but, in our opinion, the possibility of their application for assessing the risks of the enterprise's activities is quite limitedThus, the normal law of probability distribution assumes the

homogeneity of the sample, ensuring the independence of random events and the assumption that "under the same conditions, the occurrence (non-occurrence) of an event in the future will follow the same trends as in the past" [1]. In the context of an enterprise as an open socio-economic system that functions in close relationship with the external environment and dynamically changes over time, it is quite difficult, and in most cases, completely impossible, to ensure the fulfillment of these prerequisites even in terms of assessing certain types of risks. That is why, in our opinion, subjective probability, which is based on the degree of confidence of a person making a management decision regarding the probability of a particular statement, is more suitable for use in assessing the risks of the company's activity.

In the future, if we continue at the same pace to increase efforts to control aggregate losses and costs under the influence of aggregate risk, at a certain stage of increased control and requirements for appropriate reporting, the employees of the enterprise will begin to react extremely negatively to the strict, authoritarian rules established in the enterprise and will become either leave him or sabotage the work. The process of risk management at the enterprise is shown in fig. 1.

Fig. 1. Risk management process at the enterprise

On the basis of a logical and intuitive analysis of the scenarios of the development of the situation, we formulate a conclusion about the need for periodic adjustment of the risk management strategy: excessive risk management contains the risk of an economic and reputational nature. Excessive management of one risk causes the emergence or activation and development of another. This effect can be conditionally associated with mimicry or risk adaptation to current conditions.

Based on this, it seems possible to use the revealed effect in a positive way - using modern technologies of programming, computer and creative modeling, it is possible to configure, and in the future - to artificially cause ("provoke") the realization of one risk - in all aspects the company is satisfied. Due to this, it is

possible to partially or completely prevent the realization of another risk or to change the characteristics of a risk that has a high potential for danger, but which is beyond the management horizon. Thus, it is necessary to improve approaches to understanding dynamic risk and consider it not only as a fact, the source of the formation of some local event, but as an intellectual system capable of adapting to external and internal conditions, responding to active influence, actively forming and editing its own living environment.

Risk management in a modern enterprise should not be carried out in a fragmented way, but should be comprehensive in nature. For this, a comprehensive risk management system should be created. The concept of forming a risk management mechanism in the financial and economic security system of the enterprise.The concept can be used as a template, as a set of basic measures aimed at assessing and managing enterprise risks, however, this method will be valid for managing static and forecasted (serial) risks. A positive feature of such management is its universality for any enterprises.

Dynamic risk management should be carried out differently - assessment and management mechanisms should be configured not to suppress the destructive effect of risks (impact on risk), but to actively manage the process of formation and development of risks into a certain event with calculated consequences [2]. In this way, the horizon of risk management is expanded from a tactical or strategic level to a combined, mixed one. At the same time, it is necessary to take into account the individual risk profile of the enterprise.

The economic system of modern Ukraine is characterized by risks that, firstly, are extremely specific, and secondly, they are higher than the level that could be if the economy was managed more consistently. However, in our opinion, there are advantages in this - non-standard approaches to solving urgent tasks allow us to find new solutions, including in risk management. The increase in risks is characteristic not only for Ukraine: objectively, it is a worldwide trend associated with the complication of economic operations, the acceleration of business processes, and the development of technological and information systems.The main reasons for these changes are increased volatility of prices for various types of raw materials and products, globalization of markets, increased competition, excessive legislative initiatives in the field of economy, strengthening of the regulatory function of the state with simultaneous suppression of the ability to self-regulate production and economic systems, companies and enterprises of various branches. The availability of information flows and databases and their associated vulnerability, functional and structural complexity of technical systems leads to an increase in specific risks to the security of personal data, including financial and personal data.

The study of the risk profile of various companies in the manufacturing, non-financial and financial sectors allows us to formulate an assumption that the problem is not simply an increase in risk categories, but that in recent history risk, as a set of destructive factors, is actively changing [3]. Note that risk factors are transformed mainly in two directions: evolve into a more complex system with a clearly organized hierarchy or degrade - mutate, adapting to the conditions of the external and internal

environment, in the other case - mimic, smoothing out characteristic features. In most of the cases studied, such transformations outpace the development of means of detection, identification and response to risk. It was also found that the risk landscapes of enterprises and organizations, service companies in modern conditions are becoming larger, and fluctuations (variability, turbulence) of risks are more dynamic. This manifests itself mainly in the constant mixing, the transition of risk factors from one type to another, in which the edges of the acceptable understanding of types of risks become thinner, their identification and assessment become more difficult. These trends force the management responsible for risk management to review the risk policy and periodically update (modernize) the risk management system at enterprises.

At a certain level of maturity of the company's management, checking the technical system for reliability is reduced, as a rule, to the assessment of the probability of error-free operation with the already established structure and functioning algorithms.The variations are reduced to the duplication (quite often - to multiple redundancy) of individual nodes and the creation of the necessary redundancy. In the process of development of technical and information systems, it became clear that the level of reliability (non-failure) must be established from the very beginning, and then the organizational and production structure itself will take on a different form with developed cross-connections and a minimum margin of redundancy. Further improvement of the control system will make it possible to create a self-adjusting (adaptive) system, ensuring the necessary system reliability even in the presence of insufficiently reliable elements [3].

Following the specified logic, it can be expected that if the level of self-improvement and technical support is maintained at the same pace (dynamics), the control processes will significantly reduce the time of reaction (reaction) to risk, thereby minimizing losses. So, in the future, it is possible to lay down increased protection against threats at a sufficient level already at the stage of a business idea (including an algorithm for using the chance for additional entrepreneurial income) and gradually creating the most risk-free system due to self-organization and adaptation.

As one of the tools of risk research, it is possible to choose a classification method.The classification of economic risks is based on the principles of the market economy, which trace the dependence of the final economic result on the level of uncertainty:

- freedom of consumer choice and behavior (consumer risks);
- freedom of choice of professional activity (risks of professional activity);
- freedom of entrepreneurship (entrepreneurial risks);
- rational behavior of all market participants, i.e. their desire to optimize their profit;
- mandatory periodic diversification. Business entities that ignore this principle will necessarily at a certain point in time be faced with a choice: go bankrupt and leave the business or try to sacrifice a part of it in order not to lose everything;
- careful attitude to the environment, introduction of new conservation

technologies, and effective use of available resources in conditions of ever-increasing deficit - limitation and availability without causing significant damage to third parties, while maintaining a positive economic effect.

We will classify risks according to the following criteria (classification features): environment of formation, conditions and causes of occurrence; functional types and branches of entrepreneurship - geography of distribution and scale; sequence of problem solving; temporary factors, the possibility of arbitrage, that is, transfer and / or sale (insurance, hedging, an acceptable level of admissibility (risk appetite), as these characteristics have pronounced dynamic properties and correspond to the tasks solved in the dissertation. This is due to the fact that that the main emphasis of the research work is aimed at studying the dynamic characteristics of risks of enterprises of science-intensive industries and economy.

For each category of risk, it is necessary to develop a toolkit - a set of response and management methods [4]. Depending on the possible outcome (risk event) and the degree of control, we will divide risks into two main groups: pure and speculative. In each group, we will distinguish subgroups: inherent risk and residual risk. Let's assume that working with these categories of risks will allow competently organized management of the company to receive additional acquisitions - tangible and intangible goods, which with skillful further distribution can become the basis for the formation of an already quite tangible economic income.

Based on the results of the analysis of the researched theoretical base and in accordance with today's realities, an improved method of risk assessment is proposed according to the degree of impact, nature of origin and habitat, we will distinguish the following categories of risks: minor, significant, critical and catastrophic (table 1).

Table 1

Ranking of risks by probability and significance

Rating	Probability	Impact
(Minor type A)	0-5%	The risk is practically impossible Minimal losses. Minimal deviations from plans and processes. Instant recovery
(Minor type B)	6-20%	The emergence of risk is weak Small losses. Deviations from plans and processes. Minimal impact on reputation. Low recovery cos
Significant	21-50%	Possibility of risk Significant loss of time and resources. Significant impact on processes. Long-term effect of risk realization. The cost of recovery is high
Critical	51-80%	The probability of risk is high Significant losses. Critical impact on the cost of products and services, quality and reputation. Recovery is expensive and long-term
Catastrophic	> 81%	The risk is inevitable Heavy losses. Catastrophic impact on economic activity, reputation, financial stability. Expensive, long-term recovery (in the most difficult cases - recovery is impossible).

The proposed possibility of ranking risks allows the risk management of enterprises to form a toolkit of risk assessment and management depending on the following dynamic conditions: if it is impossible to fully manage risk as a phenomenon, avoiding the development of catastrophic consequences ensures the support of indicators, which leads to risk within controlled value limits, most often, according to level of influence and other characteristics. From this it follows that the risk itself does not have a destructive effect, in the conditions of a risk event, which develops with the cooperation of several factors. The most significant from a dynamic point of view are the factors of place, time, and action.

Thus, it seems possible to assess risk from the point of view of dynamics as follows: if the place and type of risk are known, but the time of its realization is not precisely determined - the risk is in the zone of "relative comfort", if the reporting time factor is reflected - the risk moves into the stage of events and develops intensively, ultimately leading to threatening consequences for enterprises. So it can be attributed to other essential factors - place and actions. When the influence of one of the factors increases or decreases, there is a change in the dynamics of the formation of a risk event and the "safety level" of a certain risk.

By directly or indirectly influencing the factors of place, time and action, and their production, it is possible to actively control and edit the course of the main economic processes and maintain the risk within acceptable parameters for enterprises [6].Risk management, as an important task of controlling the development and imitation of negative external and internal factors and triggers, requires concentration and strengthening of the entire organizational structure and each enterprise. Accordingly, the task of risk management based on dynamic principles can be defined as a continuous process of development and implementation of consolidated and concentrated management solutions, the implementation of which has a positive effect on a wide range of impacts of accidental or malicious events, as well as disrupting the stability and management of enterprises. At the same time, outstanding proposals related to risk management should have lower economic efficiency than other invested (assets, production, marketing) enterprises.

As mentioned above, there are several standards in the field of risk management and various practical guidelines are used, but the universality of these methodological tools is limited, at best, to a particular manufacture or a narrow segment of the economy.

Studies have shown that top managers, senior and mid-level managers are fully aware of risk management as a process of choosing new products of activity, the level of riskiness and allocation of resources ("response to risk") in economic activity is not an invariable part of the single process of increasing revenues, competitiveness and survival rates.

Thus, the very concept of risk management is transformed in new conditions against the background of new challenges.Risk management at the level of business authority (risk-holder) and senior executive management (risk-management) is manifested as the distribution of responsibility for the result at all levels of decision-making and implementation. The policy, planning and management structure of the

enterprise, which includes the implementation of enterprise risk management functions, are formed only by the top management of firms (board of directors).

The practical solution of tasks for the assessment, management and control of enterprise risks, purposefully begins with the definition of the main elements of management: subject, object and mechanism. The subject of risk management at the enterprise is the company's management [6]. The structure and form of organization of the company's management system depends on the solved strategic tasks and types of production and economic activity.

It is proposed to include a subprogram of protection against fatal risks - the effects of destructive factors that are capable of forming conditions, threatening the continued existence of firms, as part of the category of critically important corporate management tasks within the framework of risk management. For example, it may be the risk of bankruptcy associated with the impossibility of attracting investments.

For most enterprises, the physical impossibility of fulfilling the obligations of managers, owners (shareholders), too long a period of downtime, forced freezing of business, image materials and many other things can be the cause of a dangerous risk factor. If the management of the enterprise does not provide the problem of protection of this category of risks, the results of the implementation of even one of them made all the latest risk management activities meaningless.

As an object of management within the framework of dynamic risk management, we will accept a set of measures and activities for assessing and managing enterprise risk (internal audit, control, risk management).

The subject of management is the development and improvement of opportunities for the configuration of risk factors in special forms that correspond as much as possible to the level of maturity of the management and the risk appetite of the enterprise.

We highlight that the most significant problems of the effectiveness of risk management within the framework of a dynamic risk-oriented approach to enterprise management are related to the processes of organizing enterprise risk management as an element of general management. We should especially note that these problems are exacerbated in the conditions of crisis phenomena and are actualized in the qualitative tasks of enterprise management.Taking a risk-oriented approach to risk management as a basis, in the future we will observe an increase in the number of identified risk factors. In the process of analysis and assessment using progressive approaches and tools, a greater number of static and dynamic characteristics and signs of threats and opportunities are identified, on the basis of which the risk management complex is modernized and thus the additional effect of active dynamic risk management of the enterprise is manifested.

In order to successfully solve current and strategic tasks, it is necessary to develop personal risk management qualities at enterprises - risk administration and risk arbitration. When developing management programs through risk arbitration, it is necessary to determine the key, most significant risk factors, in connection with which work on assessment and management will be carried out in the future [1].

The highlighted features of risk formation and risk development are proposed

to be taken into account when developing proposals for improving risk management methods. Thus, to manage risk within defined limits and proportions, dynamic methods of configuration (or modeling, if the risk is created artificially) should be used, purposefully reducing it to destructive or motivating factors, as well as through editing the active environment of its existence.

As it was mentioned above, risk is perceived by the participants of economic activity mainly as a purely negative concept, the business community gives mostly pessimistic assessments regarding the nature of the emergence and the environment of active existence of the risk itself.

At the current stage of development, the world economy is in a permanent process of structural, qualitative and quantitative changes. It is obvious that under these conditions the spiral of development periodically changes its vector "from upward to downward" and vice versa, global processes are accompanied by the development of crisis phenomena - revival, upswings, stagnation, recessions, depression, which are clearly characterized as risks [5].

The need to review the attitude to risk, to models and methods of risk management, which were formed in the process of primary analysis of problematic situations that appeared and critically affect the processes of economic, industrial, scientific and research activity, was updated. At the same time, the relationship between changes in the main flows of redistribution of assets, free cash (liquidity) and changes in the value of business and the amount of profit received by the enterprise is traced. Thus, from the point of view of dynamics, it is assumed that the flows of free liquidity and the size of the increase in the volume of generated profit for the enterprise should be oriented towards compliance with the ratio in the triad "growth - risk - income".We formulate the assumption that the task of risk management as part of the process of choosing new areas of activity, determining the working levels of riskiness and the efficiency of resource allocation (as "feedback on risks") in economic and economic activity is integral and of primary importance. This, in turn, determines additional tasks: firstly, transformation and improvement of the internal management system, secondly, increasing competitiveness, thirdly, economic efficiency. Let's clarify that this understanding is also not enough, since the very concept of management is transformed, taking on the appearance of a supertask based on elements of creativity.

In these conditions, it is necessary to pay special attention to the formation of a creative (creative) management model. In the future, such a model should become a mandatory element of the complex of assessment, analysis and risk management of enterprises of various segments of economic activity. In order for this complex to work as efficiently as possible, the top and executive management of the enterprise must significantly revise the program for the standardization of risk management activities.

We note that risk management from the standpoint of enterprise management is, first of all, responsibility for the result at all levels of decision-making. The corresponding philosophy, policies, planning procedures, structure and risk management models must be developed under the control of the top management of

the enterprise in order to respect the rights and protect the interests of shareholders and beneficiaries.In the development of proposals for the formation of policy and risk strategy, the results of the activities of specialists who work in the field of risks - auditors, controllers, risk managers - are accepted.

Risk management in the corporate sector requires the presence of an important element in the management system - coordinated leadership at all levels of the organization. The modern management structure with an integrated risk management system consists of three functional lines. First of all, it is the Board of Directors, then the executive committee, the next link is the business unit general managers, functional experts and specialists, and also line managers, or otherwise, key supervisors and office (key supervisors and staff) [4]. A specialized corporate risk management group is responsible for forming a risk policy and drawing up a risk strategy in the organization.

The company's strategy should be based on defining and providing long-term goals, on comprehensive assessments of the uncertainty of the economic and economic situation in a separate segment or in the subject's economy as a whole, on effective and progressive methods of progressive achievement of such goals over a long period of time.

It seems possible to claim that the risk management strategy is both the science and the art of enterprise risk management. Strategy can be implemented "as a plan, as a principle of behavior, as a position" [2]. In any variant of choosing a strategy, the analysis of the external and internal environment, the preparation of alternatives and the selection of the best of them according to the chosen criterion are preceded.

The risk management strategy is determined by management - the management of the enterprise (firms, business units, etc.). Risk management is carried out within the framework of a single strategy and is aimed at solving two main tasks:

- creation of additional capital or new shareholder value ("quantitative");
- "quality", aimed at preserving the company's highest values. Accordingly, certain resources of the enterprise should be directed to the solution of these problems.

The essence of the problem is as follows: how to place the emphasis between the two specified tasks and how to divide the share of the company's general resources for solving the tasks as a whole, and within the tasks - for tactical issues of risk management (so-called "subtasks").Let's formulate the questions that form the problem of effective management of the enterprise:

- what affects task priorities?
- which in the meaningful sense of the strategy must be followed?
- what is the basis of decision-making?

Conceptually, the process of enterprise risk management is practically identical to the process of managing the enterprise (business) itself. That is, the proposed risk management algorithm necessarily includes the definition of goals and objectives, resource provision, planning, implementation, subsequent collection and processing of information, risk forecasting by nominations ("mechanisms" of manifestation), measurement of the main characteristics of the beneficial effect, as well as the scope

and possibilities of manifestation risk in one form or another, i.e. control and monitoring [7].

The advantage of this scheme is modularity, that is, the possibility of adding elements - tools, methods aimed at increasing the efficiency of each stage of development, implementation and control of management decisions, as well as the exclusion of certain irrelevant procedures from the processes.

On the basis of a comparison of current results with forecast ones, the subject's attitude to risk is determined, finding out his personal preferences according to the criteria of "gains - opportunities - losses", reactions are generated (the practice of responding is analyzed - both positive and negative) to possible development options risky processes (in different periods of time), or individual "hurricane" (instant, with high accumulation of losses) risks.The data obtained at this stage will be used in the future in solving the practical task of risk management - the development and implementation of measures to improve the efficiency and safety of the main (in some cases, additional, related) activities of the enterprise with a sufficient level of ability and the possibility of preventing, reducing or compensating losses .

Let's distinguish the feature of dynamic risks from static risks, which is that the latter can appear and develop, as a rule, only once during the life of a particular project or enterprise as a whole. Dynamic risks can predictably manifest themselves repeatedly, constantly adapting to the environment and conditions of their existence, under the influence of countermeasures, and affect the market position of the enterprise and its business reputation.

The result of the risk, in particular, is default - the inability to meet financial obligations. In order to avoid the manifestation of dynamic risks of violation of the financial stability of enterprises, it is suggested to apply the following methods of default prevention [5, 6]:

- timely and periodic revaluation of assets at market value;
- securing obligations (including through collateral transactions);
- reserving funds to cover losses;
- diversification of the portfolio of orders;
- offsetting of counterclaims;
- insurance;
- securitization of debt obligations;
- hedging using credit derivative instruments (derivatives).

Among the most significant for enterprises are investment risks that can affect economic and financial operations when investing funds with the aim of obtaining future profits from the sale of products, large-scale infrastructure projects.

Adhering to this view of the nature of risk, we formulate the assumption that any risk can be favorable where and when the level of threat (loss) is comparable to the level of benefit (income).

For successful risk management, it is necessary to take into account both alternative risk assessments (both conservative and progressive - creative). It is recommended to use the method of internal evaluations as a base when developing risk management tools. Thus, the clarification of the task of risk management of the

enterprise will consist in ensuring the guaranteed preservation and growth of the value of the enterprise due to the mandatory and constant consideration of the most possible risks (management according to "pessimistic assessments" of risk), further assessment and control of the mandatory desire to take advantage potential benefits embedded in the nature of risks (management based on "optimistic estimates" of risk).

References:

1. Borysova T. (2015), "Theoretical aspects of risk management at the enterprise", *Aktualni problemi ekonomiki*, vol. 7, pp. 116-121.
2. Verbytska G.L. (2019), "Economic risk management", *Finansi Ukrayini*, vol. 4, pp. 34-41.
3. Gorgo I.O. (2018), " The concept of forming a risk management system at the enterprise ", *Ekonomika. Finansi. Menedzhment: aktualni pitannya nauki i praktiki,* vol. 11, pp. 29-42.
4. Gorgo I.O. (2018), "Risks as a key object of management activity of agricultural enterprises", *Naukoviy visnik NUBIP Ukrayini,* vol. 284, pp. 288-298.
5. Lukyanova V.V. (2014), "Risk assessment and stability of the economic system", *Visnik Hmelnitskogo natsionalnogo universitetu,* vol. 3, pp. 33-39.
6. Rishchuk L.I. (2015), "An approach to the development of a risk management program at the enterprise", *Problemi i perspektivi rozvitku pidpriemnitstva,* vol. 1, pp. 77-82.
7. Skopenko N. S. (2019), "Theoretical aspects of enterprise risk management", *Ekonomika: problemi teoriyi ta praktiki,* vol. 198, pp. 910-916.
8. Risk Management Standart4360:1999 URL : http://www.riskmanagement.com.ua.
9. Wilhams T.L. (1996), "An integrated approach to risk management", *Risk management*. 1996. vol. 6, pp. 22-27.

1.2. NEW STANDARDS OF QUALITY MANAGEMENT IN AUDIT. THE RISK-BASED APPROACH

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Summary. The planning of internal audit activities affects the achievement of the goal (mission) and goals of internal audit, the performance of specified tasks and functions by the internal audit unit. The main tasks of the internal audit unit are to provide the head of the institution with objective and independent conclusions and recommendations that help improve the efficiency and effectiveness of the internal control system, including risk management processes, improving the management system.

At the same time, the internal audit unit should not aim to evaluate the entire internal control system, since internal audit resources are limited and do not allow to simultaneously cover all audit objects with research, and therefore they should be directed to the areas of activity that are the most important and relevant for effective management of the state body.

The selection of important and relevant audit objects by the internal audit unit and prioritization of their research is a process of risk-oriented planning of internal audit activities.

The process of risk-oriented planning of internal audit activities should begin with the study of the activities of the state body. Knowledge of the strategy (priorities) and objectives of the state body's activity is necessary for the internal audit unit to clearly understand important and relevant areas (directions) of activity, the correctness of forming an opinion about the risks in the state body's activities and, in general, to determine a successful audit approach, the necessary resources for internal audits.The article highlights the results of a study devoted to new requirements to quality management in auditing firms, resulting from the enforcement of the new standards: ISQM 1 “Quality Management”, ISQM 2 “Engagement Quality Reviews”, andthe revisedISA 220 “Quality Management for an Audit of Financial Statements”. The design of a quality management system at firm level is considered in ISQM 1, including building up an organization system for management of audit quality, creating the essential conditions for performing audits. This standard will be enforced in place of the existing ISQC 1“Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements”. ISQM 2 “Engagement Quality Reviews” specifies the requirements to reviewers of the quality of performed audit engagements. A quality reviewer is required to have knowledge and understanding of professional standards, current legal and normative acts, and understanding of firm’s policies or procedures used in the process of engagement performance; knowledge of the industry of a company to which audit services on engagement performance were provided; the professional experience in evaluations of scopes and complexity of the performed engagements, the professional qualification for quality evaluations of the engagement performance, including the firm’s obligation for providing this qualification.The abovementioned requirements cause the need in additional studies aimed at elaborating new schemes for actions and inclusion of engagements in job descriptions of quality reviewers.

Keywords: auditing, quality, quality management, audit engagement, quality control of audit performance, auditing firm.

Defining the scope of the audit is the starting point for developing an internal audit activity plan. The audit space is a simple way of defining everything, or a set of everything, that can be investigated separately during an internal audit.

The term "audit space" refers to the general scope of the internal audit function, the set of audit objects, as well as enterprises, institutions and organizations that may be subject to internal audits.

The audit space should define and describe the audit objects that can be separately investigated during the internal audit (directions (fields) of the institution's activities or their parts, budget programs, administrative services, control and supervisory functions, general and functional processes, systems, etc., structural subdivisions of the state body and enterprises, institutions and organizations that belong to the sphere of its management, on which internal audits are carried out).

When determining the scope of the audit, it should be borne in mind that the audit objects should have such a scale that the internal audit of the audit object is 1) appropriate and 2) qualitative and effective (that is, the audit object should not be too large and too small). For example, the internal control system is designated as an audit object by individual internal audit units in the audit space.At the same time, the internal control system consists of policies, rules and measures implemented by the head of the institution, which ensure the functioning, interconnection and support of all elements of internal control and are aimed at achieving the defined goals (missions), strategic and other goals, tasks, plans and requirements for activities of the institution (clause 1 of the Basic principles of internal control). Carrying out an internal audit in relation to such an audit object will be too expensive for the internal audit department - in terms of time and labor costs and in general it may not give the expected results from the internal audit. Examples of the definition and formulation of audit objects are given in Appendix 1.

The distribution of audit objects in the audit space should be carried out in accordance with the organizational structure and subordination - central, regional or district level (top-down) (vertical distribution), as well as in accordance with the functional aspect of the activity of the state body, enterprises, institutions and organizations that belong to the sphere of its management (horizontal distribution).

Currently, most internal audit departments widely use vertical division when defining the audit space. This approach to defining the audit space is always the most convenient, but it may not be the most effective way to define audit objects. Therefore, it is important to divide the audit space also according to the horizontal principle, which is based on the directions (spheres) of the institution's activities, tasks, functions or processes defined by legislation.For example, management or accounting systems have an impact on the activities of all structural subdivisions of the state body, institutions/enterprises/organizations subordinate to it. Such audit objects can represent the greatest risk to several processes (functions, programs, systems, etc.), therefore should be investigated using a horizontal approach.

Taking into account the specifics of the activity of the state body, the head of the internal audit unit independently decides what the structure of the audit space will be. At the same time, it is advisable to divide audit objects in the audit space into the following categories:

• functional processes – specific processes that are characteristic only for relevant state bodies (for example, in the field of road management, the scope of the audit may include the process of construction, reconstruction, repair and maintenance of highways or the process of issuing permits for the placement, construction of structures, road objects service, gas stations, laying engineering networks). In

contrast to general processes, functional processes may not cover the activities of all enterprises, institutions and organizations that belong to the management sphere of a state body, but may be implemented only in some of them;

• general processes – standard processes inherent in the activities of each institution (for example, public procurement, accounting and financial reporting, management of state-owned objects, capital construction, IT systems, personnel management);

• organizational structure (for example, structural units of the institution - directorates, departments, management, departments, sectors, individual officials);

• location (enterprises, institutions, organizations of the central, regional or district levels).

The following documentary sources of information are used to divide the audit space by categories, in particular:

• legislative and normative legal acts regulating the activities of state bodies, as well as institutions, enterprises, organizations that belong to the sphere of its management. Tasks and functions, rights and obligations, legal status and subordination are defined in such documents;

• strategic and operational plans (annual, half-yearly, quarterly), which describe the purpose (mission) and strategic goals (priorities) of the activity of the state body, tasks and measures for their implementation, final results (indicators) of task performance, responsible executors (co-executors) are determined);

• internal documents of the institution (organizational structure, regulations on structural subdivisions, job instructions, relevant orders and regulations). Such documents contain a list of structural subdivisions, the powers and responsibilities (accountability) of management and employees are defined, the distribution of powers and responsibilities (accountability), their consolidation by executors (co-executors), the procedure for compiling and submitting reports on activity results, including performance indicators for achievement set tasks, levels, forms and terms of reporting, procedures for planning, organization, implementation of individual processes are defined;

• passports of budget programs, financial plans of state enterprises, reporting (annual and periodic financial, other non-financial reporting), which contain performance indicators of institutions/enterprises;

• audit reports of the internal audit unit and acts/reports of external control bodies, which contain information on the shortcomings of the internal control system and the facts of violations, as well as the provided conclusions and recommendations/mandatory requirements.

The study of documents contributes to the proper understanding of the activities of the state body, the establishment of the relationship between functions and processes, their connection with structural divisions/enterprises, institutions, organizations responsible for the implementation of the relevant functions/processes, affects the correct definition of audit objects and in general on the effectiveness of the internal audit activity planning process. The processing of such documents will help

the internal audit unit to identify changes in the audit space and conduct a comprehensive assessment and update of all audit objects included in the audit space.

As part of determining the scope of the audit, it is advisable to conduct an interview with the head of the institution and consultations with the persons responsible for the activity in order to express their opinion on the completeness of the areas of activity, functions or processes determined by the internal audit unit, as well as the control measures and the internal control system in general in the institution .

The next step after defining the scope of the audit is the identification of risks. The goal of this stage is for employees of the internal audit unit to achieve a deep understanding of risks in the institution's activities.

When planning internal audit activities, the internal audit unit takes into account the risk management system - the activities of the management and employees of the institution to identify risks, carry out their assessment, determine ways to respond to identified and assessed risks, review identified and assessed risks to identify new and those that have undergone changes (the third paragraph of Clause 5 of the Basic Principles of Internal Control).In cases where risk management activities have been implemented in the institution in accordance with the Basic principles of internal control, the internal audit unit during the planning of internal audit activities should:

• investigate the availability of internal documents that regulate risk management activities and compliance with the requirements of these documents by the management and employees of the institution, as well as the timeliness of providing information on risk management to the management and employees of the institution;

• to analyze the risk registers formed by the persons responsible for the activity in order to understand the risks, to investigate the completeness of the detection of risks by the persons responsible for the activity;

• to analyze which risks were classified by the persons responsible for the activity, the methods of responding to risks chosen by them, to assess the coincidence of the chosen methods of responding to risks with the judgment of internal auditors;

• find out the acceptable level of risk1 by the management of the institution (by conducting an interview with the senior management of the institution), investigate what control measures were implemented by the persons responsible for the activity to reduce risks, assess their sufficiency (in the opinion of internal auditors) - to what level the measures controls ensure the reduction of residual risks2 and how the residual risks are correlated with the acceptable level of risk;

• analyze the effectiveness of the implemented by those responsible for the activityurrentlyuses by persons of control measures to reduce risks from the point of view of their impact on residual risks. The analysis should use information obtained both from external sources and information available in the internal audit unit;

• identify risks and residual risks not identified by the persons responsible for the activity, which, despite the implemented control measures, remain high;

• carry out and document the procedure for assessing the risks identified by the internal audit unit, which were not identified by the persons responsible for the activity, and residual risks.

The approach to identifying risks will be different if the head of the institution has not implemented risk management activities on a consistent and structured basis. In such cases, employees of the internal audit unit independently determine the events that lead to the emergence of risks, carry out a risk assessment regarding the probability of their occurrence and impact on the achievement of the institution's goals. Such work is much more complex and requires more time than the analysis of the risk management system implemented in the institution.

Even if the institution does not have a proper risk management system, there are documentary sources that will help the internal audit department to identify risks. In particular, during the identification of risks by the internal audit unit:

• a wide range of financial/non-financial information is taken into account, namely:

information on typical/systemic violations and deficiencies established as a result of previous internal audits;

notification of structural subdivisions/enterprises, institutions and organizations about problematic issues and risks in their activities;

information from mass media, the Internet, complaints, appeals of state bodies, people's deputies, law enforcement agencies, external control bodies;

information on reporting (in particular, from financial and budget reporting, reports on the implementation of the passport of the budget program, reports on the implementation of financial plans of state enterprises);

• an analysis of documentary sources such as:

normative legal acts that regulate the activity of the institution;

strategic activity plans, annual, half-yearly, quarterly activity plans of the institution;

internal documents (for example, regulations on structural subdivisions, which define tasks and functions, rights and obligations of employees, orders and regulations, which define relevant functions/processes/procedures);

annual reports on the institution's activities;

reports on the results of previous internal audits;

acts/reports of external control measures (audits, checks, state financial audits) conducted by external control bodies (Accounting Chamber, state financial control bodies, etc.).

The most common method of identifying risks is conducting an interview with the management of the institution. The opinion of the institution's management regarding problematic issues and risks that affect the achievement of the institution's goals is always important for the identification of risks. After all, the objectivity of risk assessment may be reduced and, as a result, the audit objects selected for the plan will not be relevant, but their results are not interesting for the management of the institution. In order to identify risks, it is advisable to also hold consultations with the persons responsible for the activity, since they are more knowledgeable than others

about the nuances of the implementation of the function/process for which they are responsible.

The requirements for finding out and taking into account the opinion of the head of the institution and conducting consultations with the persons responsible for the activity regarding problematic issues and risks that affect the achievement of the institution's goals are provided for in the second paragraph of paragraph 2 of Standard 7 "Planning of internal audit activities".

For the purpose of objectivity and completeness of risk identification, the internal audit unit must simultaneously apply several methods of risk identification (by analyzing documentary sources, conducting interviews with the top management of the institution and consulting with those responsible for activities, organizing and holding "brainstorming sessions", etc.) . When identifying risks, the knowledge and experience gained by internal auditors from the results of previous internal audits is also useful.

After the work carried out by the internal audit unit to identify risks in relation to each audit object, events (external and internal) are identified in the audit space that may affect the institution's achievement of the defined goals and which, depending on the impact, are divided into opportunities (positive impact on the institution's achievement defined goals) and risks (negative impact on the institution's achievement of defined goals).

Table 1 presents the classification of events that can create risks: Events that create risks.

The Ukrainian auditing community currentlyuses the International Standards of Quality Control, Audit, Review, OtherAssuranceandRelatedServices (edition2016–2017) (ISA) of the International Auditing and Assurance Standards Board (IAASB), translated into Ukrainian by the Auditing Chamber of Ukraine in June 2018 and disseminated by the permission of the International Federation of Accountants (IFAC)(IAASB,2016–2017).ISA emphasize that the purpose of audit is to increase the reliability of financial statements provided to potential users. An auditor highlights in the report his independent opinion on whether or not the financial statementsare prepared in all the substantive aspects in conformity with the requirements of the financial reporting framework. The users of auditing opinions and financial reporting of business enterprises include: owners, management and employees (concerning relations issues) of business entities which reporting is checked by auditors, lenders and investors, regulatory bodies. It follows that auditing is an activity with social significance. This status requires that the auditing procedures at all the phases of the formation of the independent auditor’s opinion highlighted in the conclusion be based on validity and quality criteria. Failure to assure the quality of audit engagements is a cause for misleading of financial reporting users, as it does not inform users on the existing financial problems and a likeliness of the bankruptcy, which is especially important in case of socially significant companies.

Table 1

Events that create risks

Operational	IT and Communications	Regulatory	Financial	Personnel	Reputational
failure to perform functions, processes, operations	destruction of the most important accounts or lack of access to them	non-compliance with legal requirements lawsuits, breach of contracts (agreements)	lack of funds for operations	loss of qualified employees (turnover, dismissal, retirement)	negative information from state bodies, law enforcement agencies
absence/insufficiency of control over the implementation of the process, operation	unavailable or unreliable data, unauthorized leakage of sensitive information	absence, contradiction or unclear regulation of legal provisions	existence of facts of untargeted and inefficient use of state resources	failure to implement training and professional development measures for personnel	loss of trust from stakeholders due to operational deficiencies
loss of material and technical equipment	virus attacks on the underlying software	improper claim-lawsuit activity	decrease in funding	availability of vacancies for a long time	negative media coverage of the institution's activities
lack of internet, telephone connection	stopping important activities	presence of facts of corruption and fraud, fines, penalties, loss of funds	employee dissatisfaction (complaints, appeals, including hotline		

For example: along with a financial scandal associated with Enron company, in 2019 the British tourist company Thomas Cook which history goes back to 1841, suddenly informed about its bankruptcy and liquidation(Pravo.ua, 2002). The negotiations between shareholders and lenders failed to achievea constructive agreement on the recovery of solvency, with the British Government waving out the Thomas Cook management's request on additional financing and Prime-Minister Boris Johnson making the announcement on "considerable sums for tax payers" and "moral threats", and called for finding ways for protecting the interests of lenders and communities and preventing the occurrence of surprises with respect to bankruptcies (UKRINFORM, 2021).

The quality of audit has been in focus of domestic and foreign researchers, which is confirmed by their publications. Redko (2009) related the audit with business security.Dmytrenko (2001) addressed practical implementations of the audit

quality standards. V. Bondar and Yu. Bondar (2015)explored the problems of quality assurance from the viewpoint of management of auditing firms. Vasyliuk (2019)elaboratedasystemapproachtoqualityassessmentofauditingfirmsincludedinvario ussectionsoftheregister.

ArtaLimani, audit directorinDeloittefirm(Slovenia), andArianMeta, firm manager on audit, came to the conclusion based on the research results that auditors should be seen as allies of financial reporting users. According to an existing opinion, the equally high quality of audit has to be assured in all the auditing firms, as the audits are performed in keeping with ISA. Research and summing up the results of audit engagement performance can, in a way, deny the traditional approach by showing that the audit engagement quality depends on the size of auditing firms, i. e. the larger the auditing firm the higher is its quality, and the established reputation of an auditing firm makes its competitive advantage (Limani, Meta, n.d.).

Asare, VanBuuren, and Majoor (2019)investigated 850 audit engagements performed by auditing firms in the Netherlands in 2005–2015 and revealed the factors with adverse impact on the audit quality: abnormal fees of auditors, parallel provision of auditing and non-auditing services. Their conclusion based on research evidence was that the existence of independent control could prevent the loss of auditors' independence; independent control of the quality of performedengagements could assure the quality of audit procedures and the formation of independent auditor's opinion.

DeFond and Zhang (2014)demonstrate that audit engagementshave much more significant meaning thana mere detection of violations in the accounting and financial reporting standards. Their research gives evidence that auditing committees, when selecting auditors, give preference to the ones with clearly defined specialization in a certain field, whereas their commitment to the audit quality is a function of the auditor's independence and competence. Only one low quality audit is enough to question the established reputation of an auditing firm, which will plummet its market positions and shrink the client base.

Theoretical and practical research lays down a firm basis for the auditing practices. However, given that the enforcement of three IAASBstandards based on summing up a large-scale project on improvements of audit quality, namely International Standard on Quality Management 1 (ISQM 1) (IAASB, 2020), International Standard on Quality Management 2 (ISQM 2) (IAASB, 2020a), International Standard of Audit "Quality Control of an Audit of Financial Statements" (ISA 220), is expected on February 15, 2022, the auditing community has just started to elaborate on these standards' requirements. This justifies the need in new in-depth studies in this field.

The article's objective is to present results of a study and recommendations to auditors concerning improvements and/or rebuilding of the system for control over the quality ofengagementsperformed by auditing firms in conformity with new requirements.

The quality management standards, used at the level of auditing firm and engagement team, require modifications in the established auditing practices and the

corporate culture of engagement performance. A positive trend is that the standard designers put stronger emphasison small auditing practices.

Quality management at firm level, specified in ISQM 1 (creating an organizational system for quality management in audit and a framework for audit inspections), is meant to replace the requirements fixed in the existing International Standard of Quality Control (ISQC 1).

A comparison of characteristics of the requirements specified byISQC 1 and ISQM 1is given in Table 2.

Table 2

A comparison of characteristics of the requirements specified by the existing quality standard(ISQC 1) and the new quality management system (ISQM 1)

Serial number	Existing quality control system (ISQC 1)	Serial number	New quality management system (ISQM 1)
51	The responsibility of management for quality in an auditing firm	1	The procedure of assessment of the firm's risk
2	Relevant ethical requirements	2	Management and leadership
3	Acceptance and Continuance of Client Relationships and Specific Engagements	3	Relevant ethical requirements
4	Human resources	4	Acceptance and Continuance of Client Relationships and Specific Engagements
5	Engagement performance	5	Resources
6	Monitoring	6	Engagement performance
		7	Information and communications
		8	Monitoring and sanctions

It should be noted that while the existing system of quality control consists of six components, the new one has eight components.

Risk assessment procedure in an auditing firm.The economies of scale are a feature to be accounted forwhen designing the quality management system in an auditing firm.

The firm management, when using the method of audit quality control based on risk assessment, must take account of:

(i) the character and circumstances of the firm activities;

(ii) thecharacterandcircumstancesofengagements performed by a firm.

Hence, the quality management system in a firm, including the system's complexity and formality, will be structured in different ways.

For example: a firm performing various categories of engagements for a wide range of business entities, including audit of financial statements of business entities with social significance, is likely to have a more complex and formalized quality control system and supporting documentation than a firm withbusinesslimited to

reviews of financial statements and/or other engagements on assurance, not belonging to audit.

The risk-based approach to the quality evaluation of performed engagements is included as a separate component.

An auditing firm is obliged to identify the risks specific to quality assurance, which may change due to objective factors, either individually or in combinations with other risks, and may have considerable impact on the achievement of goals related with quality assurance. For purposes of risk assessment specific to quality, the firm management has to formulate the responses to a set of concrete questions:

- How frequent is the likely occurrence of a condition, event, circumstance, action or inaction that may affect the quality of audit services?
- What is the period of time after which there may occur a condition, event, circumstance, action or inaction that may cause an adverse effect, and will an auditing firm have the capabilityto respond at that time, in order to decrease the effects of this condition, event, circumstance, action or inaction?
- At what period of time a condition, event, circumstance, action or inaction will affect the achievement of quality management goals?

An analysis of responses to these questions allows to designthe auditing procedures forfacing the risks (Table 3).

Table 3

Examples of quality-specific risks and auditing procedures designed in response to the identified risks

Examples of understanding of conditions, events, circumstances, actions or inactions by an auditing firm, which may have adverse effect for the quality management goals	Examples of quality-specific risks that may occur in the firm activities	Procedures for counteracting risk effects
Strategic and operative decisions, actions, business processes and business model of a firm: overall financial goals of a firm are largely dependent on the scopes of services provided by a firm, which are not included inISQM 1	* Resources are distributed in a way to prioritize the services not covered by ISQM 1 (e. g. non-auditing services), which may have adverse effects for the engagement quality within ISQM 1 * The importance of the engagement quality within ISQM 1is accounted for in the financial priorities in incomplete or inadequate manner	The continuing monitoring of the scopes of audit services, involved resources, and rotation of staff

Characteristicsandstyleofmanagement: a firm is a small business entity with several partners with shared authorities	* Duties and accountability of management in quality assurance are not clearly specified * Actions and behavior of management not contributing to quality enhancement call into question the quality of services	Evaluation of staff activities, including managerial personnel
The complexity of management and organizational structure: a firm has been recently merged with another firm	* Technological resources exploited by the two merged firms may be incompatible * The teams engaged in mobilization of resources may use intellectual capacities built before the merger, which may not be fitting for the new technique used by the merged firm	Evaluation and revision of the technical support of audits

According to ISQM 1,all the auditing firms irrespective of size (but with accounting for the economies of scale) are required to use risk-oriented approach in designing, implementing and operating quality management systems. The central goal of ISQM 1 is quality enhancement of audit services by use of an updated, consistent and rigid quality management system for auditing firms engaged in auditing, reviews, other non-audit assignmentsonassurance and other services related with audit. Paragraph 8 of ISQM 1 notes that the quality management goals set by a firm consist of the goals pertaining to the system's components, which have to be achieved by a firm.

The leadership refers to the quality assurance by action and behavior demonstrated by firm management and staff.

According to paragraph A 55-56 ISQM 1, an auditing firm needs to demonstrate the commitment to quality through its culture and behavior, recognizing and emphasizing:

1) the firm's contribution in the realization of social interests by consistent performance of audit engagements with proper quality;

2i)the importance of professional ethics, values and attitudes;

3)the responsibility of all personnel for quality assurance of all the engagementsor undertakings within the quality management system, and for their expected behavior;

4)the importance of quality in firm's strategic decisions and actions, including financial and operational priorities.

The implementation of ISQM 1requires that auditing firms and networks elaborate internal documents containing clearly specified goals of the quality assurance system, identification and evaluation of quality-specific risks, the clearly defined nomenclature of procedures in response to the assessed risks, the procedure of regular monitoring of the actions aiming at elimination of deficiencies detected by the quality assurance system.

As regards the management's responsibility for audit quality, ISQM 1 enhanced the requirements and obligations of auditing firms in the following specifications:

- quality management goals;
- aspectsofthe firm'sinternalenvironment and organizational structure;
- internal culture of quality assurance;
- regulation of decision-making;
- policiesandproceduresfortreatmentofcomplaintsandaccusations(which can be settled via "hot lines" for staff and third parties).

Auditing firms shall set up policies and procedures of regular performance evaluation of units and/or staff assigned with or taking on the responsibility for the operation of quality control system. An essential novelty of ISQM 1 is that the ultimate responsibility for the operation of quality control system lies with the top management personnel of the firm (director, board of director etc.). This provision of ISQM 1 now conforms with the norms of the Law of Ukraine "Audit of Financial Statements and Auditing Activities" (paragraph 8, article 23), stating that the responsibility for organization and effective operation of the internal quality control system lies with the firm's directoror with a specially appointed person from among the auditors, who is in staff of this firm as his/her main place of job (Verkhovna Rada (Parliament) of Ukraine, 2021).

Like in all the other components of the quality management system, the traditional approach has to be replaced with the risk-based one. An auditing firm must receive,at least once in a year, written confirmationsof the commitment to independence principles from all the employees. It should be noted that the International Code of Ethics for Professional Accountants (including International Independence Standards) has been updated and displayed on the official website of the Ukrainian Ministry of Finance (IFAC, 2018). The Code consists of three parts:

- Part 1. Complying with the Code, Fundamental Principles and Conceptual framework.
- Part 2. Professional Accountants in Business.
- Part 3. Professional Accountants in Public Practice.

The International Independence Standardsconsist of two parts:

- Part 4 A. Independence forAudit and Review Engagements.
- Part 4 Б. Independence of Assurance EngagementsOther Than Audit and Review Engagements.

The provision on acceptance and continuance of client relationshipsand specific engagementscontains some clarification and additions.After the enforcement of ISQM 1, an auditing firm, apart from evaluating its independence and

independence of its staff engaged in audits, the availability of resources for performing auditing procedures, the possibility toinvolve experts and contractors, and implementing measures forengagement quality control, shouldevaluatethe possibility of access to client information required for engagement performance, and to the managerial staff charged with provision of such information.

The component of ISQC 1 “Human Resources” was replacedwith the component “Resources”.ISQM 1, apart from human resources, contains descriptions of the requirements to technological resources enabling to support operation of the quality management system and performance of engagements, and of the intellectual resources needed for high engagement performance and bringing the operation into conformity with the provisions of professional standards and relevant legal norms.

The paragraph A 98-104 ISQM 1 “Technological Resources”, which are usually IT applications, creates the IT environment of a firm, incorporating the support IT infrastructure, IT processes and human resources:

- IT program is a program or a set of programs designed for the execution of a certain function for user or, in some cases, for another application program;
- IT infrastructure consists of IT network, operational systems and databases, hardware and software;
- IT processes are the processes used by a firm for controlof the access to IT environment, control of modifications insoftware or IT environment, control of IT operations, including monitoring of IT environment.

According to paragraph A 102–103 ISQM1, intellectual resources include the information used by an auditing firm to maintain the operation of quality management system and perform engagements in a coherent manner (written policies or procedures, methodology, industry or specific manuals, guidelines on accounting, standardized documentation or access to information sources (e. g. subscription to websites providing extensive information on certain issues of auditing, etc.)

Intellectual resources can be exploited by use of technologies resources. For example: the methodology used by an auditing firm can be built into IT program, thus facilitating planning and performance of engagements.

Paragraph A 105 ISQM1 “Service Providers” specifies that there can be circumstances when an auditing firm may use the resources provided by a service supplier, especially in the circumstances when a firm has no internal access to these resources. Although an auditing firm is allowed to use the resources of a service supplier, it remains to be responsible for its quality management system. Examples when service suppliers are involved are given below:

- the involvement of third parties in monitoring ofthe firm’s activities, engagement quality reviews or consulting on technical issues;
- the involvement of parties that perform the procedures in collaboration with a firm, e. g. auditors of components from other firms not incorporated in the firm’s network, or specialists for estimations of material stocks on a remote site;
- supplies of IT applications used in performing engagements;
- collaborations with external experts involved by an auditing firm for assistance to engagement teams in obtaining audit evidence.

Thecomponent“Engagement Performance” has the similar name in ISQC 1,and ISQM 1. However, the requirementsofISQM 1 seem to us to bemore rigid: they involve obligatory additional audits of quality to be conducted by an independent partner not only for the auditors from “listing” companies, but also for the companies that meet the criteria of “social significance”. The procedure and documenting of additional audits will be specified in the separate standard ISQM 2. The component does not change the requirements for the deadline of the final preparation of working documents on audit engagements; this deadline, usually fixed by the law, must not exceed 60 days since the date of signing the audit report.

ParagraphA 23 ISA 230 “Auditing Documentation”fixes the minimal term of storage for documents on audit engagements: not less than 5 years since that the date of the audit report.

ParagraphA85ISQC 1,legal or normative acts or professional standards can fix various terms for storage of audit documents. When an engagementis performed in keeping with ISA, the period of storage will usually be not less than five years since the date of the audit report or since the date of the audit report on the financial statements of the team, when it is signified as “applicable”.

It should be noted that the Law of Ukraine “Audit of Financial Statements and Auditing Activities” fixes more rigid requirements for storage of documents than ISA orISQM 1. Its paragraph 12, article 23 “Requirements to Internal Organization of Auditing Entities Entitled for Performing the Obligatory Audit of Financial Statements” specifies that an auditing entityshall store the information on the results of performance evaluation of the internal control system and implemented measures for seven years. The article 39 “Information Storage” emphasizes that an auditing entity shall store the working documents and all the reportsfor seven years or longer since the date of completion of afinancial statements audit or the date of their (i. e. documents) creation, when a financial statements audit has not beenfinished (Verkhovna Rada (Parliament) of Ukraine, 2021).

The component “Information and Communication” fixes the requirements concerning information and communication systems both within auditing firms or networks and in their relations with external parties.

Paragraph A110 – A 111says that reliable and relevant information refers to the information that is accurate, complete, timely and valid for the proper management of the firm operation as part of the quality management and support of the decisions pertaining to quality management. An information system may incorporate uses of instructions or IT components that determine the methods of identification, fixation, processing, communication and storage of information. The procedures of identification, collection, processing, communication and storage of information can involve IT software with components or working documents built in the firm programs. Consideration for the economies of scales allows less structured auditing firms with small numbers of staff and managers involved in engagement performance or in quality control systems to avoid rigid

policies and procedures with respect to identification, collection, processing and storage of information.

An auditing firm needs to have a clearly defined procedure of monitoring and a list of measures to eliminate deficiencies revealed by monitoring results, which will allow for:

1) providing relevant, reliable and timely information on the process of design, implementation and operation of the quality management system;

2) taking appropriate measures in response, to eliminate the revealed deficiencies.

ISQM 1 requires specifications of the content, time and scopes of monitoring procedures (periodical or continual). The monitoring system needs to covercontinuous audits and completed engagements on the basis of the criteria set by an auditing firm, including at least one completed engagement of each partner on the continuous basis. This standard fixes the requirements for analyses and documenting of the causes of deficiencies revealed within the quality management system and their impact on the operation of quality management system at firm level.

An auditing firm is obliged to demand that the persons involved in the monitoring have adequate competence and capacities, including the sufficiency of time for the effective performance of monitoring, and to check the soundness of their audit opinions.

The International Standard of Quality Management ISQM 2 "Engagement Quality Reviews", mentioned before, is devoted to the quality review procedures for completed audit engagements. It highlights issues of appointing a person responsible for the engagement quality control, regulation and recording of the review procedure. An audit partner is not entitled for engagement quality review earlier than after two years, the so called "cooling off period". It is a radically new provision in the regulation of quality control, intended to ensure the impartiality of audit partners. The different and unrelated meaning of "cooling off period" and "rotation of partners" should be emphasized.

Paragraph 5, article 30 "Duration of an Engagement on Obligatory Audit of the Financial Statements forEnterprises with Social Significance" of the Law of Ukraine "Audit of Financial Statements and Auditing Activities" specifies the requirements for "rotation" of key partners. Thus, key audit partners responsible for the obligatory audit of financial statements shall cease their engagement in the obligatory audit of financial statements of a business enterprise with social significance notlater than after seven years since the date of their appointment. They are not allowed to be engaged in the engagements on obligatory audit of this enterprise during the following three years. An auditing entity mustset "rotation" of the auditors engaged in obligatory audits of financial statements. The scheme of gradual "rotation" is applied in a phased manner to particular persons but not to the whole group engaged in an assignment.

ISQM 2 fixes the necessity of "sufficient time" to perform engagement quality control, but does not specify its duration in hours. Therefore, an auditing firm can fix this scope of "sufficient time" by its own in its management documents. This

standard allows for invitations of third parties (external ones for an auditing firm) for control of engagement quality reviews. Once the competence of a person chosen for control is put into question, this standard specifies the procedures for additional engagements of parties for performingadditional control.

According to this standard, an engagement partner who is the supervisor of review is not considered as a formal party, being an active member of an engagement group, which allows for timely engagementof group members and supervision of the engagementperformance. An engagement partner will be entitled for signing the audit report only once it is checked by the quality reviewer. This provision is analogous to the norm of paragraph 1, article 32 "Requirements on Internal Auality control of a Completed Engagement on the Financial Statement Audit" of the Law of Ukraine"Audit of Financial Statements and Auditing Activities": "…internal quality control of a completed engagement on the obligatory audit of financial statements of a business enterprise with social significance shall be performed before the audit report and the supplementary report is submitted to the auditing board of an enterprise with socialsignificance…"(Verkhovna Rada (Parliament) of Ukraine, 2021).

Results of this study led the authors to the conclusion that the emphasis on selected definitions in ISQM 1would be desirable:

"…1) engagement quality review – an objective evaluation of the significant judgments made by the engagement team and the conclusions reached thereon, performed by the engagement quality reviewer and completed on or before the date of the engagement report;

2) engagement quality reviewer – a partner, other individual in the firm, or an external individual, appointed by the firm to perform the engagement quality review;

3) relevant ethical requirements – principles of professional ethics and ethical requirements that are applicable to a professional accountant when undertaking the engagement quality review. Relevant ethical requirements ordinarily comprise the provisions of the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards)…" (IAASB, 2020).

An auditing firm shall establish policies or procedures that require the assignment of responsibility for the appointment of engagement quality reviewers to an individual(s) with the competence, capabilities and appropriate authority within the firm to fulfill the responsibility. Those policies or procedures shall require such individual(s) to appoint the engagement quality reviewer (paragraphs A1 – A3 ISQM 2). Pursuant to the provisions of these paragraphs, an auditing firm must:

1) demand that the quality reviewer bear the ultimate responsibility for the engagement quality review;

2) specify the responsibility of the engagement quality reviewer for defining the character, terms and scopes of supervision over an engagement team; formulate the duties of the engagement quality reviewer.

The policies and procedures set by an auditing firm must contain the clause that the engagement quality reviewer cannot be a member of an engagement team.

It should be emphasized that, according to paragraph A2 ISQM 2, in certain circumstances (such as in case of a small firm or a single specialist) it will not be expedient for an auditing firm to appoint an individual performing engagement quality review as a separate person, apart from a member of an engagement team. And according to paragraphA4 ISQM 2, in certain circumstances (e. g., in the case of a smaller firm or a sole practitioner), it may not be practicable for an individual other than a member of the engagement team to appoint the engagement quality reviewer. Anindividual external to a firm can be partner or employee of a network firm, entity or organization that is a service supplier. The procedure of using services provided by the mentioned individual is subject to the provisions of ISQM 1 pertaining to network requirements or network services and/or service providers.

The external quality reviewer must:

1) have the competence,capabilities, including the sufficient time, and the authorities required for performing an engagement quality review (according to paragraphA5 – A11ISQM 2);

2) conform with the relevant ethical requirements, including the ones concerned with threats to objectivity and independence (paragraphA12 – A15ISQM 2);

3) conform with the legal norms and provisions of regulatory acts (if any) qualifying the relevance of a quality reviewer (paragraph A16ISQM 2).

It should be noted that, according to paragraph A3 ISQM 2, an audit firm can appoint several individuals as ones responsible for the engagement quality evaluation. For example: the firm's policy and/or procedures may involve a specialprocedure for finding and appointment of audit engagement quality reviewers for listed companies, not applicable for companies not included in the listing or other engagements.

According to paragraph A5ISQM 2,technical competencies, professional skills and professional ethics, values and attitudes of a quality reviewer must pertain to:

- an understanding of professional standards and applicable legal and regulatory requirements and of the firm's policies or procedures relevant to the engagement;
- knowledge of the entity's industry;
- an understanding of, and experience relevant to, engagements of a similar nature and complexity;
- an understanding of the responsibilities of the engagement quality reviewer in performing and documenting the engagement quality review, which may be attained or enhanced by receiving relevant training from the firm.

ISQM 2 specifies the actions at firm level, which help establish the professional authority of an engagement quality reviewer. For example:fostering culture and respect ofthe engagement quality reviewer's role helps weaken pressures from an engagement partner or other firm personnel to influence the reviewers' formulation of review results. The professional authority of a reviewer can sometimes be enhanced by provisions of the firm's policy and/or procedures, to eliminate inconsistencies in the actions that will be performed by the quality reviewer and the engagement teamwhen there is a difference inthe engagement quality assessment

between the reviewer and the team.

When performing an engagement quality review, a reviewer must:

- gain an understanding of the information communicated by an engagement team about the engagement's character and circumstances and organization of engagement performance;

-obtain information about the procedure of monitoring and elimination of deficiencies within the firm's quality control system, including the ones pertaining to or affecting the aspects of significant opinions made by an engagement team;

- discuss important issues and significant judgements made in the process of engagement-related planning, performing and reporting with an engagement partners and/or (if possible) with other members of an engagement team (paragraph A35 – A38ISQM 2).

Based on the obtained information, a reviewer should browse the selected documentation on the completed engagements, pertaining to significant judgements made by the team, and to evaluate:

- the grounds for justification and formulation of significant judgements, the display of professional skepticism by an engagement team;

- the supporting engagement documentation pertaining to the formulated judgements and their relevance to the circumstances.

For evaluation of the quality of performed engagements on audit of financial statements it is necessary to evaluate the grounds for appointment of this engagement partner, the conformity with relevant ethical requirements on independence, the provision of consulting on complex or controversial matters and/or matters pertaining to differences in opinions and judgements.

An auditing firm shall set the policy and/or procedures obliging to record the process of engagement quality review and include these records to the documentation on engagement performance.

ISA 220 "Quality Control for an Audit of Financial Statements" deals with quality management at the level of audit engagement.

After the revision this standard contains a more detailed specification of the responsibility for management and assurance of the appropriate quality of audit by the partner who is the supervisor of audit engagement, with emphasis on the need for his active involvement in the audit review throughout the performance of engagement.

It points out to the importance of fostering the relevant culture of quality at firm and team level, to be maintained by all firm staff, including the commitment to the principle of professional skepticism.

A definition of "professional skepticism" is given in article 9 of the Law of Ukraine "Audit of Financial Statements and Auditing Activities"(Verkhovna Rada (Parliament) of Ukraine, 2021). Auditors and auditing entities, when providing auditing services, shall adhere to the principle of professional skepticism that means the permissibility of possible essential distortion of information disclosed in financial statements as a result of facts or behaviors revealed in the process of audit, which signal on violations, including frauds or mistakes, in spite of the previous experiences

of an auditor and an auditing entity regarding the integrity and decency of the executives of a legal entity which financial statements are subject to review.An auditor and an auditing entity shall display criticism and professional skepticism in evaluating the fair value estimates used by a legal entity, devaluation (revaluation) of the utility of assets, reserves and future flows of monetary assets, as this information has essential impact on the formation of auditor's opinion on the legal entity's capability to continue activities on an ongoing basis.

ISA 220 specify the procedure for use of resources, not only human, but technological and intellectual ones. The supervisor shall be made responsible for the procurement of all the resources required by an engagement team. When the evaluation shows a shortage of resources, this standard specifies the nomenclatures of response measures for obtaining the full set of resources required for the engagement performance.

The partner shall supervise the review procedure, define the core aspects of the engagement, form substantive judgements taken in the process of engagement performance, set up communications between members of engagement team, company management, individuals assigned with top administrative authorities in business entities which reporting is subject to review, officials of regulatory bodies (in case of need).

By analogy with ISQM 2, ISA specify that an additional "self-review" shall be performed after the review is finished, in which the supervisor shall evaluate all the documented procedures and form the judgement on whether or not everything possible was done to assure the quality management and whether or notthe relevant quality of the engagement performance could be achieved.

ISQM 1 and ISQM 2 cannot be fully implemented unless their provisions are subjected to rigorous scrutiny by managements of auditing firmswith taking measures on revision of the documentary support for operation of quality control system at firm level.

Results of the study led the authors to the conclusion about the need for revision and/or design of selected segments of the quality control system at firm level, including (i) risk assessment procedure; (ii) management and leadership; (iii) relevant ethical requirements; (iv) acceptance and continual of client relations and specific engagements; (v) resources; (vi) engagement performance; (vii) information and communication; (viii) monitoring and sanctions.

The new procedures for quality evaluation require elaboration of new job descriptions for audit quality reviewers. We believe that a useful and necessary area of research is elaboration of internal working documents addressing "management and leadership", "resources", "information and communication", with implementing these developments in the practice auditing firms.

References

1. Asare, S., J. Van Buuren, and B. Majoor. 2019. The joint role of accountants' and auditees' incentives and disincentives in the resolution of detected misstatements. *Auditing: A Journal of Practice & Theor*y 38 (1): 29–50. https://doi.org/10.2308/ajpt-52153

2. Bondar, V., and Y. Bondar Y. 2015. Quality in audit and some aspects of quality management. *Problems of Theory and Methodology of Accounting, Control and Analysis* 1 (31): 36–64 [in Ukrainian].

3. DeFond, M., and J. Zhang. 2014. A review of archival auditing research. *Journal of Accounting and Economics* 58 (2–3): 275–326. https://doi.org/10.1016/j.jacceco.2014.09.002

4. Dmytrenko, I. N. (2001). Audit quality control: from standards to practice. Theory and practice of audit in Ukraine. *Collection of abstracts and texts of the All-Ukrainian scientific-practical conference*. Kyiv, pp. 132–135 [in Ukrainian].

5. International Auditing and Assurance Standards Board (IAASB). 2016–2017. *International Standards for Quality Control, Audit, Review, Other Assurance and Related Services*. Available at: https://www.mof.gov.ua/uk/mizhnarodni-standarti-auditu [in Ukrainian].

6. InternationalAuditingandAssuranceStandardsBoard (IAASB). 2020. *International Standard on Quality Management 1 (ISQM 1)*. Available at: https://www.iaasb.org/publications/international-standard-quality-management-isqm-1-quality-management-firms-perform-audits-or-reviews

7. InternationalAuditingandAssuranceStandardsBoard (IAASB). 2020a. *International Standard on Quality Management 2 (ISQM2)*. Available at: https://www.iaasb.org/publications/international-standard-quality-management-isqm-2-enhancing-quality-reviews

8. International Federation of Accountants (IFAC). 2018. *International Code of Ethics for Professional Accountants*. Available at: https://mof.gov.ua/storage/files/kodex_et.pdf

9. Limani, A., and A Meta. n.d. What is a high quality audit? Available at: https://www2.deloitte.com/al/en/pages/audit/articles/high-quality-audit.html [in Ukrainian].

10. Pravo.ua. 2002. *The biggest financial failure in the history*. (March 6). Available at: https://pravo.ua/articles_category/vypusk-10-220 [in Russian].

11. Redko O. 2009. Quality of auditing services: philosophy and mythology. *Accounting and Auditin*g 1: 46–54 [in Ukrainian].

12. UKRINFORM. 2021. *The world' oldest company failed "to stand the 21st century"*. (Novermber 11). Available at: https://www.ukrinform.ua/rubric-world/2788329-najstarisa-v-sviti-turisticna-kompania-ne-vitrimala-xxi-stolitta.html [in Ukrainian].

13. Vasyliuk, M. M. 2019. *A conceptual framework of audit quality*. Ivano-Frankivsk: Publishing House of VasylStefanykPrecarpathian National University [in Ukrainian].

14. Verkhovna Rada (Parliament) of Ukraine. 2021. *Law of Ukraine "On Financial Audit reporting and auditing activities"*. No 2258-VIII. Edition 01.08.2021. Available at: https://zakon.rada.gov.ua/laws/show/2258-19#Text [in Ukrainian].

1.3. THE INFLUENCE OF THE INVESTMENT CLIMATE ON THE INVESTMENT SECURITY OF THE PROCESS OF REPRODUCING TECHNICAL RESOURCES OF AGRICULTURAL ENTERPRISES

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Summary. It is substantiated that the concepts of "investment activity" and "investment process" are inextricably linked with the concept of "investment provision" and it is determined that investment provision of the process of reproduction of technical resources in agriculture is such a course of investment processes and investment activities in a long-term period, which leads first to a simple, and then to an expanded and innovative reproduction of technical resources, changes in their quantitative and qualitative characteristics in order to achieve a state of sustainable development of agriculture. It is proposed to consider the definitions of "investment activity", "investment process" and "investment provision" as a triad of interconnected and interdependent components, which characterizes these concepts as a phenomenon, as a process and as a result, which is presented in the form of a block diagram with a step-by-step display algorithm for the development, adoption and implementation of decisions regarding investment support for the process of reproduction of technical resources in agriculture.

The peculiarities of the formation of the market and sources for the reproduction of technical resources in agriculture were revealed, and the essence of the concept of technical resources in agriculture was clarified, and it was determined that these are available mobile and stationary technical means, which include machines, mechanisms, devices, devices, tools, intended for production of agricultural products and the place of these resources in the structure of production costs of agriculture is reflected. It was determined that the process of reproduction of technical resources in agriculture is a set of consecutive actions aimed at updating technical resources intended for use in agriculture, which is carried out in the form of simple, extended or innovative reproduction, that is, it involves an increase not only in the number of technical means, but and changing their quality due to the development of the market of agricultural technical means and the attraction of fundamentally new, modernized and more productive equipment, including foreign equipment. It is clarified that the main sources of reproduction of technical resources of agriculture are both own (depreciation, profit) and borrowed (bank loans, state appropriations, finances of private institutions and individuals) funds using financial mechanisms of joint investment and public-private partnership.

Keywords: investment climate, investment activity, investment attractiveness, investment stability, reproduction, technical resource of agricultural enterprises.

Source-based analysis of scientists' interpretation of the main definitions in the field of investment shows the general approach of scientists to the understanding of

the concept of investment activity as a process of investing capital for the purpose of obtaining profit. At the same time, the majority of scientists interpret the concept of "investment activity" as a set of measures and actions of individuals and legal entities, as well as the state, aimed at investing own and borrowed funds for the purpose of obtaining profit. This definition of the essence of the concept of "investment activity" is as close as possible to the definition given in the Law of Ukraine "On Investment Activity", namely - investment activity is a set of practical actions of citizens, legal entities and the state regarding the implementation of investments [13]. In addition, we discovered the presence of certain disagreements regarding the description of the essence of this activity through the apparatus of related concepts and terms. Thus, A. Peresada [11], defining the term "investment activity", also uses the term "investment process", which he considers from the point of view of various investment cycles, and interprets the latter as processes that are implemented throughout the entire time of investment activity, and defines them as a set of measures from the moment of making the investment decision to the final stage of the investment project. Similar approaches are found in other authors, who identify the concepts of "investment activity" and "investment process". Thus, we see that in the scientific literature there are many approaches to revealing the essence and content of the concept of "investment activity", the generalization of which makes it possible to formulate the author's definition of this concept and to state that it is a purposeful activity consisting of a set of actions and individual operations in relation to the formation, attraction and use of investment resources, as well as related to the regulation of the investment process and the movement of internal and external investment funds and has the purpose of obtaining profit or achieving a certain social or other effect.

As for the category "investment process", some scientists, as mentioned above, practically equate this concept with the concept of "investment activity" [11] or consider it as the mechanisms for carrying out such activity, others describe the investment process as a sequence of certain steps [8] or a complex practical actions [16]. At the same time, we believe that the most successful and complete is the scientific approach of U. Andrusiv and G. Sydor [1], who consider the investment process at the macro level as a form of capital accumulation, which is characterized by all the signs of the system, namely: the present subject (investor), the object (investment object), the relationship between them (obtaining investment income), the environment in which they function (investment environment). But they define that it is an endless in space and continuous in time process of implementation of investment decisions, related to the attraction of funds, with the aim of achieving the goals and the maximum positive result for the participants and the investor. To this definition, we would add such characteristics of the investment process as regularity and cyclicality. In this way, the definition of the concept of "investment process" will take the following form - it is an endless in space and continuous in time ordered by the sequence of actions and cyclical process of development and implementation of investment decisions, which is related to the attraction of funds, with the aim of achieving goals and the maximum positive result for all participants.

The procedure for implementing the investment process is determined by the target settings and legal norms of society, as well as its current economic opportunities, which are determined on the basis of the volume of the gross domestic product, the dynamics of its changes over time, the size of budgetary resources, the amount of generated profit of business structures [15]. The forms of the investment process and the methods of its implementation are determined by the state of the financial market and the division of labor on a national and international scale. The investment process in all sectors of the economy and regions of the country is interconnected with the state and dynamics of the development of the financial market as the main supplier of investment resources [14].

In general, the investment process, as well as investment activity in general, is purposeful and oriented towards obtaining profit, which is formed after a certain period of time after the investment is made. However, investment activities are often carried out in conditions of instability and unpredictability of internal and external factors that shape the investment environment. Therefore, the investment process, by its internal nature, is associated with the risk of losing the initial capital or part of it, as well as all or a certain share of the investment profit [18]. And we agree with the warnings of scientists [2, 9] that the probability of investment risk is much higher than entrepreneurial risk in the process of operational activity, which significantly increases the price of investment resources and requires significant insurance costs.

Conditions of economic and financial instability and uncertainty lead to negative changes in the investment climate - a decrease in the investment activity of investors; loss of investment attractiveness of investment objects due to the growth of investment risks; deterioration of conditions ensuring investment stability as a result of disruption of investment and institutional balance. All this negatively affects the speed and efficiency of the investment process and can lead not only to the expected positive result, but also, as noted above, to an unexpected - negative one. The absence of a clear legislative and unambiguous scientific definition of the concepts "investment process" and "investment provision" is evidence of the multifaceted nature of these concepts and the clarification of their essence and content, taking into account certain factors and circumstances. Regarding the term "investment provision", during the research we discovered many different scientific approaches to defining this definition, namely: resource, process, value, system, activity.

We believe that each of these approaches has the right to life, because the concept of investment security is multifaceted and ambiguous. At the same time, in view of the topic of our research, where the object is investment support for the process of reproduction of technical resources, we note that we consider the most complete system approach, which is highlighted in the works of O.I. Guturova, A.O. Kalashnikov [4].

Relying on the work of scientists and narrowing the concept of investment provision to the object we have defined, we determine that investment provision of the process of reproduction of technical resources in agriculture is such a course of investment processes and investment activities in a long-term period, which leads first to simple, and then to extended and innovative reproduction of technical

resources, changes in their quantitative and qualitative characteristics and transition to such a technical and technological state of agricultural production that will provide it with the ability to counteract the negative impact of internal and external factors on the results of financial and economic activity. Since the concepts of "investment activity", "investment process" and "investment provision" are interpreted ambiguously by scientists, within the scope of our research, guided by the principle of "management by the goals of evaluation by results", we consider it appropriate to consider them systematically as a certain triad of interrelated components that characterize these concepts as a phenomenon, as a process and as a result, which are effective under numerous conditions, but primarily in the presence of a favorable investment climate (Fig. 1).

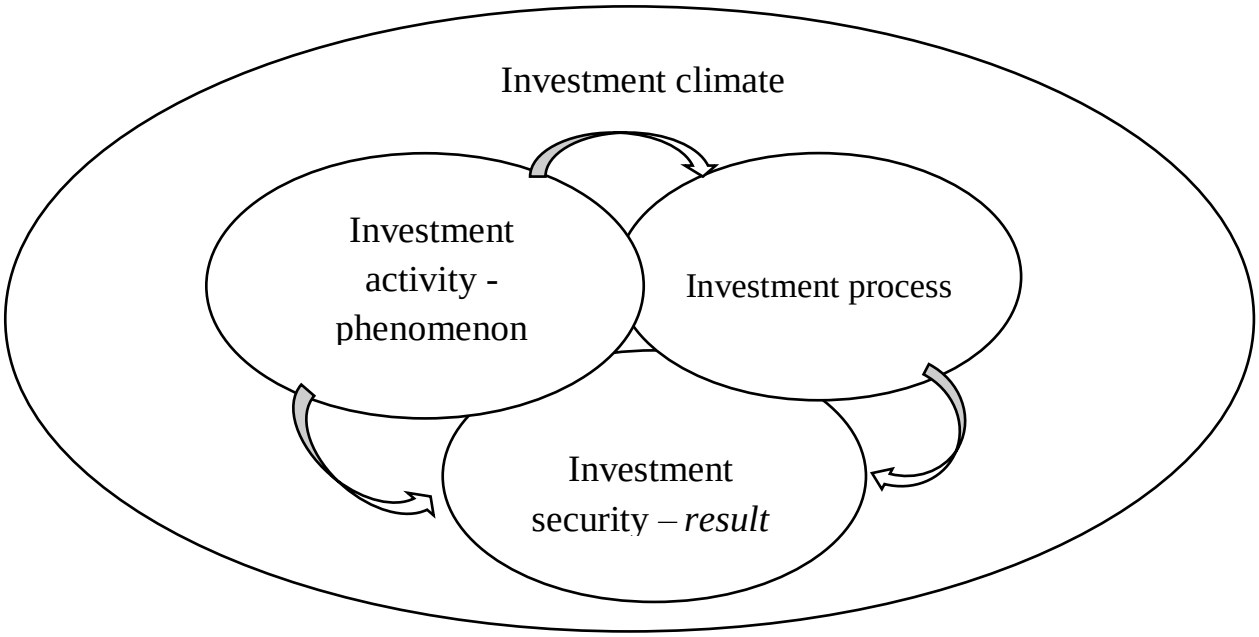

Fig. 1. The relationship between the concepts of "investment activity", "investment process" and "investment security" (composed by the author)

Taking into account all the above, we believe that investment activity, investment process and investment provision are not only logically interconnected, but also interdependent concepts that can be schematically presented in the form of a block diagram where the algorithm for developing, adopting and implementing an investment decision is displayed step by step (Fig. 2).

Thus, we are convinced that the concepts of "investment activity" and "investment process" are inextricably linked with the concept of "investment security", since all types of material and financial values invested acquire the status of real investments only in the process of their practical implementation. We note that this scheme is not closed, since the processes in the field of investment activities are influenced by various internal and external factors.

Therefore, this process is cyclical and depends on the frequency of significant changes related to the formation and development of state investment policy and factors affecting the investment climate.

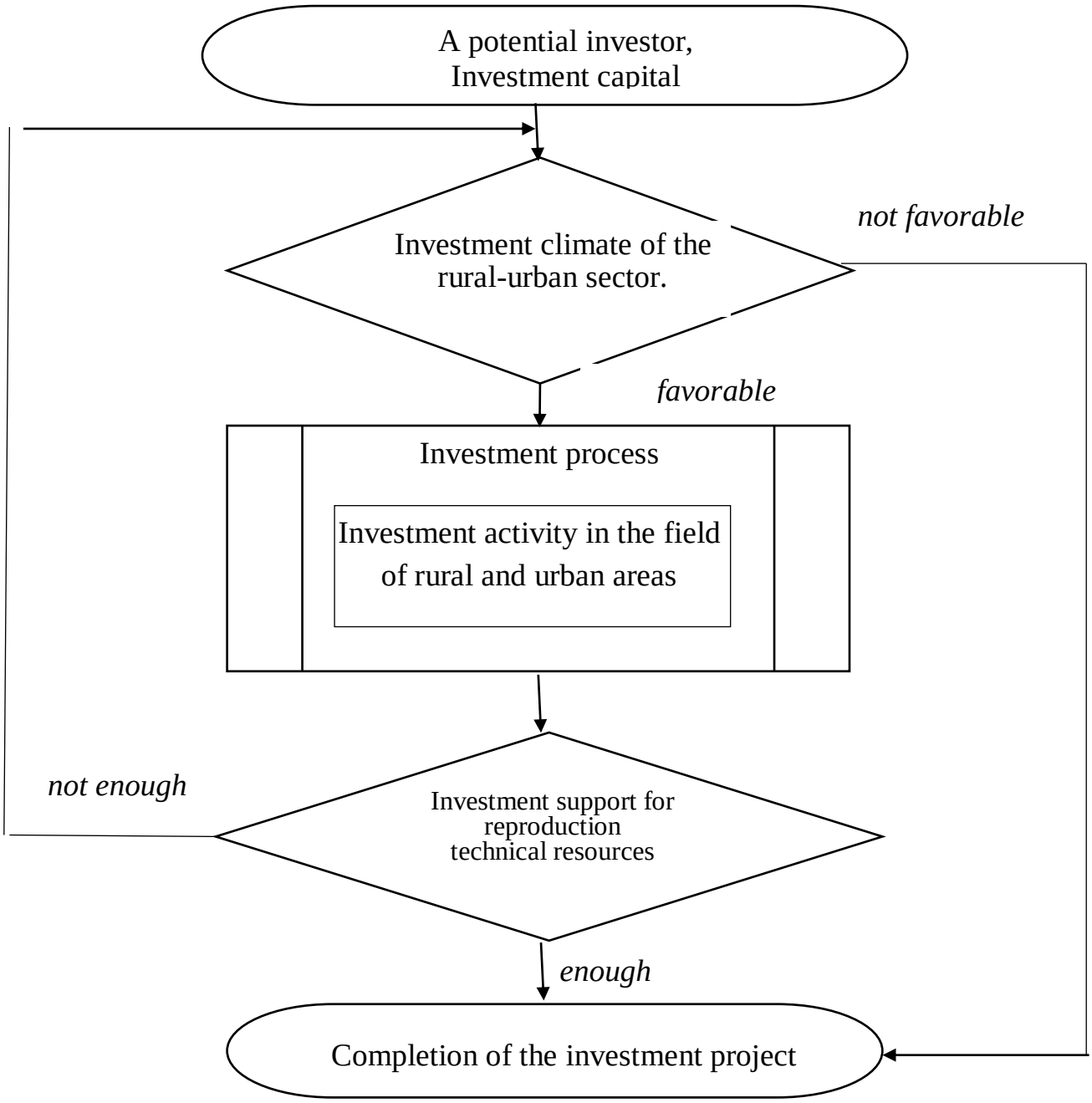

Fig. 2. Block diagram of the development, adoption and implementation of a decision regarding investment support for the process of reproduction of technical resources of agriculture (composed by the author)

In general, investment support for the development of agriculture should be considered as a set of various conditions, resources, financial, economic and institutional mechanisms that ensure the course of investment processes for a long period of time and lead to changes in the quantitative, qualitative and structural characteristics of the industry, its transition to a new qualitative state, which forms the ability to counteract objective and subjective challenges and threats, the negative influence of the external environment. Taking into account the fact that the development of the agricultural sector of the national economy is the goal of the state investment policy, investment support for the processes of reproduction of technical

potential is one of the tools for achieving the set goal, which involves, first of all, the development of the agricultural machinery market and the expansion of the sources of attracting capital investments in rural household.

When analyzing the conditions for the rational use of investments in economic science and practice, as a rule, the concepts of "investment climate", "investment attractiveness" and "investment potential" are used.

Since these concepts are often used, but different scientists interpret them in different ways, therefore, based on the studied scientific sources, we settled on the most common definitions. Also, the terms "investment activity", "investment risk" and "investment stability" are often used in scientific literature.

Regarding these terms, we note that the concept of "investment activity" is often used as a synonym for the concepts of "investment activity" and "investment process"; "investment risk" is perceived as the same as the term "investment attractiveness".

We did not find the definition of the concept of "investment stability" at all in the scientific circulation of domestic scientists, although in Russian scientific sources this term is defined as "... the ability of the investment environment of the economy to provide the necessary properties to support the ties between the subject and the object of investment within sufficient limits to achieve investment goals, as well as counteract destabilizing factors and adapt to new conditions."

At the same time, in domestic scientific circles, investment stability is considered, for the most part, as a component of investment attractiveness and is usually associated with the legal aspect. Thus, O. Gavrilyuk [3], speaking about investment stability, notes that the investor first of all needs legal stability, which is manifested not through the creation of good, but through the presence of stable laws that would provide an opportunity to plan activities for an achievable long-term period. We generally agree with the author that constant attempts to improve the legislation only mean instability for investors, which manifests itself in real life as an incomprehensible and unbalanced algorithm, when an investor contributes funds under the influence of one law, carries out investment activities under the conditions of the second - modified legislation. and gets a result in other - third legislative realities. But in addition to the legal aspect, the financial aspect is important, including the stability of the national currency, the socio-economic aspect - the sustainable development of the national economy, the institutional aspect - the stability of the organizational and management system at the level of state administration and regulation of investment processes, the political aspect - the inheritance of the political course and its immutability in relation to cooperation with investors, etc.

Therefore, we believe that the concept of "investment stability" should be more widely considered in scientific circles and should be reflected in domestic legislation. Taking into account our understanding of the investment process and within the scope of this study, we believe that "investment stability" is one of the key concepts (subsystem) in the system and structure of the concept of "investment climate", which ensures investment balance and the formation of certain checks and balances on the

functioning of legal, financial, institutional, socio-economic, political and other investment mechanisms through state guarantees to ensure such stability.

With regard to the concept of "investment climate", we consider it expedient to dwell on the disclosure of its essence in more detail. Different scientific approaches to revealing the essence of the concept of "investment climate" were summarized by O. Fedorchak in his work [17]. He analyzed scientific works devoted to this topic and identified the following groups of approaches: factor approach; risk approach; territorial approach; integrated approach; systematic approach; balanced approach; rating approach; dynamic approach; cyclical approach; state management approach. We believe that another group of approaches to uncovering the essence of the concept of "investment climate" should be added to this list - this is an institutional approach.

Based on the research materials presented in Appendix B, we see that investment decision-making is based on the multivariate assessment of a number of indicators, as well as the analysis of trends in their changes, which collectively form the investment climate in the state or industry. The state has a direct (at the national level) and indirect (at the level of regions and individual territories) influence on the formation of the investment climate through institutional, financial, information and other mechanisms that are included in the state investment policy and are the basis for the formation and implementation of the state investment strategy.

The analysis of existing methods and approaches to the assessment of the investment climate made it possible to identify some of their advantages and disadvantages. Thus, in some foreign countries, the investment climate is assessed on the basis of macroeconomic indicators (USA, Canada, EU countries, Scandinavian countries), in some countries descriptive characteristics of the investment climate are used (for example, Japan).Thus, in the USA, the investment climate is evaluated according to four main indicators: economic efficiency of investments, business viability, development potential of the territory, components of tax policy, the results of which are reflected in the section of all states in the official publication "Annual Statistical Map". The data of this publication are used by potential investors when determining investment objects. In the countries of Western Europe, the assessment of the investment climate is carried out annually by experts of the Euro-money magazine, which is based on a survey of experts - representatives of large banks about the state of such factors as macroeconomic indicators, the risk of non-payment for goods, non-repayment of loans, non-payment of dividends, debt indicators, assessment creditworthiness.

In Ukraine, there is a comprehensive methodical approach to the assessment of the investment climate, which is based both on the assessment of macroeconomic indicators and indicators characterizing the financial and economic state and investment activity and investment attractiveness, and on the use of the methodology of expert assessments using descriptive tools. The latter are based on the results of expert evaluations based on a number of indicators that characterize the general development of the region, legislative and institutional conditions for investors, the level of inflation, as well as the demographic and political situation, the possibility of capital withdrawal, etc. By the way, currently the list of indicators used by experts in

assessing the investment climate has significantly expanded. It includes such quantitative indicators as: the volume of GDP, the structure of the economy, the provision of natural resources, the state of infrastructure, etc.d. In the last decade, methods of comparative assessment of the investment climate were developed, which take into account not only investment conditions, but also its results.

Based on the above and taking into account the different approaches to revealing the essence of the investment climate, we will currently use a systemic approach and present the process of investment climate formation in the state or in a separate industry as a system that includes separate subsystems and elements that are interconnected in a certain way and are interdependent. This system can be displayed using a descriptive model, the main subsystems of which we consider investment activity, investment attractiveness and investment stability. At the same time, each of the elements has its purpose and characterizes separate aspects of the formation of the investment climate (Fig. 3).

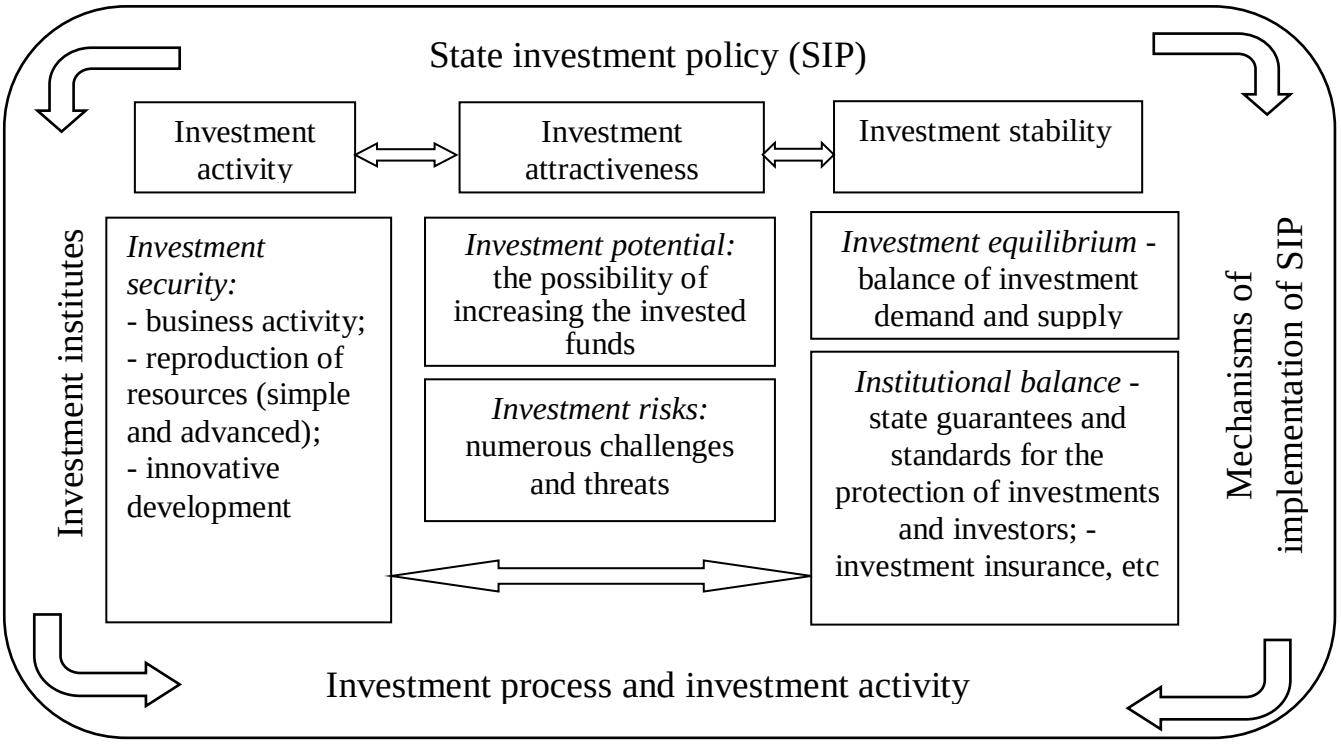

Fig. 3. Descriptive model of the formation of a favorable investment climate in agriculture (composed by the author)

Thus, we believe that the basis of the state investment policy is the investment climate, which, together with the activities of investment institutes and the mechanisms of implementation of the investment policy, start the investment process and ensure investment activity.

Since the determining factor in the state investment policy is the investment climate, the essence and content of which, including the systemic approach, were considered in sufficient detail above, we will dwell in more detail on the elements of the investment climate subsystem indicated in Figure 3 - investment activity, investment attractiveness and investment stability .

1. Investment activity, as a rule, is aimed at investment support for the processes of economic activity, simple and extended reproduction of resources and innovative development of one or another industry, one or another region, one or another country. It is investment activity that ensures the real development of investment activity by making investments in the support and development of economic activity, in working and fixed capital, in innovative projects, etc. Often, the investment activity of an enterprise is considered one of the characteristics of business activity along with production, financial, innovation, labor and other types of activities. Investment activity is manifested through the attraction and use of both own and borrowed funds in the form of direct and portfolio investments, the use of joint investment tools with the aim of increasing the economic potential of the industry or enterprise and bringing the investment object to a qualitatively new level of development. Therefore, investment activity depends on the influence of many internal and external factors, on the trust of the beneficiaries in the recipients and the readiness of the parties for effective cooperation.

The level of investment activity is determined using a number of indicators, the main of which are the following:

- growth of economic potential due to the implementation of investment programs;
- increase in the level of technical support;
- introduction of new technical and technological programs;
- increasing concentration of fixed and working capital;
- reduction of specific investment costs per unit of gross output, etc.

At the same time, scientists [5, 7] note that ultimately, investment activity depends on the investment attractiveness of the investment object.

2. Investment attractiveness includes investment potential and investment risk. The investment potential takes into account macroeconomic characteristics, saturation of the territory with production and infrastructure factors, consumer demand of the population and other parameters. The amount of investment risk shows the probability of losing investments and income from them.

The investment potential is assessed on the basis of the macroeconomic characteristics of the investment object, which takes into account a number of indicators indicating: the state of production and its material and technical support, the presence and state of industrial and social infrastructure, the demographic state, consumer demand and supply (the state of the investment market), the results of the economic activity of production facilities, the level of innovative development, the presence and development of financial and investment institutions.

In general, the investment attractiveness of an enterprise is a complex characteristic consisting of a number of generalized indicators, each of which has an impact on the overall indicator. When assessing the investment attractiveness of agriculture, it is important to focus the attention of potential investors on those regions and enterprises of the industry, in which investments will provide the most significant effect.

In general, based on the work of M.Odnorog [10] we believe that the

investment potential of agriculture is an aggregated indicator consisting of individual potentials, each of which is characterized by a number of macro-, meso-, micro-indicators of the economic development of the industry and agricultural enterprises, namely: financial potential, bioresource potential, technical and technological potential, infrastructural potential, innovation potential, personnel potential, consumer potential, market potential, institutional potential, etc. At the same time, we note that social, political, information-analytical and other factors that indirectly affect the investment process also play a significant role in the formation of investment potential.

Assessing the investment attractiveness of agriculture using this approach increases the probability of investment efficiency for investors. For agricultural enterprises, this will make it possible to develop an investment strategy depending on the potential of the investment environment and to calculate the possible period of implementation of the investment project, taking into account the level of development of the investment infrastructure of the region.

Investment risks are assessed from the standpoint of the probability of investment losses and income from them. Indicators determining investment risk are formed taking into account economic and financial risk. One of the indicators of economic risk is the wear and tear of the main production assets, which indicates the level of provision of the industry with technical resources. Financial risk is calculated as the aggregate value of the following indicators: the level of profitability from all types of activities, the share of overdue payables, coefficients of financial stability and financial capacity. With a more in-depth risk approach to the assessment of investment risk, institutional risks (of a legal and organizational and management nature), human potential, material and technical support of non-production infrastructure, socio-economic condition in the state and related industries and industries (for example, agricultural machinery, production of mineral fertilizers, processing of agricultural products, etc.), political situation and political risk factors, etc. At the same time, when assessing investment attractiveness, not only industry indicators of potential and risks are taken into account, but also similar indicators in related industries at the national and regional levels. In general, the methodological approach to assessing the investment attractiveness of agriculture, taking into account inter-branch and inter-regional indicators of investment potential and investment risks, is shown in fig. 4.

Thus, let's summarize: the investment attractiveness of agriculture depends on the availability and effective use not only of the industry's investment potential, but also of interregional and interindustry investment potential.

This especially applies to adjacent regions and industries that are related to the processes of production, storage, transportation, processing and sale of agricultural products, as well as providing service, technological and innovative services to agricultural enterprises. At the same time, it is important to take into account all challenges and threats that are formed under the influence of objective or subjective factors and are the basis of those investment risks that are inherent to the state of Ukraine, in general, and to the agricultural industry, in particular.

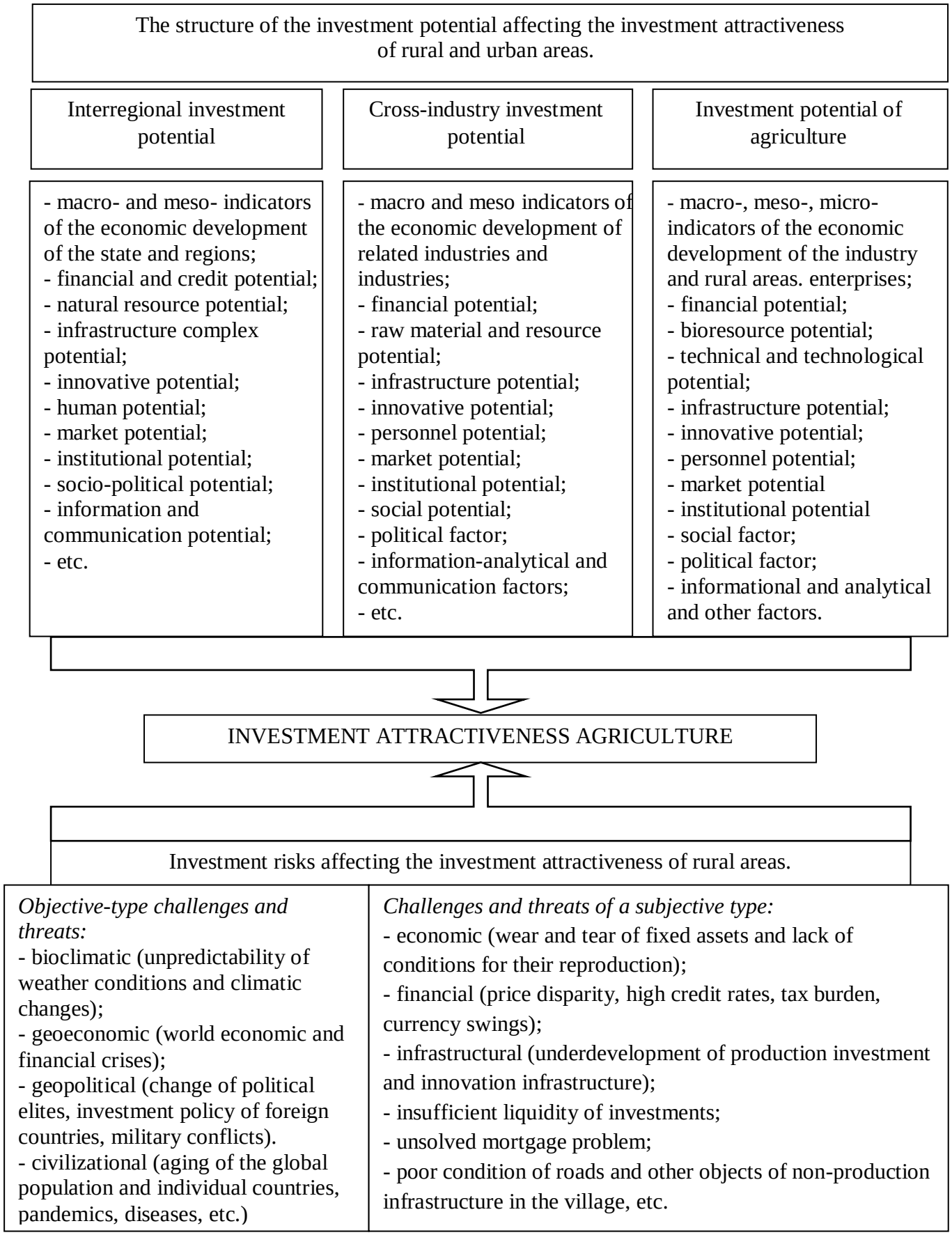

Fig. 4. Structural and logical scheme of the methodological approach to assessing the investment attractiveness of agriculture (composed by the author)

During the formation and implementation of the state or regional investment policy in the field of agriculture, it is important not only to correctly determine the factors of investment attractiveness, but also to correctly evaluate them.

For this, we consider it expedient, along with various quantitative (financial and economic, statistical, econometric) and qualitative (methods of expert evaluations), to use the methodology of rating evaluation, which is carried out taking into account the investment potential of all agricultural enterprises and investment risks in the region, taking into account the existing challenges and enterprise threats.

Rating assessment is carried out according to the following algorithm (Fig. 5).

In this way, the place (point) of the enterprise among other similar enterprises in the region is first determined according to separate private ratings (production, financial, resource, infrastructure, market, personnel, innovative), and then, based on the sum of points, it is assigned its place (rank) among other enterprises in the region depending on the values of the indicators characterizing them. Accordingly, for each enterprise, the sum of the ranks of private potentials is determined - the total integral indicator of an individual enterprise. Based on the integral indicators of the enterprises, a ranked number of enterprises is built according to the growth of their investment potential. According to this rating, all enterprises or regions of the industry can be divided into groups with a high level of investment potential, medium, moderate and low.

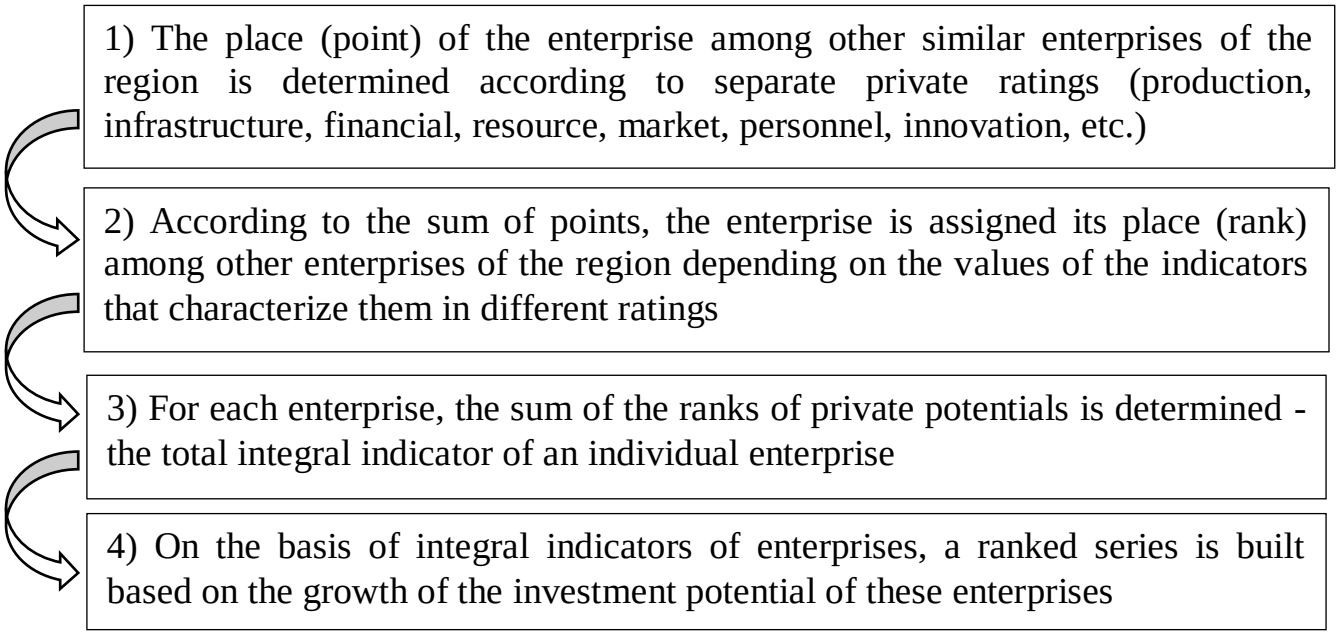

Fig. 5. The sequence of steps for rating the investment attractiveness of enterprises and regions

After the rating assessment of the investment potential, the enterprises of the region and the region as a whole are evaluated according to the level of investment risk, and lists of regions by investment risk groups are compiled. Based on the sum of points, the regions are divided into three groups: with high risk, with moderate risk, with low risk.

Thus, to determine investment attractiveness, it is advisable to use the matrix approach, which involves dividing investment objects into four groups by investment potential, and by the level of investment risk into three groups. So, depending on what place the enterprise or region will occupy in the investment attractiveness assessment matrix, they are divided into three groups: Group I - high level of investment attractiveness; II group - average level of investment attractiveness; Group III - low level of investment attractiveness (Fig. 6).

Groups of investment objects by the level of investment risk	Groups of investment objects by level of investment potential			
	High investment potential	Average investment potential	Moderate investment potential	Low investment potential
High investment risk	II group	II group	III group	III group
Moderate investment risk	I group	II group	II group	III group
Low investment risk	I group	I group	II group	II group

Fig. 6. Matrix for determining the level of investment attractiveness of agriculture in the region or an agricultural enterprise according to the rating assessment (composed by the author)

This methodical approach to determining investment attractiveness is actively used by both investors and investment recipients, because it allows:

- investors should select agricultural enterprises or regions that have the greatest investment attractiveness, and investments in which can pay off faster. In addition, the choice of an investment object can be made based on those indicators of investment attractiveness that are of most interest to the investor (production potential, land resources, proximity to the sales market).

- provide potential investment recipients with measures that will enable them to increase their investment potential and/or reduce investment risks and achieve the required level of investment attractiveness and investment attraction.

3. Investment stability - as one of the characteristics of the investment climate, it involves the creation at the level of the country, region, and industry of such prerequisites that ensure the following:

1) Investment equilibrium, which is calculated at the level of macroeconomic indicators, taking into account the multiplier and accelerator models and taking into account indicators of investment demand and investment supply. This provides

necessary and sufficient insights into the investment climate at the level of the national economy as a whole, its regions, industries and industries.The state of investment equilibrium is achieved as a result of the balanced use of financial and institutional mechanisms of state regulation of investment activity;

2) Institutional balance, which implies the presence of legalized state guarantees and standards for investor protection and investment insurance, the ability of state institutions to ensure the long-term functioning of clear, understandable, achievable and beneficial for all participants in the investment process: rules and procedures, incentives and sanctions, checks and balances and provide favorable conditions for achieving the expected results.

Therefore, it can be stated that the formation of a favorable investment climate in various regions or industries, including agriculture, is characterized not only by the state of investment activity and the level of investment attractiveness, but also largely depends on whether there is investment stability, which is possible to achieve under the condition of ensuring investment and institutional balance.

In general, under the definition of "investment stability" we understand the ability of the institutional environment to provide the necessary conditions for maintaining investment and institutional balance within the limits sufficient to achieve investment goals, as well as counteract investment risks.

Thus, the analysis of various approaches to the definition of the essence of the investment climate and its components in the context of the formation of an effective state investment policy aimed at the support and development of agriculture makes it possible to make the following author's definition of the essence of this concept: the investment climate is a set of favorable natural-climatic, social- economic, financial and credit, institutional, demographic, political and other factors, which in the long term are able to ensure investment activity, investment attractiveness and investment stability and equal conditions for all participants of investment activities while minimizing the risks of loss of invested funds and income from such activities.

In order to improve the investment climate in agriculture, in our opinion, efforts should be focused on the formation and implementation of the state investment policy, and a number of strategic and current measures aimed at attracting external investment funds into the industry, as well as improving the efficiency of agricultural enterprises and forming they use their own investment resources at the expense of profit and the creation of trust funds, including at the expense of depreciation deductions. In order to attract investments in the agriculture of Ukraine on a long-term basis, first of all, it is necessary to create effective financial and institutional mechanisms at the state level that would ensure:

- transparent, understandable and stable long-term legislatively regulated rules and procedures for conducting investment activities, which are beneficial for all participants in the investment process;

- state financial support for the processes of reproduction of resource potential, especially technical resources, and innovative and investment activities of agricultural commodity producers on the basis of state partnership and creation of joint investment institutes;

- improvement of the state of financial and credit provision of agriculture and diversification of credit instruments, including the use of the mortgage instrument;

- involvement in the investment process of free funds of both foreign investors and enterprises of related industries, entrepreneurs, territorial communities, public organizations and individuals.

The deepening of the investment decline in agriculture in recent years is caused by a number of factors related, in particular, to the following:

- insufficiently balanced changes in the management of the industry, the absence of a management and advisory vertical that would determine priorities at the regional and local level, direct investment flows, coordinate and control the targeted use of investment funds, regulate conflicts of investment interests, centrally develop measures aimed at minimizing investment risks;

- unfavorable natural and climatic conditions caused by general warming (frequent anomalous deviations from weather and climate norms, flooding, drought, frosts; violation of vegetation conditions for the development of agricultural crops; etc.);

- the deterioration of the financial condition of the state and business entities and the strengthening of the role of financial and economic factors that increase the likelihood of investment risks and capital preservation risks, including due to the lack of investment stability;

- slowdown of investment activity in sectors of the economy related to agriculture and processing of their products;

- the refusal of agricultural investors to implement their investment projects in connection with the expectations of the opening of the land market and the change of owners of agricultural plots of land;

We agree with the reservations of M.Kisil [6] that the reduction of investments in the short term will affect the pace of economic development, national food security, as well as foreign exchange and budget revenues. Therefore, first of all, it is necessary to take measures to increase investment activity in the agrarian and food sector of the economy, especially in agriculture.

Currently, it is vital for the industry to eliminate specific industry factors of the investment crisis, and we support their proposals regarding the urgency of solving the following tasks:

- formation of agrarian policy and implementation mechanism by analogy with the countries of the Organization for Economic Cooperation and Development;

- reduce investment risks in agriculture;

- opposition to agro-raiding and investments in illegal seizure of agricultural lands;

- create conditions for the development of small agribusiness, the formation and integration of cooperatives and provide national support, especially for the implementation of investment projects;

- starting with agriculture, implementing real measures to prioritize the development of investments in the agricultural sector of the economy, rather than declarative ones [6].

The approach of V. Plaksienko [12], who notes that in order to attract investments into the economy of agricultural enterprises, it is necessary to improve the investment policy of the state seems to be sufficiently justified. At the same time, the author notes that the state investment policy should be aimed at attracting foreign investments, but taking into account the interests of both foreign and domestic investors.

At the same time, the volume of internal capital investments in the agriculture of Ukraine is growing steadily, but their specific weight in the structure of gross production is at the level of about 6%. The same situation persists in recent years and does not stimulate foreign investors to invest in the agriculture of Ukraine. In the development of the above and within the scope of the topic of our research, we consider it expedient to add to the list of urgent tasks also tasks that are directly related to the formation of the state investment policy regarding the institutional support of the process of reproduction of technical resources of agriculture and the improvement of the operation of financial and institutional mechanisms in namely:

- creation of financial and institutional prerequisites for improving the investment climate by stimulating investment activity, investment attractiveness and investment stability of the agricultural sector;
- legalization of various legal forms of formation, use and control of investment funds intended for the restoration of technical resources of agriculture, including the attraction of funds of individuals, both at the level of the enterprise and at the level of the region, industry, state;
- intensify work in the direction of increasing state support for agriculture according to programs for the reproduction of technical resources on the basis of public-private partnership development and joint investment.

Solving the above-mentioned tasks is impossible without solving investment problems of a general nature, developing and adopting a sound state investment policy and strategy for the development of the state's investment activities in the agricultural sector of the economy, maximum activation of the activities of national investors and attraction of external investments for innovative projects.

In the development of this topic, we note that on the conviction of V.Ya.Plaksienko [12] the main principles of the state investment policy in the near future should be:

- creation and efficient use of all investment resources (including coordination);
- determining the optimal ratio of participation of domestic and foreign investors;
- attraction of foreign capital while respecting domestic interests;
- maximizing regional financial and investment opportunities by implementing an aggressive innovation and investment policy and creating a favorable investment environment;
- creation of motivations for long-term investment;
- increasing the role of internal sources of savings for financing investment projects;

- development of investment infrastructure compatible with the market economy and stimulating the development of the stock market;

- stimulation of investment activity and implementation of investment projects in agricultural enterprises;

- formation of national investment demand (with an indication of state formation and joint programs with regions, state participation in commercial projects, state procurement, issues of national security, issuance of state securities);

- supporting or creating a favorable investment environment in the strategic area of agribusiness development with the help of credit and tax measures. In general, agreeing with these principles and developing their list, we suggest adding such principles as:

- formation of institutional foundations for the development of investment activities in agriculture;

- formation of prerequisites for the creation of interregional and interbranch entities with wide use of the possibilities of joint investment institutes and public-private partnership;

- involvement of public organizations and civil society in monitoring the targeted use of investment investments.

Intensification of agricultural production depends entirely on its technical equipment. The availability and quality of technical resources forms the technical potential of the industry and ensures its efficiency. However, it is characteristic of technical resources to gradually wear out, become morally old and, as a result, lose their consumer value and the ability to actively participate in the production process.

The lack of free baskets at the enterprises of the industry producers leads to untimely reproduction of the technical resource, which in turn has a negative impact on the efficiency of the production process and the quality of agricultural products. Therefore, the issue of financial support for the process of reproduction of technical resources in agriculture is urgent and requires an urgent solution.

First of all, we consider it expedient to define what we mean by technical resources in the field of agriculture, because there are currently several economic categories similar in sound and content in scientific circulation. Thus, in scientific sources, scientists use the terms: "material and technical base" when addressing issues of technical support for agriculture; material and technical resource"; "material and technical support"; "technical and technological base"; "technical and technological support"; "resource and technical support"; "technical support".

At the same time, identification of these concepts is common. Therefore, within the scope of our research, we will define, first of all, the concepts of "material and technical base" and "technical base", which in our opinion are basic, while other concepts are derived from them. Leading domestic scientists, based on the source-scientific analysis of the work of leading scientists [Andriychuk, Bilousko, Zakharchuk, Pidlysetskyi, Sabluk] divide all material and technical resources of agricultural production, depending on their purpose, into two groups: material and biological resources and material and technical resources.

In general, if you turn to the dictionary of foreign words, you can see that the

concept of "technique" came to our language from Greek, where it meant skill. Later, this concept came into circulation with several meanings:

1) in the broadest sense of the word, it is a set of means of human activity for the implementation of production and service processes in the non-production sphere; it is in technology that materialized knowledge and production experience accumulated by humanity in the process of development of social production;

2) in the narrow collective sense - these are machines, mechanisms, devices, devices, tools in one or another field of production;

3) a set of skills and techniques that form mastery in one or another type of activity.

The word "resource" translated from French means means, reserves, opportunities.

Thus, since the subject of our research is "technical resources in agriculture" and guided by the second interpretation of the term "technique", within the scope of this work we will define the essence of this concept as follows: technical resources in agriculture are available mobile and stationary technical means to the composition of which includes machines, mechanisms, devices, devices, tools intended for the production of agricultural products. As for the concept of "material and technical base", in our opinion, it is more comprehensive, because the material and technical base includes not only technical resources, but also all other non-reversible and reversible man-made material resources.

Thus, we believe that the structure of production resources in agriculture is somewhat more complex than it is presented in the works of individual scientists, it involves their division into two groups: natural and biological resources and material and technical resources, which in turn are divided into subgroups like this shown in Figure 7.

Technical resources are an active part of production resources, they are intensively used in agricultural production, which often takes place in difficult weather and climate conditions and in conditions of weak infrastructure and service support, which accelerates their physical wear and tear.

In addition, the rapid development of scientific and technical achievements, the recognition of innovative technologies in the production of agricultural machinery and the technology of growing agricultural crops have led to the moral aging of technological means in agriculture. The rapid obsolescence of technical resources requires not less, but perhaps even more, their rapid reproduction, because it is precisely the sufficient availability of high-quality and highly productive agricultural machinery that can ensure the effective functioning of the industry, which in turn will positively affect the financial stability and sustainable development of the entire agro-industrial sector of the economy.

However, in today's realities, the issue of reproduction of technical resources is one of the most painful for the agricultural sector of the economy, because agricultural machines and tools are quite expensive, and agriculture balances between losses and profits on the edge of survival for many years. Therefore, it is important to find practical mechanisms and sources for the reproduction of technical resources that

would really cover the needs of agricultural production and its development. At this stage, we note that, adhering to classical approaches to understanding reproduction as a process of constant renewal of production resources in the previous (simple reproduction) or increased (extended reproduction) size, we foresee the possibility of innovative reproduction of technical resources, which means an increase not only in the number of technical means, but and changing their quality due to the involvement of fundamentally new, modernized, more productive technical models. Here we mean the use not only of traditional machinery - tractors, combines, etc., but also technologically advanced agricultural robotics, such as ground sensors, autonomous tractors and flying drones, which help to optimize the production process and produce agricultural products with lower costs.

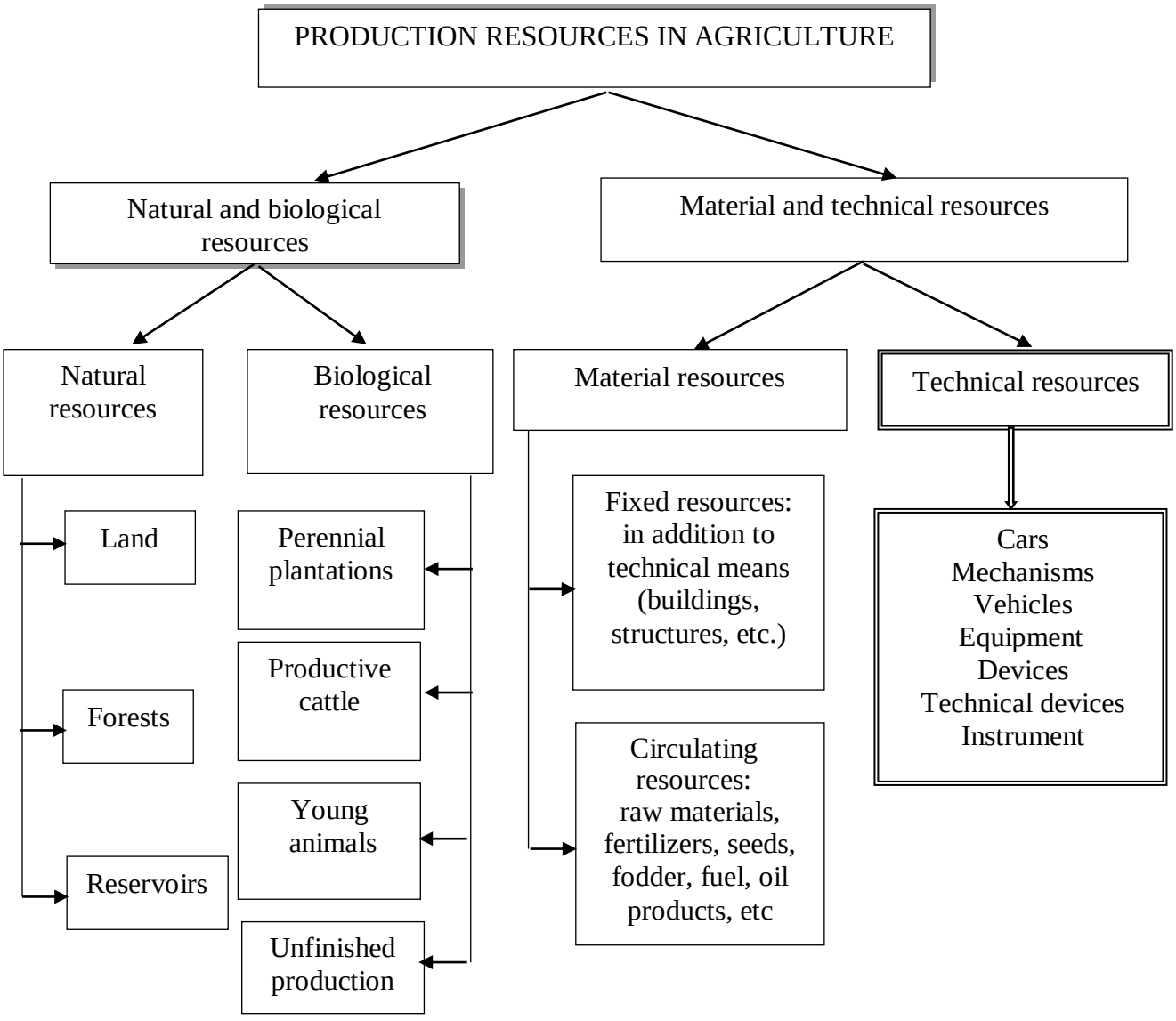

Fig. 7. The place of technical resources in the structure of agricultural production resources (compiled by the author)

Thus, having defined the concepts of "technical resources in agriculture" and "reproduction of technical resources" and relying on them, as well as on the

understanding that "process" is a set of consecutive actions aimed at achieving a certain result, we can give the following definition of such economic category as "the process of reproduction of technical resources in agriculture" is a set of consecutive actions aimed at updating technical resources - machines, mechanisms, devices, devices, tools - intended for use in agriculture, in the form of simple, extended or innovative reproduction .The reproduction of technical resources mainly occurs due to the purchase of new machinery and agricultural tools, and only in a small amount due to the capital repair and modernization of old, completely worn out technical means. At the same time, expanded and innovative reproduction is carried out only by purchasing new technical means on the domestic and foreign markets of agricultural machinery.

Insufficient study of the specifics of the market of technical resources for agriculture leads in practice to erroneous actions, which lead to inhibition of the development of the industry and affect the interests of agricultural producers. In general, the market of technical resources for agriculture is a market of industrial goods, which has the following characteristics:

1) the demand in the agricultural machinery market is ultimately determined by the demand for agricultural products produced with the help of this machinery. That is, this demand is derived from the demand for agricultural products, which is formed on the domestic and world markets, and its structure and range depend on the structure and range of demand for these products;

2) the peculiarity of the formation of demand for technical resources also determines its price elasticity, which is determined, first of all, by the following three factors:

– the level of demand for finished products, which is usually not elastic;

- substitutability of resources: if it is possible to replace resources, then the demand is elastic, if not, then the demand is inelastic, and since it is practically impossible to replace technical means in the production process, this factor indicates the elasticity of the technical resources market;

- the specific weight of this resource in the total costs for the production of finished products: the greater the specific weight, the higher the elasticity of demand, in agriculture the cost of the technical means used, which is included in the cost of finished agricultural products in the form of depreciation deductions, in recent years does not exceed 10% in crop production and 5% in livestock production. Therefore, this factor also indicates low price elasticity;

3) as a rule, the role of buyers is played by farmers and professional entrepreneurs who are well-versed in the characteristics of the equipment required for production and are guided by pragmatic motives when purchasing technical means. That is, the circle of people who form the demand for technical resources is quite professional and limited;

4) the formation of the price of agricultural technical resources depends on the conditions of their production, which requires significant costs of material and technical resources, therefore, "the demand for resources is an interdependent process, where the amount of each resource involved in production depends not only

on the price level on this resource, but also on the level of prices for other resources used in production. "The market of technical resources plays a special role in the organization of agricultural production, because technical support of agriculture is the main condition for increasing the efficiency of the use of labor and land resources, intensification of production, increasing the volume and quality of agricultural products, profitability and profitability of each individual producer and the industry as a whole.

Thanks to the action of market mechanisms, demand and supply for technical resources for agricultural purpose are balanced and saturation with technical means of entrepreneurs, farms, agricultural cooperatives, agricultural holdings, etc. occurs. Through the market, technical support of agriculture is carried out with the necessary technical means.

We can state that the economic value of the agricultural technical support market lies in the fact that it makes it possible to provide:

1) uninterrupted supply of the enterprise with the necessary technical means;

2) optimization of business relations between the consumer and the supplier;

3) creation of economically justified needs for technical resources and determination of ways of their reproduction;

4) application of progressive forms and means of obtaining technical resources for the purpose of their simple, extended or innovative reproduction;

5) energy- and ecologically-safe and effective use of technical means in production through the development of new technologies. The main players in the market of technical resources for agriculture are, first of all, producers of agricultural products, which form demand, then factories - manufacturers of agricultural machinery, which form supply. Also, active participants in this market are trade and intermediary organizations, service services and enterprises for the repair and maintenance of machines and equipment, machine-technological formations for the provision of production services to agriculture, marketing-consulting firms, which, within their region and sphere of activity, they study supply and demand, the purchasing power of buyers, terms of sale of goods, terms of delivery and, on the basis of the collected information, arrange the sale of technical means for enterprises in the field of agriculture.

The main market forms of supply of technical resources for commodity producers in the industry are: commodity and raw material exchanges; auctions, contests; wholesale purchases; purchases in small batches; procurement according to need; by order; due to own production; under direct contracts: machine and tractor stations, repair and technical stations, machine and technological stations, leasing, secondary market of equipment. It is also advisable to create wholesale markets of technical means on the basis of existing regional agricultural services in the form of associations or joint-stock entities.

It is also important to take into account that the development of the market of technical resources for agriculture occurs taking into account such features as seasonal fluctuations, which are characteristic of seasonal production, as well as the fact that this demand is secondary, as it is determined by the demand for agricultural

products (food products) and is inelastic because it is determined by a person's physiological needs for food. Therefore, a necessary condition for the prevention of unfair competition in this market is the intervention of the state, which must ensure the development of a competitive environment and the difference in the prices of technological resources of agriculture and agricultural products. All this should take advantage of functions in the market as participants and civil servants. Therefore, the development of the market of materials and technological resources for agricultural production should take place both in a favorable competitive environment, in the development of market infrastructure, and in the regulatory role of national goals.

As it was noted at one time in the Law of Ukraine "On the system of engineering and technical support of the agro-industrial complex of Ukraine" and in the Strategy of economic and social development of Ukraine "Through European integration", ensuring competitive agricultural production on the domestic and interstate markets acquires a particularly important socio-economic significance. This is still relevant today, because even today, agricultural production in Ukraine needs:

- technological rearmament with domestic highly efficient, reliable, energy-saving and ecologically protective technical means;
- reproduction of the technical potential of the agricultural industry to meet technical needs;
- state support for the development and production of modern technical means.

The extended reproduction of agricultural production is objectively based on the principles of restoration of more advanced and productive technical resources consumed in the process of production activity. Violation of this economic regularity inevitably leads to a decline in the volume of production activity, deterioration of quantitative indicators and quality characteristics of products, reduction of labor productivity and profitability of production. That is, let's summarize - the state of socio-economic development of agriculture depends on the availability and timely reproduction of technical resources.

That is why it is so important to pay attention to this problem not only at the level of the enterprise or industry, but also at the level of the state. The main issues that must be resolved are the issue of financial support of the industry in the amount that should satisfy the needs of agriculture in technical means, because own funds are not enough not only for innovative or expanded, but also for simple reproduction of technical resources at the enterprises of the industry. Under such conditions, it is necessary to urgently find ways to attract investments in the fixed capital of the agricultural sector of the economy from all real sources. It is the active investment activity of agricultural enterprises that is the key to their stable development and achievement of high results.

The introduction of modern technologies in agriculture to increase crop yields and meet the rapid growth in food demand will be a key factor driving the agricultural machinery market. Traditional farming technology and its implements such as ploughs, seed drills, cultivators, harrows and other tillage tools are now being replaced by other modern agricultural machines. Thus, in order to increase the yield and quality of agricultural products, advanced agricultural machinery, such as

sprayers, tools for harvesting hay and fodder, specialized combines, various equipment for irrigation and crop processing, are currently used in various production processes.

Also, in agriculture, the introduction of GPS software products and tractors equipped with telematics (course finder, RTK station, autopilot) is expected, which will stimulate the innovative development of the market for the sale of agricultural machinery and its innovative reproduction during the next 5-10 projected years. It is innovative reproduction that will enable domestic agriculture to apply new energy- and ecologically-saving technologies, produce ecologically clean products and enter world markets as a powerful player. One of the promising areas of development of innovative technologies in agriculture is "precision farming". According to independent experts, certain elements of "precision farming" have been implemented on 20-40% of the cultivated lands of Ukraine. These data confirm the data of the State Statistics Service of Ukraine regarding the structure of farm lands of all forms of ownership. "Precision farming" systems still remain expensive for almost all small agricultural producers, and for most medium-sized agricultural enterprises, therefore, it is advisable to introduce them to farms with an arable area of more than 1000 hectares.

That is, the main users of this system are large farms, which usually use large tractors with a power of more than 100 kW. In practice, it has been proven that more powerful tractors cultivate larger areas, so the economic benefits of installing a "precision farming" system are greater compared to tractors with less power. However, despite the development of new technologies and the formation of the market for innovative technological equipment, the share of tractors in the volume of sales of agricultural machinery was the largest and amounted to more than 25%. At the same time, we note that it is the tractor fleet that forms the basis of the technical resource of agriculture. The site grandviewresearch.com notes in its research that tractor sales will grow until 2025 due to increased mechanization rates, as well as population growth, which will lead to increased pressure on the production and sale of machines. The analysis of the European market of agricultural machinery shows a steady trend of increasing the number of tractors, where Germany and France are the undisputed leaders - the countries with the largest tractor markets in Europe.

We also express our belief that the concepts of "investment activity" and "investment process" are inextricably linked with the concept of "investment security", since all types of material and financial values that are invested acquire the status of real investments only in the process of their practical implementation.

We note that this scheme is not closed, since the processes in the field of investment activities are influenced by various internal and external factors. Therefore, this process is cyclical and depends on the frequency of significant changes related to the formation and development of state investment policy and factors affecting the investment climate. In general, investment support for the development of agriculture should be considered as a set of various conditions, resources, financial, economic and institutional mechanisms that ensure the course of investment processes for a long period of time and lead to changes in the quantitative,

qualitative and structural characteristics of the industry, its transition to a new qualitative state, which forms the ability to counteract objective and subjective challenges and threats, the negative influence of the external environment.

Since 2018, a program has been in effect in Ukraine to partially cover the costs of agricultural machinery and equipment of domestic production to support the current situation on the market and the production of agricultural machinery. As part of this program, in 2020 the Ministry of Economic Development, Trade and Agriculture expanded the list of Ukrainian-made agricultural machinery, the cost of which is compensated.

The expansion of the agricultural machinery market, including that of foreign manufacturers, characterized by an increase in supply and demand, leads to the search for sources of increased financial investment resources circulating in this market. According to Art. 1 of the Law of Ukraine "On Investment Activity", investments aimed at the creation (acquisition), reconstruction, technical re-equipment of fixed assets, the expected useful life of which exceeds one year, are carried out in the form of capital investments. At the same time, the structure of capital investment sources in Ukraine is not perfect. Enterprises forced to renew fixed assets, the costs of which are recouped over a long period, have very limited opportunities to invest in current assets and social projects. The structure of sources of capital investment requires significant improvement, including due to the increase of foreign investments, state funds, loans and the active involvement of private funds not only in the construction sector, but also in the manufacturing sector and, first of all, in agriculture. In addition, for the purpose of investing in the agriculture of Ukraine, the funds of individuals are practically not used, and this, in our opinion, is a powerful source of potential investments in the industry and especially in the reproduction of technical resources, which are the most liquid part of fixed assets.

Today, agricultural enterprises invest in fixed capital from all real sources. They primarily include depreciation charges. But the fact is that the amount of accrued depreciation is only a virtual source of recovery of fixed assets, including equipment. In fact, these funds are not accumulated separately in the accounts of agrarian enterprises, and it is impossible to talk about their intended use specifically for the reproduction of fixed assets. Moreover, in conditions of constant growth in the prices of energy carriers and other circulating assets, the revenue from the produced and sold agricultural products is, as a rule, directed to the purchase of fuel, seeds, fertilizers necessary for the recovery of the next production cycle. Thus, amortization can potentially become a powerful source of reproduction of technical resources of agriculture, but provided that price parity is observed and appropriate financial and legal prerequisites are created regarding the order of not only the formation, but also the use of the amortization fund.

Another internal source of replenishment of capital investments for the reproduction of technical means of agricultural production is profit, at the expense of which different funds can be formed for the reproduction and development of technical resources, but the decision to create such funds is made at enterprises

depending on the availability and size of profits, which in the last years is meager and barely covers current operating costs of enterprises.

Therefore, until now, agriculture has acquired adequate purchasing power, and the level of its technical equipment does not meet technological needs. Due to the untimely execution of technological operations, a third of the gross output is not collected every year, the costs of current repairs and fuel increase, and this leads to an increase in the cost price and a decrease in profitability. The economic interest of small producers and farmers in land management is gradually fading. In addition, the low purchasing power of farmers negatively affects the development of agricultural machinery, which is losing its position on the market and is in a critical situation. In order to ensure simple reproduction of agricultural technical means, the state depreciation policy and the depreciation policy of agricultural enterprises need to be improved in terms of its investment direction through:

- real implementation of the mechanisms of application of alternative methods of depreciation of agricultural machinery provided for by P(S)BO 7 at the macro- and micro-levels;
- separation of economic and fiscal functions of depreciation;
- implementation of amortization deductions and technical means within economically reasonable limits according to the principle of matching income and expenses, indicators of the intensity of their use, rapid moral aging of technical means and taking into account the price situation of the market;
- stimulating the use of depreciation deductions by enterprises for a direct purpose - for simple reproduction of fixed assets;
- establishment of depreciation incentives, including tax benefits, as an important component of the state depreciation policy, subject to the investment use of depreciation deductions, and the amount of benefits received for the development of innovative projects that involve the production of types of agricultural products important for the national economy with the use of new technical and technological approaches;
- introduction of tax norms of accelerated depreciation for all groups of technical means directly involved in agricultural production. Given the limited own financial resources to ensure the reproduction of technical resources, external investment support is the most effective means of exiting the agricultural sector from the economic crisis. Attracting investments can lead to structural changes in the industry, the growth of technical progress, and the improvement of quality indicators of economic activity at the micro, meso, and macro levels.

Insufficient own resources, limited access to credit resources and their significant increase in price lead to strengthening the role of the state in ensuring investment activities in agriculture. One of the aspects of state intervention in capital investment processes is related to state budget allocations for capital investment, with the help of which the state seeks to a certain extent to influence the market situation and economic growth, the state of demand and the volume of the domestic market. In economically developed foreign countries, capital investments in agriculture at the expense of state or municipal budgets based on the implementation of public-private

partnership mechanisms are an important factor in social reproduction, a source of modernization and expansion of fixed capital, and a means of stimulating its accumulation.

According to M.Kisil [6], for the successful implementation of an effective investment policy, the main priorities of financial and economic stabilization, the main directions of agricultural development, based on the development of an investment and innovation strategy for the development of the industry with justification of the expected results in the achievable time period, should be highlighted. The main goal of such a strategy should be financial and economic stabilization, which is achieved under the following conditions: to create a legal mechanism for the protection of private investments. Law on formation of organizational system and mobilization of monetary resources of the population. The state guarantees that it will create a mechanism for attracting foreign investments and receiving foreign currency income; formation of securities and equity markets; mortgage for the development of agriculture; investing in the areas of limited monetary production and social security. All this still has to be done on the basis of very weak national protectionism.

The formation of high-quality technical resources in agriculture, which would meet modern world standards, requires significant investments, which, in our opinion, can be provided by:

- preferential - at low interest rates (under 2-3% per annum) long-term state lending for the purchase of technical means for agricultural purposes, with a postponement of interest payment terms for the first three years;
- interest-free state crediting of expenses for the purchase of technical means for conducting ecologically clean agricultural production and the introduction of innovative technologies;
- tax incentives for the creation of agro-industrial associations of agriculture with industrial, agro-service, financial, trade-intermediation and educational-scientific spheres and the creation of technical and technological clusters;
- creation of joint ventures by combining the land capital of domestic agricultural formations and the fixed capital of foreign companies under the conditions of joint investment and public-private partnership;
- development of a civilized market for leasing agricultural machinery. It is especially worth paying attention to leasing, because currently only about 0.2% of agricultural machinery is leased in Ukraine, while in the USA leasing covers more than a third of all capital investments, and such a well-known manufacturer of agricultural machinery as John Deere leases more than 50% of the manufactured equipment.

The economic prerequisites and trends that have developed in Ukraine regarding the formation of technical resources in agriculture and other branches of the national economy of Ukraine testify to the presence of chronic price disparity, which, unfortunately, was mostly not in favor of the agrarian sphere.

In addition, it is worth noting that a certain leveling of the indices of the prices of manufacturers of industrial products and prices for the sale of agricultural products

took place in 2014-2015, after the signing of the Association Agreement between Ukraine and the EU and the reorientation of sales of agricultural products to Western markets, as well as due to the high level prices for these products on the world markets, as a result of which foreign exchange earnings increased and the balance of prices for agricultural and industrial products somewhat equalized. However, in the following years, the price indices of industry, especially of machinery and equipment manufacturers, once again prevailed over the price indices of agricultural products. Studies of the financial support of agricultural producers show that they mainly work at the expense of their own resources, which are currently significant in terms of specific weight, but insufficient for self-financing.

The limitation of own funds forces agrarian enterprises to hope for support from the state and makes it necessary to develop both banking and partnership lending norms. Therefore, opportunities should be created to attract credit resources and foreign investments to the agricultural sector of the economy. After all, according to the estimates of the World Bank and the Food and Agricultural Organization of the United Nations, Ukraine can produce 2-2.5 times more food than now and can become the world's granary.

Statistics show that in developed countries, 70% of working capital for the development of the agricultural sector is formed at the expense of bank lending, while in Ukraine this share is only 20%. Therefore, the problems of credit provision of the agrarian industry, and especially the need to reproduce its technical potential, make it necessary to improve the credit mechanism.

Currently, there are good methods of lending to agriculture, special risk management tools of financial institutions and mechanisms for reducing the cost of bank lending to farmers. However, this issue remains unresolved and needs an effective and as soon as possible solution from the point of view of credit support for the industry process of replication of technological resources. Finally, budget deficits, inflation, rising lending rates, and defaulted businesses are adversely affecting all areas of the agricultural industry, including agricultural production. In addition, farmers have a clear understanding of different prices, lost sales channels, and purchased materials and technologies.

In their works, scientists convincingly substantiate that credit resources play an important role in agriculture, but it depends on:

- seasonal gap between investment and receipt of funds, continuity of reproduction processes, significant need for working capital;
- changes in the volume of bank lending to agricultural producers, which is closely related to the yield of agricultural crops, the global financial crisis, and the increase in the cost of credit resources;
- the mechanism of reimbursement of expenses, which is related to the payment of interest for the use of bank loans. But the volumes of credit resources placed in agriculture still do not meet the needs of the industry, which is caused by a number of, at first glance, objective factors:

- insufficient crediting period – banks mainly provide medium-term loans for up to three years, but in order to form a resource base for investing in technical means, the crediting period cannot be less than 5 years;

- the absence of liquid collateral from agricultural producers - in contrast to the desire of banks to secure a loan with collateral that is many times greater than the amount of the loan itself;

- high risk of agricultural production – unpredictability of financial losses due to weather and climate conditions, crop failure or negative price situation;

- lack of adequate insurance protection of agricultural producers against natural risks and credit operations against loss of credit resources;

- the presence of contradictions in the justification of loan sizes - lack of clear criteria for assessing the creditworthiness of agricultural enterprises;

- a high level of dependence of the compensation mechanism on the availability of budgetary resources - the implementation of the procedure for state compensation of part of the credit rates depends on the availability of free funds in the budget.

Also, it is advisable at the state level to pay attention to the possibility of creating institutional conditions for attracting to the financial support of agricultural production such sources as the accumulation of individuals and free funds of newly created territorial communities, which can be invested, including, in the reproduction of technical means. Thus, only through a comprehensive approach and the implementation of effective financial and institutional mechanisms aimed at the formation of a favorable investment and depreciation policy of a reproductive nature, an economically justified price policy, it is possible to ensure the renewal and increase of the industry's fixed capital and the growth of the fund security of agricultural production of Ukraine to the level of advanced countries the world.

References

1. Andrusiv U.Ya., Sydor G.V. The economic nature of the investment process // Scientific Bulletin of the Ivano-Frankivsk National Technical University of Oil and Gas. Series: Economics and management in the oil and gas industry. 2019. No. 1. P. 68-74. URL: http: // elar.nung.edu.ua/bitstream/123456789/7447/1/7127p.pdf

2. Baranovsky O.I. Investment security // Finance of Ukraine. 1998. No. 9. P. 60-65.

3. Gavrilyuk O.V. Investment image and investment attractiveness of Ukraine // Finance of Ukraine. 2008. No. 2. P. 68-81.

4. Gutorov O.I., Kalashnikov A.O. Investment support for the development of agricultural enterprises: theory and practice // Bulletin of the Sumy National Agrarian University. 2016. No. 4. P. 44-50. URL: http: // nbuv.gov.ua/UJRN/Vsna_ekon_2016_4_11.

5. Demchyshak N. Investment and financial potential in conditions of openness of the economy: specifics of formation and correlation. URL: http: // www.lnu.edu.ua/faculty/ekonom/Visnyk_ Econom/2009_41/156-164.pdf.

6. Kisil M. Capital investments in agriculture in 2020 will amount to about UAH 36 billion. //Agropolit: hot agropolitics. December 10, 2020. URL: https://agropolit.com/news/18935-kapitalni-investitsiyi-u-silske-gospodarstvo-u-2020-rotsi-skladut-blizko-36-mlrd-grn

7. Klyuchnyk A.V. Components of the investment potential of agricultural enterprises and directions for their improvement // Global and national economic problems. 2015. Issue 7. P. 367-371. URL: http://global-national.in.ua/archive/7-2015/80.pdf

8. Levchinsky D.L. The essence and economic nature of investments and the investment process // Mechanism of economic regulation. 2011. No. 2.138 p.

9. Mokii A.I., Gurnyak I.L., Datsko O.I. Institutional factors in the formation of threats to the investment security of Ukraine // Actual problems of international relations. 2014. Issue 121 (Part II). P.74-90. URL: http://journals.iir.kiev.ua/index.php/apmv/article/viewFile/2402/2135

10. Unicorn M.A. Peculiarities of investment activity in the agricultural sector // Actual problems of international relations. Issue 126 (Part II). 2015 P.108-115. URL: http://journals.iir.kiev.ua/index.php/apmv/article/viewFile/ 2823/2531

11. Transfer of A.A. Management of the investment process: a monograph. K.: Libra, 2002. 472 p.

12. Plaksienko V.Ya. Formation of the investment climate in enterprises of the agrarian sector of Ukraine // Bulletin of the Poltava State Agrarian Academy. 2011. No. 2. P. 202-206.

13. On investment activity: Law of Ukraine dated September 18, 1991 No. 1560-XIIURLhttps://zakon.rada.gov.ua/laws/show/1560-12#Text

14. Sabluk P.T. Gerasimova S.V. Management of investment activities of industrial joint-stock companies: problems and peculiarities // Economics and the state. 2008. No. 7. P. 4-6.

15. Sidorov Ya. The state policy of the development of clusters as an integral part of the formation of an innovative model of agriculture: an agrarian and legal perspective // Entrepreneurship, economy and law. 2017. No. 2 P.115-120. URL: http://pgp-journal.kiev.ua/index.php/archive-2-2017

16. Fedorenko V. Investments and the economy of Ukraine // Economy of Ukraine. 2007. No. 5. P. 12-16.

17. Fedorchak O.V. Basic approaches to the scientific definition of the investment climate // Effectiveness of state administration. 2016. Issue 1-2(1). P. 162-171. URL: http://nbuv.gov.ua/UJRN/efdu_2016_1-2 (1)__20.

18. Khalatur S.M. Investment attractiveness of the agricultural sector of Ukraine taking into account risk factors // Scientific Bulletin of the International Humanitarian University. Series: Economics and management. 2017. Issue 24 (1). P. 59-62. URL: http://nbuv.gov.ua/UJRN/Nvmgu_eim_2017_24 (1)_15.

1.4. CURRENT ISSUES OF IMPROVING PERSONNEL AND ECONOMIC SECURITY OF THE ENTERPRISE

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Summary. The theoretical foundations of the personnel component in the system of economic security of the enterprise, the structure and factors influencing economic security have been studied. The main legal documents that regulate the relationship between the employer and the employee have been analyzed. Ways of improving the personnel management and evaluation system are proposed to improve the personnel security component of the enterprise.

Keywords: personnel management, personnel security, accounting and analytical support, personnel evaluation

At the current stage of formation of the investment and innovation model of the economic development of the economy of Ukraine, the main essential driver of economic growth is the personnel potential as a strategic resource and economic strength of the country.

In addition, the personnel policy of the enterprise determines the main approaches to personnel management in the implementation of the company's mission and common strategic goals. The success of the implementation of personnel policy in the system of economic security of the enterprise directly depends on the level of management of each employee as an important component of his strategic and tactical potential in ensuring financial and economic stability and security.

The economic stability of countries with a high level of economy is ensured by scientific and technological implementation of breakthrough scientific and technical developments and high technologies. This objectivity presents Ukraine with the task of strengthening use of scientific, intellectual, educational potential as a prerequisite for the national economic security of the enterprise and the state as a whole. Elimination of Ukraine's technological lag behind advanced developed countries is actualized by the influence of destructive factors that take the form of potential and real threats. First of all, this affects the devaluation processes of moral and spiritual values in society, the rapid decline in purchasing power and the impoverishment of the population's life, the extremely low pace of reforming Ukrainian science and education, and the delay in building a state-owned innovation system.

The development of the national economy is not possible without the creation and effective use of the country's personnel and intellectual potential, which will ensure economic security as a means of countering internal and external threats.

In today's conditions of economic instability and uncertainty in making management decisions, for the effective functioning of enterprises of various forms of ownership, the issue of ensuring economic security comes to the first level.

The understanding of economic security actually appeared with the emergence of the state and is a component of national interests. It can be argued that the first references to the expediency of maintaining security in an economic context are given in Plato's seminal work "Politeus".

In this outstanding work, it is proved that the state is considered ideal, where there is abundance, not excess. However, with the emergence of excess needs, society inevitably faces troubles, including wars, which turns a "healthy state" into a "feverish state" [14]. Analyzing the scientific work of this philosopher, we can conclude that crisis phenomena arise in connection with society's desire to consume and own luxury items that are not available in the country's natural resources. For this, it is necessary to conquer new territories, obtain the desired resources that satisfy excessive needs. Thus, Plato proposed the state of an ideal state, which is in economic security.

In the countries of Western Europe, the concept of economic security was formed on the basis of the awareness of the concept of "security", which appeared at the end of the 12th century and was interpreted as a state of absence or neutralization of threats, danger, as well as the creation of conditions and social institutions that ensure it [13]. A historical document attesting to the use of this term is Robert's dictionary, which dates back to 1190. In this document, security was understood as "a calm state of the human spirit, protection from any danger." However, in this sense, the term did not firmly enter the vocabulary of the peoples of Western Europe and was rarely used until the 17th century. In the 17th and 18th centuries, many countries established the point of view that the main goal of the state is the common good and security. Therefore, the term "security" at that time acquires a new meaning: a state, a situation of peace, which arises as a result of the absence of real danger, as well as the presence of material, economic, political conditions, relevant bodies and organizations that contribute to the creation of such a situation. According to S. M. Shkarlet [16] and S. Kravchenko [11], the category "security" appeared in Slavic society in the middle of the 15th century. as a reaction to the invading encroachments of the Golden Horde. In the 17th century this concept is already classified as state and universally recognized [5]. In August 1881, in tsarist Russia, the "Regulations on Measures for the Protection of State Order and Public Peace" were adopted, where the concept of public security was defined for the first time.

Considering the category "economic security", it should be noted that it was first introduced in connection with the introduction of another term "national security". The concept of national security as a philosophy of achieving a stable state of the state is connected with the events known in history as the Peace of Westphalia, during which the concept of a sovereign state became the basis of a new international geo-order [19]. The earliest references to the concept of national security date back to 1790, which were made at Yale University. Historically, the concept of national security included political, military and economic spheres. With the aggravation of crisis phenomena in the 20th century, both in the global and national economies of the countries of the world, attention to the issues of economic security of the state and its component industries increased.

The emergence of the concept of "economic security of the enterprise" is due to the processes that took place during the "Great Depression", which became the driving force for the development of such countries as the USA, Germany, France, and Canada.

The first official body that directly dealt with economic security was the "Federal Committee on Economic Security" in the United States of America. It was approved by a decree of President F. D. Roosevelt in 1934. The committee directly dealt with the issue of economic security of individual persons, but this gave impetus to the further development of both the theoretical and practical application of this concept in the activities of the state and later also in relation to enterprises of various forms of ownership.

At the session of the General Assembly of the United Nations in 1985, the official resolution "International economic security" and the status of the term "economic security" were adopted. The resolution promoted the need to ensure the economic security of states for the further development and progress of each member of the UN.

A somewhat different situation with economic security has developed in the European Union, where the term "economic security" has two meanings. The first designation refers to the position of the European Union in the world economic system. The European Union notes the importance of European integration in the competitive process of globalization of the world economy. The Organization for Security and Cooperation in Europe (OSCE) is the largest official organization dealing with complex issues, including economic security in Europe. It unites 56 countries located in Europe, Central Asia and North America. From 1973 to 1975, the "Meetings on Security and Cooperation in Europe" were held, which were later called the "Helsinki Agreements" and were created on the initiative of the USSR and the socialist states of Europe.

During the forums, measures were taken to strengthen economic security in Europe. Among the participants were 33 European countries, the USA and Canada. The meeting was held in three stages from 1973 to 1975 and ended with the signing of the Final Act of the Meeting on Security and Cooperation in Europe.

From 1977 to 2010, a number of meetings were held, as a result of which such documents were signed as: the Paris Charter for a New Europe, the Treaty on Conventional Armed Forces in Europe, the adopted joint declaration of 22 states, the Charter of European Security, the agreement on the adaptation of the CSCE, the final Political Declaration and a modernized Vienna document on confidence-building measures as a basis for further work. Since the 80s of the XX century. large-scale scientific development of the "security" category began by the institutions of the leading countries of the world, the most famous of which are the London Institute for Strategic Studies, the Stockholm Institute for Security Studies, and in the 1990s this problem also interested domestic authors [17].

On the territory of independent Ukraine, the concept of "economic security" appeared in the "Concept of National Security", which was approved by the Verkhovna Rada in 1997, and acted to ensure a predictable legal framework and

create an effective environment for the development of entrepreneurship, democracy and the welfare of citizens.

As a regulatory document, the "Concept of National Security" lost its validity with the adoption in 2003 of the Law of Ukraine "On the Basics of National Security of Ukraine", where Article 5 "Principles of Ensuring National Security" determined that "the national security of Ukraine is ensured by conducting a balanced state policy in accordance with the doctrines, concepts, strategies and programs adopted in the established order in the political, economic, social, military, environmental, scientific and technological, informational and other spheres". Article 7 also lists threats to national interests and national security in every sphere of state activity.

In 2012, the Cabinet of Ministers of Ukraine approved the "Concept of ensuring national security in the financial sphere" No. 569, which clearly defined the principles of effective formation and an effective mechanism of financial risk management on the part of the state to level crisis phenomena in the financial sphere. Also, the main ways of ensuring security in the banking and tax spheres, budgetary, public debt management, foreign exchange market and the real sector of the national economy were determined.

In 2018, the Verkhovna Rada adopted the Law "On the National Security of Ukraine", which defines the main principles and principles of national security and defense. According to this law, state policy in this area is aimed at: "ensuring military, foreign policy, state, economic, informational, environmental security, cyber security of Ukraine" [7].

The main principles determining the order of formation of state policy in the spheres of national security and defense are:

1) the rule of law, accountability, legality, transparency and compliance with the principles of democratic civilian control over the functioning of the security and defense sector and the use of force;

2) compliance with the norms of international law, participation in the interests of Ukraine in international efforts to maintain peace and security, interstate systems and mechanisms of international collective security;

3) the development of the security and defense sector as the main instrument for the implementation of state policy in the spheres of national security and defense [7].

Fundamental national interests of Ukraine are also defined in the Law "On National Security of Ukraine":

1) state sovereignty and territorial integrity, democratic constitutional order, non-interference in the internal affairs of Ukraine;

2) sustainable development of the national economy, civil society and the state to ensure the growth of the level and quality of life of the population;

3) integration of Ukraine into the European political, economic, security, and legal space, acquisition of membership in the European Union and the North Atlantic Treaty Organization, development of equal and mutually beneficial relations with other states.

The "National Security Strategy of Ukraine", which was adopted by the Presidential Decree from May 6, 2015 and is valid until today, defines the main goals as follows: "minimization of threats to state sovereignty and creation of conditions for restoring the territorial integrity of Ukraine within the internationally recognized borders of Ukraine, guaranteeing a peaceful future of Ukraine as a sovereign, independent, democratic, social, legal state, affirming the rights and freedoms of man and citizen, ensuring a new quality of economic, social and humanitarian development, ensuring Ukraine's integration into the European Union and forming the conditions for joining NATO" [15].

At the same time, the Strategy defines the main threats in the economic sphere and the ways of their leveling. The main threats and ways to overcome them are listed in Table 1.1.

Table 1.1

The main threats in the field of economic security and ways to overcome them

Threats in the field of economic security	Ways to overcome them
High level of dependence of the economy on foreign markets	Diversification of foreign markets, redirection of trade and financial flows, increasing resistance to negative external influences
A very large share of worn-out fixed assets in critical infrastructure, insufficient level of their security, inefficient management	Innovative update, increasing the level of security of critical infrastructure as a whole system
Low level of public debt management, corruption, degradation of civil service	Public. Effective use of budget funds, control by all interested organizations, transparency of the monetary and banking system
Regulation by the state, a low-tech and resource -consuming model of the economy	Deregulation, simplification of the taxation system and tax administration, innovative development

In table 1.1, only those threats were listed in our opinion, the solution of which contributed to a quick push for the development of the national economy. If we consider in more detail the threats that exist and do not allow Ukraine to reach higher positions in the World ranking, then we can note such threats as:

- monopoly by oligarchic clans in strategic sectors of the economy;
- military aggression;
- insufficient provision of the security and defense sector throughout Ukraine's independence;
- lack of directions and priorities in various spheres of life (social-economic, scientific-technological, military-economic);
- outdated model of public institutions;
- distribution of public resources through criminal clan groups.

At the current stage of the development of the economy of Ukraine, a question arises in the modern classification of threats not only at the macroeconomic level, but also at the level of enterprise activity. Due to the fact that threats have a very wide variety, it is necessary to classify them correctly. Types of threats to the economic security of the enterprise are listed in Table 1.2.

Table 1.2

Classification of threats to enterprise activity

Types of threats	Threats
By place of origin	internal, external
By nature of occurrence	competitive, contractual , criminal
According to the probability of occurrence and degree of obviousness	obvious, hidden
By consequences and degree of prevalence	general, specific, local, individual
In relation to human activity and the probability of implementation	objective , subjective , inevitable , deferred
By objects of encroachment and scale of consequences of implementation	information, tangible and intangible assets, personnel, business reputation Local consequences, general consequences
According to the possibility of forecasting	predicted and unpredicted
According to the probability of occurrence	catastrophic, insignificant
By areas of occurrence	economic, physical, psychological, informational

The provided classification of threats to the enterprise's activity does not provide the entire possible set of signs. The optimal choice of signs for countering threats is directly influenced by many factors, both external and internal to the enterprise.

In general, the economic security of the enterprise has two main components in its structure, which can further be divided into elements of this structure.

The first component includes internal production issues. It directly includes financial security, personnel and intellectual security, technological security, legal security, information security, environmental security, and law enforcement security. In our opinion, it is necessary to put personnel security in the first place, without the effectiveness of which subsequent threats in other areas cannot be leveled.

To understand the functional characteristics of the components of economic security, let's analyze each of them.

1. Financial component - effective use of all available resources.

2. Personnel and intellectual security - effective personnel policy, preservation, development of the enterprise's intellectual potential.

3. Technological safety – implementation of innovative technologies, optimization of resources.

4. Legal security – compliance of business with current legislation.

5. Information component – advanced information and analytical support.

6. Ecological component – minimization of environmental pollution, introduction of ecological norms.

7. Strength component - preservation of property and employees of the enterprise.

For each individual enterprise, there will be a personal structure of economic security, which will be formed from obvious and imaginary threats in this field of activity.

Personnel security is the main structural element in the general system of economic security of the enterprise and is a complex and multifaceted concept.

Scientific approaches to the interpretation of the concept of "personnel security" among modern scientists differ significantly. For example, O. M. Gerasimenko in the article "Modeling the system for ensuring personnel security of an economic entity" interprets personnel security "as a process of preventing negative actions on the security of the enterprise by eliminating risks and threats related to intellectual potential and labor relations in general." [3].

Meheda N.G. and Marenich A.I. indicate that the concept of "personnel security" is "a characteristic of the state of the economic system according to which all its components function effectively, ensuring security and the ability to resist internal and external influences and threats related to personnel, meaningful and structural analysis, diagnosis and forecasting of the impact of activities personnel on the internal and external indicators of the specified economic system" [12].

The study of the interpretation of "personnel security" is directly related to the use of labor resources and the introduction of personnel policy.

Among domestic scientists, the following made a significant contribution to the research and introduction of innovative approaches to the interpretation of "labor resources": O. Bykanova, O.V. Krushelnytska, S. Strahova, A.V. Drabanich. Darmits R.Z., Balabanova V.G., Fedulova L.I. Among the foreign scientists who studied the issues of management and development of human resources, the following should be noted: Carbery R, Arnstrong M., Hitt M., Leatherbarrow C., Macrae I.

Thus, in the textbook of O.V. Krushelnytska, the interpretation of "labor resources" is defined as human resources, which include the concepts of labor potential, health, level of education, professional abilities, and culture.

Drabanych A.V. with co-authors define labor resources as: "a part of the able-bodied population that possesses the physical and mental abilities and knowledge necessary to carry out useful activities" [6].

It is necessary to separate the concepts of "labor resources" and "personnel" of the enterprise. Yes, the term "personnel" refers to employees who have special qualifications, skills in this field, and work experience.

The essence of such concepts as "work force", "labor potential", "labor resources", "human capital" changed in accordance with the change in approaches to

human management, which confirms the evolutionary nature of the development of approaches to their interpretation. In our opinion, "personnel potential" should be understood as a socio-economic concept that reflects the labor capabilities of the enterprise, the ability of personnel to generate ideas, create new products, as well as their educational, professional and qualification levels, psychophysiological characteristics and motivations, which in the complex can ensure the achievement of the company's goals.

In the structure of economic security, such an element as the personnel component is highlighted.

In order to fully understand the essence of the personnel security of the enterprise, it is necessary to consider the tasks and goals of the personnel policy, which affects the construction of the general security system of the enterprise (Fig. 1.1)

When forming a personnel policy, it is necessary to determine the main goals:

- ensuring confidentiality of information;
- compliance with laws, norms, regulations (internal and external) according to which the enterprise operates;
- personnel life safety;
- ensuring optimal working conditions to achieve maximum performance;
- intellectual development.

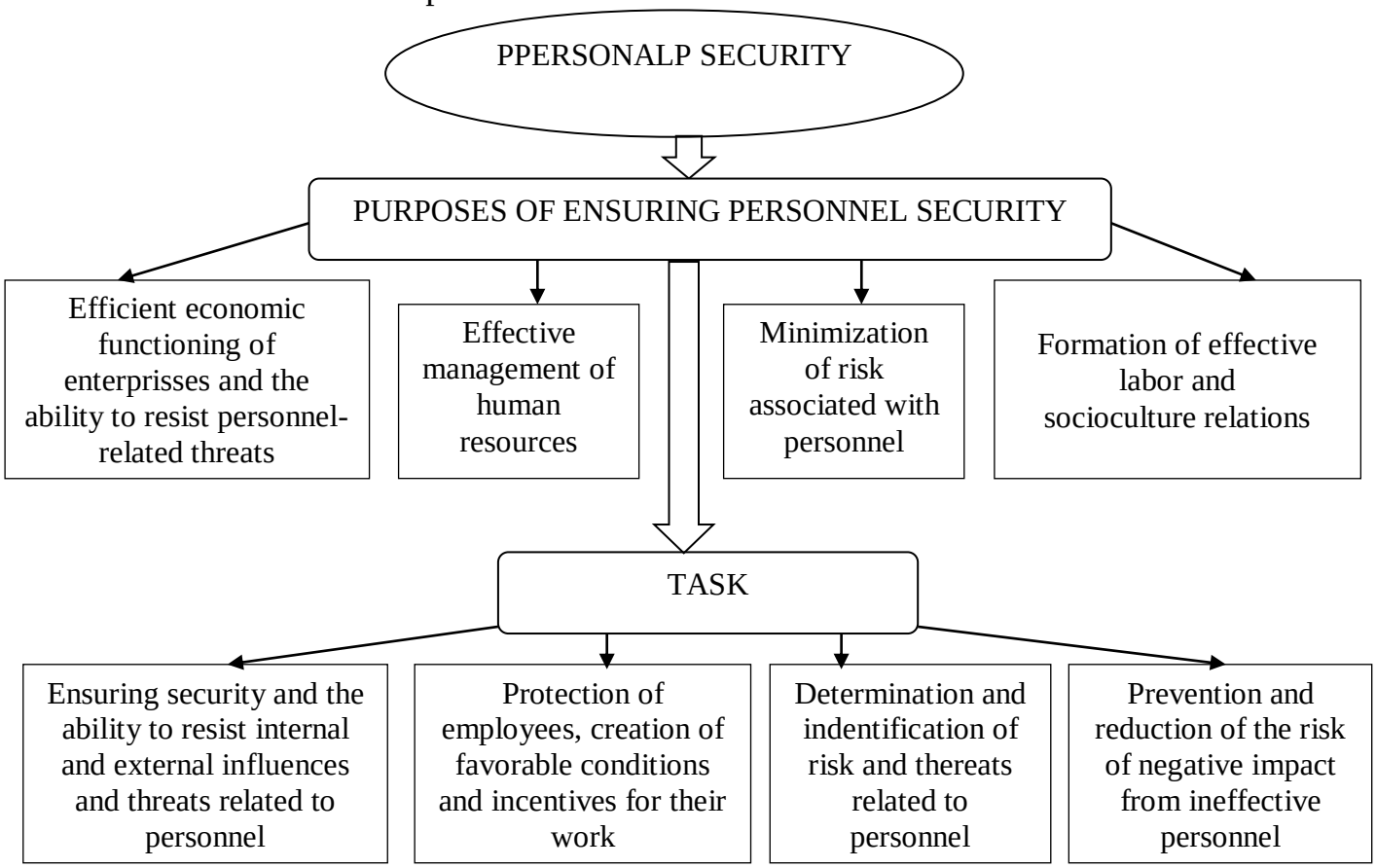

Fig. 1.1. Tasks and goals of personnel policy in ensuring personnel security

In order to determine the tasks facing the formation of personnel security, it is necessary to investigate the threats that can negatively affect the existence of the enterprise from the side of personnel and, in general, ineffective personnel policy. Threats in the personnel sphere can be divided into external and internal, from the point of view that threats affect both personnel, and personnel can directly threaten the enterprise with their activities. Table 1.3 lists the main external and internal threats.

Table 1.3

Internal and external threats in personnel policy

Internal threats (influence from personnel)	External threats (impact on personnel)
dissemination of commercial information	emergency situation (martial law, general mobilization, war, man-made disasters)
inconsistency of the declared qualifications, intellectual, physical abilities and psychological state	accidents
violation of discipline, non-fulfillment of production norms, failure to report to work without valid reasons, receiving remuneration for unfulfilled work	staff reduction
inefficient use of the company's property, careless treatment of all resources at the company	non-acceptance by the team
enrichment due to property theft, damage, destruction	unfair competition

The given list of threats is not optimal, but from the given list it is possible to draw conclusions about the significant influence of the personnel component on the economic security of the enterprise.

The essence of the personnel security of the enterprise cannot be considered without the approaches and directions of personnel management, which make up the personnel policy of the enterprise. Through personnel policy, the company directly achieves the main goals in its activities.

It is necessary to highlight several issues with the help of which the set long-term and short-term goals of the enterprise will be achieved.

The main question concerns the efficiency of work of all parts of the enterprise. Efficiency depends on many factors that directly affect personnel (motivation, material and technical support, team relations, management methods). Directly effective and efficient work of personnel minimizes the occurrence of internal and external threats.

A significant issue concerns the stability of the workforce, its psychological and physical health. Ensuring the stability of the personnel composition indicates mutual compliance with the requirements of both the enterprise and the employees,

and this affects the psychological atmosphere in the team and the physical condition of the workers.

The issue of the effectiveness of the system of improving the level of personnel qualifications and the implementation of ways to develop intellectual abilities. The formation of an intellectual component in personnel security has a great impact on the general system of economic security of the enterprise. In modern conditions, running a competitive business requires the use of high-tech labor tools, which increases the demands on the intellectual potential of the staff. The ability to perceive information and process it to make an optimal, effective decision in one's activity depends on the level of intelligence of labor resources. On the one hand, intellectual potential is a means of influencing economic security, and on the other hand, it itself needs protection from external and internal threats.

In order to prevent the occurrence of threats in personnel, it is also necessary to develop motivational measures to maintain a high level of employee loyalty. These measures may be related to the formation of an adequate remuneration system, working conditions, incentive programs, a social package, provision of technical means of work, involvement of employees in making decisions related to their competence.

When forming personnel policy, it is necessary to rely on the established corporate culture, the observance of which by employees should have a positive effect on labor productivity, employee loyalty and understanding of the company's mission.

Ensuring the quality of personnel management in the system of economic security involves the selection of priority business management processes, the complex implementation of which will contribute to increasing the personnel security of enterprises. The main components of quality management of personnel potential in the system of economic security of enterprises include:

- the quality of planning and organization of personnel selection - acquires strategic importance in personnel management of domestic enterprises at the current stage of their development. This process involves studying the psychological, personal, professional, and intellectual qualities of an employee to establish his compliance with the requirements and target guidelines of a specific enterprise with the aim of forming a highly qualified and stable workforce. It has been proven that effective planning of the number of personnel actively affects the financial results of its activities thanks to the optimization of the personnel structure, the identification and productive use of the professional potential of employees and the reduction of labor costs;

- the quality of staff adaptation depends on the appropriate integration, team cohesion, assimilation of labor norms and traditions, and the level of development of corporate culture. Adaptation involves an active position of the individual, awareness of one's social status and related role behavior as a form of realization of the individual capabilities of the individual in the process of solving general tasks. Within its limits, there is a detailed familiarization with the team and new responsibilities, assimilation of behavior stereotypes, assimilation and identification

as a result of identifying the employee's personal interests with the target orientations of the enterprise's functioning. The basis of the organizational and professional adaptation management process is the specification of the approach to each employee, the determination of the significance of this or that aspect of adaptation for the specific conditions of the working environment, the development of appropriate measures to facilitate its passage, etc. At the same time, it is fundamentally important to study labor values and motives that encourage an employee to work. This is directly reflected in the peculiarities of the formation of the labor mentality of personnel as a factor in improving the quality of management of personnel potential;

- the quality of moral and material stimulation of personnel is the most effective tool of corporate culture, which takes into account the interests of employees and encourages them to improve the quality of performance of their duties. Thus, the analysis of the features of material incentives for the personnel of domestic enterprises indicates a violation of the principles of transparency and complexity of this process, which is due to the presence of a significant number and diversity of bonus indicators. In view of this, a necessary requirement for improving their personnel security is the implementation of effective systems of material incentives, which will contribute to the growth of motivation for the labor activity of employees, interest in the results of their work and the direction of their labor efforts to achieve high quality of professional activity. Along with this, the activities of higher-level managers include establishing communication links and informing staff, making decisions regarding the assessment and directions of professional development of staff and their career opportunities, promoting the creation of a positive social environment that allows motivating employees and work teams;

- the quality of professional development of personnel - involves a systematically organized process of continuous professional training of employees to prepare them for the performance of new production functions, professional advancement, formation of a reserve of managers and improvement of the social structure of personnel. It is well known that the management of professional development of personnel contributes to the increase of labor productivity and competitiveness of personnel in the labor market, to ensure that employees perform new and more complex tasks based on the maximum possible use of their abilities and potential. Current requirements for raising the level of professional development of enterprise personnel are determined by the need for constant introduction of innovative technologies in the professional sphere, the need to develop new services and products, the strengthening of consumer demands for service quality, etc. This necessitates the creation, approval and scientific understanding of personnel development systems, which would meet the current needs of the market and guarantee the development of personnel professional competencies;

- the quality of innovative development of personnel – the ability of the enterprise to improve methods of managing innovative abilities and capabilities of personnel, which takes into account modern achievements of scientific and technical progress and the level of development of the information society, and also contributes to the stimulation of creative ideas, the manifestation of rationalizing abilities of

personnel and increasing its adaptability to innovations. The innovative development of the personnel potential of enterprises should be based on the principles of sustainable organizational and economic development, systemic interaction with the external macro- and microenvironment, responsibility and self-regulation, comprehensive use of modern information technologies, timely and sufficient resource provision, social security, as well as obtaining the maximum effect from the application innovative management programs, etc.

Thus, the modern competitive environment requires the top management of enterprises to find and implement new methods of managerial influence on the quality of personnel potential, because maintaining an appropriate level of personnel security is the key to building an effective system of economic security of enterprises as an artificial mechanism, the effectiveness of which depends on the available professional competencies personnel and the dynamics of their development in accordance with the current requirements of the labor market.

Understanding all these issues when forming a personnel policy will minimize the occurrence of threats from the personnel side and will have a positive effect on the general system of economic security of the enterprise.

The essence of personnel security is formed from many factors, but in our opinion, it can be argued that it is a process that eliminates threats related to personnel, their intellectual potential and personnel policy as a whole, both from external influences and from the internal environment of the enterprise.

Personnel security in the management system covers the entire process of human capital management. From hiring, adaptation, professional development, involvement in corporate culture, control of activities, involvement in decision-making.

The implemented optimal personnel security makes it possible for the enterprise to achieve economic stability and effective countermeasures against both external and internal threats.

The main document that forms the legal basis of state policy in the field of security at the state level is the Constitution of Ukraine. Article 3 states that: "a person, his life and health, honor and dignity, inviolability and security are recognized as the highest social value in Ukraine" [10].

A regulatory and legal document that affects the formation of personnel security and defines and regulates relations between employees and the employer - the Code of Labor Laws.

When implementing the personnel policy, it is necessary to take into account the main provisions of the Labor Code. Chapter 3 presents issues that must be specified in the terms of the employment contract. The conclusion of an employment contract is an agreement between an employer and an employee that defines the duties, rights and responsibilities of both the employee and the employer.

When forming personnel policy as a basis for personnel security, it is necessary to thoroughly analyze all articles of the Code of Labor Laws.

In order to form and regulate issues related to the personnel component of the economic security of the enterprise, it is necessary to significantly research and

analyze the Laws of Ukraine, regulatory provisions, instructions, Resolutions of the Cabinet of Ministers, i.e. the legal framework that directly concerns both the issue of security and the issue of labor relations between employer and employee.

The personnel component is the main part of the management system of every enterprise, regardless of the form of ownership and type of activity. In modern society, many definitions are used that refer to a person's labor activity and the management of his behavior at the enterprise: human resources management, personnel work, personnel policy, personnel management, human factor management, etc. But to consider the influence of factors directly and the list of the factors themselves on the personnel component of the company's economic security, we are more interested in the concept of "personnel management". The very definition of "personnel management" has undergone major transformations by different scientists and at different times. Thus, one can find examples of interpretations of the definition of how, presentation of goals and methods by means of which tasks are achieved at the enterprise, that is, the organizational essence of management. In some foreign approaches, personnel management is shown as an area of activity in which the needs for labor resources, personnel involvement, development and training, control, policy of participation in achieving the defined goals of the company and methods of direct management of employees are determined.

The main goals of personnel management in the context of economic security are:

- increasing the profitability of the company and increasing the share of the sales market for effective leveling of the possible occurrence of internal and external threats;
- increasing the competitiveness of the company and the financial stability of each employee;
- increasing the social stability of the company's staff.

Factors influencing the personnel component of economic security can be divided into internal and external.

External factors influencing the personnel component of the enterprise's economic security are shown in Figure 1.2.

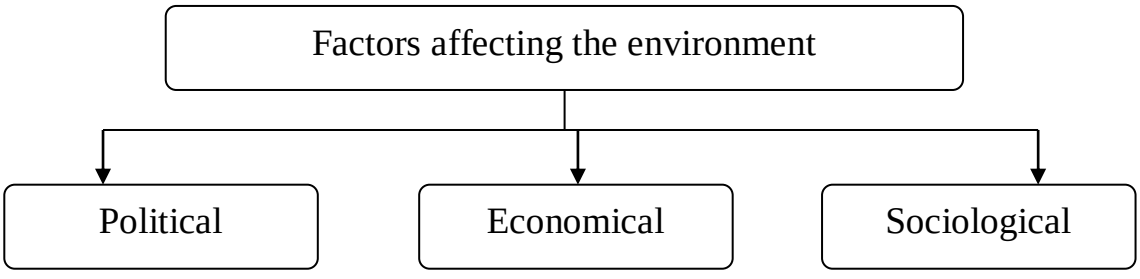

Fig. 1.2. External factors influencing the personnel component of economic security

The political factor can be considered as the degree of regulation by the state at the level of normative legal acts in social and labor relations. That is, the influence of state bodies on relations between employers and employees.

Economic factors occupy the most weighty share in external factors of influence. These include: the employment level of the population, the standard of living, economic stability (tax, financial, banking and budgetary spheres).

Sociological factors of external influence on the personnel component of economic security are primarily the level of education and the cultural level of the working population.

Factors of internal influence should include:

- enterprise management system;
- created working conditions;
- high-quality composition of the team (professionalism, dedication to the idea of enterprise development, social status of employees);
- selected method of enterprise management;
- motivation system.

External and internal factors influencing the personnel component of economic security must be considered as a single set of processes that interact with each other, and in the process of managing economic security have an impact on all other components of the company's economic security.

Solving issues related to the formation of an effective personnel management system and strengthening its influence on economic security requires the management and personnel department to significantly modernize the methods of working with personnel, which should be based on the experience of domestic, and primarily foreign practitioners and scientists, as the founders of science HR.

In the modern conditions of an unstable economic situation and military aggression, the problem of security in the personnel sphere and the personnel management system, as a component of economic security, is becoming the most urgent.

In the world economy, there are different approaches to the formation of personnel management. Thus, the most effective is the Japanese system, which takes into account national traditions, a sense of subordination, collectivism, constant professional and intellectual development, informal meetings with the families of employees, etc.

Professor T. O'Neill from the University of California believes that an effective personnel management system is possible when: "there is a formation among employees of a sense of belonging to common affairs, collective tasks; maintenance of enthusiasm, initiative; involving them in decision-making and responsibility distribution" [18].

In general, when researching world personnel management systems, it is necessary to note that there are two approaches that differ in spirit. The first is technocratic, the second is humanistic.

Thus, with a technocratic approach to personnel management, subordination to production processes takes first place and is reduced to the formation of the number and professionalism of personnel based on production processes.

In the case of humanism, the first degree is the motivation of employees, the formation of the "corporate spirit", the unity of the team in the system of life goals.

People are the most valuable asset, and an effective personnel management system and personnel component of the company's economic security are built on this fact.

In our opinion, the personnel management system in the context of the personnel component of economic security should be formed based on many factors and be based on basic principles (Fig. 1.3)

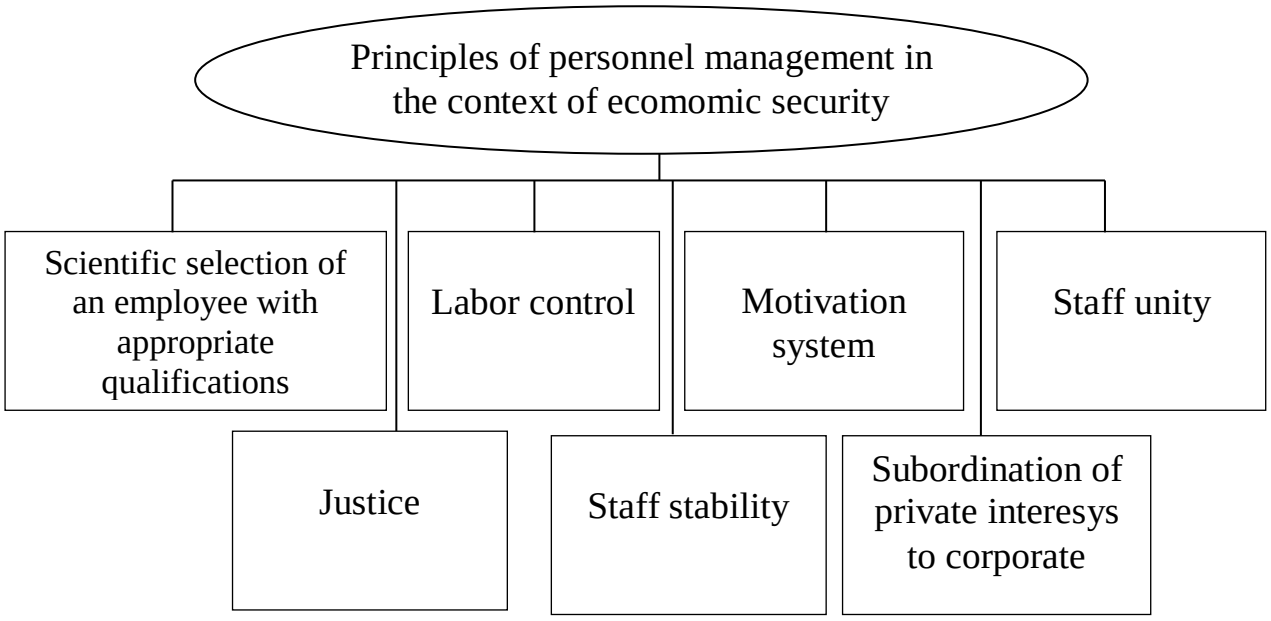

Fig. 1.3. Principles of personnel management in the context of the personnel component of economic security

As already stated, the provision of personnel security is influenced by both external (market and non-market) and internal factors, such as: social motivation, spiritual and moral potential, safety of life, ability to innovate, efficiency of management personnel. Also, in our opinion, it is necessary to add a system of wage formation to the internal provision of personnel security, as one of the types of motivational mechanism for increasing the level of the personnel component of the company's economic security.

Accounting support for personnel management at enterprises is directly entrusted to the personnel department. The main activity of the personnel department consists of personnel accounting, management of administrative documentation, and compilation and submission of reports.

One of the main components of the accounting and analytical support of the personnel component of the financial and economic security of the enterprise is personnel administration. It is conducted according to the rules and principles established for general record keeping.

The term "personnel" translated from French means professionals who are engaged in this or that activity, work in this or that system, industry, at this or that enterprise.

Personnel administration is defined as an activity covering the issues of documenting and organizing work with documents related to the personnel of the enterprise (or system) in matters of admission, transfer, dismissal, employee accounting, etc. The correct organization of personnel records is of great importance to ensure the minimization of threats in the personnel management system and as a basis for the formation of information.

It is in personnel services that citizens conclude an employment contract, familiarize themselves with the rules of the internal procedure, conditions of work, life, rest, and prospects for professional growth. The personnel service is a mirror of the institution, and the way in which it organizes the documentation support of management creates an impression about the institution as a whole.

Personnel administration is conducted in the following areas:

• Accounting of personnel of the institution and its divisions.

• Preparation of reports and necessary certificates on the transfer of personnel, development and production of necessary forms and forms for this.

• Accounting of the state of training, retraining of personnel and their enrollment in the reserve.

• Accounting and registration of the receipt of documents related to personnel, control over their implementation, primarily the implementation of orders and orders on personnel.

• Organization of document flow to ensure prompt and clear execution and passing of documents and instructions of the management regarding all areas of work with personnel, compliance with general and specific rules for drafting and execution of documents for personnel work.

• Compilation of nomenclature files from personnel records, their registration and management.

• Preparation of personnel documents for transfer to the archive for storage.

• Mechanization, automation and computer processing of personnel data.

The increase in production volumes and restructuring of economic management caused a significant increase in the volume of information in the field of personnel management. The number of official documents increases every year. The introduction of their machine processing in a number of services of large enterprises and associations does not reduce the number of personnel. To solve this problem, proper organization and mechanization are required: document processing, on which the effectiveness of the personnel management process depends. Much more time is taken up by documentation maintenance: preliminary review, accounting, storage, control, etc.

The organization of work in personnel services involves solving a number of tasks, including:

• a clear organizational structure of the activity and the choice of the most rational form of organization of work with documents;

• correct distribution of functions between individual performers and divisions, application of best practices and methods of record keeping. The resolution of this issue is carried out through the development and implementation of normative documents, job instructions, and standards. Special attention should be paid to the correct development of the job description of the personnel inspector;

• determination of criteria for assessing the work of employees, their workload;

• improving the qualifications and work culture of HR personnel

• services;

• rational organization of workplaces, provision of personal computers.

The workplace of each personnel service employee must be organized in such a way that the specialist's mental and physical efforts are directed to the performance of his functional duties without any obstacles.

Depending on the nature of the work, the work premises of the personnel service are conventionally divided into the following zones:

• management (working premises of the deputy head of the institution for work with personnel, head of the personnel department, head of the personnel training department, etc.);

• work with visitors (combines the workplace area of the personnel inspector (referent) and the visitor area, equipped with the necessary set of furniture);

• work with documents (here are the workplaces of most personnel service employees, equipped with everything necessary for receiving information, processing it, storing and issuing documents and materials);

• waiting (here visitors are waiting for a reception and at the same time can get primary information about the enterprise, if necessary, fill in personnel document forms);

• storage of documents (files, personal files and work books of employees, reports on the state of work with personnel, etc. are stored here).

According to calculations, the optimal size of personnel service premises at an enterprise with up to 2,500 employees is about 150 square meters. meters

Working conditions are a set of factors of the production environment that affect the health and working capacity of a person in the process of work. These are primarily sanitary and hygienic conditions (lighting, silence, temperature, humidity) and a set of furniture and office equipment for workplaces (desks, console tables for personal computers, chairs, file cabinets, stationery, telephones, fax machines, copiers, etc.) .

The equipment of workplaces of employees of personnel service should be carried out in accordance with job categories and instructions. It is recommended to consider the following requirements:

• Install furniture, equipment, shelves for documents so that they can be used conveniently.

• Place objects and tools taking into account the operations being performed.

• Store materials that do not require urgent processing in special folders. If documents require further processing, put them in places accessible to other employees.

• Small office equipment should be placed in designated places to achieve automatic movements. Materials that are constantly used should be placed so that they can be easily found.

• Use staplers of different colors to quickly and accurately find documents.

The use of special furniture plays an important role in improving the workplaces of clerical workers and helps to increase their productivity.

A desk is required for the work of the personnel department inspector. Two-end tables with a height of 78 cm and surface dimensions of 78x156 cm are usually used. The side end tables can be equipped with a device for storing file cabinets. The desk must be equipped with the necessary office equipment. In the upper left drawer of the table there should be a cassette with adhesive tape, a stapler, a device for small stationery items. In the upper right drawer, you can place a registration or control card file.

In order to correctly and timely make a decision on any issue, the head of the institution needs to have information about the state of personnel and the movement of personnel. A clear organization of personnel accounting is a necessary prerequisite for successful analytical and operational work with personnel.

Personnel records are kept at all enterprises, institutions, organizations of all forms of ownership, which have the right to independently hire and fire employees. Employees of all categories are subject to registration, regardless of the nature of work or position.

The organization of personnel accounting is directly entrusted to the personnel department, personnel inspector, personnel manager, secretary or other employee, who is appointed by order of the manager or owner of the enterprise, institution, organization, depending on the number of personnel.

Personnel accounting must provide reliable information:

• about the number of employees by categories, professions, qualifications, education, work experience, gender, age and other characteristics;

• about changes in the number and composition of employees in the institution as a whole and its divisions, as well as about the reasons for these changes;

• about the state of work on professional development, training and retraining of personnel by profession and category;

• about the quantitative and qualitative composition of personnel, promotion of young workers;

• about the state of training and internship of persons enrolled in the reserve, etc.

The possibility of obtaining the mentioned and other personnel data is ensured by the maintenance of the relevant documentation by the personnel service.

Personnel documentation is created as a result of work with personnel of an enterprise, institution, organization (their selection, transfer, training, retraining and education). It characterizes the legal, labor and service relations of an individual with the institution. This documentation appears together with the appearance of a person in the world and accompanies him throughout his life.

Personnel documentation reflects the activities of the institution in matters of accounting, acceptance, transfer, training, retraining, attestation, awarding and pension provision of personnel, etc. Service documents from personnel are the basis for providing citizens with documents certifying their identity, position, profession, as well as the basis for receiving benefits, scholarships, pensions or other financial assistance.

Personnel documentation is used in reference cases. Millions of citizens, almost the entire working population, apply more than once for a certificate or other document. The importance of personnel documentation increases especially when an employee retires.

Perhaps the most characteristic feature of personnel documentation is that it always reflects the activities of specific individuals, that is, it is a personal documentation. It is no accident that personnel documentation is the basis of funds of personal origin.

What has been said makes it possible to conclude that the management of personnel documentation, its accounting, use and storage should be left exemplary.

The set of documents for personnel management functions includes the following main groups of documents:

• personal and personal documents of employees;

• organizational and administrative documentation; primary accounting personnel documentation.

The group of personal documents of employees includes a passport, work book, military ID, diploma, certificate, certificate and other documents that represent legal confirmation of information that employees report about themselves. They can also include identity cards, documents on marital status, work experience, specialty, etc.

Personal documents are also documents issued by institutions to their employees for targeted recommendation: pass, business trip certificate, certificates confirming the place of work, position, salary.

According to the legal designation, personal documents can include employee applications for employment, dismissal or transfer, autobiography, as well as personal file documents characterizing the employee's business and moral qualities - attestation letter, application for appointment, etc.

A typical technological scheme for processing personnel documentation of the stage:

• documentation of labor relations; keeping personal files and work books;

• conducting reference and accounting and reporting work on personnel.

Organizational and administrative documentation establishes the labor relations of citizens with institutions and enterprises. Conventionally, it can be divided into the same varieties that are used in general record keeping: organizational (regulations, instructions, rules, statutes); orders (orders, resolutions, decisions, instructions, orders, resolutions); reference and information (reporting and explanatory notes, letters, lists, acts, protocols, references, reports, etc.).

The primary accounting personnel documentation performs the function of employee accounting and is a data store that provides the initial registration and subsequent updating of the necessary information about the composition and movement of personnel.

Based on the technology of registration and accumulation of personnel information, the group of primary accounting personnel documentation is divided into two interrelated subgroups: initial (initial) accounting documents; derived (repeated) accounting documents.

The original accounting documents are filled in according to the personal documents of citizens. These are: personnel record sheet, supplement to the personnel sheet, personal card and other specialized accounting documents.

Derived accounting documents are secondary in nature. Their main purpose is to provide complete, reliable information from all areas of reference, reference-control and reporting work on personnel. This subgroup of accounting documents includes: cards of specialized accounting of specialists, journal (book) forms of registration (indicative lists, accounting book, and others).

Accounting for personnel management involves the formation and submission of current and annual reports both for decision-making by internal management in various areas of management and to government agencies for information collection.

The personnel department, as the main information base of the personnel component in the company's economic security system, carries out personnel evaluations in cooperation with responsible employees. Timely identification and leveling of both external and internal threats depends on its reliability.

The personnel evaluation procedure is carried out in order to obtain information about the qualitative professional and personal characteristics of the employee, performance indicators (qualitative and quantitative), business and collective characteristics. Employee evaluation is also used to select candidates for promotion, part-time work, remuneration for work and dismissal.

The task of qualitative and quantitative business assessment of employees in the structure of analytical support of the personnel security component, primarily consists in determining the existing potential of employees, the possibility of their optimal use in the activities of the business entity, ensuring compliance with the position held and value for the company not only from a professional perspective, and personal return to fulfill the goals of the business entity.

It is also a very important point that the method of assessing the business quality of employees must be discussed directly with the staff, both when they are hired and in the process of their work.

Personnel evaluation is a system of parameters that allow you to accurately determine the quality and efficiency of work, the level of professionalism, competence and knowledge of employees. The skills, functions, and business qualities of employees are evaluated according to a set of indicators. The applied assessment criteria make it possible to objectively determine the effectiveness of each employee, to understand how well he copes with his work. As a result, a description of the state of each team member is given: does he or does he not cope with his tasks,

does he require additional training or, perhaps, has he already outgrown his position. Modern evaluation methods allow you to calculate the overall efficiency of the entire team.

Personnel evaluation is carried out when certain personnel problems arise in the company. These can be the following problems:

- constant staff turnover;
- decrease in labor productivity;
- regular employee complaints about working conditions;
- personnel management without analytics and statistics;
- reforming the personnel structure, introducing a new management system;
- changing company management, updating rules, goals, etc.

Part of personnel problems is solved with the help of personnel outsourcing. In some cases, an outsourcing company can provide staff for rent. However, in general, without a comprehensive assessment of employees, it is impossible to develop effective measures for strategic problem solving. The evaluation is carried out by the company's own personnel service, or independent experts are engaged for this purpose.

The objects of assessment are employees, structural divisions, the entire company team. Subjects of the assessment are company management, personnel management specialists, invited experts and consultants.

The value of personnel assessment for business is determined by the beneficial effects it provides. Among the main advantages of the evaluation, the following advantages can be distinguished:

- objective determination of the level of the company's employees - their knowledge, skills, efficiency, experience and merits;
- obtaining the necessary data for personnel reshuffle planning;
- promotion of promising employees, getting rid of those who prevent the business from developing;
- improvement of the motivation system;
- raising the organizational level, removing bureaucratic barriers;
- the assignment of objective, clear and realistically achievable criteria for the efficiency of employees.

The complex effect of these advantages consists in the growth of labor productivity, optimization of business processes, increase in manageability and stability. As a result, costs are reduced, the company's profit increases, and there is a positive impact on the economic security of the enterprise.

The personnel evaluation system should contribute to the achievement of the following goals:

1. Selection and hiring of employees who meet the required level of competence as much as possible, have the necessary experience, knowledge and skills for the corresponding vacant position.

2. Reduction of recruitment costs - the number of interviews and the burden on the personnel department decreases.

3. The formation of a base of clear objective criteria, which allow you to rely on the conducted in-depth analysis when making any personnel decisions in the future.

4. Obtaining a set of indicators for objective and impartial determination of potentially useful and potentially harmful employees. Formation of the company's personnel reserve based on these indicators.

5. Creation of comfortable conditions for work, improvement of labor discipline.

6. Optimization of personnel training costs without reducing quality due to rational use of resources.

Assessment tasks include determining the functional role of employees - now and in the long term. It is necessary to determine the potential for the employee's professional growth, to assess the prospects for his career advancement.

Another important task is to identify opportunities to fill skills, knowledge and competencies that a specific employee lacks. One of the results of the assessment is the determination and adjustment of the salary level.

When forming a personnel performance evaluation system, it is important to determine the main indicators for evaluation. They determine a person's suitability for a certain position, the level of his professionalism, business and personal qualities. The formalization of criteria allows you to make an objective assessment of the effectiveness of employees, divisions, and the entire team.

The main indicators that are used in the assessment:

Professional knowledge and skills (Hard skills)

This criterion determines to what extent the employee meets the requirements as a professional. The level of his knowledge and skills by profession, the efficiency of solving production tasks and other indicators are evaluated. This is the most understandable criterion, which is easily quantifiable and easily formalized. You can check the competence of an employee on exams, tests, on the basis of expert evaluation and other methods.

Personal, communication and other soft skills:

This group includes indicators for evaluating the personal qualities of employees. This criterion assesses the employee's sociability, loyalty or conflict, focus on the result or focus on the process. His leadership qualities, ability to achieve goals and solve tasks are determined.

Personnel evaluation based on these indicators allows determining the employee's suitability for the position and his career prospects. It is usually carried out by methods of testing and in-depth interviews.

Quantitative assessment of work results:

Evaluation of personnel based on this criterion involves the use of indicators that are accepted as ideal. It can be a sales or production plan, turnover, level of profit growth, business goals, etc.

These indicators are correlated with real results, which not only gives an understanding of the difference and dynamics in the numbers, but also allows us to

understand the reasons for the deviation from the plan. After a detailed study of these reasons, it is possible to evaluate the performance of employees.

When using this method of personnel evaluation, it is important to set the criteria correctly. Planned indicators and goals should not be taken out of thin air, but clearly tied to the current situation in the company. They must be achievable and real. At the same time, it is recommended to provide a certain reserve, which allows you to take into account the possibility of unforeseen events and changes.

Additional assessment criteria:

In addition to the listed basic criteria for evaluating employees, there are additional ones. Their use allows you to get a more complete, comprehensive picture of personnel occupying certain positions.

One of these criteria is loyalty to the company. From a loyal employee, you can expect a higher quality of work, compliance with labor discipline, he has higher motivation. However, it does not make sense to demand the same level of loyalty from all employees. For example, to perform a significant amount of routine work, you can use personnel on rent from an outsourcing company.

Another additional criterion can be called special requirements for managers, high-level specialists and narrow specialization. Specific criteria and approaches are needed to assess the competencies of this category of employees.

Personnel evaluation methods are divided into qualitative and quantitative. The former are deeper, the latter provide a wider coverage. In addition, combined methods are used, which involve the use of approaches of both categories.

Qualitative methods involve evaluating personnel through study, analysis, and description. Exact numbers are not needed here, but an in-depth look and immersion in the situation is used.

The following personnel evaluation methods are qualitative:

- Evaluation of tasks. We objectively determine how well the employee copes with his duties.

- Matrix method. The characteristics of a specific person are compared with the optimal indicators of an employee in the corresponding position.

- Method of system of arbitrary characteristics. The most important achievements and failures of the employee are considered, an idea of the general picture is formed.

- 360 degree method. Evaluation of the employee from all sides with the involvement of the manager, colleagues, customers and even himself.

- Group discussion. An interview is conducted with the participation of the manager, experts and an employee with a discussion of his work.

Most companies prefer to use quantitative methods of personnel evaluation. They are more understandable and allow you to get an unambiguous result due to the accuracy of the criteria.

The main methods of this group include:

- Point evaluation method — an employee receives points for each professional achievement at work. The results are evaluated at the end of the month or year.

- Rank method. During the evaluation period, employees are ranked according to work efficiency. According to the results, those who topped the rating are promoted, and those at the bottom may be fired.

- Method of free scoring. The professional and personal qualities of the staff are evaluated with the help of experts. Then the points are summed up, and the final rating is formed.

Combined methods combine qualitative and quantitative evaluation of employees. This allows you to get a comprehensive assessment of the company's personnel, which turns out to be the most reliable.

Common combined assessment methods:

- The method of the sum of assessments – all key characteristics of the employee for a specific position are assessed. Based on them, an average indicator is formed, which is compared with the "norm".

- Grouping system. Employees are grouped by level of efficiency: from the least efficient to the leaders. Then, candidates for dismissal are selected from the first group, candidates for promotion from the second.

Modern personnel evaluation methods are aimed at increasing the team's efficiency, finding vulnerable areas of personnel potential, making proposals for training or personnel rotation.

The main modern methods include the following:

- Attestation. For personnel, exams are periodically held to assess the level of competence, work results during the reporting period, the current state of knowledge and skills, and the level of soft skills. Attestation is not carried out for top managers, pregnant women, employees working for less than a year.

- Assessment center. A complex multi-day assessment procedure is carried out, which is divided into 3 stages. First, the goals of the assessment are determined, the scenario is developed, and the exercises are selected. Next, business games, tests, group discussions, interviews, case solutions are held. Then an integration session is held for each assessment participant and a decision is made.

- Business games. The employee's skills and training are tested by soft simulation of normal and non-standard situations that arise during work.

- The KPI (Key Performance Indicators) method — key performance indicators. Quantitative and qualitative assessment models, individual and team performance criteria in combination with expert and managerial competencies are developed during KPI evaluation. The KPI evaluation mechanism is convenient and simple, provided that the criteria are correctly drawn up and set with an understanding of the tasks.

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- Attestation. For personnel, exams are periodically held to assess the level of competence, work results during the reporting period, the current state of knowledge

and skills, and the level of soft skills. Attestation is not carried out for top managers, pregnant women, employees working for less than a year.

- Assessment center. A complex multi-day assessment procedure is carried out, which is divided into 3 stages. First, the goals of the assessment are determined, the scenario is developed, and the exercises are selected. Next, business games, tests, group discussions, interviews, case solutions are held. Then an integration session is held for each assessment participant and a decision is made.

- Business games. The employee's skills and training are tested by soft simulation of normal and non-standard situations that arise during work.

- The KPI (Key Performance Indicators) method — key performance indicators. Quantitative and qualitative assessment models, individual and team performance criteria in combination with expert and managerial competencies are developed during KPI evaluation. The KPI evaluation mechanism is convenient and simple, provided that the criteria are correctly drawn up and set with an understanding of the tasks.

The assessment is carried out at various stages of work with personnel. Let's consider each of these stages separately.

1. Selection

The purpose of the evaluation is to determine the candidates who best fit the vacant position.

Professional knowledge and skills (hard skills) are evaluated. For this, information is collected from previous places of work, data on education. In highly specialized areas, it is possible to involve an expert to study the resume.

Candidates' personal and business qualities (soft skills) are evaluated. For this, tests or cases are sent to them, and online or face-to-face interviews are conducted.

Also, at the stage of personnel selection, it is necessary to carry out checks:

- reliability of the information provided by the candidate;
- reliability and loyalty of the candidate;
- possible criminal records, gross violations at the previous place of work, other stopping factors.

2. Adaptation of new employees

During the test period, it is necessary to monitor the adaptation of newcomers to the team. They should be comfortable in their new place, and the company should have further prospects for working with such employees. The main task at this stage is to reduce the dismissal of newcomers, distinguish among them promising and worse ones, and identify employees who need training.

Interviews with new employees, surveys of their colleagues and managers are conducted for evaluation.

3. Personnel management

At this stage, personnel assessment is necessary to determine the reasons for non-fulfillment of plans, to identify problems in communications, including hidden and emerging ones. KPI indicators are actively used for work, group discussions, surveys, interviews are conducted. Quantitative criteria provide the main information here. Qualitative assessment methods are used in unclear and controversial situations.

The main tasks are to increase the efficiency of the team and reduce staff turnover. For valuable employees, individual motivation systems are developed, they get new opportunities and promotion prospects. Employees who are found to be harmful can be replaced.

4. Release

This is an important stage of work with personnel. Personnel evaluation helps to make a business-friendly, unbiased and objective decision to fire an employee who is harmful to the company or does not perform well.

At the same time, there are difficult tasks of improving work processes, collecting feedback from the dismissed employee, minimizing his negative impression in order to preserve the company's reputation.

5. Working with assessment results

The assessment results are drawn up in the form of reports and tables. Quantitative studies are convenient for analysis in tabular form, as well as in the form of graphs with short conclusions. When using qualitative methods, the report contains detailed descriptions and conclusions of experts. As a result, the company's management receives detailed information about the employee, which must be used correctly.

Basic rules for working with personnel evaluation results:

- compliance with confidentiality. A limited circle of people should have access to the results, which includes an expert, a specialist and the head of the personnel service, the company's management. This is necessary to exclude the leakage of personal data.

- Feedback. The evaluation results must be discussed in detail, tactfully and honestly with the evaluated employee.

Bringing the general results of the quantitative assessment of efficiency to the team. Personnel must be aware of whether or not benchmarks have been achieved. It is an important incentive and tool for motivating the team. This is especially important for divisions in which it is necessary to constantly strive for more, for example, for the sales department.

The results of personnel evaluation should be analyzed in detail, and conclusions drawn based on them. Only in this case, the procedure makes sense, which is expressed in the improvement of personnel policy, optimization of business processes and increase in the efficiency of the company's work. If the results are not analyzed by the management and do not serve as a basis for the formation of personnel policy, then the evaluation procedure will not only be a waste of resources and time, but will also become additional stress for the team, which will have a negative impact on work.

Regular assessment of personnel is an important measure without which full-fledged personnel management in the system of economic security of the enterprise is impossible. It gives you an idea of the team and each individual employee. This information will help promote talented and promising employees, pull up laggards, and get rid of team members harmful to the company. It is necessary to carry out

evaluations regularly in order to constantly keep a finger on the pulse of changes in the team.

To obtain accurate and useful results, it is necessary to decide on the applied methods and tools. They need to be selected for the purposes. In one case, rather precise and clear quantitative criteria, in the other, a detailed psychological analysis using qualitative methods is necessary.

The definition of participants, time, form and content of the assessment depends on the purpose of the conduct.

The following criteria are also taken into account, which are shown in Figure 1.4.

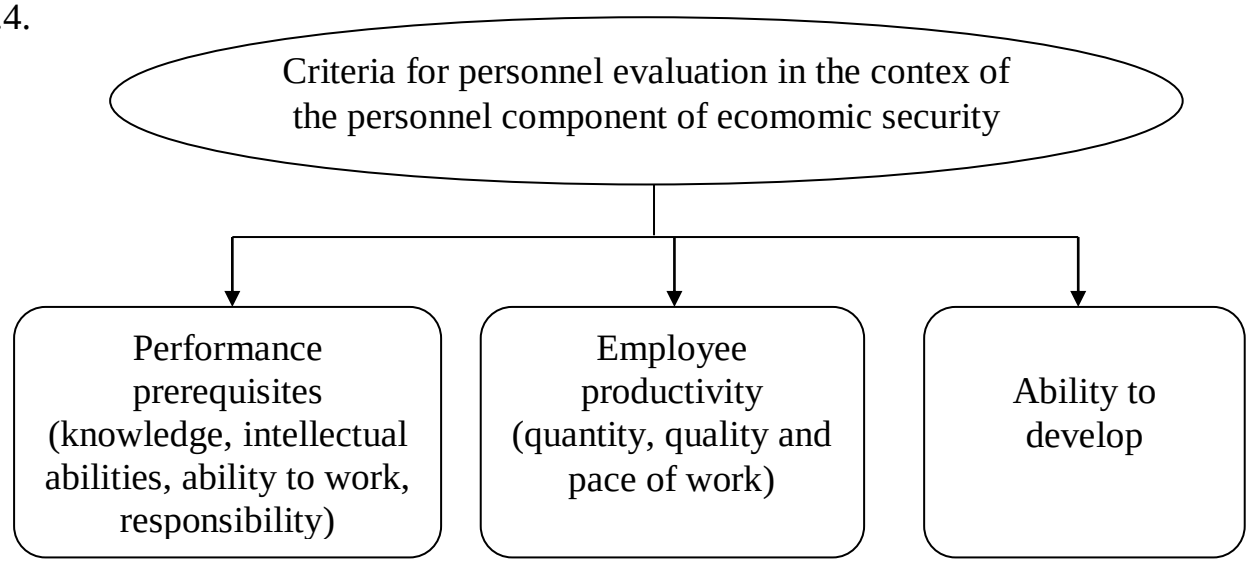

Fig. 1.4. Criteria for personnel evaluation in the context of the personnel component of economic security

The personnel evaluation process must take into account what category of employees will be evaluated. Thus, for the assessment of department heads, it is possible to apply assessment in the following directions:

- evaluation of the results of the main activity (productivity, quality, complexity of work);
- assessment of activities that accompany the main one (professional improvement of qualifications, social activity);
- assessment of interaction in the team (authority, socio-psychological state, personal characteristics).

The effective use of assessment in the personnel component of economic security makes it possible to identify the potential of employees, the effectiveness of its use, personal and professional qualities of a person, intellectual and psychological abilities, determine the value for society and reduce the possibility of both external and internal threats in the system of financial and economic security.

References:

1. Abesinova O. K. Analysis of the use of the personnel potential of the enterprise: abstract of the dissertation. Candidate of Economic Sciences / O. K. Abesinova; 08.00.09- accounting, analysis and audit (by types of economic activity). – Kyiv: V. Hetman KNEU, 2014. – 20 p.

2. Bykanova O. Work motivation as an important factor in ensuring effective personnel management of the enterprise: access mode: http://conf-cv.at.a/forum/53-482-1

3. Gerasimenko. O. M. "Modeling of the system of ensuring personnel security of the business entity" // State and Regions. "Economy and Entrepreneurship" series. - 2008. - No. 5. - P. 33-39.

4. Gomba L. A. Methodical approaches to the assessment of personnel of a modern enterprise [Electronic resource] / L. A. Gomba. – Access mode: http: // www.nbuv.gov.ua/portal/.

5. Datskiv R.M. Economic security in the global dimension / R.M. Datskiv // Actual problems of the economy. – 2004. – No. 7 (37). - pp. 143–153

6. Drabanich A. V. Labor economics and social labor relations: teaching. manual / M.G. Akulov, A. V. Drabanich, T. V. Yevas, and others. - K.: Center of Educational Literature, 2012. - 328 p.

7. Law of Ukraine "On the National Security of Ukraine" (Vedomosti Verkhovna Rada (Verkhovna Rada), 2018, No. 31, Article 241)

8. External labor migration: statistical bulletin. Kyiv: State Statistics Service of Ukraine, 2018. – 36 p.

9. Kybanov A.Ya. Personnel management: [study. for universities] / A.Ya. Kybanov, L.V. Ivanovskaya, E.A. Mitrofanova. - M.: RYOR, 2007. - 288 p.

10. Constitution of Ukraine (News of the Verkhovna Rada of Ukraine (VVR), 1996, No. 30, Article 141) - Access mode: https://zakon.rada.gov.ua/laws/show/254%D0%BA/96- %D0%B2%D1%80#Text

11. Kravchenko S. Main directions of ensuring economic security of Ukraine / S. Kravchenko, S. Telenyk // Economy, finance, law. - 2002. - No. 12. - P. 6 - 10.

12. Meheda N.G. and Marenich A.I. The model of managing the development of the company's personnel potential / Meheda N.G. and Marenich A.I. // Scientific works of MAUP. – 2014.– No. 1(40). - P. 187-192

13. Fundamentals of economic security: [textbook] / O. M. Bandurka, V. E. Dukhov, K. Ya. Petrova, M. Chernyakov. - Kh.: Ed.-vo Nats. internal university cases, 2003. – 236 p.

14. Plato. Collection of works: in 3 volumes / Platon. - M., 1971. - T. 3 (1).

15. Decree of the President of Ukraine No. 56/2022 "On the Decision of the National Security and Defense Council of Ukraine" dated December 30, 2021 "On the Strategy for Ensuring State Security"

16. Shkarlet S. M. Evolution of the category "security" in the scientific and economic environment / S. M. Shkarlet // Formation of market relations. – 2007. – No. 6. – P. 7−12

17. (34). Shlemko V. T., Binko I. F. Economic security of Ukraine: essence and directions of provision: monograph / V. T. Shlemko, I. F. Binko. - K.: NISD, 1997. - 144 p

18. O'Neill T.A. Creating high performance teamwork in organizations / T.A. O'Neill. // Human Resource Management Review. - 2018. - pp. 325–331.

1.5. THEORETICAL BASICS OF PRODUCTION COST MANAGEMENT IN THE SYSTEM FOR ENSURING ECONOMIC SECURITY OF THE ENTERPRISE

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Summari. The article reveals the economic essence of production costs and their role in enterprise management. As a result of the conducted research, the historical directions of interpretation and financial content of the group of production costs were revised. The classification of production costs was investigated in order to ensure the economic security of the enterprise. The processes of managing production costs in the system of ensuring the economic security of the enterprise are studied. Cost accounting systems considered the most common in foreign practice include: the concept of financial accounting of costs according to the ABC method; the concept of financial accounting of full costs; the concept of financial accounting of regulatory costs; the concept of financial accounting of expenses by places of occurrence of expenses; concept of production organization and JIT accounting; concept of financial accounting of variable costs.

Keywords: production costs, cost, economic security, enterprise, management, analysis.

In modern conditions, the process of successful functioning and economic development of domestic enterprises largely depends on the degree of ensuring their economic security.

The need for constant observance of economic security is determined for each business entity by the task of ensuring the stability of functioning and achieving the main goals of its activity. The level of economic security of the enterprise depends on how effectively its management and specialists will be able to avoid possible threats and eliminate the harmful consequences of certain negative components of the external and internal environment.

Production costs occupy one of the central places among the set of problems facing society. Economic science deals with it, it is also important in economic practice. This problem becomes especially relevant at the current stage of economic development in connection with increased competition, increased business risks, emergence of economic entities of various forms of ownership and differing in scale and level of development.

Such well-known figures as: T. Bezrodnoi, F. Butyntsia, V. Volska, S. Golov, O. Gudzynskyi, V. Deriya, V. Zhuka, T. Kamin-skaia, V. Linnyk, B. Melnychuk, E. Mnykh, I. Okhrimenko, A. Pylypenko, I. Sadovskaia, V. Savchuka, L. Suka, A. Stangret, O. Shpychaka and others.

The development of market relations, the transformation of the domestic

economy and its integration into the European space necessitate the improvement of management functions. The implementation of these processes directly depends on the correct understanding of the economic essence of the main elements of enterprise activity, an important component of which is production costs. Further research into the nature of costs is essential both for determining their role in the activity management system and for achieving effective enterprise management.

In economic theory, "expenditure" refers to the consumption of various resources in the process of carrying out the enterprise's activities during a certain period of time (reporting period). In the implementation of production costs, there is no reduction in economic benefits through the elimination of assets. That is, one asset is replaced by another, and the use of resources in the production of products (performance of works, provision of services) does not correlate with the receipt of income. Only at the time of disposal of products (works, services), on the condition that income is recognized or if there is a corresponding certainty of non-receipt of income both in the current and in future reporting periods, costs forming the cost of products (works, services) are recognized as relevant costs (cost of sold products (goods, works and services) and are entered in the "Report on financial results". Costs not recognized as relevant expenses at the end of the reporting period are entered in the "Balance" in the form of an asset, i.e. in the form of costs of work in progress and/or actual production the cost of remaining finished products in the warehouse.

Therefore, it can be argued that the economic categories of "costs" and "costs" have a scientific basis, while the practical application and interpretation of these categories are not used according to their theoretical basis. The concept of "expenses" is broader and has a peculiarity: depending on the conditions of implementation, they are either recognized as an asset and reflected in the balance sheet, or transformed into expenses of the period. At the same time, expenses are a decrease in some assets with an equal increase in others or an increase in assets and liabilities by the same amount.

In the English professional language, the concept of costs is denoted by such equivalents as "costs" and "expenses", which logically corresponds to the translation of the phrases "production prices" and "circulation expenditures" - "distribution costs". The corresponding procedure for coordinating the translation of the terms "costs" and "costs" in English and Ukrainian is summarized in Table 1.

Table 1

Coordination of the translation of concepts

in English	Ukrainian
expenses	costs
costs	expenses
production costs	production costs
distribution expenses	circulation costs

In modern foreign political economy, as well as in the classical one, starting with U. Petty and ending with D. Ricardo, production costs are considered as physical costs, that is, as costs of means of production (objects and means of labor)

and labor itself. According to K.T. Kryvenko, V.S. Savchuka, O.O. Belyaeva "capitalist costs of production are the costs of constant and variable capital associated with the category of value, or are the costs of capital (fixed and circulating) and labor associated with the category of the price of production, which is identified with value or excludes it" [7].

So, the main difference between these directions lies in the source of value and the resources that create new value. In the conditions of commodity production, the starting point of production costs is capital expenditure on means of production (c) and labor (v). These primary capital costs are, in fact, production costs. Cost as a general category of commodity production is determined by the total amount of labor embodied in the commodity. The difference between this amount and production costs is added value (t). So, the general form of actual production costs is as follows:

$$c + v + m \quad (1)$$

The cost of the product is divided into the transferred cost (c) and the newly created cost (v + m), which, in turn, consists of the cost of the necessary (v) and additional products (t). The newly created value is the net output, which is divided into the wage bill and the profit.

At the same time, V.B. Ivashkevich considers that "in a generalized form, production costs are a function of production and can be presented as: 1) the totality of the consumed amount of resources; 2) value expression of material and labor costs" [6].

In the first case, the costs of living and tangible labor for the production of products (performance of work, provision of services) are measured in physical units of costs as the amount of consumed raw materials, materials, fuel, electricity, etc.

Such a breakdown of costs is necessary to compare the in-kind balances of reproduction and the cost measurement of costs. In order to calculate the costs of raw materials, materials, and fuel in quantitative terms, it is necessary to know the need for them at each stage of production not only by the amount of net costs, but also taking into account waste and losses. Working time costs are a quantitative indicator of labor costs. The production process is divided into separate operations, which are grouped depending on the qualification of the work performed and the number of jobs. The positive aspects of accounting for the costs of material and labor resources in natural terms are concreteness, accuracy and technical determination of costs. However, due to the fact that they are incomparable, it is impossible to generalize and summarize them.

The cost of production as a monetary expression of the resources spent on it is affected not only by the quantitative factor, but also by the value factor. This allows you to compare different types of costs, bringing them to a single view, which are presented in a comparable form. As a result, it is possible to compare expenses that differ in content and purpose.

In the first half of the XIX th century. the theory of three factors of production arose and became widespread. According to this theory, labor, capital and land participate equally in the formation of value during the production of goods: labor creates wages, capital - profit (interest), land - rent.

At the end of the 19th century the neoclassical theory of value, the founder of which is A. Marshall, is being developed. According to this theory: "the price of a product is determined by demand and supply, while in the short term demand forms the price on the basis of marginal utility, and supply - on the basis of production costs" [13].

Representatives of Western economic science thoroughly worked out the problems of production costs in view of the need to increase its efficiency. At the same time, scientists proceeded from the limitation of resources and the impossibility of their alternative use.

In expanded commodity production, the producer's individual consumption fund takes the form of variable capital spent on hiring labor. This fund acts not only as a category of distribution (part of national income), but also as a category of production (part of advanced capital). The transformation of the consumption fund into variable capital is a prerequisite for the combination of such elements as the cost of means of production and labor power in one category - "production costs". However, the modern understanding of costs as a set of resources is unacceptable, since a person is at the center of a socially oriented economy. The socio-economic essence of production costs is that they reflect production relations in the form of capital costs, not labor spent on the production of products.

In the conditions of the development of a socially oriented market economy, the contradiction between labor and capital is gradually disappearing (due to the democratization of the latter). This is clearly visible on the example of joint-stock companies, where the relations between the worker and the entrepreneur are increasingly taking on the character of cooperation. Thus, there are changes in the socio-economic essence of production costs. So, in the modern period of economic development, it is necessary to talk about the development of socially oriented theory (Table 2).

From the point of view of economic theory, production (in our case – industrial) can rightfully be considered as the transformation of costs into results. With this approach, it turns out that cost management covers all levels of production management and should be based on the "cost - result" ratio.

A critical analysis of the positions of scientists regarding the essence of the concept of "costs" made it possible to formulate the following conclusion: almost all authors interpret costs as a monetary expression of the resources used for the production of products. It is obvious that these approaches determine the actual costs, that is, they have a retrospective nature, they do not have any influence on the "behavior of costs". Costs that affect management decisions are considered in the management accounting system, as relevant costs are formed only in it.

In order to make managerial decisions, information about the costs of "something" (products, equipment, services, process, etc.) is needed. The author calls this "something" a cost accounting object or a costing object, according to which the grouping and value measurement of costs takes place.

So, in management accounting, costs are considered from the standpoint of achieving a certain goal, that is, they are target costs.

Table 2

Systematization of value theories

The name of the theory.	The founders of the theory.	Characteristics of the theory
1. Theory of three production factors	Zh.B. Sey and F. Bastiat	the production of goods and the formation of value, labor, capital and land participate equally: labor creates wages, capital - profit (percentage), land - rent
2. Neoclassical theory of value	A. Marshall	The price of a product is determined by demand and supply, while in the short term demand forms the price on the basis of marginal utility, and supply - on the basis of production costs
3. The theory of scientific management	F.U. Taylor	Production costs are considered based on the need to increase labor productivity under the condition of limited resources and the impossibility of their alternative use
4. Socially oriented theory	O.O.Androsenko	A person stands at the center of any activity, while the relationship between the worker and the entrepreneur increasingly acquires the character of cooperation. Labor costs should not be considered as expenses, but as capital, and at the same time, a person is human capital for an enterprise

The interpretation of this term in the Regulations (Standards) of accounting (hereinafter P(S)BO) was considered. Thus, according to P(S)BO 16, "expenses of the reporting period are recognized as either a decrease in assets or an increase in liabilities, which leads to a decrease in the company's equity (with the exception of a decrease in capital as a result of its withdrawal or distribution by the owners), provided that these costs can be reliably estimated" [11].

Quite rightly, L. Napadovska notes in her work that "the term expenditure, according to the national Standards, means the use (outflow) of funds. In other words, it is a decrease in economic benefit during the reporting period due to a decrease in assets or an increase in the company's liabilities, which leads to a decrease in capital." [8]. And then the author explains that for operations that reflect the use of resources directly in the production process, the term "expenditure" provided for in P(S)BO 16 cannot be used, because at the time of the release of materials for production and in the production process itself, no a decrease in assets, nor an increase in liabilities, but only the transformation of some types of resources into others (into work-in-progress or into finished products). The cost of spent resources in financial accounting is recognized as expenses of the reporting period only when the finished products are sold, because in financial accounting, in order to determine the financial result of the reporting period based on the principle of accrual and matching of income and

expenses, it is necessary to compare the income of the reporting period with the expenses incurred to obtain these income According to the principles of financial accounting, a full production cycle, sometimes more than a calendar year, must pass before the cost of the resources used is recognized as an expense. However, this approach contradicts the principle of efficiency, characteristic of effective management.

The second group of authors interprets the concept of "costs" in the context of economic theory as a part of the value of the product, which must be advanced again for continued production; the highest utility of those benefits that society can receive for the optimal use of economic resources. That is, it is a management aspect related to the effective use of resources.

Scientists of the third group interpret expenses from the point of view of their target orientation to ensure a specific management function.

Let's dwell on the interpretation of expenses in the Tax Code of Ukraine (hereinafter referred to as the Tax Code of Ukraine). In particular, Article 14.1.27 defines: "Expenses - the sum of any expenses of the taxpayer in monetary, material or non-material forms, carried out for the conduct of the taxpayer's business activities, as a result of which there is a decrease in economic benefits in the form of disposal of assets or an increase in liabilities , as a result of which the equity decreases (except for changes in capital due to its withdrawal or distribution by the owner)" [14].

It should be noted that there has been a theoretical approximation of the rules for keeping records of costs in PKU and P(S)BO. However, a detailed study of the provisions of these regulatory documents and their use in practice shows a number of discrepancies between the requirements of the PKU and similar provisions of the P(S)BO and international financial reporting standards (IFRS).

The existence of different interpretations of the essence of costs, according to a number of domestic scientists, is explained by the following important factors:

1) a significant expansion of the tasks of the domestic accounting system in connection with the complication of the ongoing economic processes;

2) the existence of different groups of users - external and internal, whose information needs differ significantly; to meet these needs, it is advisable to create different types of accounting: financial (for external users), management (for internal users), tax - to establish relationships between business entities and the state.

In contrast to the financial system, the management accounting system requires information to make management decisions based on the economic feasibility of certain alternatives. That is, in modern conditions, we should be talking about a systematic study of production costs and production costs in order to meet the needs of the management system.

Since the term "costs" is directly related to the formation of the cost of products (works and services) in the process of economic activity, costs are understood as the optimal cost of resources that ensures the required quality and quantity of finished products (works and services).

The study of the accounting essence of costs is related to the determination of the cost of resources necessary for the implementation of any activity. However,

taking into account that the result of the activity is the manufacture of a finished product, the essence of the production cost should be considered as the result of spending.

As an economic category, the cost price arose when it became necessary to calculate the costs of producing a product, profit or loss from its sale. It is quite common among scientists to define the cost price as a part of the cost.

V. Yarmolenko gives the following definition of cost price: "...this is a category that expresses not only productive, but also unproductive costs caused by production conditions" [15].

P. Bezrukikh emphasizes the following characteristics of the cost of production "as an economic indicator:

1. The cost of production in the political economic aspect is the totality of costs of productive and unproductive labor. At the same time, the costs of productive labor should be included in the cost price not entirely, but partially, that is, with the exception of that part of the costs that will form the net income of the enterprise. The costs of unproductive labor are the net costs of commodity and monetary circulation (they are included in the cost of materials, workshop, general plant, non-production and other similar costs), costs of socio-economic activities, etc.

2. Cost is measured by the labor costs of enterprises and associations. These costs may be higher or lower than socially necessary costs or equal to them. The cost price should also include abnormal, excessive costs and losses (overspending of resources due to shortages, downtime, etc.).

3. It is expedient to include some elements of society's net income as costs in those cases when they represent costs associated with the production and sale of products." [1].

V. Palii presents an interpretation of the concept of "cost price", where there are several options:

1) part of the cost, which includes the cost of the means of production and most of the necessary product, which is equal to the costs of wages;

2) part of the cost, which represents the costs of the company's resources for the production and sale of products;

3) part of the cost, which embodies the costs of past and live (necessary) labor for the production and sale of products;

4) productive and non-productive costs related to the production and sale of products;

5) part of the value, which in the process of circulation must be returned to the enterprise in order to reimburse its costs;

6) part of the cost that reimburses the costs to ensure the continuity of the production process" [13].

n a significant number of publications, the cost price is defined as:

1) qualitative indicator of the enterprise's activity;

2) monetary expression of costs;

3) amount of consumed resources;

4) the totality of material costs and live labor, which shows how much

production costs;

5) the amount of expenses (costs) for manufactured and sold products.

In foreign literature, the concept of "cost" is equated with costs. Thus, R. Anthony defines "cost (expenditure) as a monetary expression of the amount of resources used for certain purposes" [4].

K. Drury, B. Needles, H. Anderson believe that "the cost of production is the production costs of the manufactured products, and non-production costs are attributed to the costs of the reporting period" [3, 10].

As noted by Chumachenko M.G. "the views expressed are not dual, what is confirmed by the prospect of combining the combination, revealing the essence of the cost of the product, the costs of its production revealed in monetary form and the need for a whole study of the cost" [2].

The creation of a complex product cost management system, which includes subsystems (cost forecasting and planning; production cost accounting and product cost calculation; cost analysis and preparation of management decision projects aimed at reducing production costs), is given considerable attention even in the modern period. Therefore, one should fully agree with scientists who believe that "...the creation of a cost management system corresponds to the introduction of management accounting at the enterprise."

On the basis of the conducted analysis and generalization of the studied materials, it can be concluded that although certain disagreements have arisen among economists regarding the content of the category "cost", this does not apply to its importance for enterprise management. Cost is expressed in monetary terms used resources of the enterprise in connection with the production of products. The cost price as the sum of expenses is an object of financial accounting, and the cost price as the cost of a unit of manufactured products is an object of management accounting.

The costs incurred by the enterprise in the process of production of its products are production costs. These costs existed in the ancient era almost from the time when man began to produce something to satisfy his needs. But then she did not think about their existence, about the fact that raw materials, her time and labor were wasted. It was not clear the need to distinguish the costs incurred in the production of the product and the costs incurred during its sale. The purpose of the activity was trade, production worked for the market, therefore the results of economic activity were determined as a whole at the enterprise by comparing all costs with all income.

The appearance of double entry, the founder of which was the mathematician Luca Pacioli, was the first stage in the development of production costs, which led to the emergence of attempts to classify costs. Thus, L. Pacoli singled out "three classification groups of circulation costs: in relation to the enterprise, the product and the economic process. Based on these groups, all expenses were divided into commercial and domestic, direct and indirect, ordinary and extraordinary. Although it was a classification of circulation costs, it contained production costs. [12].

The development of the industrial revolution at the beginning of the 19th century. became the second stage in the development of production costs and created a turning point in the history of production costs. At that time, almost all teachings

were devoted to the problem of classification of production costs, their distribution and accounting. Even then, it was thought that, in addition to the costs of raw materials and labor, it is necessary to include the costs of equipment and rent in the composition of production costs. There was such a term as the cost of manufactured products, which embodied all the production costs spent on the production of a competitive product.

With the appearance of additional production costs (depreciation, rent payments), an understanding emerged that not all costs should be fully attributed to the cost of production, which became the third stage of the development of production costs. Which led to the appearance of different teachings with different theories of the formation of the cost of finished products.

Production costs, passing through all stages, gradually changed, were supplemented, but it was the costs of purchasing raw materials, materials, labor costs, costs of mandatory payments, costs of depreciation, which are the main and most important at this time, remained unchanged in the composition production costs.

The issue of classification of production costs in economic theory has been given considerable attention for a long time, however, a single classification of such costs that would satisfy the information needs of users has not yet been developed. Therefore, in practice, various cost classifications are used. At the same time, there are certain differences in the justification of such classifications in different countries of the world. The problem is that it is important to choose the classification of production costs that would most fully correspond to the research objectives and directions of their implementation in the management system.

Classification, in a general sense, is one of the methods of learning and studying objects. Its essence is the distribution of the studied objects into classes based on the determined general properties of the objects and regular relationships.

It is appropriate to study the approaches of scientists to the classification of costs, since the scientifically based grouping of costs according to certain homogeneous characteristics is important for the purposes of accounting, analysis, control, planning and management decision-making regarding the production process. Consider the grouping of costs by economic elements and costing items (Table 3).

These tables show that the classification of expenses is carried out based on certain goals. In domestic practice, the classification of expenses by economic elements and costing articles is considered one of the main ones. The peculiarity of the classification of costs by economic elements is that it is based on the economic nature of costs, does not depend on specific conditions, and therefore the composition of the elements can be established.

At the same time, the classification of costs by elements cannot satisfy the information needs of the enterprise about costs according to their intended purpose, by individual types of products, when controlling the rational use of material, labor and financial resources.

Table 3

Grouping of costs according to classification features

Classification sign	Cost grouping
By the method of transferring the cost to products	Direct costs (costs that can be attributed to a specific cost object). Indirect costs (costs that cannot be attributed directly to a specific cost object).
By types of products (works, services)	Product costs (costs related to the production or purchase of goods for sale). Costs for groups of products. Costs per order.
According to the costing articles	Raw materials and materials. Purchased semi-finished products and component products. Fuel and energy for technological purposes. Salary of production workers. Deductions for social events. Total expenditures.
In economic terms	Material costs. Salary expenses. Deductions for social events. Amortization. Other expenses.
By the place of occurrence of expenses	Production costs. Shop expenses. District expenses.
By calendar periods	Current expenses, the periodicity of which is less than one month. One-time costs, which are carried out once and are aimed at ensuring the production process for a long time.
By management functions	Production costs. Non-production costs.
Depending on the expediency of their implementation	Productive costs (costs that are foreseen by the technology and organization of production). Non-productive costs (optional costs that arise as a result of specific deficiencies in the organization of production, technology violations).

The presence of other approaches to the classification of expenses is due to the fact that the enterprise has many technical, economic, marketing, and financial features that affect the formation of the cost price. When forming accounting information for making management decisions, there is a slightly different classification of costs, because every manager or owner of an enterprise must know how much it will cost to produce a particular product, what is the profit from its sale in the total amount of profit, is it possible to increase or decrease the price of this product and what is the effectiveness of making a management decision, for this they use an economically justified classification of costs. For management purposes, it is divided according to the principle: different costs for different purposes. For this purpose, the following three areas of classification of costs are distinguished (Fig. 1).

Controlled and uncontrolled costs are distinguished for monitoring the activities of individual units and evaluating the work of their managers:

- controllable costs are costs that the manager can directly control or exert a significant influence on;

Uncontrollable costs are costs that the manager cannot control or influence.

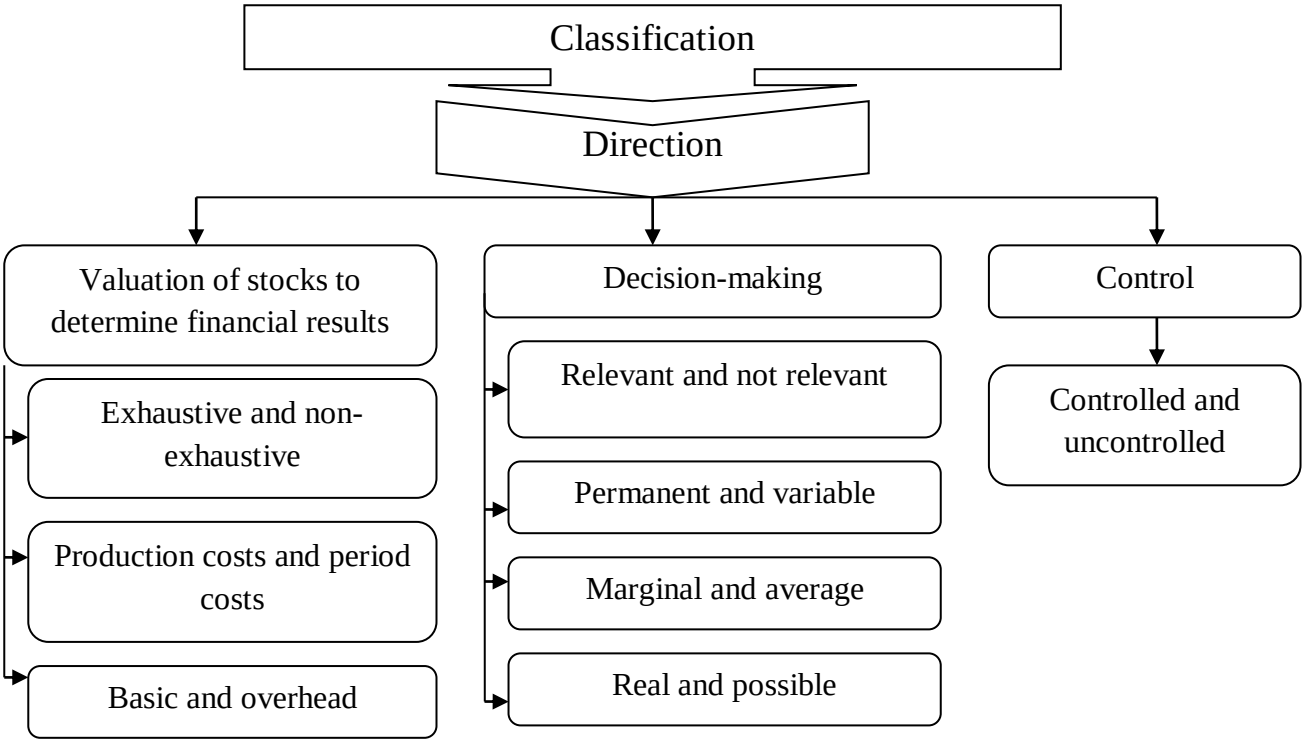

Fig. 1. Classification of costs for the needs of accounting and management decision-making

Depending on the period of receiving income from incurred expenses:

- exhausted (consumed) costs are an increase in liabilities or a decrease in assets in the course of current activities to obtain income for the reporting period;

- unexpended (unconsumed) costs are an increase in liabilities or a decrease in assets in the course of current activity to obtain income or other benefits in future periods.

Expenses related to the operational activities of enterprises include:

– production costs (direct materials, direct wages, other direct costs, general production costs);

– expenses of the period (administrative expenses, sales expenses, other operating expenses).

- basic costs are the totality of direct costs for the production of products;

- overhead costs that are associated with the production process but cannot be attributed to certain objects in an economically feasible way.

Depending on the management decision:

– relevant costs are costs that can be changed as a result of a decision;

- irrelevant - these are costs that do not depend on decision-making;

- constant - these are costs, the amount of which does not change significantly due to an increase (decrease) in the volume of production;

– variables are costs that change when the volume of production changes;

– marginal costs are the costs of producing an additional unit of production;

- average - these are costs, which are defined as the sum of costs for the

production of the main and additional products divided by the number of manufactured products;

– valid – these are expenses that require the payment of money or the expenditure of other assets and as they occur, they are reflected in the accounting registers;

- possible costs are those benefits that are lost if the choice of one course of action requires abandoning an alternative decision.

The practical division of costs into controlled and uncontrolled depends on the manager's area of authority. The same expenses can be controlled by the shop manager of one company and uncontrolled by the shop manager of another company.

It is worth emphasizing that the multifaceted nature of the characteristics by which expenses are grouped in accounting for management needs confirms the need for effective organization of their accounting support for the formation of the necessary information in order to meet the needs of users.

As mentioned above, the classification of costs is necessary for determining the cost of products and, accordingly, for pricing. The classification of costs is of great importance in their management and, above all, in calculating the cost of production for various management needs.

Nashkerska V.G. believes that "formation of costs is initially carried out in the management accounting system. Costs are collected by individual objects: types of products, works, services, technological processes and their parts, etc. Expenses in the accounting system for management needs are collected by costing items as assets decrease and liabilities increase." [9].

Therefore, the cost management system will be effective only if the peculiarities of each enterprise are taken into account, all processes carried out by the enterprise are covered and it is built in accordance with management principles.

At the current stage of the development of competitive relations, when enterprises use modern technologies, more economical productive equipment, improve the organization of enterprise management, obtaining profit by increasing prices becomes problematic. Non-price factors of market conquest come to the fore, in particular by improving the quality of manufactured products, developing warranty and post-warranty service, and providing additional services. Cost management with the aim of forming their optimal structure, as well as reducing their value (provided that the quality of the produced products is preserved) allows to reduce the prices of products, which, other things being equal, gives the company the opportunity to maintain or even strengthen its position on the market.

The organization of effective cost management in order to optimize them, increase the competitiveness of products and, ultimately, obtain profit and ensure a stable financial condition is a priority direction in the activities of enterprises. Cost management is an integral part of the company's short-term policy, aimed at ensuring current activities with the necessary resources and the uninterrupted implementation of production and economic activities (Fig. 2).

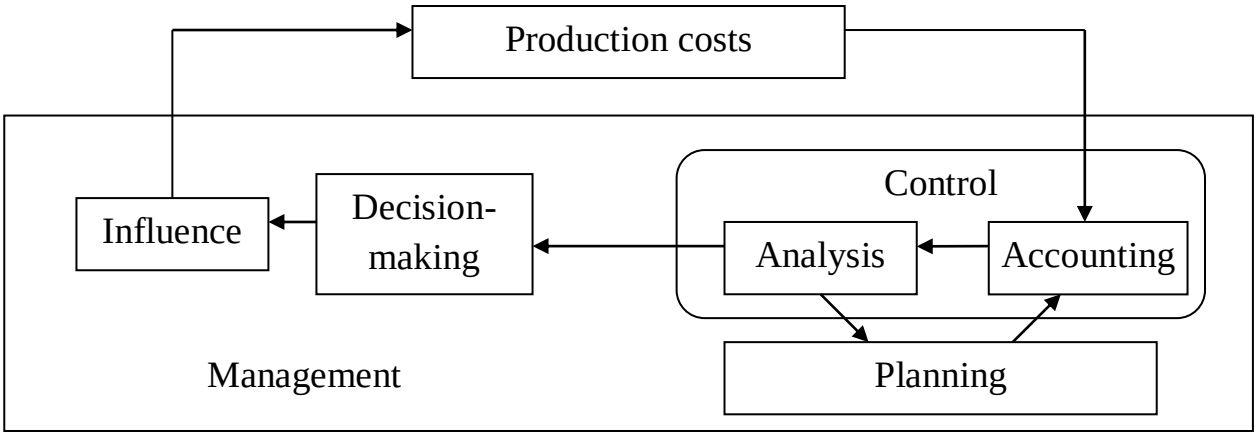

Fig. 2. Scheme of the production cost management process

For a long time, expenses were detected and taken into account by the so-called boiler method. During the entire reporting period, all funds spent on production were taken into account in the single accounting register, regardless of the place of their consumption and their target orientation. Kotlova's method did not reveal the possibility of reducing costs, its main drawback was the impersonality of information. Such accounting did not allow the enterprise to obtain the necessary data for controlling production costs by cost areas, places of their occurrence, types of products produced.

In 1887, the first edition of the theoretical work of the English economist J.M. was published. Felsa and E. Harko "Manufacturing accounts: principles and practice of their management". The authors made an attempt to create a more mobile cost accounting system, which increases the informativeness of cost data and helps to strengthen control over their use. The basis of this system was the division of costs into fixed (today these are constant costs) and variable (conditionally variable) costs. Scientists have established that the change in fixed costs does not directly depend on the volume of production, and variable costs increase or decrease in direct proportion to the increase or decrease in the volume of production. This led to the opinion that it is possible to increase the volume of production with the consumption of fewer resources than previously thought, since conditionally constant costs increase unevenly [5].

American economist A.G. Church in 1901 in his work "Adequate distribution of production costs" divided fixed (or overhead) costs related to production into labor overhead costs and general production costs. Since then, there has been a debate in scientific circles about the proportion in which fixed costs should be included in the cost price. And only in 1936, when J. Harris put forward the concept of "direct costing", the need to allocate overheads disappeared. By the mid-1960s, this method gained a strong position in accounting.

However, for the enterprise, it is not so much the task of accurately and completely determining the cost price that is becoming more and more important, but the prevention of unjustified costs that could be avoided. The solution to this problem

was the appearance at the beginning of the 20th century. in the USA, and then in Europe, the "Standard Cost" system, which compares actual costs with standardized ones. Cost accounting began to develop in such a way that the administration not only determined costs, but also more fully controlled the use of resources, preventing the occurrence of unjustified costs. This led to the formation of J.A. Higgis of the concept of centers of responsibility, according to which costs were not only considered within the framework of the entire enterprise, but also differentiated by centers of responsibility with the appointment of responsible persons. Thus, cost accounting focused not on the final product of production, but directly on the production process.

Currently, the most common cost accounting systems in foreign practice are:

1) accounting system of total costs;

2) variable cost accounting system;

3) accounting system of regulatory costs;

4) cost accounting system according to the ABC method;

5) a cost accounting system by places of cost occurrence; 6) JIT production organization and accounting system.

Absorption-costing is a system of cost accounting and product costing, according to which all direct production costs and all indirect costs are included in the cost of production. The specified system is based on the classification of expenses according to the cost method (direct and indirect). Direct costs are applied to a specific type of product in an economically justified way. The total amount of indirect costs is distributed by types of products in proportion to the selected distribution coefficients. The more costs in the enterprise's cost structure are direct, the more accurate the value of the cost of specific types of products turns out to be.

In Ukrainian practice, the use of this cost accounting system is quite widespread. This system allows you to form the full cost of certain types of products, as well as the cost of work-in-progress and the remaining finished products in the warehouse, to calculate the profitability of certain types of products.

The main advantages of this system:

1) the ability to determine the cost and profitability of certain types of products;

2) application for the purposes of financial accounting and external reporting;

3) the ability to calculate the full cost of finished products, stocks of finished products in the warehouse and work in progress;

4) wide scope of application;

5) the possibility of application for calculating the price per unit of production.

The main shortcomings of the system include the following:

1) the subjectivity of choosing the distribution coefficient; with a complex organizational structure and a large assortment of products, there is a possibility of choosing an incorrect distribution base, which distorts the real value of the cost price and leads to the establishment of unreasonable prices;

2) the ambiguity of assigning expenses to one group;

3) the impossibility of applying for comparative analysis the cost of

homogeneous goods produced by different enterprises; it is possible to compare the full costs of the same goods from different manufacturers, but it is impossible to conduct a qualitative analysis of the cost structure, namely to assess the impact of the organizational structure of the enterprise, the share of fixed costs on the cost value.

The most effective is the application of the system at small and medium-sized enterprises, as well as at enterprises that produce one or more types of products. At larger enterprises, as well as at enterprises with a significant range of manufactured products, it is more effective to use the full cost accounting system in combination with other accounting systems.

The system of accounting for variable costs, or "direct-costing" (Direct-costing), is a system of accounting for costs and costing, according to which only variable production costs are included in the cost of production and in the assessment of ending stocks, and fixed costs in the total amount are attributed to financial result of activity and are not distributed by type of products. The main concept of this cost accounting system is the concept of marginal income, which is the income received by the enterprise after reimbursement of all variable costs.

The main advantages of the specified system:

1) establishing the relationship between the volume of production, the amount of costs and profit;

2) determination of the break-even point, i.e. the minimum volume of production at which the enterprise will not incur a loss;

3) the possibility of applying a more flexible pricing system and establishing a lower price per unit of production, which is especially effective when production capacities are not fully loaded and reduces the inventory of products in the warehouse;

4) simplification of the calculation of the cost price (compared to the accounting system of full costs), since there is no procedure for the distribution of fixed costs by types of products;

5) the possibility of drawing up an optimal production program and product sales plan; 6) the possibility of determining the profit brought by the sale of each additional unit of production, which allows you to plan prices and discounts for a certain volume of sales.

However, the variable cost accounting system is not without some disadvantages, including:

- accounting of costs based only on production cost, which does not meet the requirements of Ukrainian legislation in terms of cost formation;

- lack of information on the full cost of a product unit.

When applying the method of variable costs, it is necessary to remember that it is intended primarily for the calculation of the minimum price of a unit of production. If this method is used to carry out a policy of reduced prices (that is, not to overload production capacities, but to achieve a privileged position in the market), then in the case of dumping (a policy of reduced prices) there is a probability that part of the fixed costs will NOT be covered by marginal income and the enterprise will fall into the loss zone.

The standard cost accounting system, or "standard-cost" (Standard-cost), is a cost accounting and calculation system using standard (standard) costs. It is based on the principle of accounting and control of expenses within the limits of established norms and standards and according to deviations from them.

Prior to the start of the production process, preliminary normalization of costs per unit of production is carried out. To calculate overhead costs, estimates are drawn up that are of a permanent nature. In the case of significant fluctuations in the volume of production, which can lead to a change in the amount of overhead costs, sliding estimates are made with a breakdown of all items of overhead costs into fixed and variable elements. To calculate the standard cost, standard costs for raw materials and materials, labor costs, and standard overhead costs are summed up. During the implementation of production activities, all facts of deviations from normative indicators are recorded. On the basis of a detailed analysis of the causes of deviations, management decisions are developed to eliminate these causes.

Among the main disadvantages of the "standard-cost" system, the following can be distinguished:

1. The system depends on external conditions. Changes in legislation, changes in supplier prices, and the influence of the inflation factor complicate the calculation of regulatory costs, which must be constant over a certain period.

2. The system cannot be applied at all stages of the product life cycle. As a rule, during the period of development and introduction of the product to the market, costs are no longer predictable, so the calculation of regulatory costs can be made sufficiently approximately.

3. The system does not cover qualitative indicators of the enterprise's activity. Since the system is based on performance indicators and the amount of costs when solving the main task, minimizing costs and deviations of actual indicators from normative ones, problems of improving product quality, expanding the range of additional services remain outside the system.

4. Deviations from normative costs, showing the excess of actual costs over normative ones (or vice versa), are usually too aggregated, but are not always tied to specific types of products, technological areas, batches of products.

The scope of application of this cost accounting system is quite broad, the exception being enterprises with a non-constant nomenclature of manufactured products or unstable production technology, as well as activities at the stage of development and introduction of a new type of product.

The shortcomings of existing cost accounting systems led to the search for new options for cost accounting, one of which is the ABC (Activity Based Costing) system, which has become widespread in Western companies of various industries. According to the ABC method, the enterprise is considered as a set of interconnected operations (functions). During the operation, various resources (materials, labor, equipment) are consumed.

The type of activity means all the functions performed in order for the product to be provided to the buyer. Accordingly, the product assumes the costs of all types of activities that will be required for its creation and delivery to the buyer.

The principle difference between the specified cost accounting system and the traditional one is the order of distribution of indirect (overhead) costs. All production and economic activity is divided into functions. The more complex the activity, the more functions are allocated. Initially, indirect costs are transferred to resources in proportion to the selected drivers (allocation parameters), so all the resources necessary to perform each function are allocated. For each type of activity, a cost carrier (factors that cause a change in costs) is selected, which is expressed in the appropriate units of measurement (for example, for the office equipment maintenance function of the enterprise, the cost carrier can be the number of equipment units, for the personnel management function - the number of employees). Through the system of cost carriers, indirect costs will be allocated to specific goods (works, services).

The main advantages of the system:

- accurate definition of production costs, possibility to eliminate non-productive costs;
- an effective mechanism for managing costs and profits, as it allows you to determine the "contribution" of each type of product, each client, each geographical area to the overall financial result;
- the ability to control not only the amount of expenses, but also the reasons for their appearance;
- the possibility of application as a tool for the development of an effective price and marketing policy.

This system makes it possible to significantly reduce the costs of enterprises, to improve the relationships between individual divisions, therefore it has great prospects for implementation at Ukrainian enterprises. The most effective application of the ABC method is in multi-industry enterprises, in complex economic complexes, where a large share of indirect costs in the cost structure.

The main disadvantages associated with the implementation and use of the ABC method are its laboriousness, complexity, as well as significant financial and material costs for its implementation.

The system of cost accounting by cost centers (responsibility centers) depends on the existing organizational structure of the enterprise. The place of occurrence of costs is an organizational unit of the enterprise (team, department, section, workshop) that performs specific functions, for the implementation of which certain resources are needed. The distribution of costs is carried out in proportion to the selected distribution bases.

Among the advantages of the cost accounting system by the places of cost occurrence, it is possible to note the possibility of:

- estimates of costs of each structural subdivision, their contribution to the formation of the overall financial result of activity;
- obtaining operational data on the amount of actual costs for each structural subdivision, order;
- identification of cost reduction reserves by structural subdivisions and orders;
- prompt adjustment of costs in case of a change in technology, influence of external factors. The scope of this cost accounting system is not limited by any

conditions, but the greatest effect of its implementation can be obtained in large industrial complexes with a large number of redistributions.

The main drawback associated with the implementation of the cost accounting system by responsibility centers is its resource intensity. In addition, the implementation of the system requires the establishment of integrated information systems, which causes additional investment costs and increased qualification requirements for personnel to work in this information system.

In principle, JIT is not an independent cost accounting system, it is a system of production organization and the enterprise as a whole, which implies specific features of accounting and cost formation. The purpose of this system is to reduce unnecessary costs in the cost structure, reduce costs for maintenance, storage and transportation, effective use of the company's production capacity. Most of the costs become direct. For example, raw materials and materials are purchased for a specific order (product type), and a large part of the costs of supply and loading and unloading of materials and raw materials is related to this order; specific equipment is involved in the production of a specific type of product, so the costs of repair, current maintenance and depreciation deductions become direct costs and are attributed to a specific type of product.

The main advantages of the system are:

- a significant reduction in storage and transportation costs, which significantly reduces the cost of production;
- reduction of time for delivery of materials to the enterprise;
- reduction of the share of indirect costs in the cost structure, due to which the cost calculation becomes more accurate;
- reduction of the production cycle of order fulfillment;
- efficiency of decision-making regarding defect elimination, product quality improvement, etc.

The main drawback is the limited scope of application. for the formation of an application for materials and raw materials and their delivery "just in time", the geographical proximity of supplier enterprises is better. The further away the counterparty companies are, the more time is needed for the delivery of materials, raw materials, spare parts, and the higher the risks of delivery (non-compliance with deadlines, damage during transportation, etc.).

Thus, the scope of application of JIT is small or medium-sized enterprises and enterprises that produce fairly homogeneous products. The greatest effect of the application is achieved if the enterprises are located in close proximity to their suppliers.

Optimization of production costs at the enterprise is one of the most priority tasks of their management. Functioning by costs involves the implementation of a set of defined actions in the process of determining the amount of costs per unit of service or product.

Duality is represented by the control function in the production cost management system at the enterprise. The functions of the production cost management process and their corresponding control objectives are shown in Table 4.

The purpose of internal control is the continuous and systematic monitoring of the production, organizational, sales and financial activities of all structural units of the enterprise in order to identify reserves for increasing the level of productivity, establish deviations and deficiencies, resolve emerging issues, and adopt appropriate administrative conclusions.

Table 4

Interrelationship of control with other functions of management of production costs of the enterprise

Management functions	Control objectives
Forecasting and planning	- control over the evaluation of alternative options for management decisions; – control over compliance of management decisions with the general purpose and strategy of the enterprise; - control over the achievement of planned indicators.
Rationing	– cost control in compliance with established regulations and standards; - cost control by responsibility centers.
Organization	- control over the correctness of the organization of the production process, decision-making to obtain the necessary results; - control over the rationality of the organization of spending.
Accounting	- control over the composition and volume of resource use and their compliance with established norms, regulations and standards; - control over the legality and correctness of business operations.
Analysis	- control over the evaluation of the results of the implementation of management decisions; – control of the level of costs by the places of their origin; – quality control of the performed analysis; - control over the timeliness of analysis of deviations.
Regulation	- control over the regulation of management decisions; - control of measures aimed at eliminating shortcomings and deviations in terms of costs.

The technology of internal control is based on the application of a general approach during the study of the object of control, as well as a methodological basis aimed at solving specific control issues. A characteristic feature of early cost control is considered to be the fact that the love is carried out in the input of the concept of enterprise management.

The priority tasks of the internal control of production costs of the enterprise are:

- control of the volume of products produced by the company;

- control of the cost of production and other costs and control of results (income and profits).

The content of analytical support in the management system of the business entity is implemented through the processing of information from the internal and external environment. Analytical support as a process is characteristic at all stages of management decision-making.

The study of the texture of production losses is directly related to the consideration of their dynamics. During such a review, the inconsistency of the fate of individual elements of production costs from similar information of previous stages is established, the impact of these deviations on the change in the final indicator is calculated. During the review, the elements of production costs that make up the maximum part of the final costs of ordinary activities, as well as the components according to which the maximum changes occurred, are distinguished.

Management accounting is not the goal itself, it is designed to achieve maximum efficiency in business. Management accounting for the enterprise requires justification of management decisions by managers of all levels, promptly providing complete and reliable information.

The management procedure for an enterprise is often analyzed as the sequential performance of four management functions: planning, organization, motivation, and control. The structure of this process is present in any enterprise, even if it does not care about compliance with management functions. Ensuring the most effective operation of this system is constantly increasing, this is due to the complexity and growth of the dynamics of the external and internal environment of the enterprise. That is why it is necessary to improve systems of supplying complete and reliable information in the process of making current management decisions at the enterprise.

As a result of the conducted research, it can be concluded that the cost of production as a monetary representation of the resources spent on it is influenced not only by the numerical factor, but also by the price factor. This makes it possible to compare different types of costs, bringing them to a common type, which are given according to a comparable form. As a result, it is guaranteed to be possible to compare costs of different content and purpose. Management of production costs is a necessary part of the company's short-term policy, focused on providing current work with the necessary resources and uninterrupted implementation of production and economic work.

Management of production costs is a process of purposeful formation of the optimal level of costs of the enterprise. The optimization criterion is a minimum of costs, which enables the enterprise to obtain certain competitive advantages in the sales market, conduct a flexible pricing policy, form an optimal production program, and, under various conditions, achieve high levels of profit. However, reducing the level of production costs is an important task, but not the main goal of management of production costs, because such optimization can lead to a decrease in the quality of products and customer service, refusal to sell types of products that are in demand, but require significant costs, at least for the first stage of their implementation.

The main goal of managing production costs of the enterprise is to obtain or

increase competitive advantages in order to ensure the economic security of the enterprise. Therefore, it is the market orientation that should stimulate the introduction of the latest cost management technologies, which will allow to successfully provide management with innovative tools for effective functioning.

In order to effectively manage production costs, a necessary condition is to carry out a comprehensive technical and economic analysis of the enterprise's work, which includes not only the development of the technical and organizational level of production, but also the use of fixed assets, raw materials, materials and production capacities, labor and, in general, economic connections, because the main task of conducting an analysis of production costs is to find sources and ways of reducing the cost price to increase the company's profit.

To ensure the economic security of the enterprise, we will present the main reserves for reducing production costs:

1. Increasing labor productivity:
- improvement of personnel structure;
- material support;
- improvement of labor discipline.
2. Improving the use of fixed assets:
- improving the use of production facilities;
- renewal of fixed assets and modernization of fixed assets;
- liquidation of losses due to defects.
3. Saving material and energy costs:
- improvement of technologies and methods;
- use of new energy carriers;
- use of new materials.
4. Reduction of production maintenance costs:
- improvement of the production structure;
- organization of a new management structure;
- improvement of technological discipline.

It is necessary to take into account the fact that it is not always possible to obtain the desired economic effect from the use of measures aimed at improving equipment and technology. Here it is necessary to conduct a comprehensive analysis, evaluate the enterprise as a system and find those levers that will help to improve the production process and improve the organization of work.

As a result of conducting an effective policy to reduce production costs, the company will receive an economic benefit, which is expressed in the following:

1. Increase in profit and the size of deductions to economic stimulation funds.
2. Growth of profit remaining at the disposal of the enterprise.
3. Improvement of the financial condition of the enterprise.

The development of an effective strategic model of cost optimization requires not only the study of production costs, but also the analysis of the mechanism of cost management and control, because cost management is a tool for improving business processes. At the same time, it is necessary to take into account the specifics of the activity of construction enterprises, namely, the industry-specific features of the

impact on cost accounting, the relationships between the subjects of investment activity, the grouping of costs for the construction of objects.

Thus, on the basis of a well-organized cost management system, a strategic model is developed and adapted, which is the key to the processes of increasing the efficiency of production processes and optimizing costs, because costs must be economically justified and controlled.

The model of strategic management of production costs is a development strategy, the development of which should correspond to the main goal and tasks of the company, and the sequence of processes and stages of its implementation should ensure an increase in the efficiency of production and non-production activities.

The main goal of the strategic model of cost accounting is the creation of such a system that will perform the functions of planning, analysis and control of the activities of both individual branches and the entire organization as a whole. Taking into account the peculiarities and nature of the enterprise's activity, we have developed a model of strategic management of production costs.

All of the above stages are interrelated, i.e. changing the results of one stage requires changing and adjusting the next one. It should be noted that the SWOT analysis is important both before the development of the production cost management strategy and after its implementation, because it will give an opportunity to identify possible ways of optimizing the value chain, identify directions for the development of production activities, and adjust the current cost management system.

Also, an important step during the development of an individual strategic model of management of production costs is the construction of the company's value chain. Subjects of the classical chain are: environment of influence, suppliers of raw materials and materials, suppliers of raw materials and materials, potential buyers, population.

The value chain is a system of successive processes of creating company values. It helps to determine the dependence of production on such external factors as suppliers and buyers, costs of marketing and consumption of products, as well as costs of distribution channels, so it must be individual, adapted to a specific type of activity and adapted to the external environment.

Based on the results of the SWOT analysis of the entities of the value chain, the company can get an overall picture of the priority directions for the development of its activities.

It would be expedient for the enterprise to propose a cost optimization strategy that includes a system of the following measures:

1. Increasing the technical level of production.
2. Increasing the level of production organization.
3. Reduction of waste and costs.
4. Change in product range, volume of products.
5. Development of new production, opening of new shops, warehouses and branches.
6. Application of non-classical methods of reducing production costs.
7. Introduction of new, more economical materials and substitutes.

8. Integrated use of raw materials and materials.

9. Application of the method of minimizing the level of expenses in net income.

10. Development of an economic mechanism for managing personnel costs.

11. Reduction of equipment repair costs through the use of progressive repair methods.

12. Reduction of plant-wide costs as a result of reduction of administrative and management personnel.

Therefore, in order to organize an effective system of management of the production costs of the enterprise, a necessary condition is to carry out a comprehensive analysis of the industry specifics of the enterprise, taking into account the interrelationship of the subjects of economic activity, the grouping of production costs and the peculiarities of the cost of agricultural products. Such a system should include forecasting, cost planning, their organization, coordination, regulation and control, because the cost price, as a general economic category, reflects all aspects of the enterprise's activity, namely the level of technological equipment of production, labor organization, the degree of utilization of production facilities, the use labor and material resources.

As a result of the conducted research, historical trends regarding the interpretation and economic content of the category of production costs were considered. The existence of different points of view regarding the essence of costs is due to different approaches in views on the nature of economic life in general and the production process in particular. Several fundamental approaches can be identified. A typical interpretation of production costs according to the first approach is as follows: costs are the costs of living and embodied labor for the production of products. The second approach assumes that the place and role of costs is considered and disclosed in an applied aspect as a constituent element of the price, which is formed in the market system based on changes in supply and demand.

The economic activity of the enterprise involves ensuring the synchronization of the functional activity of the components of the accounting and analytical support. The production management system can function effectively only with proper accounting and analytical support, which includes a set of measures aimed at accumulating primary information, grouped in a certain sequence and systematized using the methods and techniques of economic analysis, which create appropriate conditions for making informed management decisions in the field production activity of the enterprise. The main activity of the enterprise is the production of goods, the volume and quality of which must ensure a competitive position on the market and obtain the expected profit.

Integration of accounting and analytical support using modern information systems and technologies is one of the most effective methods of obtaining operational information for its processing, analysis, control and decision-making. Implementation of effective control over production costs is cost planning in structural divisions and the enterprise as a whole, which involves budgeting. Cost budgeting is one of the main and important functions of the production cost

management system, which has a direct impact on strengthening the control function of accounting and analytical support regarding the availability, preservation and use of the company's assets, according to the timeliness of settlement transactions. Budgeting limits the cost of resources and the level of profitability for certain types of products, types of production and centers of responsibility.

Budgets for an enterprise are needed for operational management and efficient distribution of economic resources. Budgets provide quantitative guidelines for business. However, the role of budgets changes depending on the time period: at the beginning of the reporting period, the budget is a plan, and at the end, it is a tool for measuring and comparing results (plan-fact analysis) for adjusting further activities.

Thus, budgeting for the enterprise performs the following functions:

- financial planning;
- financial accounting and analytics;
- financial control and coordination;
- staff motivation;
- communication (coordinating the plans of units and fixing the responsibility of the executors).

The process of implementing a budgeting system for an enterprise can be imagined as follows (Table 5)

Table 5

The process of budgeting system implementation

Stage number	Essence of the stage
1	Development of the financial structure of the enterprise
2	Creating a structure of budgets
3	Formation of accounting and financial policy of the enterprise
4	Development of interaction regulations
5	Implementation of the budgeting system

The purpose of the first stage is to develop a structure model that allows establishing responsibility for the implementation of budgets and controlling the sources of income and expenses.

At the second stage, the general scheme of forming the consolidated budget of the enterprise is determined

As a result of the third stage, the rules for maintaining and consolidating accounting, production and operational accounting are formed in accordance with the restrictions adopted during the preparation and control (monitoring) of the implementation of budgets.

The fourth stage is aimed at determining the procedure for planning, monitoring, as well as conducting analysis and clarifying the reasons for non-fulfillment of budgets and current budget adjustments.

The fifth stage includes work on drawing up operating and financial budgets for the planned period, conducting a scenario analysis, and adjusting the budgeting system based on the results of the analysis.

Let's consider the organizational aspects of the budgeting system using the example of agricultural enterprise A. The cost budgeting system for agricultural enterprises must be formed within the production centers of responsibility, since the main problems in determining costs arise precisely in the production sphere. In the organizations of the studied industry, such centers of responsibility are: supply, production, implementation, management.

Budget data together give management the opportunity to assess the operational state of the enterprise, present planned values, forecast short-term and long-term trends and, if necessary, plan activities that can contribute to the achievement of goals. If the planning and forecasting analysis showed that the goals are achievable and the company's efficiency corresponds to the planned level, the budgets of the local level are approved and begin to be implemented. If the data and plans do not fully match, the budgets are adjusted, and a search is made for the optimal business scheme for the company.

It is worth noting that agricultural companies that try to implement a budgeting system face a number of problems.

1. Low involvement of financial reporting centers (FCCs) in budget planning and assessment. Very often, the budget is drawn up and planned exclusively by the planning and economic department without the involvement of the CFP, despite the fact that the planned budgets will have to be implemented by the CFP, and not the planning and economic department (PEC).

2. Absence of the role of the owner of the budgeting process (budget controller). The company should have a designated person whose main task will be budget planning and control - this employee will also have to be responsible for prompt resolution of complex or controversial issues and settlement of disagreements between users.

3. Lack of clear budgeting regulations. To establish budgeting, it is necessary to conduct a time-consuming preliminary analysis, determining the centers of financial responsibility and responsible, types of budgets, as well as to develop an internal accounting policy, a system of planning, analysis and regulation.

4. Excessive detailing of budgets. Sometimes a PEV employee includes a creative vein when drawing up a budget, and at the end we get a budget with excessive detail - this can be expressed both in the presence of unnecessary analytics and in a too short planning period.

5. Ignoring the sliding scale method when planning the budget. In conditions of high uncertainty, this method can and even should be used. It consists in planning a budget for a certain period, while periodically (usually monthly), reviewing and adjusting the planned budget based on actual data for the past period and external factors. This method is widely used in project budget planning

6. Ignoring real needs. Very often, the basis of planning budgets is the data of past periods, and the real need of the market is completely ignored, as a result of

which we get huge discrepancies between the plan and the fact.

7. Lack of regular monitoring of budget implementation. Very often, the employees of the enterprise consider their mission accomplished after the budget is planned and approved, forgetting that without constant monitoring of implementation, the effect of the budgeting system is reduced to zero.

8. Lack of connection between the budgeting system and the management accounting system. Sometimes companies face the problem that for the analysis of planned budgets, the management accounting system cannot provide operational information regarding the analytical sections provided for in the budgets, i.e. management accounting, due to its implementation, is simply unable to provide the required data.

All these factors are constant companions of traditional planning and control systems and lead to the fact that the company cannot fail to get a real picture of planning as a result, not to conduct a break-even analysis, not to determine the sensitivity of the formed budgets to possible changes, not to determine those responsible for non-fulfillment of plans, etc. d.

However, all problems are currently being intensively solved, and the undeniable advantages of budgeting lead to its rapid widespread implementation. Implementation of the budgeting process at the enterprise will allow:

- allocate and use resources;
- to optimize the company's expenses and introduce operational control over fixed and variable expenses;
- improve the company's solvency based on effective cash flow management;
- to increase the quality and efficiency of management decision-making;
- to agree and coordinate the actions of individual divisions and departments of enterprises, as well as areas of activity to achieve the set global goals.

Summarizing the above, we can conclude that effective budgeting allows the company to build a flexible financial policy due to timely control and proactive decision-making to prevent negative consequences of changes in both the external and internal environment. As a result, control over the use of resources is strengthened and unforeseen losses are reduced.

References:

1. Bezrukykh, P.S. (1996) *Sklad ta oblik vytrat vyrobnytstva ta obihu* [Composition and accounting of production and circulation costs], FBK Kontakt, Kyiv, Ukraine.

2. Chumachenko, N.H. (1965) *Metody obliku ta kal'kuliuvannia sobivartosti promyslovoi produktsii* [Methods of accounting and calculating the cost of industrial products], Finansy, Kyiv, Ukraine.

3. Druri, K. (1994) *Vvedennia v upravlins'kyj ta vyrobnychyj oblik* [Introduction to management and production accounting], Naukova dumka, Kyiv, Ukraine.

4. Entoni, R. and Rys, Dzh. (1993) *Oblik: sytuatsii ta pryklady; perev. z anhl.* [ppearance: situations and applications; transl. from English], Finansy ta

statystyka, Kyiv, Ukraine.

5. Harifulin, K.M. (1986) *Oblik ta kal'kuliuvannia v avtomatyzovanij pidsystemi upravlinnia sobivartistiu produktsii* [Accounting and calculation in the automated subsystem of product cost management], Kyiv, Ukraine.

6. Ivashkevych, V.B. (1974) *Problemy obliku ta kal'kuliuvannia sobivartosti produktsii* [Problems of appearance and calculation of product compatibility], Finansy, Kyiv, Ukraine.

7. Kryvenko, K.T., Savchuk, V.S. and Bieliaiev, O.O. (2005) *Politychna ekonomiia* [Political economy], KNEU, Kyiv, Ukraine.

8. Napadovs'ka, L.V.(2010) *Upravlins'kyj oblik: [pidruchnyk dlia vuziv]* [Management accounting: [textbook for universities]], Kyiv. nats. torh.-ekon. un-t, Kyiv, Ukraine.

9. Nashkers'ka, V.H. (2005) *Finansovyj oblik* [Financial Accounting], Kondor, Kyiv, Ukraine.

10. Nidlz, B., Anderson, Kh and Kolduel, D. (2004) *Pryntsypy bukhhalters'koho obliku; perev. z anahl.* [Principles of accounting transl. from English], Finansy ta statystyka, Kyiv, Ukraine.

11. Order of the Ministry of Finance of Ukraine (1999) “national regulation (standard) of accounting 16 “Expenses””, available at: http://zakon.rada.gov.ua/cgi-bin/laws/ main.cgi?nreg=z0027-00 (Accessed 8 April 2023)

12. Pacholi, L. (1995) *Traktat o schetakh y zapysiakh: [per. s ytal.]* [Treatise on accounts and records: [trans. from Italian]], Mn.: Red. Zhurn. “Fynansy, uchet, audyt”, Ukraine.

13. Palij, V.F. (1987) *Osnovy kal'kuliuvannia* [Basics of calculation], Finansy ta statystyka, Kyiv, Ukraine.

14. Verkhovna Rada of Ukraine (2010) “Tax Code of Ukraine”, available at: http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=2755-17 (Accessed 10 April 2023)

15. Yarmolenko, V.P. (2000) “Cost is an objective economic category”, *Bukhhalteriia v sil's'komu hospodarstvi*, vol. 8, pp. 8-13.

SECTION 2. DEVELOPMENT OF THE SYSTEM OF ACCOUNTING, TAXATION AND ANALYSIS OF PRODUCTION AND ECONOMIC ACTIVITY OF AGRIBUSINESS ENTITIES

2.1. ANALYSIS OF TRENDS IN THE ECONOMIC DEVELOPMENT OF AGRICULTURAL ENTERPRISES OF UKRAINE: PROSPECTS AND CHALLENGES

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Summary. An evaluation of the patterns in the economic development of Ukrainian agricultural enterprises was performed, as well as examination of both the challenges and future opportunities. Results concluded that despite significant challenges agricultural sector in Ukraine faces, collective effort from both the government and private sector stakeholders, as well as investment in education and training programs will allow unlocking its full potential to become a powerhouse of a countries economy.

Keywords: agricultural enterprises, agricultural development strategy, economic development.

The agricultural sector in Ukraine has long been a cornerstone of the country's economy, with a rich history dating back to ancient times. Ukraine has a favorable geographical location and a fertile soil, which makes it one of the largest agricultural producers in Europe. Agriculture accounts for around 16% of Ukraine's GDP, and provides employment for over 14% of the country's workforce.

Despite the sector's importance, the Ukrainian agricultural industry faces numerous challenges that threaten its development and sustainability. These challenges include issues related to land ownership and management, infrastructure, labor force, and economic instability. Addressing these challenges is crucial for the growth and development of the sector.

However, there are also promising prospects for the future of the agricultural sector in Ukraine. The government has implemented various policies and initiatives to promote investment and growth in the industry, and there are potential growth areas that can be explored. Additionally, international trade relations related to the agricultural sector in Ukraine have opened up new opportunities for exports and imports.

This article will provide an analysis of the trends in the economic development of agricultural enterprises in Ukraine, examining both the challenges and prospects for the future. It will also include case studies of successful agricultural enterprises and their strategies for growth and development. Ultimately, this analysis will provide recommendations for the future development of the agricultural sector in Ukraine.

Ukraine's fertile soil and favorable climate provide ideal conditions for agriculture, making the country one of the world's top producers of several key crops.

The major players in the Ukrainian agricultural sector include both large agroholdings and small-scale family farms. The largest agroholdings control significant amounts of farmland and employ advanced technology and production methods, while smaller family farms are more traditional and often rely on manual labor.

In terms of production statistics, Ukraine is one of the top producers of wheat, corn, and sunflower oil in the world. The country is also a significant producer of other crops such as barley, soybeans, and rapeseed. Livestock production is also an important aspect of the agricultural sector, with large numbers of cattle, pigs, and poultry being raised in the country.

Recent trends in the agricultural sector in Ukraine include an increasing focus on organic and sustainable farming practices, as well as the adoption of new technologies and techniques to improve efficiency and productivity. Despite challenges, the prospects for the future of the agricultural sector in Ukraine are promising. Potential growth areas include the development of value-added products such as processed foods and biofuels, as well as the expansion of export markets to other countries. Additionally, there are significant opportunities for investment in the sector, both from domestic and international sources.

The agricultural sector in Ukraine faces numerous challenges that are impeding its growth and development. These challenges range from land ownership and management, infrastructure, labor force, and economic instability. Addressing these challenges will require significant efforts from both the government and private sector stakeholders.

One of the major challenges facing the agricultural sector in Ukraine is land ownership and management. Historically, agricultural land in Ukraine was owned and managed by collective farms during the Soviet era. However, following the collapse of the Soviet Union, land was privatized and distributed to individuals, leading to fragmentation and a lack of coordination in land management. The lack of clear land titles has also hindered investment and credit access for small and medium-sized farmers. In addition, the current moratorium on the sale of agricultural land has prevented the development of a functioning land market, which would provide greater opportunities for investment and growth.

Another challenge facing the agricultural sector in Ukraine is inadequate infrastructure, particularly in rural areas. Poor transportation infrastructure makes it difficult to transport agricultural inputs and outputs, which increases the costs of production and limits the sector's competitiveness. In addition, the lack of access to modern technology, such as irrigation systems and mechanized farming equipment, hinders productivity and efficiency in the sector. The government has taken steps to improve infrastructure, such as constructing new highways and modernizing railway systems, but more needs to be done to support the sector.

The agricultural sector in Ukraine also faces a shortage of skilled labor, which has become a major constraint on productivity and growth. Many young Ukrainians

have migrated to cities or abroad in search of better opportunities, leading to a shortage of skilled workers in rural areas. The aging workforce in the sector also poses a challenge, as many older farmers lack the knowledge and skills necessary to adopt modern farming practices. Addressing this challenge will require investment in education and training programs, as well as efforts to incentivize young people to pursue careers in agriculture.

Finally, economic instability in Ukraine has had a significant impact on the agricultural sector. The sector has been affected by currency devaluation, inflation, and political instability, which have led to fluctuations in commodity prices and reduced investment. In addition, the ongoing conflict in Eastern Ukraine has disrupted agricultural production and transportation, particularly in the Donbas region. The government needs to take measures to ensure economic stability, such as reducing corruption, strengthening institutions, and attracting foreign investment.

The agricultural sector in Ukraine faces significant challenges that must be addressed to ensure its growth and development. These challenges include land ownership and management, inadequate infrastructure, a shortage of skilled labor, and economic instability. Addressing these challenges will require significant efforts from both the government and private sector stakeholders, as well as investment in education and training programs. By addressing these challenges, the agricultural sector in Ukraine can unlock its full potential and become a major contributor to the country's economy.

The agricultural sector is an essential part of the Ukrainian economy, accounting for a significant portion of the country's GDP and employing a large portion of the population. Despite facing various challenges, the sector has shown promising potential for growth and development in the coming years. In this section, we will discuss the prospects for the future of the agricultural sector in Ukraine, including potential growth areas, investment opportunities, and policy initiatives.

One of the primary growth areas for the agricultural sector in Ukraine is the expansion of organic agriculture. Organic farming is becoming increasingly popular worldwide, and Ukraine has the potential to become a significant player in this industry. The country has a large amount of arable land that can be used for organic farming, and its climate is well-suited for growing a wide range of organic crops. In addition, Ukrainian farmers have experience in producing high-quality crops with minimal use of pesticides and chemicals, making them well-suited for organic farming.

Another potential growth area for the agricultural sector in Ukraine is the development of value-added products. The country has a well-established base for producing raw agricultural products such as grains, vegetables, and fruits. However, there is an opportunity to add value to these products by processing them into higher-value products such as canned fruits and vegetables, jams, and juices. This would not only increase the profitability of the agricultural sector but also create more jobs and stimulate economic growth.

Investment opportunities in the agricultural sector in Ukraine are vast, and there is significant potential for foreign investors to invest in the sector. Ukraine has a

large amount of fertile land, a favorable climate, and a well-educated workforce. The government has also introduced various incentives to attract foreign investment, such as tax breaks and streamlined regulations. Foreign investors can invest in a wide range of agricultural projects, such as the development of new farms, the modernization of existing farms, and the introduction of new technologies and equipment.

To achieve the full potential of the agricultural sector in Ukraine, it is necessary to implement various policy initiatives. One of the most important initiatives is to improve the infrastructure in rural areas. Many rural areas in Ukraine lack basic infrastructure such as roads, electricity, and water supply, which hinders the development of the agricultural sector. Improving infrastructure would not only benefit the agricultural sector but also improve the quality of life for rural residents.

Another crucial policy initiative is to reform the land ownership and management system. Ukraine has a complicated land ownership system, which makes it challenging for farmers to access land for agricultural production. The government has initiated various land reform programs to simplify the land ownership system and make it more accessible to farmers. Implementing these programs would en able farmers to access more land, increase their production, and stimulate economic growth.

Finally, it is essential to address the labor force challenges facing the agricultural sector in Ukraine. Many young people are leaving rural areas to seek better job opportunities in urban areas, resulting in a shortage of skilled labor in the agricultural sector. The government can address this issue by investing in education and training programs for rural youth, encouraging them to stay and work in the agricultural sector. In addition, the government can introduce policies to attract skilled labor from other countries to work in the sector.

The agricultural sector in Ukraine has significant potential for growth and development in the coming years. Expanding organic agriculture, developing value-added products, attracting foreign investment, and implementing policy initiatives such as improving infrastructure and reforming land ownership and management are essential steps to achieve this growth. Addressing the labor force challenges in the sector is also crucial to achieving its full potential. By taking these steps, Ukraine can establish itself as a significant player in the global agricultural market and achieve sustainable economic growth.

The agricultural sector in Ukraine has always been important to the country's economy. In recent years, there has been a renewed focus on expanding the sector and increasing exports to international markets. In this context, it is important to examine the international trade relations related to the agricultural sector in Ukraine, including trade agreements, exports, and imports.

Ukraine has a number of trade agreements that impact its agricultural sector. One of the most significant is the Association Agreement between Ukraine and the European Union (EU), which was signed in 2014. The agreement includes provisions related to trade in agricultural products, including the gradual reduction of tariffs on

imports and exports between Ukraine and the EU. This has created new opportunities for Ukrainian farmers to export their products to the EU market.

Ukraine is also a member of the World Trade Organization (WTO), which governs international trade and establishes rules for trade between member countries. As a member of the WTO, Ukraine has access to international markets and can benefit from the rules-based trading system established by the organization. In addition, Ukraine has signed a number of bilateral and regional trade agreements with other countries and trading blocs, such as Canada and the Commonwealth of Independent States (CIS).

Exports Agricultural exports are a key component of Ukraine's economy, and the country has been working to increase its exports in recent years. According to the State Statistics Service of Ukraine, agricultural exports reached $22.9 billion in 2021, an increase of 28.3% compared to the previous year. The main agricultural products exported by Ukraine include cereals, oilseeds, and oilseed products, as well as meat and dairy products.

The EU is the largest market for Ukrainian agricultural products, accounting for over 42% of all agricultural exports. Other major markets include Asia, the Middle East, and Africa. Ukraine has been working to expand its exports to these regions, particularly to countries such as China, which has become an important market for Ukrainian grain and oilseed exports.

Imports While Ukraine is a major agricultural exporter, it also imports a significant amount of agricultural products. In 2021, agricultural imports totaled $7.2 billion, an increase of 15.5% compared to the previous year. The main agricultural products imported by Ukraine include meat, dairy products, and fruits and vegetables.

The EU is the largest supplier of agricultural products to Ukraine, accounting for over 38% of all agricultural imports. Other major suppliers include South America and Asia. Ukraine has been working to reduce its reliance on imports, particularly for products that could be produced domestically. The government has implemented a number of policies to support domestic production, such as subsidies for farmers and investments in agricultural infrastructure.

Challenges Despite the growth in agricultural exports, Ukraine's agricultural sector still faces a number of challenges related to international trade. One of the main challenges is the high level of bureaucracy and corruption that can make it difficult for farmers to export their products. In addition, Ukraine's infrastructure, particularly its transportation and logistics systems, can be inadequate, which can increase the cost of exporting agricultural products.

Ukraine is one of the largest agricultural producers in Europe, and its agricultural sector is a significant contributor to the country's economy. However, Ukraine's agricultural sector has faced various challenges, including those related to international trade. Therefore, it is essential to examine Ukraine's international trade relations in the agricultural sector, including trade agreements, exports, and imports, to understand the prospects and challenges for the future development of the sector.

Trade agreements are an essential aspect of Ukraine's international trade relations. Ukraine has signed several trade agreements with different countries and

regional blocs, including the European Union, Russia, Turkey, and China. The most significant of these agreements is the Deep and Comprehensive Free Trade Area (DCFTA) between Ukraine and the European Union, which came into effect in 2016. The DCFTA allows Ukraine to export its agricultural products to the EU without tariffs and quotas, providing Ukrainian agricultural enterprises with significant opportunities for growth and expansion. Ukraine has been working to meet EU food safety and quality standards to take advantage of this opportunity fully.

Ukraine's exports in the agricultural sector have been increasing over the years, despite facing several challenges. Ukraine's main agricultural exports include grains, oilseeds, sunflower oil, and poultry meat. In 2020, Ukraine's agricultural exports amounted to around $23.4 billion, which accounted for approximately 40% of the country's total exports. The EU is Ukraine's largest export market, accounting for over 40% of Ukraine's agricultural exports. Other significant markets for Ukrainian agricultural exports include Asia and Africa.

However, Ukraine's agricultural exports have faced several challenges, including trade restrictions imposed by some countries due to phytosanitary concerns. For example, Russia imposed a ban on Ukrainian food products in 2014, citing concerns over the spread of African swine fever. This ban significantly affected Ukrainian agricultural enterprises that relied heavily on the Russian market. Ukraine has been working to improve its phytosanitary standards to regain access to the Russian market.

Imports have also been a significant aspect of Ukraine's international trade relations in the agricultural sector. Ukraine's agricultural imports mainly include processed food, animal feed, and fertilizers. In 2020, Ukraine's agricultural imports amounted to approximately $5.8 billion, which accounted for around 10% of the country's total imports. The main sources of Ukraine's agricultural imports are the EU, Russia, and China.

Ukraine's imports in the agricultural sector have faced various challenges, including the high cost of imports due to currency fluctuations and the inability of domestic enterprises to produce certain products, such as animal feed. Ukraine has been working to improve domestic production to reduce its reliance on imports and increase its agricultural exports. Ukraine’s international trade relations in the agricultural sector play a significant role in the sector's prospects and challenges. Ukraine has signed several trade agreements, including the DCFTA with the EU, which provides significant opportunities for growth and expansion. However, Ukraine's agricultural exports have faced challenges, including trade restrictions imposed by some countries due to phytosanitary concerns. Ukraine has been working to improve its phytosanitary standards to regain access to these markets. Imports have also been a significant aspect of Ukraine's international trade relations in the agricultural sector, and Ukraine has been working to improve domestic production to reduce its reliance on imports and increase its agricultural exports.

The agricultural sector in Ukraine has been an essential part of the country's economy for centuries, providing employment opportunities and contributing significantly to the national GDP. Despite facing various challenges, such as land

ownership and management, infrastructure, labor force, and economic instability, the sector has shown promising potential for growth and development in the coming years.

We have provided an overview of the current state of the agricultural sector in Ukraine, including its major players, production statistics, and recent trends. We have also analyzed the challenges facing the sector, highlighting the need for investment in education and training programs, efforts to incentivize young people to pursue careers in agriculture, and measures to reduce corruption, strengthen institutions, and attract foreign investment.

Furthermore, we have discussed the prospects for the future of the agricultural sector in Ukraine, including potential growth areas such as organic agriculture and value-added products. We have also highlighted the importance of trade relations related to the agricultural sector in Ukraine, including trade agreements, exports, and imp orts, which can provide greater opportunities for investment and growth.

Additionally, we have examined case studies of successful agricultural enterprises in Ukraine and their strategies for growth and development, emphasizing the need for innovation, modernization, and sustainable practices in the sector. These enterprises can serve as role models for other players in the sector, inspiring them to adopt similar practices and strategies.

In conclusion, the agricultural sector in Ukraine faces significant challenges that must be addressed to ensure its growth and development. Addressing these challenges will require significant efforts from both the government and private sector stakeholders, as well as investment in education and training programs. However, by unlocking its full potential, the agricultural sector in Ukraine can become a major contributor to the country's economy, providing employment opportunities, food security, and economic growth.

References:

1. Boiko M. (2020). Trends of development of agricultural enterprises and their financial support. Science Notes of KROK University, (4 (60), 178–186.

2 vanchenko, V.O. (2020). Orhanizatsiino-ekonomichni osoblyvosti funktsionuvannia pidpryiemnytstva v silskomu hospodarstvi [Organizational and economic features of functioning of entrepreneurship in agriculture]. Ekonomika APK, 5, pp. 56 – 65 [In Ukrainian]

3. Khalatur S., Hudym K. (2016). Systematisation and analysis of MNCs' models of conduct for entering the national agrarian markets. Економічний часопис XXI, 5-6, pp. 34—37.

4. Khalatur, S.; Masiuk, Y.; Kachula, S.; Brovko, L.; Karamushka, O.; Shramko, I. (2021). Entrepreneurship development management in the context of economic security, Entrepreneurship and Sustainability Issues, 9(1): 558-573.

5. Kostyrko, L. and Solomatina, T. (2019), Financial strategy for developing the economic potential of economic entities of the agricultural sector, Agrosvit, vol. 23, pp. 54–61.

6. Lopatynskyi Y.M., Todoryuk S.I. (2015). Determinanty staloho rozvytku ahrarnykh pidpryyemstv: [monograph] [Determinants of sustainable development of agrarian enterprises] Chernivtsi: Chernivtsi Nats. Univ. (In Ukrainian)

7. Savytska, Olena M. and Salabaj, Vladyslav O. (2019), "Efficiency of activity and management of the enterprise: features of application of theory, methodology and performance of analytical researches", Efektyvna ekonomika, vol. 6, available at: http://www.economy.nayka.com.ua/?op=1&z=7126

8. Shubravska O.V. (ed) (2023). Vyklyky ta naslidky ahroprodovol′choyi spetsializatsiyi Ukrayiny u svitoviy ekonomitsi : kolektyvna monohrafiya [Challenges and consequences of agro-food specialization of Ukraine in the world economy] / DU «In-t ekon. ta prohnozuv. NAN Ukrayiny». (In Ukrainian)

9. Zavhorodnya T.P., Kostyuk V.A., Kholodnyy H.O., Skrypnyk V.V. (2022). Bezpekove stratehuvannya upravlinnya innovatsiynymy biznes-protsesamy ta kapitalizatsiyeyu v ahroprodovol′chiy sferi v umovakh hlobalizatsiyi finansovykh rynkiv [Security strategizing of management of innovative business processes and capitalization in the agri-food sector in the conditions of globalization of financial markets]. Formuvannya rynkovykh vidnosyn v Ukrayini. 3. 116-124. (In Ukrainian)

2.2. DEPRECIATION OF FIXED ASSETS AND ITS INFLUENCE ON THE DEVELOPMENT OF MODERN PRODUCTION: ACCOUNTING ASPECT

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Summary. One of the most important factors in increasing the efficiency of production is the provision of the farm with basic means in the required quantity, assortment and more complete use of them.

The factors that shape the financial situation of the enterprise include the level of provision of fixed assets, the efficiency of their use, the degree of wear and tear, the correctness of the assessment, etc. The rational exploitation of fixed assets is an important factor in optimizing the cost of production, that is, the total costs of production and taxation of the enterprise, which directly affects the overall final financial result of the activity [1].

Keeping records of fixed assets has always required and requires increased attention from the accountant. Frequent changes in legislation during the years of Ukraine's independence directly affected the procedure for accounting for fixed assets many times. At the same time, the method of keeping records of fixed assets was changed almost completely several times. Changes in the legislation, such as the division of accounting into accounting and tax accounting, the adoption of national Accounting Regulations (standards), led to the emergence of a number of issues regarding the organization of accounting for fixed assets.

Key words: fixed assets, intangible assets, depreciation of non-current assets, methods of calculating depreciation, Tax Code of Ukraine, straight-line method, production method.

Many scientists and economists pay great attention to the issues of accounting and increasing the efficiency of the use of fixed assets. It has become especially relevant in the modern conditions of Ukraine's transition to the principles and methods of accounting and financial reporting in accordance with international standards, which has led to significant changes in the accounting procedure

Fixed assets represent accumulated public wealth. They are in constant motion, changed and improved. Expansion, maintenance of proper functional state and rational use of fixed assets largely determine the volume of production, the possibility of growth and improvement of efficiency [4].

All basic assets, except land, are subject to physical and moral wear and tear, that is, under the influence of physical forces, technical and economic factors, they gradually lose their qualities and come to a state unsuitable for use. The gradual transfer of the value of existing fixed assets to the finished product and the accumulation of a cash fund to replace worn out objects is called depreciation. Thus, depreciation deductions are one of the main sources of real investments. With the help of depreciation, the rate of return of fixed assets is regulated, the process of its reproduction is intensified, and the technical and production policy of the enterprise is regulated.

Fixed assets act as an economic form of existence of means of labor, used in production in kind over a long period of time, fixed assets perform the most important role - they strengthen the productive capacity of living labor. The success of the production activity of the farm depends on their availability, physical condition and level of use. Only by rationally using the main production assets, which are in proper physical condition and optimal structure. it is possible to obtain high indicators of economic profitability.

One of the main issues in market relations is increasing the efficiency of the use of fixed assets of enterprises. The financial condition of the enterprise, the competitiveness of its products on the market depends on the solution of this problem.

The main tasks of accounting of fixed assets are:

- timely display of information on receipts and disposals of fixed assets on accounts;
- reliable determination of the cost of fixed assets;
- control over the availability and preservation of fixed assets;
- determination of economic benefits from the use of fixed assets;
- correct and timely calculation of depreciation of fixed assets;
- accurate determination of financial results from the liquidation of fixed assets.

The main issue of depreciation policy is which method of depreciation deductions to choose. To answer this question, it is necessary to consider in detail all

existing methods and determine the factors related to the operation of fixed assets, because there are no clear recommendations for this in the world. In Ukraine, too, no clear depreciation policy has been developed, which would make it possible to stimulate the use of one of the largest investment resources. It is necessary to create such a system of amortization, which would enable each enterprise to choose the most favorable regimes for the restoration of fixed assets within the framework of the national regulation. This confirms the relevance of the chosen topic.

Fixed assets are tangible assets that the company holds for the purpose of use in the process of production or supply of goods, provision of services, leasing to other persons or for the implementation of administrative and socio-cultural functions, the expected period of useful use (exploitation) of which is more than one year (or operating cycle, if it is longer than a year) [3].

A characteristic feature of fixed assets is their long-term participation in the production process with the preservation of the main features and initial form. However, during the period of operation, fixed assets lose their consumer and physical qualities and ultimately become unusable. Material wear and tear of fixed assets is called physical wear. In countries with a developed economy, such a phenomenon as the aging of production equipment as a result of the appearance of new equipment and technology, i.e. the so-called moral wear and tear, is widespread [2].

When clarifying the economic nature of depreciation and its interpretation in regulatory acts, many contradictions arise, since quite often it is identified and used with such a concept as depreciation of fixed assets [2].

In its economic essence, depreciation is a monetary expression of the worn-out part of the cost of fixed assets transferred to the cost of finished products. This expression of wear and tear of fixed assets is necessary for the processes of their reproduction. That is, in the specified definition of depreciation, it is already possible to trace the duality of its interpretation: on the one hand, depreciation is interpreted as a process of transferring value, and on the other hand, the transferred value itself. In addition, as can be seen from the definition, the accumulated depreciation can express only the depreciation that was incurred by the fixed assets in the process of the enterprise's production of products, because when the products are not produced, then what is the depreciation transferred to? As you can see, there is a contradiction in the definition of well-known terms [6].

We describe the connection between the concepts of "depreciation" and "depreciation" in legislation and economic theory. In the traditional interpretation of these terms, we have:

- depreciation – the process of gradual depreciation of fixed assets under the influence of their wear and tear and the transfer (reimbursement) of this wear and tear to the cost of finished products [4];

- depreciation is the process of gradual depreciation of the value of fixed assets due to their operation, aging, or it is the sum of accumulated depreciation [3].

So, it turns out that depreciation is a consequence of wear and tear, and wear is accumulated depreciation, that is, in value terms, they should be equal [6].

In general, we can say that in most cases "depreciation" and "depreciation" are not identical concepts. It should be noted that many scientists also emphasize the impracticality of synonymizing these terms. Yes, Kireitsev H., Lytvynenko V., and Mavrina N. identify wear and tear (both physical and moral) with the aging of fixed assets due to exploitation, economic and technical-economic obsolescence, as a result of which they actually begin to cost less than new similar objects. At the same time, depreciation is interpreted by the specified authors as a process of depreciation of the value of fixed assets under the influence of physical and moral wear and tear and reimbursement of the amount of such wear and tear at the expense of the cost of production. In fact, it is a systematized distribution of value fixed assets during the useful life of use. One can fully agree with the opinion of these authors, taking into account the nature of wear and depreciation [3].

Banas'ko T.M. believes that the accumulated depreciation can express only the wear that occurred as a result of the production of certain products, because otherwise there is no base (finished products) to which this wear should be transferred [1]. In our opinion, this statement can also be considered true, since the accumulated depreciation is returned to us in the proceeds of sales, and if the products are not sold, then there are no funds for the reproduction of fixed assets.

Butynets' T.A. defines the depreciation of fixed assets as the gradual loss of fixed assets of their value due to the loss of use value, i.e. depreciation of a certain object of fixed assets compared to a similar object due to various reasons. It also emphasizes the fallacy of the widespread interpretation of depreciation as an indicator that is an expression of wear and tear, because the loss of value (depreciation) of the object of fixed assets and its transfer to the finished product do not always occur simultaneously. In practice, the value of an object of fixed assets can be lost without accrual of depreciation, and vice versa, amortization can be accrual even without the onset of wear and tear (examples of similar situations were considered above) [2].

Mossakovskyi V. and Kononenko T. emphasize that the economic essence of the mentioned terms is so different that it would be illogical to assume their value equality, since "...depreciation of fixed assets is a regulation, a contract, because there is nothing to oppose it in the asset, because the objects are actually depreciated for this amount .Depreciation is a reserve created to replace worn-out assets" [4].

Banas'ko T.M. defines depreciation as "...an investment resource and a means of accumulating cash." That is, in the mentioned author, we observe an emphasis on the interpretation of depreciation as accumulated financial resources for the reimbursement of funds previously advanced to the enterprise. For him, depreciation represents estimated (deferred) costs that are returned in sales revenue to replenish the company's own funds for further investment realization [1]. In view of the critical analysis of interpretations of depreciation and amortization of fixed assets, it is considered necessary to form an author's position on them.

Therefore, the authors of the study also emphasize the impracticality of equating the definitions of "wear and tear" and "amortization", since they have a different nature of origin, and offer the following definitions.

Depreciation is a multifaceted category. In this regard, we can talk about the accounting, economic and legal aspects of depreciation. However, different aspects of depreciation imply different approaches to its definition and interpretation. Some scientists, in particular Mossakovskyi V. and Kononenko, T. reject the appointment of depreciation deductions for the restoration of worn out fixed assets [4].

Mavrina N. claims that "the pace of reforming the accounting system is now ahead of the pace of reforming other components of management." To such a shift in accounting reform, he attributes "depreciation accounting based on the cost concept".

Academician Butynets' T.A. believes that depreciation deductions perform a double function: on the one hand, they are estimated expenses in the cost of production, on the other hand, their amount in the revenue from the sale of products is a source of financing the company's investments [2].

Many scientists, in particular are of the opinion that depreciation is not a source fund, but ordinary expenses that are included in the cost price. It shows in the reporting what part of the original cost of fixed assets has already been allocated to expenses.

Factors that limit the period of operation of an object of fixed assets can be divided into two main groups: physical and functional. The physical ones include wear and tear that occurs during the economic operation of the object, deterioration over time, damage and destruction. Functional reasons include those reasons that limit the period of operation of the fixed assets object, despite their physical adequacy.

According to P(S)A № 7, depreciation is not accrued on such a specific object of fixed assets as land, the useful life of which is unlimited [4].

Kireitsev H. emphasizes that depreciation is calculated for each specific object of fixed assets, which involves the determination (calculation) of that part of the depreciable value of the object of non-current assets, which should be attributed to the expenses of the current period. An object of fixed assets is a finished device with all its accessories and accessories, or a separate structurally separated object designed to perform independent functions, or a separate complex of structurally connected objects of the same or different purpose, which have common devices, accessories, control and a single foundation, as a result of which each item can perform its functions, a complex - a certain work only as part of a complex, and not independently [3].

A significant influence on these processes is exerted by the depreciation policy, which is carried out at the state level (as a component of economic policy) and at the level of individual enterprises (as a component of the accounting policy of the enterprise). But the amortization policy implemented today in Ukraine is imperfect. This has a significant impact on accounting, in particular on accounting for the depreciation of the company's fixed assets.

The issue of using depreciation deductions for extended reproduction is one of the most complex and debatable. The opinion is highlighted that depreciation cannot serve as a source of accumulation for extended reproduction of fixed assets. At the same time, most accounting specialists emphasize that depreciation in modern

conditions associated with the revaluation of the value of fixed capital and the rapid pace of innovative development is a source of accumulation of funds for the reproduction of fixed capital at the principle-innovative level.

Table 1

The impact of depreciation on the activities of the enterprise

Activities	Sphere of influence
Operating	Pricing, product life cycle, residual value of fixed assets and intangible assets
Financial	Financial indicators of the enterprise, sources of project financing, real funds
Investment	Indicators of efficiency of investment projects, period of operation of fixed assets and intangible assets

According to P(S)A № 7 "Fixed assets", the depreciation method must take into account the form in which the economic benefit from the asset is received by the enterprise. Therefore, the enterprise chooses the methods of depreciation of fixed assets independently, applying the appropriate accrual method to each object (or group of homogeneous objects) of fixed assets.

The calculation of depreciation is regulated by P(S)A № 7 "Fixed Assets" and is carried out by the following methods: straight-line, production, reduction of residual value, accelerated reduction of residual value, cumulative.

In order to identify tax accounting with accounting, you should stop at one method of depreciation most suitable for each group of your equipment and reasonably express it in the order of the accounting policy of the enterprise.

The straight-line method is the most convenient in calculations and consists in the uniform distribution of the cost of the object throughout its entire life. However, this method does not take into account the intensity of the production process.It is advisable to use it to calculate depreciation for those objects of fixed assets that are indirectly involved in the production process.

The method of reducing the residual value is quite complex and possible only if the liquidation value is determined. The methods of reducing the residual value and accelerated reduction of the residual value provide for the accrual of depreciation in the amount of the entire residual value (minus the liquidation value) in the last year of the planned useful life.

The cumulative method is characterized by the fact that the main part of the reimbursement of the cost of the fixed assets in the form of depreciation is applied to the first periods of operation, and over time the amount of reimbursement decreases.

The methods of reducing residual value, accelerated reduction of residual value, as well as cumulative should be applied to fixed assets that are subject to accelerated physical and moral wear and tear. The most justified use of these methods for depreciation of high-tech equipment, computer equipment, automobile transport, other similar objects that provide the greatest economic effect from their use during the first years of operation.

The production method should be used in cases where the wear and tear of the object is directly related to the frequency of its use. It is mainly used to calculate the depreciation of production equipment and motor vehicles, which can be compared to the volume of manufactured products or mileage. This method is effective for fixed assets that can independently perform a specific volume of provided services.

When choosing a method of calculating amortization, difficulties are added, primarily related to differences in determining the basis of the order of depreciation calculation, the display of certain transactions in tax and accounting. Thus, in tax accounting, all expenses related to the acquisition of fixed assets or their manufacture, repair, reconstruction, modernization are subject to depreciation, and there is no such thing as "liquidation value", while in accounting, the liquidation value of a purchased or manufactured fixed asset is not subject to depreciation .

According to the definition given in the Tax Code of Ukraine, the value of fixed assets, other non-current and intangible assets, which is amortized, is the original or overestimated value of fixed assets, other non-current and intangible assets less their liquidation value. But the Tax Code of Ukraine does not provide an interpretation of "liquidation value", only in clause 14.1.84 it is noted that other terms for the purposes of Section III are used in the meanings given in the Law of Ukraine "On Accounting and Financial Reporting in Ukraine", national and international regulations (standards) of financial reporting, provisions (standards) of accounting. Therefore, the interpretation of the "liquidation value" of fixed assets should be guided by the definition given in P(S)A 7: "the liquidation value is the amount of funds or the value of other assets that the company expects to receive from the sale (liquidation) of non-current assets after the expiration of their term useful use (exploitation), less costs associated with sale (liquidation)" [5].The enterprise determines the liquidation value of the object of fixed assets independently and takes into account assumptions about the possible amount of funds that it expects to receive from the sale or liquidation of such an object at the end of its useful life. At the same time, the liquidation value can be set at the zero level.

Analysis of the influence of the chosen methods on the amount of depreciation shows that during the operation of the fixed asset it is advisable to use not one, but several methods of calculating depreciation, that is, their combination.

In accounting, objects that are included in the composition of low-value non-current tangible assets and, accordingly, do not belong to fixed assets, that is, assets with a value of up to UAH 20,000. depreciation, in accordance with P(S)A 7, can be calculated in a special order. At the same time, in the tax accounting, objects worth up to UAH 20,000. And with a service life of more than 365 days, it will be included in the fixed assets and depreciation will be accrued on it in accordance with the procedure provided by tax legislation.

Objects that are not used in the production activity of the taxpayer in tax accounting are not subject to depreciation and are carried out at the expense of relevant sources of financing, and in accounting there is no such concept, that is, objects that do not participate in the production activity of the enterprise in depreciation is subject to accounting.

The cost subject to depreciation, according to P(S)A 7, can be written in the form of a formula:

$$DP = IV – LV, \quad (1)$$

where:

DP- depreciation cost;

IV- initial value;

LV -liquidation value.

The initial cost is recognized by P(S)A 7 as the historical or actual cost of the object of fixed assets, which consists of the following costs:

– amounts paid to asset suppliers and contractors for construction and assembly works (without indirect taxes);

– registration fees, state duty and similar payments made in connection with the acquisition (receipt) of rights to an object of fixed assets;

– amount of import duty;

– amounts of indirect taxes in connection with the acquisition (creation) of fixed assets (if they are not reimbursed to the enterprise);

– expenses for insurance of the risks of delivery of fixed assets;

– costs for installation, assembly, adjustment of fixed assets;

– other costs directly related to bringing fixed assets to a state in which they are suitable for use with the planned purpose.

The original cost does not include:

– expenses for paying interest for the use of credit when purchasing (creating) fixed assets, fully or partially at the expense of loan capital;

– administrative and other expenses that are not directly related to the purchase of the fixed asset or bringing it to a state suitable for operation.

The revalued value is the value of fixed assets after their revaluation.

Thus, the enterprise must determine the liquidation value, the useful life of the object and the method of calculating depreciation for each object of fixed assets [4]. The liquidation value means the amount of money or the value of other assets that the company expects to receive from the sale (liquidation) of non-current assets after the end of their useful life, after deducting the costs associated with the sale (liquidation) [1].

Enterprises have the right to independently determine the terms of useful use of fixed assets. The basis of this definition is the production plan of the enterprise and the plan of development and improvement of the efficiency of the enterprise. The longer the period of use of the object, the smaller the amount of wear and tear will be annually included in the costs of the enterprise and the smaller, other things being equal, it will be possible to set the price, or the higher the profit will be recognized [2].

When determining the period of operation, the following should be taken into account:

– expected physical and moral wear and tear;

– the expected period of use of the object by the enterprise, taking into account its capacity or productivity;

– legal and other restrictions on the period of use of the object and other factors.

The service life is an important component in the mechanism of reproduction of fixed assets. The success of depreciation depends on how correctly it is determined. Since accounting as a science has a practical orientation, there is a need to describe the methods of establishing the terms of operation [4].

Two options are possible. The first option involves determining the useful life of assets based on the accumulated experience of the enterprise. Probably, the company already had a similar asset at its disposal and used it under similar production conditions. Yes, you can set the term of use of a new asset based on the company's experience with the previous object. For those who are more inclined to act according to the instructions, the second option is suitable: the entire service life (100%) must be divided by the rate of depreciation (also in %) [2].

The Tax Code of Ukraine distinguishes the classification of fixed assets and establishes the minimum allowable terms of their depreciation.

The above methods of calculating depreciation are conventionally divided into types:

1) depreciation methods based on the time of use of fixed assets (straight-line, methods of reduction and accelerated reduction of residual value, cumulative);

2) the depreciation method, which is based on the number of units obtained from the use of the object of fixed assets (production).

The classification of fixed asset depreciation methods is shown in figure 1.

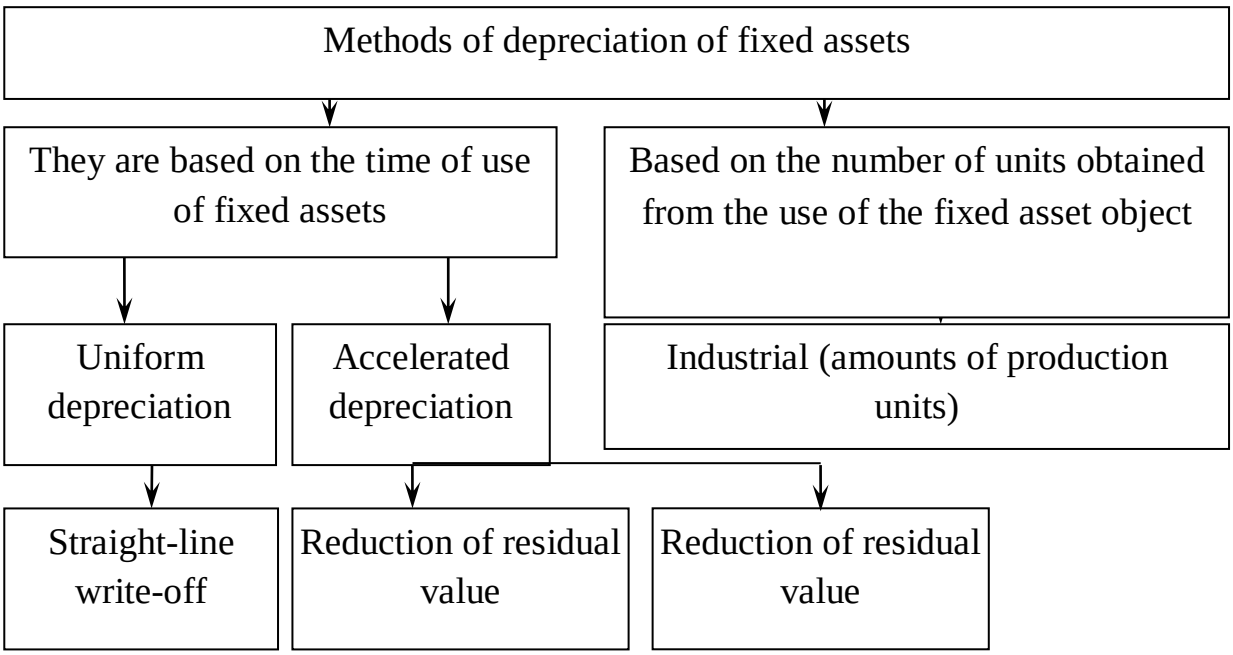

Fig. 1. Classification of methods of depreciation of fixed assets

The straight-line depreciation method is, as a rule, used in relation to objects of fixed assets, the condition of which depends solely on the term of useful use and is not influenced by other factors. Such fixed assets include buildings, structures,

furniture and others. Characterizing the straight-line write-off method, one cannot fail to note its advantages in the simplicity of calculations and the uniformity of the distribution of depreciation amounts between accounting periods. Its use is especially appropriate when the degree of exploitation of the fixed assets remains unchanged in each reporting period. It predicts an almost uniform decline in the object's economic utility from year to year [1].

The annual amount of depreciation when applying this method is determined by dividing the amortized value by the expected period of use of the fixed assets object, i.e.:

$$A = \frac{VD}{EP}, \quad (2)$$

where

A - the amount of annual depreciation deductions, UAH;

VD – the value of the depreciable object, UAH.;

EP – the expected period of use of the object, years.

However, the disadvantage of this method is that it does not take into account moral wear and tear, and also does not make a real assessment of the production capacity of fixed assets in different years of operation. Practice shows that machine wear increases in the first years of their operation, then the amount of wear stabilizes, and in the last years of operation, machine wear increases again. As for the wear and tear of cars, it is also uneven. The application of the given method does not always ensure the full transfer of the cost of fixed assets to the newly created product, as a result of which under-depreciation of fixed assets is created, which is a direct loss of the enterprise [6].

The essence of the method of reducing the residual value is to determine the annual amount of depreciation of an object of fixed assets based on the basic value of such an object at the beginning of the reporting year. The amount of depreciation deductions is determined by multiplying the final value of the fixed assets object by the rate of annual depreciation, i.e.:

$$A = RV * RAD, \quad (3)$$

where

RV – the residual value of the object of fixed assets;

RAD – rate of annual depreciation .

The company determines the rate of annual depreciation independently according to the following formula:

$$RAD = \sqrt[n]{\frac{LV}{IV}}, \quad (4)$$

where

n is the period of useful use of the object of fixed assets, years;

LV – liquidation value;

IV – initial value

As is clear from the formula, the use of the residual value reduction method requires the mandatory availability of the liquidation value of the depreciated object of fixed assets. In the opposite case, the object of fixed assets will be fully "depreciated" within one year.

Note that in accordance with P(S)A № 7, the basis for calculating depreciation when using this method is the initial value on the date of the beginning of the depreciation calculation or the residual value at the beginning of the reporting year. From this it follows that, starting from the date of commissioning of the fixed assets object until the end of the accounting year in which such an object was introduced, the basis for calculating depreciation will be its original cost [6].

The method of accelerated reduction of residual value is a type of method of reduction of residual value. When applying this method, the annual amount of depreciation is determined based on the residual value of the object at the beginning of the reporting period (or the initial value on the date of the beginning of the calculation of depreciation for objects introduced during the year) and the doubled annual rate of depreciation, which is calculated based on the period of useful use of object The depreciation rate in this case is calculated based on the formula for calculating the depreciation rate using the straight-line method, i.e.:

$$\text{RAD} = 2*(\frac{\text{A}}{VD}) = 2 * (\frac{VD/\text{EP}}{\text{VD}}) = \frac{2}{EP} \quad (5)$$

This method of calculating depreciation does not require the liquidation value of the fixed assets. At the same time, the rule is followed, in which the amount of depreciation of the last year is calculated in such a way that the residual value of the object at the end of the period of its operation is not less than its liquidation value.

The annual amount of depreciation according to the cumulative method is determined by multiplying the depreciable value and the cumulative coefficient, which, in turn, is calculated by dividing the number of years remaining until the end of the expected service life of the fixed asset by the number of years of its useful use. If the operational period of the object is long enough, then the sum of the number of years is determined by the cumulative number formula:

$$\text{RAD} = \frac{(EP+1)*EP}{2} \quad (6)$$

It is worth noting that the application of methods of accelerated reduction of the residual value, as well as the cumulative method, are more progressive from the point of view of accounting methodology. The feasibility of using these methods is explained by the following facts:

- the greatest effectiveness of the use of fixed assets occurs in the first years of their operation, when they are physically and morally still new;

– funds are accumulated to replace the object in case of its moral aging and inflation;

- it is possible to increase a part of the costs for the repair of depreciable objects that fall on the last years of the use of such objects without a corresponding increase in production costs due to the fact that the amount of depreciation in these years decreases.

For certain types of fixed assets, depreciation is calculated according to the production method, that is, on the basis of the total production of the fixed asset object for the entire period of its operation in the appropriate units of measurement (units of manufactured products, hours worked, kilometers driven, etc.). The monthly amount of depreciation is calculated by the ratio of the amortized value of fixed

assets and the expected volume of production (works, services) for the entire year of useful use of such fixed assets. Thus, the rate of depreciation according to this method can be calculated using the formula:

$$\text{RAD} = \frac{VD}{EVA}, \quad (7)$$

where:

EVA - the estimated volume of activity (production).

Note that when using the production method, the amount of depreciation, which is recognized as an expense of the reporting period, and the book value of the object when using this method changes compared to the previous period in direct proportion to the volume of products (works, services). This method is based on the assumption that the actual profit obtained from the operation of the relevant fixed assets in each reporting period is related to the output of production units produced with its participation in these reporting periods. At the same time, it is considered that most production assets take part in the generated profit (and accordingly wear out) only when they are used in production [3].

With the help of depreciation, the rate of return of fixed assets is regulated, the process of their reproduction is intensified, and the technical and production policy of the enterprise is implemented. But today there are no clear rules (recommendations) regarding the choice of amortization method, which would be the best for enterprises of various organizational and legal forms and industries, objects of fixed assets and methods of their use [2].

All methods can be considered equivalent, because they pursue the same goal, but each of them determines different annual depreciation amounts.

A visual comparison of the accumulated depreciation of fixed assets by different methods is presented in the table 2.

As you can see, accelerated methods of calculating depreciation really correspond to their nature compared to the straight-line method.

In the balance sheet, fixed assets are shown at their residual value, which is defined as the difference between the original cost and the amount of accrued wear and tear (depreciation).

Depreciation is calculated during the period of useful use (exploitation) of the object, which is determined by the enterprise when recognizing this object as an asset (when it is entered on the balance sheet) and is suspended for the period of its reconstruction, modernization, extension, retrofitting and conservation (clause 23 P(C)A № 7). It begins to be calculated starting from the month following the month in which the object of fixed assets became suitable for useful use and is terminated from the month following the month of its disposal, transfer to reconstruction, modernization, extension, retrofitting, conservation.

Accumulation of amortization in case of application of the production method of amortization is stopped from the date following the date of disposal of the object of fixed assets [1]. Depreciation for tax purposes is calculated by the enterprise according to the method specified by the order on accounting policy for the purpose of drawing up financial statements. It can be revised in the event of a change in the expected method of obtaining economic benefits from its use (clause 145.1.9).

Table 2

Comparison of methods of depreciation of fixed assets

Amortization method	Factors of operation of the fixed asset object that affect the expected economic utility from its use
Rectilinear	Uniform operation of the object associated with the operation of various products. Minor wear and tear
Decrease in residual value and accelerated decrease in residual value	The object is used in the production of various products. Rapid physical and moral (or only moral) wear and tear. The need for rapid accumulation of funds for the accelerated recovery of fixed assets
Cumulative	The object is used in the production of various products. Rapid physical and moral (or only moral) wear and tear. The need for rapid accumulation of funds for the accelerated recovery of fixed assets. The service life of the facility is measured in whole years.
Industrial	The object is used for the production of one type of product or provides one type of service. Uneven operation of the object. The economic utility of an object of fixed assets decreases depending on the intensity of its exploitation. The period of useful use of the object is directly determined by its resource: the number of production units produced with its help, mileage, hours of operation, etc.

Therefore, the same method of calculating depreciation should be used in accounting and tax accounting. The enterprise should approach the choice of one or another method of calculating depreciation in a balanced way. Some consider the most optimal method of depreciation to be the method of reducing the residual value, because in the first years of operation of the object, its efficiency is greater than in the last, and therefore the amount of depreciation deductions in the first period is greater [6]. Others propose the production method, as it makes it possible to calculate the depreciation cost for manufactured products as evenly as possible [2].

Still others prefer the method of accelerated reduction of the residual value and the cumulative method, because they contribute to more efficient use of the asset during the first half of the period of its operation [5].

Mossakovskyi V., and Kononenko T. believe that the best method is a straight line, as it is uniform, stable, simple, and accurate [4]. Therefore, when choosing one or another method, it is advisable to be guided by the following: you need to clearly understand the importance of such a choice and not resort to the easiest, so as not to suffer unwanted losses in the future; take into account the competitiveness of the enterprise; questions regarding the establishment of the liquidation value and the term of useful use, depreciation methods should be regulated by standards and disclosed in the accounting policy.

The rules for determining depreciation deductions in tax accounting are as close as possible to the national P(S)A. Both in tax and in accounting, 16 groups of

fixed assets and other non-current material assets are distinguished. For each group, not depreciation norms are fixed, but the minimum allowable terms of useful use. At the same time, the term of useful use is established by the order of the enterprise when the object is entered on the balance sheet. It cannot be less than that defined in the TCU [5].

Accounting for the book value of fixed assets included in each separate group is carried out by object, including the cost of improvement of fixed assets received free of charge or in operational leasing (rent) and as a whole for the group as the sum of the book values of individual objects of such a group.

In accounting, the enterprise has the right to independently establish the value criterion for recognizing an object as a fixed asset (clause 5.2. P(S)A № 7), while such a right is not provided for in tax accounting. Tangible assets worth less than UAH 20,000. are included in group 11 "Low-value non-current tangible assets" for the purposes of calculating depreciation. During the receipt of a tangible asset at the enterprise and its recognition, it is necessary to pay attention to the term of useful use, cost and determine to which of the 16 tax groups this object belongs.

Valuation of fixed assets is extremely important. International financial reporting standards allow the use of the following asset valuation methods: at actual cost, replacement cost, possible sale price, discounted asset value. In national accounting practice, the traditional method of assessment is the display of fixed assets at original cost, which consists of the actual costs of their production and acquisition, but other types are also used (residual, amortized, revalued, fair, liquidation).

The modern system of calculating depreciation is imperfect. As mentioned above, depreciation of fixed assets begins to be accrued in accounting from the month following their commissioning. But P(S)A 7 (clause 29) states that the calculation of depreciation begins with the month following the month in which the object became suitable for useful use. It should not be forgotten that the equipment that does not require installation and is stored in the warehouse can be donated for useful use. In our opinion, the wording in P(S)A 7 is more expedient to read as follows: "Accrual of depreciation begins with the month following the month in which the object of fixed assets was put into operation."

In the scientific literature, there is no unanimous opinion regarding the most appropriate of the methods. When choosing one or another method, in our opinion, it is necessary to take into account the method of prudence and the expected way of obtaining economic benefits from the use of objects. It is this approach that meets the requirements of international financial reporting standards. To a greater extent, the principle of prudence corresponds to the method of reducing the residual value, since the largest amount of depreciation is accrued in the first years of the object's use. Next are the accelerated depreciation method and the cumulative method. Under the condition of uniform production, the indicator of the production method approaches the straight-line one.

Banas'ko, T.M. suggests that fixed assets can be conditionally divided into two types from the standpoint of depreciation:

a) directly employed in production, auxiliary and servicing (subcounts 104, 105, 106). For all fixed assets assigned to this type, for which it is possible to reliably and with minimal costs determine the volume of production, apply the production method. If it is difficult or impossible to do this, then use one of the so-called accelerated methods, which will contribute to a faster return of capital investments;

b) other fixed assets, which mainly constitute the infrastructure of the enterprise (sub-accounts 102, 103, 107, 108, 109). This includes specific objects that may not take a direct part in the production process, their actual capacity is difficult to determine, they do not constitute a specific part of fixed assets at enterprises (except for agricultural ones), so for them she suggests using the straight-line method.

In our opinion, depreciation deductions are one of the main sources of real investments. With the help of depreciation, the rate of return of fixed assets is regulated, the process of its reproduction is intensified, and the technical and production policy of the enterprise is regulated.

Summarizing the above, it can be concluded that fundamental differences in the definition of the functions of depreciation deductions can be found in the literature, which arise due to the fact that some authors proceed from the accounting concept of costs without taking into account the economic, financial and legal aspects of depreciation.

The main problem of accounting for depreciation in Ukraine is that it has lost the function of reproduction of fixed assets and is a simple element of costs. Fundamental disagreements when defining the functions of depreciation deductions arise due to the fact that most scientists take as a basis the accounting concept of costs without taking into account the economic, financial and legal aspects of depreciation. In addition, under the conditions of the planned system of economic management, the main source of enterprise investment was centralized financing of capital investments. In the new conditions of the independence of enterprises, management must be restructured in accordance with market conditions, relying primarily on its own capabilities.

Without centralized financing, first of all, one should use an internal source of investment - depreciation deductions. However, modern practice does not make it possible to clearly accumulate funds for the reproduction of fixed assets, because the amount of depreciation is reflected on expense accounts and on the "recommended" off-balance sheet account 09 "Depreciation Deductions". It is really not necessary to deposit funds for the purchase of fixed assets in a separate account, because a situation may arise in which the company has calculated depreciation in the reporting period, but has not yet sold products and received revenue, which, according to the data of 09 off-balance sheet account, will mean that the company does not use depreciation deductions for the renewal of fixed assets [1]. Depreciation is the only source of capital investment, requiring improvement in the reflection of the depreciation fund in the system of accounting accounts.

The modern method of displaying the amortization fund on the off-balance sheet account 09 does not allow qualitative control and purposeful use of funds for the purpose of reproduction of fixed assets. We propose to account for the specified

fund using the model of capital circulation, in which the funds received as revenue cover the expenses incurred, including current obligations to suppliers, for employee benefits, taxes, social insurance, etc., but also include the amount of depreciation deductions , embedded in the cost of manufactured products. Therefore, the depreciation fund should be considered a cash reserve, the funds of which are accumulated at the time of crediting the revenue to the current account.

Account 13 "Depreciation of non-current assets" is used to record the accrued amount of depreciation. It has sub-accounts: 131 "Depreciation of fixed assets" (information on the depreciation of those non-current assets, which are recorded on account 10 "Fixed assets" is summarized); 132 "Depreciation of other non-current tangible assets" (summarizes information on the amount of depreciation of those non-current assets that are recorded on account 11 "Other non-current assets"); 133 "Accumulated amortization of intangible assets" (information on the amount of accumulated amortization of intangible assets is summarized); 134 "Accumulated depreciation of long-term biological assets" (represents information on the amount of depreciation accrued on long-term biological assets, which are accounted for on subaccount 162 "Long-term biological assets of crop production valued at original cost" and 164 "Long-term biological assets of livestock production valued at original cost").

Accrued depreciation is included in the main production costs (account 23 "Production"), general production costs (account 91 "General production costs"), administrative costs (account 92 "Administrative costs"), sales costs (account 93 "Sales costs") , other costs of operating activities (account 94 "Other costs of operating activities") depending on the purpose of using the object of fixed assets:

- using accounts of class 8 "Expenses by elements": Dt 83 "Depreciation" Ct 131, 132; Dt 23, 91, 92, 93, 94 Ct 83;

- using only accounts of class 9 "Expenses": Dt 23, 91, 92, 93, 94 Ct 131, 132.

Analytical accounting of depreciation of accumulated depreciation of fixed assets is carried out by types of these assets in accordance with tax legislation. Depreciation deductions are attributed to the costs of production and circulation as part of the cost of fixed production assets, which corresponds to their wear and tear.

Depreciation is charged at the expense of production costs. The document confirming the right to write off accrued expenses is the act of putting capital assets into operation.

Regarding unfinished or not formalized acts of acceptance of capital construction objects or their parts, which are operated by those enterprises to which they will be transferred as fixed assets, depreciation is calculated in the general manner - from the 1st of the month following the month of commissioning. The basis for accrual is a certificate on the value of these objects or their parts according to the capital investment accounting data.

Therefore, the information for calculating depreciation is precisely the form of primary documents for accounting for the movement of fixed assets:

- OZ-1 "Act of acceptance-transfer (internal movement) of fixed assets".The specified form is used to register the inclusion of individual objects in the fixed

assets, their commissioning (except for those cases when the commissioning is carried out in a special order), the internal movement of fixed assets (for example, from brigade to brigade, from precinct to precinct, etc.), as well as the transfer of fixed assets for a fee, without payment and under lease agreements to other legal entities or individuals;

- OZ-2 "Act of acceptance and delivery of repaired, reconstructed and modernized objects", which is used when performing the specified works both by the company's own forces and by third-party enterprises;

- OZ-3 "Deed of write-off of fixed assets", which is mandatory for any liquidation of objects (full or partial), except motor vehicles: as a result of their complete wear and tear, dilapidation, emergency condition, for reasons of theft, etc.;

– OZ-4 "Act on write-off of motor vehicles";

- OZ-6 "Inventory card for accounting of fixed assets", which is used by the accounting department of the enterprise for accounting of both a separate object and a group of objects. The basis for displaying transactions in the inventory card are the above-mentioned acts of forms № OZ-1, OZ-2, OZ-3, OZ-4;

- OZ-7 "Description of inventory cards for accounting of fixed assets" is intended for registration of all inventory cards of fixed assets opened at the enterprise. This form is drawn up in one copy and is used to control the availability of form № OZ-6 cards;

- O3-8 "Fixed assets accounting card" is opened for each classification group of fixed assets and is filled out every month.This card accumulates information on the receipt of fixed assets at the enterprise (on the basis of form № OZ-1), on the amount of accrued depreciation, on disposal of fixed assets;

- OZ-9 "Inventory list of fixed assets" is intended for accounting of fixed assets of a specific classification group according to their location and operation.

After the acts of putting these objects into operation and their inclusion in the fixed assets are drawn up, the previously accrued depreciation amounts are clarified with the corresponding reflection in the accounting.

According to the Methodological recommendations, the calculation of depreciation of fixed assets and other non-current assets using the straight-line method at the beginning of the year is provided for the calculation of depreciation of non-current assets. №. 4.4 s.-g. This form indicates: inventory number, classification group, type and name of the object, date of posting, initial cost, liquidation value, residual value, period of useful use of the object, amount of wear and tear (amortization), distribution of wear and tear (amortization) by item accounting objects (name of sub-accounts and analytical accounts), corresponding account.

In order to calculate the depreciation of fixed assets and other non-current assets that have been received or withdrawn, the monthly compilation of the relevant Statement is provided № 4.5 s.-g.). This document indicates the type of fixed assets by classification groups and corresponding accounts, the amount of depreciation for the objects received and removed. For those fixed assets and other non-current material assets that have arrived, the amount of depreciation is added up to the previous month, and for those that have been eliminated, it is deducted [4].

Based on the calculation of depreciation of fixed assets and other non-current assets using the straight-line method (№ 4.4 s.-g) and Information on the calculation of depreciation of fixed assets and other non-current assets that have arrived or left (№ 4.5 s.-g) .) the statement of depreciation of fixed assets and other non-current assets is drawn up (№ 4.6 s.-g.). It records the distribution of depreciation by accounting objects, the accrued amount of depreciation for the past month, changes in the amount of depreciation on incoming and outgoing objects, and the amount of depreciation accrued in the current month [2].

Synthetic accounting of depreciation is proposed to be kept in the Journal-order № 4A of the year. Entries to the credit of account 13 "Depreciation (amortization) of non-current assets" are made on the basis of Notice № 4.6 of the current year. Credit turnover is transferred to the General Ledger.

Schematically, the proposed procedure for displaying the accrual and accounting of depreciation of fixed assets in accounting registers can be shown in figure 2.

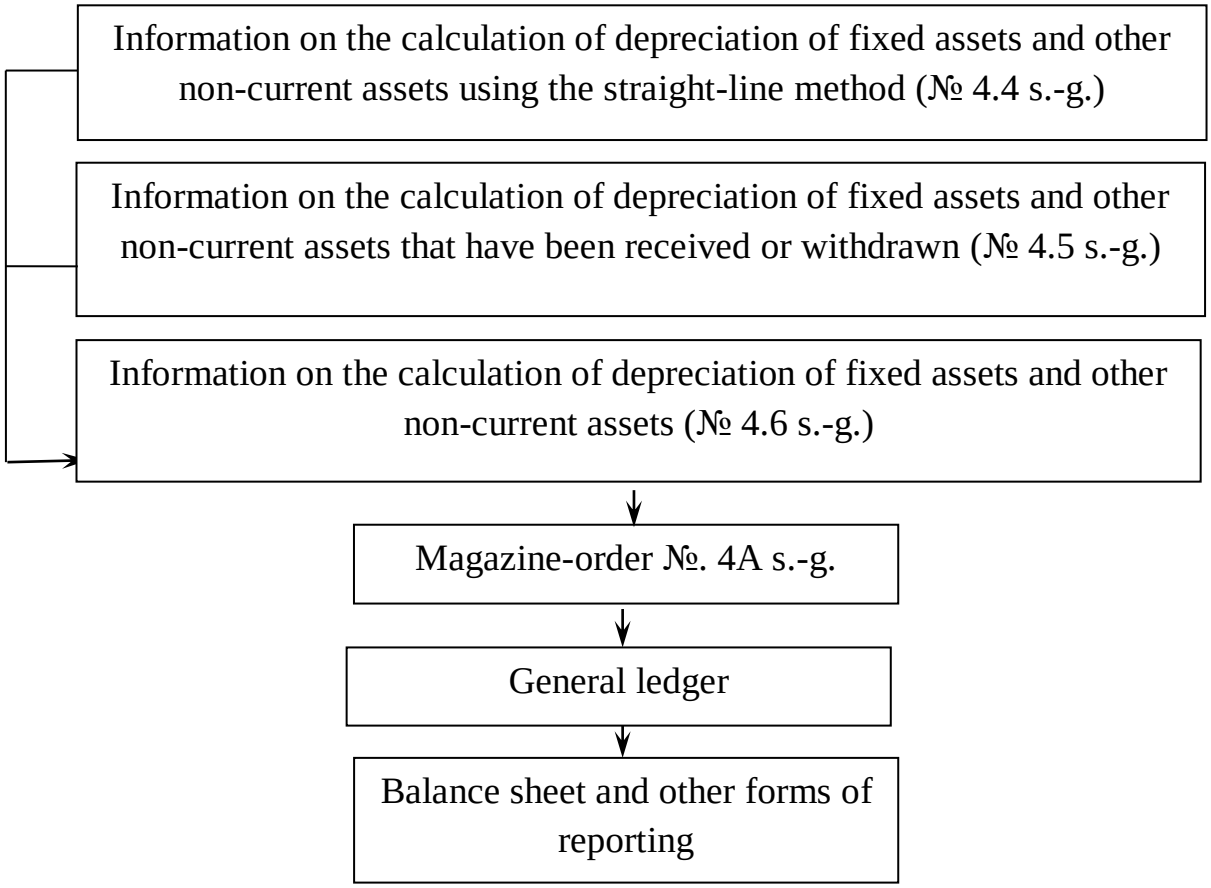

Fig. 2. The proposed scheme for displaying depreciation in accounting registers

When choosing a company's depreciation method, the following provisions should be taken into account:

1) if fixed assets bring more income at the beginning of their useful life, then accelerated depreciation methods should be used. This is explained by the fact that in

the first years of operation, productivity is the highest, and at the end of the operation period, repair costs increase;

2) if the future dynamics of income is closely related to the actual volume of production during the useful life, then the production method should be used;

3) in the case of impossibility of predicting with a sufficient degree of reliability the dynamics of subsequent costs, the method of calculating depreciation can be chosen, based on the simplicity of calculations, which contributes to the reduction of accounting costs.

Therefore, to improve the depreciation policy, you should:

– to allow enterprises to independently choose and change the depreciation method with the notification of the tax authorities before the beginning of the tax year, as well as to independently choose the period of reimbursement of the initial cost when applying accelerated depreciation;

– introduce control over the targeted use of depreciation funds in the event that enterprises choose non-linear depreciation methods;

– treat depreciation as an economic process based on the rational service life of fixed assets.

Due to the fact that the depreciation policy is an integral part of the accounting policy, it is aimed at increasing the efficiency of production and raising the results of the organization's activities.The amortization policy at each specific moment of time provides for certain adjustments depending on the formed situation and the economic strategy for the future [1].

When developing the depreciation policy, the company must adhere to the following principles:

- timeliness and correctness of revaluation of fixed assets, especially in conditions of inflation;

- differentiation of terms of useful use and, accordingly, depreciation rates depending on the functional purpose of fixed assets;

- accounting for their moral and physical wear and tear;

- provision due to depreciation deductions of not only simple, but also extended reproduction of fixed assets;

- ensuring the targeted nature of the use of depreciation deductions at the enterprise;

- the possibility of accelerated depreciation by the enterprise;

- stimulation of timely renewal of fixed assets and acceleration of scientific and technical progress.

Based on the essence, purpose and objectives of the depreciation policy, it can be concluded that it plays an important role in the performance of any enterprise. Depreciation policy is a powerful lever of influence on the economic processes taking place. The process of restoring non-current assets and forming the company's depreciation fund is not only an accounting problem.

Financing of the timely renewal of the enterprise's production capacity does not depend on the accounting correspondence of the accounts. This is a question of the methodology of the depreciation calculation process in general. The main

obstacle to the formation of a real amortization fund of the enterprise is the insecurity and uncontrollability of this item of expenses. Control of the correctness and timeliness of amortization is carried out only during the verification of income tax amounts.

In enterprises with a simplified taxation system, the process of calculating depreciation and forming a real depreciation fund is not controlled. This problem can only be solved by joint actions on the part of state and regulatory bodies and the enterprise itself. In the period of economic crisis, it is proposed to use stimulating levers of influence on the economy of the enterprise by the state in the form of preferential taxation. Also, stimulation can be carried out through a favorable interest rate for crediting the process of updating non-current assets of the enterprise [4].

The change in the fundamental economic foundations of economic relations in Ukraine led to a qualitatively different approach to the assessment of the enterprise's economic information regarding depreciation accounting. Primary accounting is traditionally the main source of such information. One of the most important aspects of improving the primary accounting of depreciation of fixed assets is its proper organization, which must comply with the main principles of current legislation, ensure the adaptation of accounting to existing business conditions and anticipate the needs of a wide range of users in quality information. Therefore, the theoretical and methodological issues of the organization of the primary accounting of depreciation of fixed assets are of significant scientific and practical interest.

Effective simple reproduction of fixed assets requires great efforts on the part of the enterprise. It is necessary not only to correctly invest investment resources in fixed assets at the beginning of the implementation of a certain project, but also to be able to return them in such a way as to be able to restore the assets lost as a result of the operation and continue to work efficiently with the aim of obtaining the desired level of profit and public benefit, and this confirms the importance system of organization of primary accounting of accrual and distribution of depreciation in the context of reproduction of non-recyclable material resources. Primary accounting is one of the stages of economic accounting, at which an economic phenomenon or process is recorded on the primary media of accounting information, which in the future ensure obtaining the necessary data for the management of certain economic objects, the implementation of control over economic phenomena and processes for the analysis of activity and a real assessment of the company's performance.

In order to manage the depreciation policy, the enterprise forms the following tasks for the primary accounting of depreciation of fixed assets, such as:

- definition of depreciation as costs included in the cost of production and as a source of accumulation of funds for reproduction of fixed assets;
- justification of the feasibility of using a certain method of calculating depreciation of fixed assets;
- approval in the order on the accounting policy of the chosen method of calculating depreciation;
- documentation of transactions with fixed assets, in particular, on the calculation of depreciation;

– formation of a system of primary documents based on the implementation of economic transactions for the accrual and distribution of depreciation;

- display of records of business operations in accounting registers based on primary documents.

The primary accounting of depreciation is part of the general system of accounting for fixed assets, which provides a reflection in the accounting of the performed economic transactions for the accrual and distribution of depreciation of fixed assets. It plays a significant role in the management of depreciation policy, it is important to ensure control over the order of accrual and distribution of the amounts of depreciation deductions aimed at the reproduction of the company's fixed assets and their rational use.

Scientists have different interpretations of their vision of improving the documentation of the procedure for accrual and distribution of amortization deductions. The need to improve primary documents is also due to the fact that they have lost their original meaning and do not satisfy the requirements of information users regarding the company's depreciation policy system in the direction of accrual and efficiency of the use of depreciation funds as the main source of reproduction of the company's fixed assets.

The system of primary accounting of operations for accrual and distribution of depreciation must meet the requirements of the Law of Ukraine "On Accounting and Financial Reporting in Ukraine" regarding the accuracy of information. It should reliably reflect the process of functioning of the system of primary accounting for depreciation of fixed assets. All its indicators must have an unambiguous meaning that does not allow for different interpretations, and also the primary documents must be logically interconnected with each other and function as a comprehensive system of the order of amortization, depending on the method chosen by the enterprise.

The large volume of economic information, which is constantly increasing, requires further improvement of accounting and control and analytical work. In the conditions of manual processing, the quality of information decreases, the terms of its processing are extended, and the increase in labor costs leads to a sharp increase in management personnel.

To improve the organization of accounting, it is necessary to use new management methods and modern technical means of building various information systems. First of all, it is necessary to carry out a radical reconstruction of its technical and informational base based on the introduction of an automated accounting system, which would include automated workplaces of the accountant (hereinafter - AWA) [1]. The appointment of the fixed assets accountant is to perform systematic accounting and control operations:

– automation of primary information documentation;

– operational management, control over the availability and movement of fixed assets;

– issuance of necessary information to print or display screen upon request.

The implementation of automated integrated accounting systems and the distribution of data processing systems will make it possible to comprehensively solve problems not only of accounting, but also of control, analysis and auditing. With the help of such systems, it is possible to evaluate the actual state of the enterprise, as well as forecast and model management decisions.

The automated solution of fixed asset accounting tasks is based on the creation and maintenance of an information base on the availability of fixed assets, which is formed on the basis of the inventory file.

There is no manual processing of information when keeping an inventory file on the accountant's computer.

The technological process of information processing on the accountant's computer consists of the following stages:

- preparation of primary information;
- creation of an inventory file at the time of implementation;
- creation of normative reference information at the time of implementation;
- creation of a data set of the movement of fixed assets;
- making calculations and entering information into the database;
- formation of information for subsequent use;
- analysis of effective information;
- making management decisions based on the obtained results;
- transfer of data to adjacent accounting offices.

Management of each accountant's computer and function selection is carried out autonomously in dialog mode through the main module. The information relationship between different accountants' AWA depends on the territorial location of the accountants' AWA, the characteristics of technical means and information flows. Moreover, several AWA can function on one personal computer.

It is important to ensure the high reliability of the initial data when entering information, therefore, the accountant's computer system should implement the process of automating the detection of errors in the entered data and issuing the corresponding messages.

For analytical accounting of fixed assets, an automated inventory card file is maintained, which displays all the data necessary for management and accounting. With its help, the accountant has the opportunity to analyze the condition of fixed assets, the term of their use, the types and terms of repairs, the amounts of accrued depreciation, the terms and amounts of revaluation, the correctness of the application of depreciation deductions. By reviewing and analyzing analytical data cards, the necessity and load of fixed assets is determined, and if necessary, the return on investment of this inventory object is also determined [3].

Therefore, a comprehensive approach to accounting and management of fixed assets will allow to quickly obtain all the necessary data for a certain period and will significantly raise the level of management of the financial and economic activities of an agricultural company.

With the advent of the Windows operating system, there was a leap in the development of accounting programs. The Windows interface is intuitive, so any new program created for Windows is easy to learn. Such software products include the accounting program "1C Enterprise 8.0". Starting with this version, the 1C company has combined such modules as "1C Accounting", "1C Trade", "Salary+Human Resources". As in any other program that allows you to work with databases, information is placed in rows of tables, the fields of different tables are related. Changes in information in one table cause changes in others. In this way, it is similar to the Access database management program and is actually an add-on on top of it.An indisputable advantage is the possibility of setting up the program for the needs of a specific enterprise [3]

A rational system of primary accounting for depreciation will make it possible to control the order of accrual and distribution of the amounts of depreciation deductions, with the aim of forming a fund of funds for the reproduction of fixed assets.

Harmonization of accounting and tax concepts of depreciation will contribute to the innovative development of business activities. The Tax Code of Ukraine brought the rules for determining depreciation deductions in tax accounting closer to the national P(S)A. The amount of accrued depreciation is significantly influenced by the period of useful use. The given freedom in solving this issue has led to the fact that it can be significantly different at different enterprises for the same objects. The foreign experience of calculating depreciation, in particular in France and Germany, considers the approach progressive when the fixed assets are divided into groups at the legislative level with the establishment of periods of useful use.

References:

1. Banas'ko, T.M. (2015). Okremi problemy ta napryamky udoskonalennya obliku osnovnykh zasobiv [Some problems and directions of improvement of fixed asset]. Scientific herald International Humanitarian University. Series of Economics and Management, 9, 55-57

2. Butynets', T.A. (2012). Osnovni zasoby: tochka zoru ekonomista [Fixed assets point of view of an economist]. Theory and methodology of accounting, control and analysis, 2. Available at: http// archive.nbuv.gov.ua/portal/soc-gum/ptmbo/2012_2/2.pdf

3. Kireitsev, H., Lytvynenko, V., and Mavrina, N. (2014): “Vplyv hlobalizatsii ekonomiky na rozvytok systemy obliku v Ukraini“ [The impact of economic globalization on the development of accounting systems in Ukraine]. Bukhhalterskyi oblik i audyt, no. 4 47-53.

4. Mossakovskyi, V., and Kononenko, T. (2014). “Osnovni napriamky udoskonalennia obliku v Ukraini“ [The main directions of improvement of accounting in Ukraine]. Bukhhalterskyi oblik i audyt, no. 6: 35-40.

5. Tax Code of Ukraine. Available at : http://zakon4.rada.gov.ua/laws/show/2755-17

6. Position (Standard) 7 "Fixed Assets". Available at : http://zakon2.rada.gov.ua/laws/show/z0288-00

2.3. FEATURES OF THE ANALYSIS AND AUDIT OF THE ECONOMIC ACTIVITIES OF ENTERPRISES UNDER THE CONDITIONS OF THE MARTIAL STATE

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Summary. The research methodology, according to the author's version, is based on the following general and specific methods of scientific knowledge: the method of system analysis to determine the main changes that affected the processes of analysis and audit of economic activity; the method of content analysis to determine the impact of force majeure on the processes of analysis and audit of economic activity; the method of abstraction to determine the likely scenario of the development of events, provided that force majeure circumstances and the impact on the results of economic activity are avoided; methods of induction and deduction to determine the level of potential risk of occurrence of adverse events and rates of their development; methods of analysis and synthesis for building an algorithm for conducting analysis and auditing of the enterprise's economic activity.

Conducting the analysis of financial and economic activity is possible in several cases: 1) for the needs of the company's management, it is an operational, current and strategic analysis; and 2) when conducting an audit in order to identify the correctness and reliability of the display of accounting indicators in reporting documents. In the first case, the analysis involves adjusting the existing indicators for incurred losses and destroyed material and technical values, which are reflected in the balance sheet of the enterprise, and taking into account possible adverse events on economic activity in the short-, medium- and long-term periods of operation. The auditor, in turn, relies on the use of the existing audit methodology (international auditing standards), taking into account force majeure circumstances (including military actions and martial law) that caused losses and destruction of the company's property.

Novelty. The process of analysis and audit of the company's financial and economic activity is systematized and modified, taking into account force majeure circumstances (including military operations and martial law).

Practical value. The proposed methodology will be useful for teachers and students of higher education institutions teaching disciplines related to the audit and analysis of the economic activity of the enterprise, scientists and practitioners investigating the specified problems.In the article there are considered methodical recommendations on the actions of auditors during martial law. They relate to such stages of the audit as the preparatory phase, the planning phase, the task implementation and the final phase. The preparatory stage requires the identification of the client and the conclusion of an audit agreement. Under martial law, new risks are emerging, systematized by the authors and related to the identification of persons

involved in terrorist activities and the proliferation of weapons of mass destruction. The systematization of risks and the use of IT technologies to identify and verify the client allows auditors, as specially designated entities of primary financial monitoring, to identify and freeze the assets of such persons in a timely manner and stop providing any services. At the client acceptance and assignment stage, auditors assess ethical threats. As a result, a working paper has been developed to assess ethical threats in the light of martial law. At the planning stage, special attention should be paid to reviewing risks, namely how military aggression affects the continuity of any business. Clarification of risk factors for termination allows you to plan audit procedures to gather audit evidence and further determine the auditor's opinion on continuity (opinion with an explanatory paragraph, opinion with a reservation, negative opinion, disclaimer of opinion). One of the effective procedures for collecting audit evidence at the stage of the task is inventory.

Keywords: war, risk, business entities, martial law, analysis, audit, financial and economic condition, enterprise (organization).

For today's companies, the accounting audit work is an important content in the process of developing and managing, making the company bigger and stronger. Especially in today's informatization and digitalization, whether the accounting audit work is accurate and reasonable almost has an impact on the survival of enterprises. Reasonable accounting and auditing can not only help companies to reduce costs, but also help companies to strengthen their own management ability, improve the level of self-management, and directly increase corporate profits. A clear definition of the relationship between accounting audit and improving corporate efficiency can help accountants and other relevant personnel to find strategies to achieve better development of the company. Accounting audit is a management activity that takes money as the main unit of measurement and adopts a series of special methods and procedures to conduct continuous, systematic and comprehensive accounting and supervision of economic transactions, provide economic information and participate in forecasting and decision-making in a specific mode. First of all, as a management activity, its functions are mainly used to more accurately and intuitively reflect, manage and control the process of corporate economic activities. Therefore, accounting and auditing can provide high-quality financial information for the financial management of the company, and add it to the decision-making process, so as to seek greater economic benefits. Economic benefit refers to the labor savings achieved through the efforts of all parties in the process of exchanging goods, labor and services with foreign countries. All enterprises are for profit and survival, it can be seen that the creation of profit in the enterprise's economic activities occupy the most important position. Moreover, improving economic efficiency can promote the sound development of the national economy, which is a great wealth for both enterprises and the country. The improvement of economic efficiency will produce more products and services, which is conducive to the increase of social employment rate and to meet the growing material and cultural needs of people to a large extent. The greater advantage of improving economic efficiency is that it can increase

national income, which is conducive to driving national economic progress and promoting social development. In the process of improving economic efficiency, the efficiency of investment and the utilization rate of resources must also be improved to a large extent, which can change the pressure of uncoordinated population and resources in our country, and greatly improve the speed of economic growth; As far as the companies themselves are concerned, the improvement of economic efficiency not only provides a guarantee for their own development in the future, but also ensures that the capital of the enterprises is sufficient for investment and operation. With the development of The Times, China's comprehensive national strength is also constantly enhanced, a lot of new enterprises in the market, at the same time, the company enterprises are facing the same industry competition pressure gradually increased. Developing internal economic benefit audit has gradually become a new demand. Economic benefit is the core of modern enterprises, and the powerful means to guarantee the economic activities of modern enterprises mainly depends on internal audit. Economic benefit audit, centering on the development of modern enterprises, provides guarantees for the company in many aspects. It enhances the company's comprehensive strength and industry influence while improving the company's economic operation ability, self-testing ability and self-control ability. To promote the construction of modern enterprise system urgently needs the development of internal economic benefits of the company. In the process of the establishment and improvement of modern enterprise system, the nature of enterprises and the property right system have changed to a large extent. The state has no dual power of investment and management, and has long been unable to deeply participate in the profit distribution of companies. Instead, the managers are the enterprises themselves. In such a system, the traditional sense of financial audit can only examine whether the economic activities of enterprises are illegal and legal, and gradually can not meet the needs of economic management. On the contrary, the internal economic efficiency audit is based on the authenticity of data. On this basis, the internal economic management audit is fair, objective and comprehensive, which can fundamentally improve the operation and management and improve economic efficiency.

The audit of economic benefits can promote modern enterprises to consciously fill their own loopholes, tap the original potential, and further improve the level of management and operation. As the company business activities increasingly modernization, diversification, the economic benefit audit from detection and evaluation of internal control mode of each department, procurement, production, sales in the enterprise management of each link to search for execution aspects, such as holes, and make precise and reasonable assessment of the judgment, conclusions and effective opinions and Suggestions are put forward. Economic performance audit can often control the strategic decisions and corporate planning of modern companies. To control all kinds of risks faced by enterprises within a wide range, the loss of enterprises can be greatly reduced at critical moments, and the fundamental interests of the company can be avoided, so as to achieve the effect of audit. The comprehensive audit of enterprise benefits is beneficial to strengthen the management

ability of enterprises and improve their market competitiveness. Since the reform and opening up, China's enterprises have gradually entered the era of market economy, market competition as the main body, by virtue of the enterprise's self-innovation ability, research and development in line with the wide range of consumer demand products so as to obtain economic benefits. Strengthen enterprise benefit audit helps to dig the potential development of the enterprise ability, promote the improvement of the internal structure, to establish a sound internal management system, improve enterprise management and risk prevention consciousness, promote enterprise development to the scientific, comprehensive decision in transformation, comprehensively enhance the vitality of enterprises, make enterprises continuously improve their own internal cohesion. When making accounting audit work, need to take a variety of scientific means and methods, to ensure that the actual accuracy of audit results, and on this basis, for the enterprise's economic activities carried out to provide authoritative, reliable work, and constantly in the process of the actual work of adjustment and optimization, make the enterprise economic activities on the right track. For example, if an enterprise's labor consumption is found to be too high through accounting audit, it will optimize and adjust for this problem, so as to eliminate this adverse impact and protect the economic activities of the enterprise. If there is a loss of enterprise materials found in the accounting audit, the enterprise will understand the material management of the enterprise through accounting audit in detail, take measures to improve the safety of materials, protect the basic materials for the development of these enterprises, and maintain the work order of economic activities. Accounting and auditing work is an important part of enterprise economic supervision, which can further make up for the shortcomings existing in enterprise economic management and improve the economic management measures of enterprises. Especially nowadays, the economic behavior of enterprises presents a trend of diversified development, and the content of economic activities involved is becoming more and more rich. And the implementation of the accounting audit work can just give the enterprise every link strong data support, thus greatly improving the overall strength of enterprises in the market competition. The accounting audit work can find the problems existing in the financial management in a timely manner, and put forward relevant solutions based on the actual situation, so that there will be no problem of information distortion, and ensure the accuracy of accounting audit information. It plays an important role in the operation and management of enterprises and makes the decisions of enterprises be carried out correctly and reliably. In view of the lack of current concept of enterprise benefit audit, auditors are required to strengthen the study and establish the concept of benefit audit. Benefit audit has gradually become the mainstream of government audit, not because developed countries carry out more, but the objective requirements of economic development, is the main embodiment of public fiduciary responsibility. Although there are many difficulties in the development of benefit audit in our country, it does not mean that auditors should stop learning professional knowledge. So to strengthen the benefit audit gradually propaganda work, through various forms to promote benefit audit idea, set up extensive publicity channels to change the working train of

thought of the auditor, improve the level of the knowledge of auditors, let the auditor then according to their own needs to learn professional knowledge, improve their own professional literacy and skills. According to different requirements, audit software can be divided into four kinds: field operation software, regulatory software, special audit software and audit management software. These audit systems can meet the increasingly complex audit work of enterprises. Enterprises should make full use of modern science and technology, constantly deepen the information level of internal audit, improve the technology and means of internal audit, make full use of existing audit resources, reduce the burden of internal audit personnel, so that the internal audit work can be more efficient and flexible. With the development of the economy, the economic activities of enterprises are not always the same, because there are certain deficiencies in the understanding, the development time is relatively short, the content of the audit is not very comprehensive, under such conditions on the work of accounting audit has a certain impact. So, the enterprise of the auditing department must according to the actual development of the enterprise, constantly broaden accounting audit work, to regulate the related link to constantly perfect, subdividing accounting audit work to, the parties of the responsibility to implement, to accounting audit work efficiency are improved accordingly. In view of the lack of the current enterprise economic benefit evaluation index system, we should establish the benefit audit comprehensive evaluation system, improve the management of its index mechanism, and promulgate the specific audit standards in accordance with the scientific and practical principle. The setting of evaluation criteria should be simple and clear with strong operability. The evaluation criteria should be able to reflect the overall operation level and ability of the enterprise and comprehensively evaluate the normal operation results of the enterprise. Also benefit the construction of index system should be based on the enterprise's actual operation level, from the management level of technology, such as rate, education and other aspects of professional titles, the establishment of comprehensive evaluation standard, to measure whether the enterprise management mechanism and sound decision-making procedure is scientific and reasonable, fully reflect the enterprise the management change, correct evaluation of enterprise economic benefits. To sum up, accounting audit is the urgent requirement to improve the economic efficiency of the company, and it mainly serves the economic efficiency in the operation of the enterprise. In a rapidly developing modern society, the level of science and technology has advanced by leaps and bounds, and cooperative work has become more precise. To improve the economic benefits of enterprises depends largely on the business model and management level of enterprises. The enterprise from their own good, insist on perfecting the accounting audit a number of basic work, and further extend the information on accounting, to perform accounting functions of accounting and supervision of the two properties, in this way, can the multicultural, economic situation, improve the economic benefits of enterprises, for the enterprise strength, the rapid development of savings.

Domestic scientists and specialists have sufficiently covered the issue of analysis and audit of economic activity of enterprises under normal business

conditions. In particular, the analysis of the economic activity of the enterprise and its separate areas of activity was studied by Kazachkov I.O. and Lysenko T.O. [1], Nitsenko V.S. [2-4], Honcharenko N.G. [5] and others; audit - Pyatigorets G.S. and Koptsyukh O.S. [6], Shalimova N.S. [7], Patsarnyuk O.V. [8], Sahaydak R.A. and Chornyavska T.M. [9] and others. However, the mentioned studies in the conditions of military operations have a significant difference, which leaves an impression on the business processes of enterprises, and therefore on the analysis and audit of their activities. As noted by expert I. Onyshchuk, in Ukraine more than 200 changes and amendments have been adopted in the budget legislation with the aim of prompt response and creation of appropriate conditions for continuity of functioning and provision of various financial needs (measures of territorial defense, protection of public safety and functioning of the budget sphere, communal enterprises) [10]. According to estimates [11], during military operations, according to A. Honcharuk [12], it is necessary, first of all, to conduct an inventory and analyze the financial and economic activity of enterprises that are in a state of bankruptcy. Nechyporenko V. [13] adds that such an analysis should be carried out taking into account the regional location of the enterprise, especially this applies to businesses that are located and have assets in Chernihiv, Sumy, Kharkiv, Luhansk, Donetsk, Zaporizhzhia, Kherson, Mykolaiv, Odesa and Vinnytsia regions .In the conditions of military aggression, the Audit Chamber of Ukraine notes that "auditors should constantly assess the impact of these events on clients, their financial statements and audits. Special attention should be paid to such issues as prevention of legalization (laundering) of proceeds obtained through crime, financing of terrorism and financing of proliferation of weapons of mass destruction; cyber security; accounting estimates and disclosures in order to correctly assess the impact of these events on the audit report" [14]. Thus, a scientific and methodological base has been formed regarding the object of research under martial law.

The regulatory and legal basis for the organization of economic activities of enterprises and organizations is given in the conditions of martial law in the table. 1.

The peculiarity of these legal documents is their temporary effect, i.e. after the termination or cancellation of martial law, enterprises and organizations must switch to the normal system of functioning and taxation.

Table 1

List of regulatory and legal documentation regarding the organization of economic activities of enterprises and organizations under martial law

Name of the regulatory document	Adopting body	Date and number of adoption
Order "On ensuring the implementation of calculations of enterprises, institutions, organizations in the conditions of martial law»	Cabinet of Ministers of Ukraine (CMU)	11.03.2022 p. № 212-p
Notice "Regarding certification of force majeure circumstances (circumstances of force majeure)"	Chamber of Commerce and Industry of Ukraine	28.02.2022 № 2024/02.0-7.1

Resolution "Some issues of ensuring the conduct of economic activity in the conditions of martial law"	Cabinet of Ministers of Ukraine (CMU)	18.03.2022 p. № 314
Clarification "Regarding state registration under martial law"	Ministry of Justice of Ukraine	20.03.2022 p.
Letter "Helping Ukrainian businesses to evacuate from the war zone"	Ministry of Justice of Ukraine	17.03.2022 p.
Resolution "Some issues of financial support	Cabinet of Ministers of Ukraine (CMU)	12.04.2022 p. № 438
Resolution "Some issues of organizing the work of employees of economic entities of the state sector of the economy during the period of martial law"	Cabinet of Ministers of Ukraine (CMU)	26.04.2022 p. № 481
Resolution "On Amendments to Certain Resolutions of the Cabinet of Ministers of Ukraine on Provision of Financial State Support to Entities	Cabinet of Ministers of Ukraine (CMU)	29.04.2022 p. № 521
Letter "On clarification of the scope of application of the resolution of the Cabinet of Ministers of Ukraine dated April 26, 2022 N 481"	Ministry of Education and Science of Ukraine	24.05.2022 p. № 1/5500-22
Clarification "Procedure of registration of a foreign non-profit organization in Ukraine under martial law"	Coordination center for the provision of legal assistance	02.06.2022 p.
Clarification "Regarding the submission of a declaration on the conduct of economic activity during the period of martial law"	Coordination center for the provision of legal assistance	13.07.2022 p.

Source: *compiled on the basis of public information*

Analysis of financial and economic activity is possible in several cases: 1) for the needs of the company's management - operational, current and strategic analysis; and 2) when conducting an audit in order to identify the correctness and reliability of the display of accounting indicators in reporting documents.

The results of the inventory are a valid basis for drawing up an audit report, as they contain the actual results of the presence, balance or lack of material assets at the enterprise.

During the audit, the auditor pays attention to the compliance of financial statements with the following international auditing standards (IAS) [14]:

ISA 315 (revised) "Identification and assessment of risks of material misstatement" - in part of the revised own assessment of risks of material

misstatement of financial statements caused by war, for example, related to the liquidity of the client's company;

ISA 500 "Audit evidence" - in the part of formulating one's own opinion or its modification regarding financial statements based on the received audit evidence. In connection with difficult circumstances (military actions and martial law), the auditor should modify the approach to the audit, especially in conditions of limited access to the audit object;

ISA 570 (revised) "Continuity of business" - in terms of taking into account the impact of military operations and martial law, the Covid-19 coronavirus pandemic, and other global impacts. In connection with the above, the auditor needs to take into account: updating forecasts and sensitivity analysis taking into account the identified risk factors and various possible outcomes; review of projected compliance with contractual conditions (covenants) in various scenarios; changes in the company's operation plans regarding future actions; expansion of information disclosure;

ISA 560 "Events after the reporting period" - in terms of making appropriate changes to the forecast values of indicators by management personnel, in connection with military operations and martial law. The auditor takes into account all current and potentially high levels of risk and their possible impact on such indicators.

Forming his own opinion based on the results of the audit, the auditor pays attention to the following key points: regarding compliance of accounting indicators with the requirements (changes and innovations in legislation and other regulatory documents) of legislation; indicators of accounting and annual financial statements to the accepted principles of accounting policy; effectiveness of internal control (audit); reliability of information about assets, liabilities, equity, income, expenses and financial results of the client in accounting and financial reporting [15]. Particular attention should be paid to the display of lost or destroyed material assets, destroyed buildings and structures as a result of military operations, displayed in the section of the balance sheet of the enterprise. The auditor should also verify the availability of appropriate supporting documents confirming the loss or destruction of tangible assets. First of all, we are talking about a certificate issued by the Chamber of Commerce and Industry of Ukraine [16] in the event of force majeure (circumstances of force majeure), which include military operations and martial law.

Military aggression by Russia and the introduction of martial law throughout the territory of Ukraine have seriously changed the conditions for the functioning of enterprises (organizations). There was a need to adjust the methodology of analysis and audit at the enterprise. Conducting an analysis of financial and economic activity is possible in several cases: 1) for the needs of the company's management - operational, current and strategic analysis; and 2) when conducting an audit in order to identify the correctness and reliability of the display of accounting indicators in reporting documents. In the first case, the analysis involves the adjustment of existing indicators for incurred losses and destroyed material and technical values, which are reflected in the balance sheet of the enterprise, and taking into account possible adverse events on economic activity in the short, medium and long-term periods of operation. The auditor, in turn, relies on the use of the existing audit methodology

(international auditing standards), taking into account force majeure circumstances (including military actions and martial law) that caused losses and destruction of the company's property.

The largest military conflict in human history - World War II - ended on September 2, 1945. Military action in Europe virtually ceased in May 1945. But on February 24, 2022, the continent was again on the brink of war. Ukraine, a country in central Europe, called for an invasion by the aggressor, the Russian Federation, which cynically called the war a "special operation." Fierce fighting is taking place in Ukraine, some cities and towns are under occupation, there are already a significant number of civilian and military casualties, destroyed cities and businesses.

According to the Kyiv School of Economics, the amount of direct damage to Ukraine's infrastructure during the war reached $ 63 billion or UAH 1.8 trillion as of March 24 (Table 2).

Table 2.

Losses of the economy of Ukraine from damage to physical infrastructure (in case of complete destruction of facilities), from the beginning of hostilities until March 24, 2022

Infrastructure facilities	Number of units	Total losses, million US dollars
Roads	8265	27 546
Residential buildings	4431	13 452
Civil airports	8	6 816
Factories and enterprises	92	2 921
Healthcare facilities	138	2 466
Nuclear power plants	1	2 416
Railway infrastructure and rolling stock	н/д	2 205
Bridges and bridge crossings	260	1 452
Ports and port infrastructure	2	622
Institutions of secondary and higher education	378	601
Administrative buildings	35	574
Military airfields	10	390
The AN-225 "Mriia" plane	1	300
Shopping and entertainment centers	11	188
Religious buildings	44	150
Cultural buildings	42	144
Kindergartens	165	133
Thermal and hydroelectric power plants	7	101
Other	x	412
Total	x	62 889

Source: (Kyiv School of Economics)

Total losses of Ukraine's economy due to the war are projected, taking into account both direct and indirect losses (fall in gross domestic product, cessation of investment, outflow of labor, additional spending on defense and social support, etc.) range from $ 543 billion to $ 600 billion (https://kse.ua/ua/about-the-school/news/zbitki-naneseni-infrastrukturi-ukrayini-v-hodi-viyni-skladayut-mayzhe-63-mlrd/, 2022).

The authors' surveys of audit firms show a significant loss of audit clients, which ranges from 60 to 80 percent of the total amount of contracts.

Such horrific events have created new challenges for the audit community - the provision of services under martial law. Auditors face many ethical and technical issues regarding the methodology of auditing financial statements and providing other audit services. International Standards on Auditing do not provide specific guidance on the conduct of auditors during martial law. There are already clarifications from the Public Oversight Audit Authority (Audit Public Oversight Body of Ukraine, 2022) the Audit Chamber of Ukraine (Audit Chamber of Ukraine) on the actions of auditors in martial law (Council of the Chamber of Auditors, 2022), but as soon as possible the auditors need methodological developments taking into account the new risks caused by the war.

The purpose of the article is to provide auditors with practical advice on accepting a client under martial law, planning an audit, risk assessment, including risks related to business continuity, collection of audit evidence, their assessment, the formation of audit opinion.

Conventionally, the audit process can be divided into several stages, as presented in table 3.

Table 3.

Stages of audit and actions of the auditor

№	Audit stage	Auditor's actions
1	Preparatory stage	Implementation of procedures for accepting the client and the task, agreeing on the terms of the task, drawing up a letter - agreement, contract, preliminary assessment of risks and ethical requirements, control measures
2	Planning	Development of strategy and plan, clarification and assessment of risks, determination of materiality limits both for financial reporting as a whole and for performance of audit procedures, definition of audit procedures, control measures
3	Completion of the task	Execution of audit procedures, collection of audit evidence, their evaluation, control measures
4	The final stage	Formation of the auditor's opinion, control measures

Source: (*International standards of quality control, audit, inspection, other assurance and related services*, 2018.)

At each stage of the audit, certain principles are applied, such as the principle of assessing the risks of the client and the audit, business continuity, internal standardization; methods, in particular, deduction, induction, analogy, abstraction, classification, synthesis, analysis, observation, measurement, comparison, consolidation and grouping, comparative law methods, elimination, balance method, professional judgment, procedures for collecting and summarizing audit evidence, formation of audit thoughts.

The audit procedures are presented in Table 4. The set of principles, methods and procedures form the basis of the audit methodology. The methodology is correlated based on the specifics of the tasks, defining the purpose, features of the presentation of audit results and is the algorithm of the auditor's actions.

Table 4.

List of audit procedures used in the audit stages

Auditprocedures	Preparatory stage	Planning	Completion of the task	Final stage
Identification	x	x	x	x
Analytical procedures	x	x	x	x
Request	x	x	x	x
Observation	-	-	x	-
Inspection	x	x	x	x
Rating	x	x	x	x
Audit	x	-	x	x
Confirmation	x	x	x	x
Recalculation	x	x	x	x
Repeat execution	-	-	x	-

Source: (*International standards of quality control, audit, inspection, other assurance and related services*, 2018)

Each stage of the audit was affected by events directly related to the military aggression. Therefore, today it is necessary to clarify the algorithm of the auditor's actions.

The preparatory stage is primarily concerned with identifying the client and concluding an audit agreement. Under martial law, together with the Law of Ukraine “On Auditing Financial Statements and Auditing Activities” of December 21, 2017 № 2258 - VIII (the Law № 2258) auditors, as specially designated subjects of primary financial monitoring, are obliged to apply provisions of the Law "On Prevention and Counteraction to Legalization (Laundering) of Proceeds from Crime, Financing of Terrorism and Financing of Proliferation of Weapons of Mass Destruction" of December 6, 2019 № 361-IX (the Law № 361). Law 361 requires a risk-based approach to assessing audit clients (Verkhovna Rada of Ukraine, 2022).

The State Financial Monitoring Service provided a list of new risk indicators caused by the war (Table 5).

Table 5.

Risk assessment by auditors in the financial monitoring system

№	Type of risk	Procedures
1	Clients are - residents of Ukraine who have shares in the authorized capital, formed by individuals and legal entities registered in the Russian Federation and the Republic of Belarus and in uncontrolled territories, clients or founders of clients - citizens of Russia and Belarus, as well as citizens of Ukraine, registered in the temporarily occupied territories of Ukraine, who opened accounts in banking institutions of Ukraine / received transfers during the year before the war; - individuals - non-residents; - law enforcement officers of the Russian Federation and the Republic of Belarus, who took / are taking part in the criminal activity of the aggressor country on the territory of Ukraine and Europe;	In conditions of limited use of open state registers and other Internet resources, when accepting a client during martial law: 1. to request and examine statutory documents and / or their copies (charter, extract or extract of the Unified State Register of Individuals - Entrepreneurs and Legal Entities; for non-resident legal entities. authorized body of a foreign state on the registration of the relevant legal entity; 2. in the letter-agreement, or in the initial request to the client it is obligatory to provide responsibility of the client for identity of the original of the provided copies of documents; provide for the possibility of providing such copies via e-mail or through the organization of remote access to customer databases, which prevents unsanitary delivery of information (automated), electronic communication, information and communication systems, electronic communication networks of the client.
1.1	- legal entities - residents of Ukraine, which are official representative offices of Russian and Belarusian companies;	
1.2	- residents of Ukraine who have permanent business relations with Russian / Belarusian individuals or legal entities;	1. in the request for financial monitoring and the client's questionnaire, which are developed within the framework of the Law № 361, provide for the provision of information on business relations with certain persons; 2. in the future, to provide audit procedures for the study of primary documents for certain contracts and transactions.
1.3	- non-residents with hidden ultimate beneficial owners (controllers) who have open accounts in Ukrainian banks;	1. to request and examine documents and their copies: for non-resident legal entities, copies of the legalized extract from the trade, banking or court register on the registration of the relevant legal entity;
1.4	¬ non-residents registered in	

	offshore jurisdictions and jurisdictions with weakened tax / currency controls that have open accounts in Ukrainian banks.	2. by requesting to find out whether the client cooperates with prominent entities; 3. in the future, to provide audit procedures for the study of primary documents for certain contracts and transactions.

Source: (Verkhovna Rada of Ukraine, 2001; 2022)

Table 6.

Transfer of funds outside Ukraine on the basis of pretended additional agreements

№	Type of risk	Procedures
1	Transfer of funds outside Ukraine on the basis of alleged additional debt assignment agreements, offsetting of claims under import contracts concluded with residents of Russia and Belarus, in order to withdraw funds to other enterprises, including other jurisdictions.	1. In the request for financial monitoring and client questionnaires, which are developed under the Law № 361 to provide information on the conclusion of debt assignment agreements, offsetting on import contracts, securities transactions, etc. 2. In the future, to provide audit procedures for the study of primary documents for certain contracts and transactions
1.1	- transfer of funds outside Ukraine on the basis of alleged additional debt assignment agreements, offsetting of claims under loan agreements (loans, credits, financial assistance) concluded with residents of Russia and Belarus, in order to return borrowed funds to other enterprises, including other jurisdictions (lack of complete information on the total amount of the loan, which allows repayment of loans, interest payments after many years);	
1.2	- carrying out any transactions with securities issued by residents of Russia and Belarus or persons affiliated with such residents.	
2	Impossibility to identify and verify the client.	To avoid the impossibility of identification, apply procedures: 1. to request a list of persons who are final beneficiaries, persons who make management decisions and copies of their passports; 2. verification - is the establishment that the identification documents (passports) belong to the person who represents the interests of the client, to do this, use the procedure of interviewing a person through the Zoom platform and record such an interview via video.

Source: (The State Financial Monitoring Service of Ukraine, 2022)

In case of identification of relations with natural or legal persons subject to sanctions, the audited entity is obliged to freeze the assets of such persons and stop providing any services. Asset freezing is a ban on the transfer, conversion, placement, movement of assets related to terrorism and its financing, proliferation and financing of weapons of mass destruction, based on UN Security Council resolutions, foreign decisions, courts [8]. In addition, it should be noted that the Law of Ukraine of March 3, 2022 № 2116-IX "On Basic Principles of Compulsory Seizure of Property in the Russian Federation and Its Residents" provides for the forcible seizure of property of the Russian Federation and objects of property rights of its residents on the grounds of public necessity (including cases in which it is urgently required by military necessity) in favor of the state of Ukraine on the basis and in the manner prescribed by this Law.

At the client acceptance stage, an ethical threat assessment is required. The auditors have already dealt with the specifics of assessing the threat of ethics during the pandemic. Recommendations of the International Federation of Accountants (IFAC) "The use of specialists in COVID 19, including considerations for involving specialists in the audit of financial statements. October 2020" were the basis for the development of ethical threat assessment procedures (The International Federation of Accountants (IFAC), 2020). Martial law and the events surrounding the aggressor's invasion also affect such procedures, so the recommendations in a slightly modified form can be applied in 2022 (Table 7).

The proposed working paper makes it possible to assess ethical threats taking into account the factors caused by martial law.

Table 7.

Excerpt from the working document "Assessment of ethical threats related to martial law in an audit firm"

Clientis LLC "XXX" Date of financial reporting: 31.12.2021 The purpose of the working document: assessment of threats to independence during martial law		
№	Issues for consideration	Comments (audit procedures for identification, assessment and counteraction to threats)
1	Are there individual and organization-wide gaps in the skills, knowledge or experience required to fulfill new reporting responsibilities or compliance with martial law requirements	To assess in the working paper whether the audit firm can work remotely
2	Are there sufficient	To assess in the working

	resources to respond to sudden changes and uncertainties arising from martial law, as well as additional tasks and responsibilities that may be required by clients Is it possible in practice to meet immediate needs (eg in resources), given the current travel constraints and personal interactions	document whether the audit firm's employees, for example through the Zoom platform, can be present at client meetings related to the audit, be present during the selective inventory of inventory (the possibility of creating so-called virtual groups)
3	Is the IT infrastructure able to meet the technological needs of remote groups Is there an increased risk of, for example, fraud, cyber threats	To develop rules for access to electronic documents, rules for their correction, rules for using a remote server (transfer of sensitive data to a remote server or "cloud" storage) To purchase software that prevents threats to sensitive information and prevents unauthorized access to audit firm databases
4	Can the nature or urgency of a customer's request affect a firm's ability to support its existing customers or address martial law issues that affect the firm's own business	To develop procedures for assessing the continuity of the audit firm in martial law and uncertainty
5	Awareness, knowledge and access of the firm to the specific legal and regulatory requirements related to martial law and related recommendations and the ability of the firm to timely synthesize and disseminate knowledge in customerser viceteams	To develop procedures for interaction of the audit firm's staff (daily meetings, reporting to management)
6	Availability of infrastructure, tools and people with sufficient and relevant experience for training and supervision of virtual	Ability to create virtual groups and control them

	groups	
7	Conclusion on ethical threats: 1) threat to self-interest; 2) the threat of self-assessment; 3) threat to protection; 4) the threat of personal relationships; 5) the threat of pressure identified (or not identified), measures to minimize (eliminate).	Conclusion on threats (indicate threats), identified (or not identified), measures to minimize (eliminate).
The document was drafted: name, date, signature The document was checked: name, date, signature		

Source: (*The International Federation of Accountants (IFAC), 2020).*

At the planning stage, special attention should be paid to reviewing the risks in the light of military aggression. Martial law is a factor that significantly affects the continuity of any business entity. International Standards on Auditing 570 "Continuity of Activity" defines operational, financial and other factors that affect continuity, but the standard does not provide for the assessment of continuity during hostilities (Information letterof the Boardof the Audit Chamber of Ukraine Consideration by the auditor of the continuity of activities during the audit off inancial statements, 2022). All these factors must be considered through the prism of military events. condition (table 8).

Table 8.

Operational factors affecting the continuity of the business entity taking into account martial law

Factors	The essence of the factors	Clarification of the essence of the factor (the impact of martial law)
Operating	1. Intentions of management to liquidate an entity or to cease operations. 2. Loss of key management personnel without its replacement. 3. Loss of the main market, key customer (s), franchise, license or main supplier (s). 4. Difficulties with the workforce. 5. Lack of important	1. The impact of martial law on the company's personnel (mobilization, joining the territorial defense) and the costs associated with the payment of personnel; 2. Suspension or interruption of activities due to disruption of the supply chain, termination of operations, loss of production capacity or commercial facilities, restriction of movement and disruption of logistics; 3. Damage or destruction of property;

	resources. 6. The emergence of a very successful competitor.	4. Failure to comply with the terms of contracts due to force majeure, adverse changes in the terms of contracts, breach of credit agreements, inability to repay accounts payable and delays in repayment of receivables; 5. Significant reduction in sales, profits, cash flows from operating activities.

Source: (International standards of quality control, audit, inspection, other assurance and related services, 2018)

In table 9 there are discussed the financial factors that affect the business continuity of the entity, taking into account martial law.

Table 9.

Financial factors affecting the continuity of the business entity taking into account martial law

Factors	The essence of the factors	Clarification of the essence of the factor (the impact of martial law)
Financial	1. Excess of liabilities over assets or excess of current liabilities over current assets. 2. Loans with a fixed term, the repayment of which is approaching, in the absence of real prospects for prolongation or repayment; or excessive use of short-term loans to finance long-term assets. 3. Signs of cancellation of financial support by creditors. 4. Negative cash flows from operating activities, as evidenced by financial statements for previous periods or projected financial statements. 5. Negative key financial ratios. Significant operating losses or significant reductions in the value of assets used to generate cash flows. 6. Debts or termination of dividends. 7. Inability to pay creditors on time. Inability to fulfill the terms of loan agreements. 8. Transition from the system of payment on credit for the delivered goods, received service to the payment system at the time of delivery of goods, receipt of services. 9. Inability to obtain financing for the development of new basic products or to finance other significant investments.	1. Arrest or expropriation of assets for the needs of the state after December 31, 2021; 2. Restrictions on access to cash and cash equivalents or restrictions on cash transactions; 3. Impairment of financial and non-financial assets (including events and information after the reporting date); 4. Instability and significant changes in prices for capital instruments, debt securities, commodity prices, foreign exchange rates and / or interest rates after December 31, 2021, which will significantly affect the assessment of assets and liabilities, income and expenses in the following 12 months.

Source: (International standards of quality control, audit, inspection, other assurance and related services, 2018)

In table 10 there are analyzed other factors that affect the business continuity of the entity, taking into account martial law.

Clarifying termination risk factors allows auditor to plan appropriate audit procedures to gather audit evidence and form the auditor's opinion on continuity (table 11).

Table 10.

Other factors affecting the continuity of the business entity, taking into account martial law

Factors	The essence of the factors	Clarification of the essence of the factor (the impact of martial law)
Other factors	1. Failure to comply with capital requirements or other legal or regulatory requirements, such as solvency or liquidity requirements for financial institutions. 2. Incomplete legal or regulatory proceedings against an entity that, if satisfied, may give rise to claims that the entity is unlikely to be able to satisfy. 3. Changes in laws or regulations or government policies that are expected to adversely affect the entity. 4. Lack of insurance or insufficient insurance against disasters in case of their occurrence.	1. Announcement of plans to terminate or dispose of fixed assets; 2. Other circumstances that significantly affect the activity.

Source: (International standards of quality control, audit, inspection, other assurance and related services, 2018)

Table 11.

The impact of the assessment of audit evidence on the continuity of the client's activity in the auditor's opinion

Evaluation of audit evidence	The impact of the assessment on the auditor's opinion
There is significant uncertainty about the company's ability to continue as a going concern	1. If continuity is used as a basis for accounting, but there is significant uncertainty when significant uncertainty is properly disclosed in the financial statements, the auditor's report should have a separate section entitled "Significant uncertainty regarding continuity" (paragraphs A21– A22, A28 – A31, A34 [5]) 2. If the use of the going concern assumption is acceptable, but there is significant uncertainty when the information about material uncertainty is not properly disclosed in the financial statements, the auditor should express a qualified or negative opinion (paragraphs A24-A25, A32). –A34 [5])

Events and conditions are expected to have some impact, but are not expected to be significant. There is considerable uncertainty, but such uncertainty is not significant	The issue of continuity is a key audit issue.
Deterioration of financial condition and results of operations indicates that the assumption of business continuity is no longer acceptable.	1. If the financial statements have been prepared using a basis of accounting other than that required by the conceptual basis, when the information that the financial statements have not been prepared on a going concern basis is properly disclosed in the financial statements, the auditor's report on the financial statements should include an explanatory paragraph users of the auditor's report that the financial statements have been prepared in accordance with a fundamentally changed basis of accounting, for example on the basis of termination or liquidation. 2. If the use of the going concern assumption is not acceptable, but the financial statements have been prepared using the going concern assumption as the basis of accounting, the auditor should express an adverse opinion. (paragraphs A26 – A27 [5])

Source: (International standards of quality control, audit, inspection, other assurance and related services, 2018)

One of the effective procedures for collecting audit evidence is inventory. During hostilities there is destruction, loss of material assets, reduction of their usefulness. Regulations on inventory of assets and liabilities, approved by the order of the Ministry of Finance of Ukraine dated 02.09.2014 № 879 provides for an inventory, in particular, in case of establishing the facts of damage to property (on the date of such facts) the head of the enterprise; in case of man-made accidents, fire or natural disaster (on the day after the end of the phenomena) in the amount determined by the head of the enterprise. conduct an anti-terrorist operation (or their structural units (separate property) are located in these areas), conduct an inventory in cases required for its conduct, when it becomes possible to ensure safe and unimpeded access of authorized persons to assets, primary documents and registers of accounting, which reflects the liabilities and equity of these under enterprises (Ministry of Finance of Ukraine, 2020). According to the international standard of auditing "Audit evidence - special provisions", if the inventory is carried out on a date other than the date of financial reporting, the auditor must perform additional audit procedures to obtain audit evidence of proper reflection of changes in inventories between the date of calculation and financial reporting date. Such evidence can be obtained through the procedure of inventory supervision, inventory inspection (presence of the auditor during the inventory). In conditions of limited access to assets due to martial law, it is possible to organize the presence of the

auditor during the inventory by using IT technologies: Zoom conference programs, Microsoft Teams, video cameras and recording the inventory procedure conducted by client staff for further audit. This will help the auditor to indirectly confirm the presence or absence of assets, to record the facts of damage and damage. Thus, establishing at the level of the audit firm the possibility of video recording of the inventory process and the use of video conferencing with management of the customer will help the auditor to indirectly confirm the presence or absence of assets, record damage and injury, form the auditor's opinion on the financial statements.

Military aggression by Russia and the introduction of martial law throughout the territory of Ukraine have seriously changed the conditions for the functioning of enterprises (organizations). There was a need to adjust the methodology of analysis and audit at the enterprise. Conducting an analysis of financial and economic activity is possible in several cases: 1) for the needs of the company's management - operational, current and strategic analysis; and 2) when conducting an audit in order to identify the correctness and reliability of the display of accounting indicators in reporting documents. In the first case, the analysis involves the adjustment of existing indicators for incurred losses and destroyed material and technical values, which are reflected in the balance sheet of the enterprise, and taking into account possible adverse events on economic activity in the short, medium and long-term periods of operation. The auditor, in turn, relies on the use of the existing audit methodology (international auditing standards), taking into account force majeure circumstances (including military actions and martial law) that caused losses and destruction of the company's property.

The war in Ukraine has forced auditors to tackle new challenges in complying with the latest legal requirements for identifying those involved in military aggression against Ukraine, on the one hand, and requiring careful compliance with International Standards on Auditing. All stages of the audit require the staff of audit firms to take into account such a factor as martial law. Systematized risks associated with identifying the client during the task at the preparatory stage will allow the auditor to identify persons registered in the Russian Federation and the Republic of Belarus, identify their assets in Ukraine, timely provide information to the State Financial Monitoring Service. The working document "Assessment of threats to the ethics of martial law in an audit firm" allows auditor to assess such threats and take measures to minimize or eliminate them. New risk factors for business continuity, which are summarized on the basis of International Standards on Auditing and the clarifications of the Audit Chamber of Ukraine, should also be taken into account when planning an audit. The auditor evaluates the impact of certain factors on the client's financial statements evaluates the audit evidence and, depending on the evidence collected, forms an opinion on the financial statements at the final stage. The auditor uses asset inventory or inspection procedures to perform the engagement. The use of conference software Zoom, Microsoft Teams, inventory videos without physical presence allows auditors to indirectly participate in the inventory and obtain evidence of the availability and condition of assets. Further research will focus on improving the auditor's working papers in order to provide auditors with practical tools.

References:

1. Kazachkov, I., Lisenko, T. (2013). Current approaches to the analysis of the enterprise economic activity, pp. 30-37. Available at: https://old-zdia.znu.edu.ua/gazeta/evzdia_4_030.pdf.

2. Nitsenko, V., Sharapa, O., Burdeina, N., Hanzhurenko, I. (2017). «Accounting and analytical information in the management system of a trading enterprise in Ukraine». Visnyk KhNAU im. V.V. Dokuchaieva. Seriia «Ekonomichni nauky». no. 2, pp. 3-18.

3. Nitsenko, V. (2016). «Economic efficiency of the intensification of the pig industry: theoretical and methodological aspect». Formuvannia rynkovykh vidnosyn v Ukraini. no. 1(176), pp. 107-111.

4. Nitsenko, V. (2015). «Research methods of functioning of vertically integrated structures of agrofood sphere». Naukovi pratsi Natsional'noho universytetu kharchovykh tekhnolohij. no. 21(3), pp. 60-70.

5. Honcharenko, N. (2020). «Acceptance of justified management decisions on the basis of economic analysis of economic activity of enterprises». Naukovyj visnyk Uzhhorods'koho natsional'noho universytetu. no. 30, pp. 52-54.

6. Pyatigorets, A. S., Koptsiukh, O. S. (2017). «Features of auditing on agricultural enterprises Zbirnyk naukovykh prats' Dnipropetrovs'koho natsional'noho universytetu zaliznychnoho transportu imeni akademika V. Lazariana «Problemy ekonomiky transportu». no. 14, pp. 52-57. Available at: https://doi.org/10.15802/pte.v0i14.123871.

7. Shalimova, N. S. (2014). «Quality as the Key Criterion of Assessment of its Effectiveness in the System of Socio-economic Processes». Business Inform. no. 4, pp. 335-340.

8. Patsarniuk, O. (2021). «Organizational stages of audit of the enterprise's innovative activity». Ekonomika ta derzhava. no. 4, pp. 163-168. Available at: https://doi.org/168.10.32702/2306-6806.2021.4.163.

9. Sahaidak R. A., Chorniavska T. M. (2011). «Audit of financial results of agricultural enterprises: the essence and main aspects of the organization. Formation of market economy». Formuvannia rynkovoi ekonomiky. Spets. vyp.: Orhanizatsiino-pravovi formy ahropromyslovykh formuvan: stan, perspektyvy ta vplyv na rozvytok silskykh terytorii. [Special. issue: Organizational and legal forms of agro- industrial formations: state, prospects and influence on the development of rural areas]. In 2 parts. Part 2. pp. 465–472.

10. Osoblyvosti biudzhetnoho protsesu v umovakh voiennoho stanu (2022). pp. 163-168. Available at: https://decentralization.gov.ua/news/14654.

11. Voiennyi stan (2022). Vsi normatyvni materialy, alhorytmy dii, roziasnennia, korysni resursy. [Martial law. All regulatory materials, action algorithms, explanations, useful resources.]. Available at: https://lexinform.com.ua/zakonodavstvo/voyennyj-stan-vsi-normatyvni-materialy-

algorytmy-dij-roz-yasnennya-korysni-resursy.

12. Honcharuk, A. (2022). Bankrutstvo v umovakh voiennoho stanu.

Shcho robyty z biznesom, yakyi zupynyv svoiu robotu? [Bankruptcy under martial law. What to do with a business that has stopped its work?]. Available at: https://borgexpert.com/stiahnennia- borhiv/arbitrazhna-praktyka/bankrutstvo-v-umovakh-voiennoho-stanu-shcho-robyty-z-biznesom-iakyj-zupynyv-svoiu-robotu.

13. Nechyporenko, V. (2022). «How will martial law affect

business?» YURYST & ZAKON, №08. Available at:https://uz.ligazakon.ua/ua/magazine_article/EA015530.

14. Audytorska Palata Ukrainy. Informatsiinyi lyst Rady Audytorskoi

Palaty Ukrainy shchodo vplyvu viiskovoi ahresii Rosiiskoi Federatsii na finansovu zvitnist ta audytorski zvity. (2022). [Audit Chamber of Ukraine. Information letter of the Council of the Audit Chamber of Ukraine regarding the influence of the military aggression of the Russian Federation on financial reporting and audit reports]. Available at: https://www.apu.com.ua/wp-content/uploads/2022/03/INFORMATSIINYI-LYST-APU.pdf.

15. Barylko I.V., Lesko Yu.O. (2012). Metodyka audytu finansovoi zvitnosti. [Financial reporting audit methodology. 2012]. Available at: http://www.rusnauka.com/7_NITSB_2012/Economics/7_102958.doc.htm.

16. Ukrainian Chamber of Commerce and Industry (2022). Zasvidchennia fors-mazhornykh obstavyn. [Chamber of Commerce and Industry of Ukraine. Certification of force majeure circumstances]. Available at: https://ucci.org.ua/naivazhlivishe/contacts-zasvidchennia-fors- mazhornikh-obstavin.Audit Chamber of Ukraine. Shchodo vplyvu viiskovoi ahresii Rosiiskoi Federatsii na finansovu zvitnist ta audytorski zvity [Concerning the influence of the military aggression of the Russian Federation of financial reporting and auditor’s reports]. Retrieved from: https://www.apu.com.ua/wp-content/uploads/2022/03/%D0%86%D0%9D%D0%A4%D0%9E%D0%A0%D0%9C%D0%90%D0%A6%D0%86%D0%99%D0%9D%D0%98%D0%99-%D0%9B%D0%98%D0%A1%D0%A2-%D0%90%D0%9F%D0%A3.pdf [in Ukraine].

SECTION 3. FINANCIAL POLICY AND MECHANISM OF ITS IMPLEMENTATION IN THE SYSTEM OF ENSURING SUSTAINABLE DEVELOPMENT OF AGRIBUSINESS ENTITIES

3.1. ANALYSIS OF THE DEVELOPMENT OF BANK LENDING OF AGRICULTURAL ENTERPRISES

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Summary. At the beginning of the 90s of the 20th century, the agricultural economy of Ukraine entered a protracted and deep systemic crisis, the consequences of which have not been overcome until now. A number of issues related to the development of credit relations between banks and agricultural enterprises still remain unresolved. Most agricultural enterprises lack the knowledge and experience necessary for cooperation with commercial banks. Credit risks remain too high.

There are shortcomings in the work of commercial banks, especially in relation to assessing the creditworthiness of agricultural enterprises taking into account their specifics and determining the limits of long-, medium- and short-term crediting of these enterprises.

In addition to the specified microeconomic reasons, there are also macroeconomic factors that negatively affect the development of credit relations. The analysis proved the need for a comprehensive approach to overcoming the negative impact of micro- and macroeconomic factors that restrain the development of credit relations between banks and agricultural enterprises. Reasonable assessment of the agricultural enterprise's need for credit resources is important.

It is advisable to determine the need for long- and medium-term loans in the process of selecting investment projects of the enterprise and determining the sources of their financing. The need for short-term loans is most accurately determined when drawing up a monthly balance sheet of the company's income and expenses for the current year (planning the company's need for short-term loans for an intra-year shortage of funds).

Keywords: credit relations, bank lending, agricultural enterprise, financial support

Ukrainian scientists closely associate the concepts of "credit" and "credit relations", but do not provide a clear definition of such relations.

Azarenkova G. and Aranchiy V. [1,3] note on this occasion: "credit (from Latin credium - loan, debt). Credit relations do not arise in the production process, they only mediate this process. The peculiarity of the loan agreement is that, whatever its initial conditions, the final stage is always carried out in monetary form.

The reasons for the emergence and functioning of credit relations are the need to ensure the continuity of the reproduction process."

Aleksiychuk V. and Isayan A. [2, 9] claim that "credit, as one of the forms of use of financial capital, arose at a certain stage of economic relations and went through several stages in its development. It arose in the conditions of commodity production and therefore had a market character from the very beginning. A number of changes took place in the development of credit relations, because they existed in different historical forms."

S. M. Kolotukha [15,16] writes about credit and credit relations as follows: "In market economic conditions, the main form of credit is bank credit, that is, credit provided by commercial banks of various types and types. Subjects of credit relations in the field of bank credit are state organs, the population, the state and the banks themselves. As you know, in a credit agreement, the subjects of credit relations always act as lenders and borrowers."

SI. Kruchok [18] connects the concepts of "credit" and "credit relations" as follows: "Credit... is an economic relationship regarding the redistribution of temporarily free funds or property on the terms of return, urgency and payment. Credit relations manifest themselves as an agreement between economic partners, which provides for the provision of money or property by one person to another for temporary use or disposal and use under the specified conditions (return, urgency and payment). In other words, credit relations are relations of buying and selling the right of temporary use or disposal and use of money or property. The owner of money (property), who acts as a creditor, sells the right of temporary use or disposal and use of money or property to another person - the borrower, for an appropriate fee."

Summarizing what has been said, we note:

- subjects of credit relations are the creditor and the borrower;
- the object of credit relations is the right to use (or dispose of and use) money or property;
- credit relations manifest themselves as an agreement between partners and are relations of purchase and sale of the above-mentioned right;

But, as noted above, the question remains open as to whether the concepts of "credit" and "credit relations" are the same, or, after all, these concepts are close but different from each other. It is known that the criterion of truth is practice. It is practice that shows that credit relations arise before the appearance of credit.

So, for example, credit relations between an enterprise and a bank arise from the moment of submitting a credit application. The bank's consideration of such an application, its assessment of the creditworthiness of a potential borrower, including the assessment of future credit security, negotiations on credit terms, conclusion of a credit agreement and a pledge agreement, etc. - all these are credit relations that actually arise and exist even before the appearance of the loan (their reality is among other things, also in the fact that they require certain expenditure of time and money both on the part of the potential borrower and on the part of the potential creditor). Undoubtedly, credit relations should include the provision of credit, its use and return, as well as credit monitoring.

Thus, the concept of credit relations is broader than a loan, as it also includes relations that precede the loan, as well as its support.

Therefore, credit relations are relations between a borrower and a creditor (including potential ones) related to the provision, use and repayment of credit. But such relations are not limited only to granting, using and returning credit (because they include a whole range of relations that precede the granting of credit, as well as credit monitoring).

It is appropriate to distinguish the following stages of credit relations:

- the stage that precedes the granting of a loan;
- providing a loan;
- use of credit;
- loan repayment.

The second and third stages, as well as the third and fourth, may overlap in time if the loan is granted or repaid in installments. At all stages, except for the first, credit monitoring continues both on the part of the borrower and on the part of the creditor.

So, both credit and credit relations are a set of economic relations that are closely related and mutually determined, but not identical.

Credit relations in the agro-industrial complex are based on the same principles as in other sectors of the economy. At the same time, they have significant features.

The seasonal nature of agro-industrial production and the long period of production in the agro-industrial complex cause a significant need for short-term loans.

Modern agricultural technologies involve the use of machines, most of which have a high price, which is one of the important reasons for the increased need for long-term loans.

Natural factors determine the low turnover of current assets, which, in combination with the increased need for loans, leads to the need to apply a reduced loan fee in the agricultural sector.

The significant need of agricultural enterprises for long-term loans determines the need to use real estate as collateral, in particular land plots it requires the development of mortgage relations.

In connection with the spread of peasant and farm households in Ukraine, the need for mini- and microcredit is growing.

The development of the agricultural financial and credit system is closely related to microcredit.

Micro-lending is the provision of small loans to legal entities and individuals to finance business activities or consumption.

Reforming the agrarian sector of the Ukrainian economy leads, in particular, to the fact that, along with large agrarian formations, there are numerous small agricultural producers who have the status of both legal entities and individuals. In addition, reforming agriculture will lead to a reduction in employment in this field, which determines the need to create additional jobs in the countryside in trade, service, crafts, etc.

The normal functioning of small peasant farms, the creation of new jobs in the countryside outside the sphere of agricultural production require the development of microcredit.

Microcrediting is based on the general principles of lending, but at the same time, it has specific characteristics inherent only to it, due to the small size of the loan, and therefore the lending technologies used by banks when granting medium and large loans are not always acceptable for microcrediting. In this regard, commercial banks, both universal and specialized (for example, mortgage banks), engage in microcredit very reluctantly or do not engage at all. World practice has shown that microcredit is provided primarily through specialized credit institutions: credit unions and cooperative banks.

The historical experience of Ukraine in the last third of the 19th and early 20th centuries showed that microcredit developed along with other types (in particular, mortgage lending) thanks to such institutions.

Significant gains in the field of microcredit, which Ukraine had at the beginning of the 20th century, have been completely lost. Microcredit in rural areas is in its infancy. Its underdevelopment is explained by the lack of necessary factors - economic, legal and institutional.

Economic factor. The savings of the vast majority of the Ukrainian population, especially the population living in rural areas, are very small, which does not contribute to the rapid development of microcredit in the countryside through credit cooperatives.

Legal factor. Legal regulation of microcredit is ensured by laws regulating credit and cooperative activities. Despite the fact that the legal support for the mentioned types of activities has improved, it still needs to be finalized. A significant obstacle to the development of cooperative banks is the provision of the Law of Ukraine "On Banks and Banking Activity" [12], which defines the minimum amount of authorized capital required to obtain a license to conduct banking activities.

Institutional factor. As a result of the negative impact of the above-mentioned factors, in modern Ukraine there is no developed network of specialized credit institutions that provide microcredits (the only exception is city pawnshops, which provide private individuals with microcredits of a mainly consumer nature against the collateral of jewelry, but this type of microcrediting is not the subject of this study).

There are very few credit unions in Ukraine, until now there is not a single cooperative bank in the country. Overcoming the negative effect of the mentioned factors requires:

- financial support of the program for the development of the microcredit system in the countryside from the Ukrainian state and international financial and credit organizations;

- reduction (possibly during the first 10 years of operation) of the minimum authorized capital of cooperative banks to 5 million hryvnias with the introduction of a corresponding amendment to the current Law of Ukraine "On Banks and Banking Activity";

- promoting the development of a wide network of specialized credit institutions that will provide microcredit in the countryside.

The system of specialized credit institutions should be created according to the "bottom-up" principle at different levels of local, regional and, possibly, national.

At the local level (a settlement, an administrative district in rural areas) credit cooperatives must be created, their creation can only be voluntary, and therefore this process will be uneven in different regions. In regions where credit cooperatives will achieve significant development (it can be the territory of an oblast or several oblasts), it is advisable to create a regional cooperative bank with the participation of credit cooperatives.

A similar system was created in Ukraine at the beginning of the 20th century, when credit and savings and loan societies were united in associations - prototypes of cooperative banks.

The urgent need of agricultural enterprises for medium and long-term loans requires the development of mortgages, that is, securing such loans with the pledge of land plots and other real estate belonging to agricultural enterprises.

The essence of mortgage relations in the agricultural sector of the economy is the same as in other sectors. At the same time, mortgage relations in agriculture have their own specific features. First of all, mortgages of agricultural land plots should be attributed to them. According to the legislation in force in Ukraine, the subject of a pledge can be land plots (including agricultural plots) that are privately owned.

The limited opportunities for the development of mortgages in the agricultural economy of Ukraine are due to the peculiarities of the national legislation and other reasons, in particular, the currently low price of agricultural land.

However, this does not mean that the mortgage of agricultural land plots in Ukraine is unpromising. On the contrary, the circumstances that have developed in the agrarian sector of the economy of Ukraine require the active participation of all interested parties, especially the state, in working out the mechanisms of mortgages of agricultural plots of land.

In the future, the mortgage of land plots can become an important direction of attracting investments in the agriculture of Ukraine.

Credit relations, as already mentioned, are relations between lenders and borrowers related to the provision, use and return of credit.

This definition applies to any lenders and borrowers, including banks and agrarian enterprises-borrowers.

Normal development of credit relations is possible if the necessary prerequisites are present. Such prerequisites are diverse, and therefore it is advisable to classify them according to the relevant characteristics, namely:

- by nature - economic, legal and institutional;

- according to the characteristics of participants in credit relations - prerequisites created by: direct participants (borrowers and creditors); and indirect participants (the state, insurance companies, stock exchanges, etc.).

- by level - microeconomic and macroeconomic.

The economic prerequisites for credit relations between banks and enterprises are of a historical nature and appeared at a certain level of development of commodity-monetary relations.

Credit relations, as an integral component of commodity-money relations, arose and developed under the slave and feudal system in the form of usury. The role of usurious capital decreased with the development of industry, and the importance of bank capital, which completely supplanted usury in the most developed countries, grew accordingly.

In Western and Central Europe already in the 18th century, permanent relations between the owners of large landholdings and banks were formed; at that time, their relationship was mainly limited to the so-called land loan secured by the pledge of land plots.

In the territory of modern Ukraine, in the last third of the 19th century, the rapid development of agrarian mortgage took place. The most powerful land banks operated here - Kharkiv, Poltava, Kyiv.

Specific economic prerequisites for the development of credit relations between modern banks and agricultural enterprises arise when the former have sufficient credit resources, and the latter have a need for loans and the ability to repay them.

In Ukraine, the credit resources of commercial banks are still limited, despite the significant increase in their number in recent years. This applies primarily to medium and long-term resources.

The creditworthiness of a large part of agricultural enterprises is insufficient. Most of them are unable to provide medium and long-term obligations.

Despite the significant steps taken in recent years regarding the creation of the regulatory and legal framework necessary for the development of credit relations, a number of issues related to these relations still do not have an adequate legal settlement. These questions should include:

- unsatisfactory legal settlement of bankruptcy procedures of insolvent debtors and foreclosure of assets pledged by them, including extrajudicial;
- lack of legal settlement of issues related to state registration of land plots and other immovable property and rights to it, in particular, debt burdens;
- insufficient legal support for the activities of mortgage institutions and the issuance of mortgage refinancing instruments, etc.

The institutional prerequisites are that, in addition to the direct participants in credit relations (in this case, banks and their borrowers - agricultural enterprises), to ensure the normal state and development of these relations, such institutions as registration authorities, appraisal firms, notary offices, insurance companies, stock exchanges are necessary , courts, etc.

Registration bodies must ensure the maintenance of the register of debtors of Ukraine, as well as the register of real estate and rights to it.

The presence of a single register of debtors will contribute to a significant reduction of credit risks of commercial banks, provided that this register is complete and up-to-date.

The unified state register of real estate and rights to it for the implementation of civil-law agreements with real estate, in particular in the process of mortgage lending.

Appraisal firms (independent appraisers) carry out a monetary assessment of assets (real estate, etc.) at the request of an interested party, including for the purpose of securing loans.

Notaries certify credit agreements and other documents without which credit relations are impossible.

Insurance companies insure property, including collateral, and financial risks, in particular credit risks, which greatly contributes to the development of credit relations.

Stock exchanges facilitate the refinancing of banks by issuing them debt instruments, in particular mortgage ones.

Courts resolve disputes that arise between parties to credit relations.

In modern Ukraine, the institutional prerequisites for credit relations are only partially available. A unified state cadastral and registration system has not yet been created, there are practically no insurance companies that would insure the harvest and property of agricultural enterprises or provide loans to them, the stock and real estate markets are underdeveloped, the courts are overburdened and the consideration of cases related to violations in this area is carried out by them too slow.

A separate issue that has been actively debated in Ukraine for many years is the creation of a specialized agricultural bank. After the bankruptcy of AKB "Ukraine", the discussion on this issue revived.

On this occasion, we consider it expedient to note the following. The specialization of credit institutions, in particular banks, limits the scope of their activity and thus contributes to the improvement of bank management in this particular field (agrarian banks know better the specifics of agricultural enterprises and the peculiarities of their lending). On the one hand, this reduces credit risks, and on the other hand, it increases them (diversification of risks becomes impossible).

In today's conditions, the risk of massive non-return of loans by agricultural enterprises is very significant, for example, in connection with adverse climatic conditions (insurance for such risks is practically absent, and state support for agricultural enterprises is insufficient). This circumstance may lead to the loss of liquidity of a specialized bank. A significant reduction of the mentioned risk in the coming years seems to be problematic, as it requires an appropriate level of development of the country's economy as a whole and its agricultural sector in particular.

Universal banks can diversify their risks, but are unable to properly take into account the specifics of agricultural enterprises. This shortcoming can be eliminated by standardizing the lending activities of banks in relation to agricultural enterprises (that is, applying such procedures that allow minimizing credit risks based on the assessment of borrowers, loans and their security, etc.). In addition, the costs of servicing standardized loans are much lower compared to unique loans.

Foreign experience shows that the success of specialized agrarian banks depends on the level of development of the agrarian sector of the economy and the effectiveness of state regulation of monetary and credit relations in this sector. Since these positions in Ukraine wish for the best, commercial banks in our country do not yet seek to transform into agrarian banks.

As mentioned above, the prerequisites for the development of credit relations can be classified depending on who creates these prerequisites.

Prerequisites created by agricultural enterprises. In general, these prerequisites can be defined as "creditworthy demand for bank loans" on the part of enterprises, i.e. they boil down to:

- needs of enterprises in bank loans;
- the ability of enterprises to fulfill their credit obligations.

Enterprises' need for bank loans is one of the few prerequisites that can be considered sufficient. The lack of working capital, the need to actually re-create the material and technical base cause the urgent need of agricultural enterprises for short-medium- and long-term loans. As is known, a completely different situation has arisen regarding the ability of agricultural enterprises to fulfill their credit obligations. The unsatisfactory financial condition of most agricultural enterprises, the lack of sufficient and liquid provision of loans does not allow them to satisfy such a need. It should be noted that the financial condition of enterprises depends not only on their activities. A significant part of the factors that determine this state are outside the sphere of influence of enterprises (first of all, what has been said concerns the provision of price parity between sectors of the economy, conditions of taxation, insurance, lending, etc.).

At the same time, agricultural enterprises do not fully use the opportunities to improve their financial condition, as evidenced by the results of the best farms.

Prerequisites created by banks. In addition to the availability of credit resources, which has already been mentioned, such prerequisites include a high level of management of the credit activity of banks, primarily assessing the creditworthiness of borrowers and the feasibility of lending to business projects and credit support; Banks' choice of lending methods is also important.

Prerequisites created by mediated participants in credit relations. Such participants are the state and the structures identified when considering the institutional prerequisites.

The role of the state in creating the prerequisites for credit relations is extremely important and consists primarily of:

- creation of a regulatory and legal framework for these relations;
- ensuring price parity between sectors of the economy by regulating prices using market methods;
- optimization of tax-budgetary relations between the state and agricultural enterprises and banks (taxation, state financing of agricultural programs, etc.);
- creation of favorable conditions for insurance activity in the agricultural sector;
- partial compensation of credit and insurance rates for agricultural enterprises.

None of the listed prerequisites is fully ensured in Ukraine.

All prerequisites of credit relations, which are created by borrowers and creditors, as well as indirect participants of these relations, except for the state, are microeconomic.

Macroeconomic prerequisites include such as the stability of the national currency, general economic growth, the degree of integration of the national economy into the world economy, the investment rating of the country, as well as those listed above in determining the role of the state.

Microeconomic measures that must be taken by agricultural enterprises include:

- identification of untapped opportunities to improve the financial situation and methods of their use;
- reasoned justification of the need for bank loans and the terms of their repayment;
- increasing the level of preparation of credit applications and accompanying documents.

These measures are implemented in the process of optimizing the activities of agricultural enterprises. These issues are considered in detail in the second chapter of the dissertation.

Measures to be taken by banks include:

- expansion of the resource base of credit operations;
- increasing the reliability of assessing the financial condition of agrarian enterprises-borrowers;
- determination of the feasibility of crediting proposed business projects using modern methods and methods of their evaluation;
- improving the analysis of the sufficiency and liquidity of collateral for invited loans with the participation, if necessary, of independent appraisers.

Measures related to the improvement of banks' assessment of the financial condition of enterprises and the feasibility of crediting business projects proposed by these enterprises are particularly relevant. These issues are considered in detail in the third chapter of the dissertation.

The measures that must be taken by the mediated participants in credit relations are mainly macroeconomic in nature and relate to the creation of economic, legal and institutional prerequisites.

Among the measures that will ensure the creation of the necessary economic prerequisites for the development of credit relations, the following are of primary importance:

- maintaining the stability of the national currency;
- ensuring the general growth of the Ukrainian economy;
- ensuring price parity between agricultural products and industrial means of agricultural production.

The measures aimed at creating the necessary legal prerequisites should include, first of all, the development and adoption of the relevant package of Laws of Ukraine.

Measures of an institutional nature are as follows:

- creation of a unified state registration system that will provide reliable information about real estate and rights to it;
- promotion of the development of insurance companies and state stimulation of their activities in the agrarian sector of the economy;
- creation with the participation of the state of the first mortgage institution of the second level in Ukraine, which would provide refinancing of commercial banks that will provide loans secured by real estate, including agricultural land plots.

The current state of the Ukrainian economy requires drastic changes in land relations. Wide involvement of land plots and other real estate objects in the economic turnover is a necessary prerequisite for a significant increase in investments.

At present, it is necessary to adopt a number of laws that will regulate land and property relations, the development of mortgages, etc., and the necessary institutional prerequisites should also be created.

A prominent place among these measures belongs to the creation of an effective system of registration of rights to immovable property.

The system of registration of real estate rights is of key importance in ensuring the economic turnover of land plots and other real estate.

State protection of information contained in the registration system is a prerequisite for its effective functioning. This means that the state should bear full responsibility for the information entered into the database. Only under this circumstance, the registration system will create trust among users, which will ensure its effectiveness.

An effective registration system is possible only under the following circumstances:

- the land plot must be registered together with the immovable property located on it;
- registration of land plots, other real estate and rights to it must be kept in one register.

This approach to registration is based on the fact that the land plot is primary real estate, and all other real estate objects (buildings, perennial plantations) are real estate only because they are inextricably linked to the land plot. Registration of real estate on the basis of land plots will help to avoid many conflicts that may arise in the case of civil legal actions with real estate in case of uncertainty of rights to land plots and real estate located on them. Only in the case of real estate registration on the basis of land plots, it is possible to maintain a single real estate register with a single identification system for all immovable objects.

An extremely important aspect is the maintenance of the cadastre and register of rights (non-debt restrictions and debt encumbrances) by one institution.

The "one-window" principle, which provides the opportunity to obtain complete and reliable information in one place, is very convenient for users of the registration system and enables the effective functioning of such a system.

In world practice, there are mainly two types of registration systems. Depending on the principles on which they are based, dual and single systems are distinguished.

The essence of the dual system is that the management of the land cadastre is entrusted to the land management bodies, and the registration of rights is carried out by the courts of the lower instance in the land register.

Another option for solving the problem of real estate registration and rights to it is the creation of a single system that combines the land cadastre and the land book in one register.

Ukraine is just beginning to create a system of registration of real estate and rights to it that meets the requirements of a market economy, and therefore has the opportunity to take into account the rich foreign experience with all its achievements and mistakes and introduce a highly effective registration system.

An important component of the unified State registration system should be the register of rights to immovable property and their limitations.

The adoption of the Tax Code of Ukraine, which would normalize and establish the tax-budgetary relations of agricultural enterprises and banks with the state, is extremely important.

As already mentioned, the decisive role in creating macroeconomic prerequisites for the development of credit relations between banks and agricultural enterprises belongs to the state.

Credit relations developed historically. They have gone through centuries of development, evolving in accordance with changes in social and economic formations.

Modern credit relations arise between borrowers and creditors and include the following four stages:

- the stage that precedes the loan;
- providing a loan;
- use of credit;
- loan repayment.

At all stages, except the first, credit monitoring continues both on the part of the borrower and on the part of the creditor.

The development of credit relations between banks and agricultural enterprises requires certain prerequisites. The systematization of such prerequisites became possible thanks to the development of a corresponding concept.

A comparison of the necessary prerequisites for the development of credit relations with the actual ones made it possible to determine a clear system of measures aimed at the development of bank crediting of agricultural enterprises.

Most agricultural enterprises lack the knowledge and experience necessary to properly substantiate their need for bank loans. Medium- and long-term crediting of agricultural enterprises is developing extremely unsatisfactory (and this is in conditions when the physical and moral wear and tear of most of their fixed assets has long since reached a critical limit), primarily due to the lack of sufficient and liquid provision of such loans.

There are shortcomings in the work of commercial banks, which are far from always able to assess the creditworthiness of agricultural enterprises taking into account their specifics and reasonably determine the limits of their possible short-, medium- and long-term lending.

In addition to the mentioned reasons of a microeconomic nature, which must be eliminated at the "bank-enterprise" level, there are also macroeconomic factors that negatively affect the development of credit relations between agricultural enterprises and banks (lack of effective state regulation of price and financial relations, insufficient legal support, etc.). .

The above indicates the need for a comprehensive approach to the development of a system of measures aimed at overcoming the negative impact of micro- and macroeconomic factors that restrain the development of credit relations between agricultural enterprises and banks.

In the conditions of reforming the Ukrainian economy, its transition to a market economy, the main task of agricultural enterprises is to adapt them to market conditions, which will positively affect the improvement of the efficiency of their activities. For this, enterprises need to rationally use their production, financial and other resources. In the post-privatization period, enterprises had an urgent need to restore the planning of production and financial activities, but on a new basis, oriented to market requirements.

The planned economy that existed in Ukraine during the Soviet era was based on completely different principles, different from the principles of the market economy, which consist in the orientation of the producer to the needs of the consumer. Currently, the goal of enterprises is not only to increase the volume of production, as it was before, but also to determine which products will be in demand, how to reduce production costs and improve the quality of products in order to increase their competitiveness. The main task of an entrepreneur is to make the right decision, which consists in choosing the best possible option. Effective use of the company's resources, a detailed study of the market environment, a well-planned marketing strategy, optimization of the production structure, planning of production volumes, processing and sales of products, determination of the company's need for capital and investments will bring the company closer to the expected profits.

An important aspect of planning the post-privatizatio n development of agricultural enterprises is determining the ways of their cooperation with commercial banks. Agricultural enterprises and banks cooperate in many areas, the most important of which are lending to enterprises and providing them with various services.

Justification of the need for bank loans for the near and medium term is an important direction of financial work at the enterprise.

Planning the need for medium- and long-term bank loans requires preliminary substantiation of investment projects with the determination of sources of their financing. Since the sources of financing are always limited (and now this is an especially acute problem), the selection of investment projects must be carried out

very strictly. Only highly profitable, comprehensively substantiated projects can have the right to financing, including through bank loans.

Financial science and practice has accumulated a huge arsenal of techniques and methods for justifying and selecting investment projects, as well as sources of their financing.

In the process of selecting investment projects, as a rule, the following should be taken into account:

- payback period of invested capital;
- the break-even point of the project and the change in profitability in different economic conditions, the riskiness of the project;
- net present value of the project;
- internal rate of return of the project and others.

A comprehensive analysis of business projects allows you to rank them according to the level of attractiveness, which contributes to their informed selection. At agricultural enterprises, a similar practice of selecting business projects is almost absent, which makes it difficult to optimize investment activities. And this, in turn, hinders the development of credit relations between enterprises and banks.

Regarding the sources of financing investment projects, the following are real for agricultural enterprises at the moment: own sources, bank loans and financing through leasing. Raising funds through the issue of shares or debt instruments is currently practically impossible for agricultural enterprises. When planning business projects that will be financed by bank loans, special attention should be paid to securing these loans.

With regard to medium- and long-term loans (namely, those needed to finance investment projects), their real security can be guarantees or guaranties of third parties, pledges of land plots or real estate, etc. As you know, the possibilities of sufficient provision of medium and long-term loans by agricultural enterprises are very limited. Due to the difficult financial situation of the vast majority of such enterprises, it is difficult for them to find a guarantor or guarantor, most agricultural enterprises do not own large land plots, as well as other real estate (as a rule, they rent land plots and property). The working capital that agricultural enterprises have at their disposal is unsuitable for securing medium and long-term loans. All this sharply narrows the possibilities of medium and long-term lending. Therefore, as a rule, the collateral for such loans is the lending facilities themselves, which will be implemented at the expense of these loans.

All the above-mentioned circumstances must be taken into account in the process of planning the post-privatization development of agricultural enterprises in terms of their cooperation with banks. Before applying to the bank for a loan to finance one or another business project, it is necessary to clearly define that:

- this project is highly profitable and the risks associated with its implementation do not exceed an acceptable level; all this must be supported by reliable and sufficient arguments;
- the project must pay off within three, maximum four to five years;

- the company is able to allocate at least 30-40% of its own funds, necessary for financing the project;

- cash flows from the project within three to five years are sufficient to repay the debt to the bank;

- the enterprise has in its possession liquid and sufficient assets to secure the loan, including the own property (houses, etc.) of the participants and managers of the enterprise;

- the company is ready to revise credit rates in the direction of their increase in case of strengthening of devaluation or inflationary processes.

As already mentioned, without clearly defining one's position on all the above points, it is not advisable to apply to the bank for a medium or long-term loan. In addition to the above, company specialists must be able to correctly draw up the necessary documents that are submitted to the bank.

In the process of planning the production and financial activities of agricultural enterprises and their cooperation with banks, it is also important to correctly plan the need for short-term loans. As you know, one of the specific features of agricultural enterprises is their increased need for loans, particularly short-term loans. One of the most common ways to determine the need for short-term loans is to plan it for the intra-annual shortage of funds, caused primarily by the seasonality of agricultural production.

Reasonable planning of the need for short-term loans contributes to the establishment of relations between enterprises and banks, since banks have the opportunity to determine the future needs of their customers in short-term loans, and therefore with greater certainty to predict future volumes of credit operations. In addition, such planning of the need for short-term loans promotes the use of the most effective forms of short-term lending, in particular, an overdraft

Therefore, in the post-privatization period, agricultural enterprises felt an objective need for qualitatively new planning of their production and financial activities aimed at achieving the maximum possible result in the specific conditions that have developed and taking into account the requirements of the market economy.

One of the important aspects of such planning is determining the cooperation of enterprises with banks, primarily in relation to short-, medium- and long-term lending.

A business plan plays an important role in planning. With the help of a business plan, an entrepreneur determines the strategy of the company's development for several years ahead and ways of realizing the set goals, and also has the opportunity to compare his wishes with real possibilities. A business plan is a document that sets out planned and time- and space-bound measures, the purpose of which is to increase the efficiency of the enterprise in order to maximize revenues; it reflects the company's strategy.

Business planning in agricultural enterprises has its own peculiarities. Agribusiness requires taking into account specific factors that significantly affect production and financial activity in the agricultural sector. The main means of production in agricultural enterprises is land. The development of a business plan of

an agricultural enterprise requires, first of all, the search for the most effective use of this tool. This resource is, unlike others, immobile and cannot be replaced. It can only be about improving the use of existing land resources. As you know, in Ukraine at the beginning of the 90s of the last century, the level of plowing was the highest in Europe. Infertile plots of land were cultivated, as well as remote and inconvenient for cultivation, which led to an increase in the cost of crop production. The sharp rise in prices for industrial means of production during the 1990s, and the significant reduction in their receipts in the agricultural sector of the economy acutely posed the problem of reducing the area under cultivation.

Optimizing the structure of agricultural land at this stage of the development of the agricultural sector of the Ukrainian economy consists in such a transformation of these lands, which involves the removal from cultivation of unproductive, remote and inconvenient land plots with their subsequent transfer to natural fodder lands - hayfields and pastures.

This makes it possible to combine crop production and livestock breeding at the enterprise in the best possible way and, on this basis, predict the development of the enterprise's processing of agricultural products and its sale.

After the transformation of agricultural lands, it is necessary to determine the expediency of production of certain types of agricultural products in market conditions.

The rational combination of animal husbandry and crop husbandry and determination of production volumes of certain types of agricultural products is the basis for planning the processing of agricultural products and its implementation.

During the entire process of determining the structure and volumes of production, processing and sale of products, the state and development trends of agrarian markets, as well as markets of industrial resources, are deeply analyzed. Ensuring the competitiveness of manufactured products and services provided is a prerequisite for drawing up a business plan.

Justification of the structure and volumes of production, processing and sale of products and provision of services is the basis for determining the prospective need for fixed and working capital. Comparing the prospective need for fixed capital with its actual availability and future disposal during the development of the business plan makes it possible to substantiate the necessary business projects, as well as to find sources of their financing: internal and external, own and borrowed. At the same time, business projects that will be financed with bank loans are determined.

Thus, sound business planning is an important prerequisite for determining the need of a private agricultural enterprise for medium- and long-term bank loans.

Depending on the credit policy pursued by the financial institution, certain requirements and restrictions may be established when lending to a particular enterprise project, namely:

- the form of ownership and the size of the enterprise to which the loan is granted. As a rule, credit institutions prefer privately owned enterprises. As for the size of the enterprise, the restrictions on the volume of lending, in most cases, apply to small and medium-sized enterprises;

- the share of involved financial resources in the total cost of the project. The lender is always interested in ensuring that the share of the company's funds involved in the implementation of the project is as large as possible (so, for example, when granting a loan by the European Bank for Reconstruction and Development to small and medium-sized businesses, one of the conditions is that the loan cannot exceed 70% of the cost of the financed project);

- loan repayment term. Most credit institutions set such a term, which, so far, does not exceed 3-5 years for financing fixed capital and 6-12 months for financing working capital;

- securing the loan. When granting a loan, banks require an appropriate collateral, which serves as a guarantee of loan repayment. The value of the collateral must be at least 130% or more of the principal amount of the loan (on lending to small and medium-sized enterprises, the EBRD requires the value of the collateral to be 200% of the principal amount of the loan);

- insurance. Movable or immovable property acting as collateral must be insured for the entire term of the loan, and the borrower company must also insure the risks associated with the purchase and delivery of goods at the expense of the borrowed funds;

- use of credit. In most cases, loans are targeted and their use is under strict creditor control.

As noted, the analysis of the efficiency of production of agricultural products and products of their processing is an important element of drawing up a business plan of an agricultural enterprise.

Financial analysis of production efficiency is carried out in order to determine the most effective types of products. Since one of the characteristic features of agricultural enterprises is the production of a significant number of various types of agricultural products, the analysis of production efficiency as a whole in the economy is insufficient. Under such circumstances, it becomes necessary to analyze the efficiency of production separately for each type of product. In addition, in the pre-market period, the financial analysis of the efficiency of production, sale of products or services provided was based on completely different principles, different from the principles of the market economy. Under the planned economy, such an analysis consisted in the fact that the enterprise, knowing in advance the price of one or another product, calculated costs (calculated the cost of production) and thus determined the efficiency of production. Currently, in the market economy, the company can only predict the price; at the same time, the risks associated with the production and sale of products increase sharply, which can negatively affect the efficiency of the enterprise.

At agricultural enterprises, such an analysis is preceded by a study of the structure of agricultural land and its rationalization. Thanks to the transformation of lands (withdrawal of worse lands from cultivation and their subsequent transfer to hayfields and pastures), enterprises will have the opportunity to concentrate material resources on better lands.

The next step after the optimization of the structure of agricultural land was to carry out a financial analysis of the efficiency of the production of certain types of agricultural products of the enterprise. For this purpose, the technique developed by the Department of Banking of NAU [25] was used. As already mentioned, the purpose of such an analysis is to determine the most effective types of products, taking into account:

- the possible profit that would ensure the necessary level of extended reproduction;
- the duration of the turnover of funds in the production of each type of product;
- inflation rate for the relevant period;
- risks associated with the sale of products.

Taking into account the above-mentioned factors, the required level of profitability was calculated for each type of product. The essence of the analysis is to compare the required level of profitability with the actual one - if the production of a certain type of product can provide the required level of profitability, then the production of this product is appropriate.

Financial analysis of the efficiency of production of certain types of products is the basis for the optimal combination of crop production, livestock production and processing of agricultural products.

On the basis of this analysis, the justification of investment projects and their sources of financing is carried out.

As already mentioned, the enterprise's need for credit for the next 3-5 years is determined in the process of drawing up a business plan.

Currently, there are such circumstances under which the production and sale of agricultural products does not bring high profits to the enterprise. The main profits in the agro-industrial complex are concentrated in processing and trade. Thus, in order to increase the efficiency of its activity, the enterprise must also engage in processing and sale of products through its own trade network.

There are many approaches to planning the need for long-term loans, and all of them are based in one way or another on comparing investment projects of different attractiveness with possible sources of their financing, including long-term bank loans (in highly developed economic systems, 70-75% of investment flows are created precisely at the expense of long-term bank loans).

As already mentioned, an agricultural enterprise can select investment projects and sources of their financing in the process of drawing up a business plan, which will determine the development of the enterprise in the near and medium term.

The feasibility of investment projects was evaluated by the enterprise according to two indicators:

- the payback period of the project (under modern conditions, it should not exceed five years);
- the net cash flow from the project during the first five years, which was calculated as the difference between the cash flow from the project (profit + depreciation deductions) and the investment in the project.

When determining cash receipts, all funds that will come to the enterprise during the year are taken into account: revenue from the sale of products and services, reduction of receivables and increase in payables of the enterprise in relation to borrowers and buyers, receipt of funds for long-term loans, etc.

Expenditure planning should take into account the spending of funds in all directions, except for the payment of interest for short-term loans, since the volume of such lending is still unknown.

Such directions include: financing of current expenses and capital investments, reduction of payables to borrowers and buyers, repayment of long-term loans and payment of corresponding interest, etc.

When planning annual cash receipts and expenses, one should, as a rule, anticipate an excess of the former over the latter by 5–10% for two reasons: firstly, part of such an excess will be used to pay interest on future short-term loans, the amount of which is still unknown and, secondly, it is desirable to have such a situation in which the balance of funds on the accounts and in the cash register of the enterprise at the end of the planning year will exceed the corresponding balance at its beginning.

However, there may be cases where the planned annual expenses exceed the annual income. In this case, there may be not only a decrease in the balance of funds on the accounts and in the company's cash register compared to the beginning of the year, but also an increase in its short-term debt for the corresponding period. Such an excess should be properly motivated, and it is also necessary to provide for the repayment of the corresponding debt in the next year as planned. The possibility of taking into account the specified circumstances arises under the condition of drawing up a business plan of an agricultural enterprise, which determines the main directions of its development for the next 3-5 years.

As already mentioned, the most convenient way to plan the company's need for short-term loans is by comparing its future cash receipts and expenses. This fully (and, even, primarily) applies to agricultural enterprises, since they are characterized not only by the advance of expenses compared to income, but also by the significant influence of seasonal factors on their annual dynamics. However, it should be borne in mind that the instability of climatic factors, as well as price factors, can seriously affect the effectiveness of agricultural production and will cause significant deviations in the actual dynamics of cash receipts and expenditures compared to the planned, which will lead to the loss of the relevance of the determined need for short-term loans and the possibility of their return . In order to eliminate the mentioned shortcoming, the planned balance of cash receipts and expenses of the enterprise should be clarified if necessary during the year.

In the process of planning the company's cash needs, it is advisable to provide for a certain minimum reserve for unforeseen expenses in order to ensure sufficient solvency of the company and avoid late payments if possible. It is advisable to set this standard within 5–15% of such expenses. It is determined empirically, taking into account the company's activity in previous years. With a decrease in this standard, the risk of late payments on the part of the enterprise increases; with its increase, loan

costs increase in those months when the creation of a corresponding reserve is expected at the expense of a short-term loan. These circumstances determine the above-mentioned normative limits (in our example, it is 10%).

Therefore, drawing up a balance of cash receipts and expenses allows the enterprise to determine its need for short-term loans for the planned year quite accurately;

- the balance of cash receipts and expenses is needed not only by the enterprise; it is of significant interest for the bank-potential creditor, as it allows it to more reasonably determine the volume of credit transactions for the next year with their possible clarification during the year.

Optimizing relations between agrarian enterprises and banks in the field of credit relations is not possible to the full extent, if related problems are solved only at the microeconomic level. State regulation of prices for agricultural products and state support for the spread of crop insurance are mandatory prerequisites for such optimization (along with the preservation of the existing system of taxation of agricultural enterprises and the expansion of the practice of partial compensation of credit rates).

Given the leading role of credit operations in bank asset portfolios, the effective organization of bank lending is extremely important as the basis of liquidity and financial stability of commercial banks. In order to ensure such an organization, banks develop and implement their credit policy, which defines the following:

- goals of the credit policy and ways to achieve them;
- activity standards of bank employees who make strategic decisions regarding lending and directly carry out lending activities;
- assessment criteria and methods of credit management quality control.

The goals of the bank's credit policy are determined in accordance with its overall strategy and include the maximization of income from credit activities and the minimization of related risks.

The credit policy reflects the following points:

- credit portfolio management;
- control over the credit process;
- establishing limits for credit lines and formation of reserves for possible losses on loans granted;
- credit monitoring.

The responsibility for developing the credit policy and its implementation rests with the bank's credit committee, which is headed, as a rule, by its manager.

The main stages of the credit process are:

- consideration of a potential borrower's loan application;
- an interview with a potential borrower;
- assessment of the applicant's creditworthiness;
- preparation and conclusion of a credit agreement;
- provision of loans and their monitoring.

The credit relationship between the bank and its client begins with consideration of the loan application, which contains information about the loan that

the client needs (purpose, amount, term, security, etc.). A mandatory component of the application is a package of accompanying documents, which, as a rule, includes:

1. Copy of the certificate of state registration of the enterprise.

2. Copies of founding documents (statutes and minutes of founding meetings).

3. Financial reporting documents (accounting balances, reports on financial results, cash flow statement).

4. Certificate from the DPA on the absence of debt to the budget and state trust funds.

5. Information on previously received loans.

6. Materials of audits for the last three years (if such materials are available).

7. Business plan (business project).

8. Documentation certifying the potential borrower's ownership of the collateral.

9. Notarized written consent of all co-owners of the property to pledge it.

10. Contracts for the sale of the client's products and their supply.

The given list of supporting documents may be supplemented at the request of the bank, and in the event that the potential borrower of the bank is its regular client, it may be reduced.

An extremely important aspect of credit relations between a bank and a potential borrower is the assessment of the latter's creditworthiness, which includes:

- familiarization with his credit history;
- studying the business reputation of a potential borrower (for legal entities – the business reputation of participants and managers of the enterprise);
- assessment of the financial status of the applicant;
- analysis of the submitted business plan (business project);
- assessment of collateral for the requested loan.

If the bank and its client are well acquainted with each other, the assessment of creditworthiness is reduced to the last three points (assessment of the financial condition, analysis of the business plan and assessment of the adequacy and liquidity of the collateral).

Credit relations between the bank and its borrower are regulated by legislation and a credit agreement. They are implemented in the process of providing loans, their use and return, as well as monitoring compliance with the terms of the loan agreement.

One of the many problems faced by banks in connection with such a recovery is determining the credit rating of agricultural enterprises as a prerequisite for their lending.

Analyzing the financial condition of the enterprise-potential borrower, the bank pays special attention to its creditworthiness. The task of creditworthiness analysis is to determine the potential borrower's ability to repay borrowed funds in a timely manner and in full, the bank's degree of risk associated with granting a loan, the possible volume of lending and the terms on which the loan will be granted.

The creditworthiness of a potential borrower can be assessed using three methods:

- the method of coefficients, which involves determining the main financial indicators and their normative values for a specific borrower (there are specifics of lending to enterprises depending on their types of activity), analysis of changes in the levels of these indicators over time, as well as comparing them with the average value at similar enterprises;

- by the method of rating evaluation, which involves assigning a certain point depending on the level of one or another indicator in accordance with the scale established by the bank. After that, a total score is derived, which determines the credit rating of the enterprise-potential borrower;

- combined method.

On the basis of these methods, specific methods are developed, which are used in the process of analyzing the financial state of the enterprise. When choosing methods for assessing the financial condition of an enterprise - a potential borrower, the bank must be guided by the following principles: firstly, the method must include the following financial indicators, with the help of which it is possible to most objectively assess the financial condition of the enterprise - a potential borrower: obligation in calculations for previous loans, current financial condition, liquidity of assets (ability to mobilize funds if necessary); and secondly, the number of financial documents required for the analysis should be minimal, but maximally sufficient, which will contribute to reducing the cost of time and money.

The bank independently decides on the optimal set of financial indicators. In banking practice, all financial indicators are divided into separate groups depending on which side of the enterprise they characterize.

Determining the credit rating of an agricultural enterprise has both common and distinctive features compared to the credit rating of enterprises in other sectors of the economy. Among the peculiarities of determining the credit rating of an agricultural enterprise, one should first of all note the fundamentally different structure of assets and liabilities of the accounting balance of such an enterprise and the change of this structure under the influence of seasonal factors.

Analysis of the creditworthiness of agricultural enterprises using commonly used financial ratios and their normative values, without taking into account the specifics of the industry of these enterprises, often revealed significant discrepancies between the assessment of creditworthiness and the actual level of loan repayment: there were rare cases when enterprises with a credit rating lower than the minimum allowable fulfilled their credit obligations by 90 percent or more).

In accordance with the above-mentioned approaches to assessing the financial condition of enterprises, foreign and domestic experts have developed many specific methods of such assessment.

In its regulatory documents, the National Bank has formulated the minimum necessary requirements for assessing the borrower's financial condition. In addition, commercial banks have the right to independently establish additional criteria for assessing the borrower's financial condition in order to more fully take into account credit risks and effectively control them.

According to the requirements of the NBU, in order to assess the financial condition of the borrower-legal entity, the bank must take into account the following main economic indicators of its activity:

- solvency (instant, current and total liquidity ratios);
- financial stability (coefficients of maneuverability of own funds, ratio of borrowed and own funds);
- scope of implementation;
- account turnover (ratio of receipts on the borrower's account and the amount of the loan, availability of accounts in other banks; availability of a record of non-payments - in dynamics);
- composition and dynamics of receivables and payables (for the last reporting and current years);
- production cost (in dynamics);
- profits and losses (in dynamics);
- profitability (in dynamics);
- credit history (repayment of credit debt in the past, availability of existing loans).

Subjective factors characterized by the following indicators can also be taken into account:

- the borrower's market position and its dependence on cyclical and structural changes in the economy and industry;
- availability of state orders and state support of the borrower;
- the efficiency of the borrower's management;
- professionalism of management and its business reputation;
- other information.

When assessing the financial condition of the individual borrower, the following should be taken into account:

- the general financial condition of the client (income and expenses, property, ownership of which is certified in accordance with the current legislation of Ukraine; relevant supporting documents);
- social stability of the client, i.e. availability of a permanent job, marital status;
- age of the client;
- the intensity of using bank loans (guarantees, etc.) in the past and the timeliness of their repayment and interest (commissions, etc.) on them, as well as the use of other banking services, etc.;
- business reputation;
- other information.

Summarizing the research of scientists and practical experience in assessing the financial condition of enterprises allows us to draw certain conclusions:

- the method of assessing the financial condition of the enterprise must correspond to the purpose of such an assessment (provision of long-, medium- or short-term loans, determination of the investment potential of the enterprise, calculation of the most likely price of its sale, etc.). Depending on the purpose of the evaluation, certain financial indicators are selected, their specific weights (shares),

etc. are determined. This study examines the methods of assessing the financial condition of enterprises - borrowers (or potential borrowers);

- the indicators on which the methods of assessing the financial condition are based should be selected according to the principle of a sufficient minimum, i.e. these indicators should cover all essential aspects of the phenomenon under study, but should not duplicate, but complement each other;

- the branch specifics of agricultural enterprises require the development of special methods along with the use of universal ones. Special methods will more accurately determine the financial condition of an agricultural enterprise, universal methods will provide the possibility of comparing agricultural enterprises with enterprises of other branches of the national economy (universal methods are based on indicators that are important for all enterprises, regardless of their branch affiliation or specialization; at the same time, the normative values of the same the specific indicators and their shares (specific weights) may be different depending on the characteristics of the assessed enterprises and the purpose of the assessment).

One of the components of the assessment of the creditworthiness of an enterprise - a potential borrower by a commercial bank is the analysis of the business plan (business project) submitted by the enterprise.

Credit relations between the creditor and its borrower are regulated by legislation and the credit agreement. A credit agreement is concluded between the subjects of credit relations (creditor and borrower) in writing and, in accordance with current legislation, must be notarized.

The credit agreement must include the following information regarding:

- subjects of credit relations, namely;

- for individuals: surname, first name, patronymic, passport data, identification number in the State Register of Individuals and address of permanent residence (foreigners indicate the address of permanent residence outside Ukraine);

- for legal entities: full name of the parties, their legal address, identification code of EDRPOU (for non-residents – country of registration) and bank details.

- the amount of the main obligation, the order and terms of its fulfillment;

- lending object (the information must be sufficient to identify this object);

- the interest rate and the procedure for its change (in the case of applying a "floating" credit rate), the procedure and terms of accrual and payment of interest;

- securing the main obligation - collateral, if any. Information about the pledge must contain a description of the subject of the pledge sufficient for identification.

A pledge agreement can be a component of a credit agreement or a separate agreement, in which case it must also be notarized. When concluding a credit agreement, an insurance agreement may be concluded at the request of the creditor.

- the creditor's right to check the borrower's financial condition, the intended use of the loan and the safety of the collateral;

- the borrower's responsibility for inappropriate use of the loan, late payment of interest and fulfillment of the main obligation;

- sequence of performance of the borrower's obligations: overdue interest payment obligations; overdue principal debt repayment obligations; term obligations

to pay interest; interest penalty; interest on the principal debt; fixed-term obligations to repay the principal debt;

- a list of documents provided to the bank by the borrower during the validity of the credit agreement;

- special conditions: the procedure for storing the subject of the pledge, preventing the change of ownership until the obligation is fully fulfilled, etc.; the creditor's right to demand early fulfillment of his obligations by the borrower in the event of the latter's violation of the specified conditions is provided for, and if the borrower refuses to fulfill his obligations ahead of time, to satisfy the requirements by foreclosing on the collateral.

The right to sign the credit agreement belongs to the managers, after which the signatures are sealed. The signatures of the named persons are affixed on each page of the credit agreement.

If it is necessary to make changes to the credit agreement, an additional agreement is drawn up.

After signing the credit agreement, it is registered in the journal of registration of credit agreements (agreements for loans secured by immovable property are registered in a separate journal).

The registration log contains the following information:

- number and date of the credit agreement;
- the name and details of the borrower;
- the amount of the main obligation and the terms of its full implementation with possible extensions;
- object of lending;
- subject of pledge and its value;
- interest rate;
- credit account number;
- number and date of the pledge agreement;
- the number and date of the bond (if such is issued);
- if the pledge is pledged - a note about its pledge.

The registration log must be numbered, laced, signed by the creditor with the signature affixed with a seal.

A separate credit file is created for each loan, which contains the following data:

- information about the borrower (financial statements, balance sheets, business plan, business project for which funds are being raised, creditworthiness analysis documents, correspondence, etc.);

- documents related to the loan (copies of the loan agreement and pledge agreement, copies of additional agreements, creditor's conclusions about the possibility of granting the loan, copies of settlement documents on the basis of which credit funds were provided and debts were repaid).

The original of the loan agreement and the pledge agreement, as well as the originals of the additional agreements and the pledge are in the possession of the borrower and the creditor.

The lender has the right to systematically monitor the borrower's compliance with all terms of the loan agreement, namely:

- targeted use of credit;
- full and timely fulfillment of obligations by the borrower;
- payment of interest on the granted loan;
- preservation of the subject of the pledge;
- creditworthiness of the borrower.

During the entire period of the borrower's fulfillment of his obligations, the creditor has a close business relationship with him. Checks are carried out regarding the targeted use of credit resources, an analysis of the borrower's financial condition, as well as his economic activity, is carried out. If necessary, the creditor conducts inspections on the borrower's territory using the necessary financial and other documentation. Also, the creditor pays important attention to monitoring the safety of the subject of the pledge.

According to the current legislation of Ukraine, the creditor has the right to obtain information about the financial condition of the borrower from various sources, provided that the information is obtained in a legal way. The conclusions of audit firms can be used.

Carrying out the above-mentioned measures, the creditor forms a file for each borrower, which accumulates information about the borrower, obtained during the granting of the loan and in the process of its support.

If, in the case of inspections, the creditor reveals a deterioration in the borrower's financial condition, or certain aspects that may lead to a deterioration of such condition, or other reasons that may lead to the borrower's non-fulfillment of his obligations to the creditor, the creditor may request the borrower to use the system measures aimed at improving the situation. If the situation has not improved, the creditor may demand from the borrower early fulfillment of his obligations, including at the expense of the collateral.

In the event of the borrower's refusal to fulfill his obligations, the creditor secures his claims in a claim-lawsuit procedure. sending the borrower an appropriately formalized claim, which contains a requirement that the borrower fulfill his obligations to the creditor, with a warning that in case of non-fulfilment within the specified period, the creditor will file a lawsuit in court.

References:

1. Azarenkova, G. M. , Dudnyk, I. Yu. (2014), “Credit as a tool for financing the activity of a business entity”, *Stalyy rozvytok ekonomiky*, vol. 3, pp. 229-234.

2. Alexiichuk, V.M. (1998), *Hroshi ta kredyt v systemi vidtvorenn APK* [Money and credit in the agricultural production system], IAU, Kyiv, Ukraine.

3. Aranchii, V. I., Zorya, O. P., Petrenko, I. I. (2011), “Credit in the system of financial support for investment development of agrarian enterprises”, *Visnyk Poltavs'koyi derzhavnoyi ahrarnoyi akademiyi*, vol. 4, pp.120-124.

4. Babich, Yu. A. (2012), “Crediting of the agrarian sector of the economy in the developed countries of the world”, *Ekonomika APK*, vol. 4, pp. 155–162.

5.Brovko, L., Brovko, Ye. (2020), “Risks in the agricultural sector and it's identification”, *XVI Międzynarodowej naukowi-praktycznej konferencji, “Europejska nauka XXI powieką – 2020”*, Przemyśl, 07 – 15 maja 2020 roku, pp.28-30.

6. Baranovskyi, I.M. (2008), “Foreign experience in lending to agricultural producers”, *Naukovyy visnyk natsional'noho ahrarnoho universytetu*, vol. 119, pp. 236–240.

7. Brovko, L. I., Brovko, Ye. I. (2020), “The role of bank lending in the formation of financial resources of agricultural enterprises”, *Ahrarna nauka KHKHI stolittya: realiyi ta perspektyvy : tezy dopovidey naukovopraktychnoyi konferentsiyi* [Agrarian science of the 21st century: realities and prospects: theses of reports of the scientific-practical conference], *Ahrarna nauka KHKHI stolittya: realiyi ta perspektyvy* [Agrarian science of the 21st century: realities and prospects], DSAEU, Dnipropetrovsk, Ukraine, pp. 55-57.

8. Brovko, L.I., Brovko, Ye.I., Kryzhanovsky, O.O. (2019), “Formation of financial resources of enterprises in conditions of instability”, *Ekonomika ta derzhava*, vol. 9, pp. 57-63.

9. Vasyurenko, O.V. (2001), *Bankivs'ki operatsiyi* [Banking operations], T-vo “Knowledge”, Kyiv, Ukraine.

10. Hudz, O.E. (2018), “The state program of financial support of agro-industrial complex enterprises through the mechanism of cheaper loans”, *Ekonomika APK*, vol. 11, pp. 8-13.

11. Hudz, O.E. (2019), “Improvement of the mechanism of credit subsidies for agro-industrial complex enterprises”, *Ekonomika APK*, vol. 9, pp. 59-61.

12. The Verkhovna Rada of Ukraine (2012), The Law of Ukraine “On Banks and Banking Activity”, available at: https://zakon.rada.gov.ua/laws/show/2121-14#Text (Accessed 18 February 2023).

13. Zagorodnii, A.G. (2000), *Menedzhment real'nykh investytsiy* [Management of real investments], Znannia, Kyiv, Ukraine.

14. Kalashnikova, T.V. (2018), “The state and trends in the development of credit provision of the agricultural industry of Ukraine”, *Finansy Ukrayiny*, vol. 10, pp. 29-37.

15. Kolotukha, S. M., Melnyk, K. M. (2018), “To improve the crediting system of agricultural enterprises”, *Ekonomika APK*, vol. 11, pp. 64-69.

16. Kolotukha, S. M. (2019), “Lending to agricultural enterprises as an effective source of”, *Ekonomika APK*, vol. 1, pp. 89–96.

17. Kosyk, Yf. V., Chygrin, O.Yu. (2018), “Globalization as a regularity of the development of the modern economy of Ukraine”, *Mekhanizm rehulyuvannya ekonomiky*, vol. 2, pp. 191–196.

18. Kruchok, S.I. (2003), *Ipotechne kredytuvannya: yevropeys'ka praktyka ta perspektyvy rozvytku v Ukrayini* [Mortgage lending: European practice and development prospects in Ukraine], T-vo "Urozhai", Kyiv, Ukraine.

19. Naumova, L.Yu. (2020), “Financial strategy of economic development of enterprises”, *Nauka y ekonomika*, vol. 2, pp. 134– 139.

20. Sytnyk, G.V. (2018), “Strategic financial planning in the trade enterprise management system”, *Biznes-inform*, vol. 9, pp. 359-370.

3.2. DIAGNOSTICS OF THE FINANCIAL STATE OF AGRARIAN ENTERPRISE IS IN THE CONDITIONS OF CRISIS

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Summary. In the article the value of diagnostics of the financial state is distinguished on the example of agricultural enterprise, methodological approaches are considered in relation to essence and necessity of realization of analysis of the financial state of enterprise. Essence of concept "the financial state" is considered and authorial clarification of this concept offers. Basic tasks to the analysis of the financial state are certain on the example of agricultural enterprise. It was also certain by authors, that the financial state of agricultural enterprise depends on the results of him commercial, productive and financial діяльностей. Basic factors that positively influence on the financial state of enterprise were distinguished: trouble-free producing of quality products and her realization. The basic receptions of analysis of the financial state of enterprise are presented. It is well-proven that the financial state of enterprise is needed systematic and all-round to estimate with the use of different methods, receptions and methodologies of analysis, as it one of major descriptions of results of activity of every enterprise, that is determined by cooperation of all constituents of financial relations of enterprise, totality of all industrial and economic factors. In the article present developments of methodology of complex estimation of the financial state of enterprise. They can come forward as basis for diagnostics of bankruptcy of enterprises. The system of indexes is reasonable for the analysis of the financial state of enterprise from the review of efficiency of the use of financial resources. The estimation of importance of analysis of the financial state of enterprise is conducted. The results of realization of estimation are expected and expounded after the investigated models in an agricultural enterprise.

Keywords: diagnostics; financial status; management; financial sustainability; liquidity; agricultural enterprise.

Financial diagnostics of an enterprise is a process of analyzing the financial condition of a company to identify its strengths and weaknesses, and to provide insights for decision-making. The interpretation of financial diagnostics by scientists can vary depending on their area of expertise and the specific aspects of the company being analyzed.

In general, financial diagnostics involves examining the company's financial statements, such as the balance sheet, income statement, and cash flow statement. Scientists may use a variety of financial ratios and metrics, such as liquidity ratios, profitability ratios, and efficiency ratios, to evaluate the company's financial performance and determine areas where improvements can be made [1].

Interpretation of financial diagnostics by scientists can help identify potential financial risks, such as a high debt-to-equity ratio or low profitability margins, as well

as opportunities for growth, such as increasing sales or improving cost efficiency. Scientists may also provide recommendations for strategic financial planning, such as identifying new revenue streams or reducing costs.

Overall, the essence of financial diagnostics of an enterprise is to provide a comprehensive understanding of the company's financial health and to identify opportunities for growth and improvement. The interpretation of this analysis by scientists can provide valuable insights for management and stakeholders, helping them make informed decisions about the future of the company.

Financial diagnostics of an enterprise refers to the process of analyzing and evaluating the financial health and performance of a company. It involves using various financial metrics, ratios, and indicators to assess the company's financial position, identify areas of strength and weakness, and make recommendations for improvement.

The interpretation of financial diagnostics by scientists involves applying scientific principles and methods to the analysis of financial data. This may include using statistical techniques to identify trends and patterns in financial data, or using mathematical models to predict future financial performance based on historical data.

Interpreting financial diagnostics can provide valuable insights into the financial health and performance of an enterprise, and help business owners and managers make informed decisions about how to improve their operations. For example, financial diagnostics can help identify areas where cost-cutting measures can be implemented, or where investments can be made to improve efficiency and productivity.

Overall, financial diagnostics is an essential tool for assessing the financial health and performance of an enterprise, and its interpretation by scientists can provide valuable insights and recommendations for improvement.

Financial diagnostics of an enterprise refers to the process of analyzing its financial statements and other relevant financial data to identify its financial health and performance. The essence of financial diagnostics is to provide insights into the financial position of the enterprise, its ability to generate profits, and its potential for growth and sustainability [2].

Interpretation of financial diagnostics by scientists involves analyzing the financial data using various scientific methods and techniques to draw meaningful conclusions and recommendations. This involves the use of statistical analysis, financial ratios, and other tools to identify trends, patterns, and anomalies in the financial data.

The main goal of financial diagnostics is to provide a comprehensive understanding of the financial performance of the enterprise, including its strengths, weaknesses, opportunities, and threats. This information can then be used to make informed decisions regarding investments, financing, and other strategic initiatives.

Overall, the essence of financial diagnostics of an enterprise is to provide a clear and accurate picture of its financial health and performance, which is essential for making informed decisions and ensuring long-term success.

Financial diagnostics is a process of analyzing the financial performance of an enterprise to identify strengths, weaknesses, opportunities, and threats. The main objective of financial diagnostics is to evaluate the financial health of a company and to provide insights for decision-making.

The essence of financial diagnostics is to assess the current financial situation of an enterprise by analyzing its financial statements, such as the income statement, balance sheet, and cash flow statement. These financial statements provide important information about the company's revenues, expenses, assets, liabilities, and cash flows.

Financial diagnostics typically involves the following steps:

1 Analysis of financial statements: The first step is to analyze the company's financial statements to identify any financial trends or patterns. This involves examining the company's revenue, profit margins, expenses, and other financial indicators.

2. Identification of key performance indicators: The next step is to identify the key performance indicators (KPIs) that are relevant to the company's financial performance. These may include metrics such as return on investment (ROI), gross profit margin, net profit margin, and cash flow ratios.

3. Benchmarking: Once the KPIs have been identified, the next step is to benchmark them against industry standards or against the company's own historical performance. This helps to identify areas where the company is performing well and areas where improvement is needed.

4. SWOT analysis: The final step is to conduct a SWOT analysis, which involves identifying the company's strengths, weaknesses, opportunities, and threats. This helps to identify potential risks and opportunities that may impact the company's financial performance [3].

Overall, financial diagnostics is an important tool for assessing the financial health of an enterprise and making informed decisions about its future. By analyzing financial statements, identifying key performance indicators, benchmarking against industry standards, and conducting a SWOT analysis, companies can gain a better understanding of their financial position and take steps to improve their performance.

Financial diagnostics of an enterprise involves analyzing its financial data to assess its financial health and identify areas where improvements can be made. The essence of financial diagnostics is to help businesses understand their financial situation, measure their performance, and make informed decisions.

Some of the key elements of financial diagnostics include:

1. Financial statement analysis: This involves analyzing the company's financial statements, including the balance sheet, income statement, and cash flow statement, to assess its financial health.

2. Ratio analysis: This involves calculating and interpreting financial ratios to assess the company's financial performance and identify areas of strengths and weaknesses.

3. Cash flow analysis: This involves analyzing the company's cash flow to understand its liquidity position and cash flow cycle.

4. Financial forecasting: This involves using financial data to forecast future financial performance and identify potential risks and opportunities.

5. Benchmarking: This involves comparing the company's financial performance to industry standards and best practices to identify areas for improvement [4].

Financial diagnostics helps companies to make informed decisions by providing them with insights into their financial performance and health. By identifying areas of weakness, companies can take steps to improve their financial performance and reduce their financial risk.

Financial diagnostics is the process of analyzing an enterprise's financial information to assess its financial health and identify potential problem areas. The essence of financial diagnostics is to use financial data to evaluate an enterprise's financial performance, profitability, liquidity, solvency, and efficiency.

Financial diagnostics typically involves the analysis of financial statements, such as income statements, balance sheets, and cash flow statements, as well as other financial data such as budgets, forecasts, and financial ratios. By examining these financial data, financial analysts can identify trends, patterns, and relationships that can provide insights into the enterprise's financial performance and health.

The goal of financial diagnostics is to identify areas where an enterprise is performing well and areas that need improvement. This information can be used to develop strategies for improving the enterprise's financial performance, such as increasing revenue, reducing costs, improving cash flow, and optimizing the use of financial resources.

Overall, the essence of financial diagnostics is to provide a comprehensive assessment of an enterprise's financial health, which can help managers, investors, and other stakeholders make informed decisions about the enterprise's future.

Financial diagnostics is a process of analyzing the financial performance of a business to identify its strengths and weaknesses, as well as to evaluate its financial health. Here are the theoretical steps for conducting financial diagnostics for an agricultural enterprise:

Define the scope and objectives of the analysis: The first step is to determine the purpose of the financial analysis, the period to be covered, and the specific aspects of the agricultural enterprise that will be analyzed.

Collect financial data: Next, collect financial data for the enterprise, such as balance sheets, income statements, cash flow statements, and other financial reports. Additionally, collect non-financial data such as crop yield, livestock production, and other relevant data.

Analyze financial ratios: Analyze key financial ratios, such as liquidity ratios (e.g., current ratio, quick ratio), profitability ratios (e.g., net profit margin, return on assets), and leverage ratios (e.g., debt-to-equity ratio, interest coverage ratio).

Evaluate working capital management: Analyze the enterprise's working capital management, including inventory management, accounts receivable management, and accounts payable management. Identify any issues related to working capital management and develop recommendations for improvement.

Assess cash flow: Evaluate the enterprise's cash flow, including sources and uses of cash, operating cash flow, investing cash flow, and financing cash flow. Identify any cash flow issues and develop recommendations for improvement.

Evaluate capital structure: Analyze the enterprise's capital structure, including debt-to-equity ratio, debt service coverage ratio, and other relevant ratios. Identify any issues related to the capital structure and develop recommendations for improvement.

Review investment decisions: Review the enterprise's investment decisions, including capital expenditures, land purchases, and other investments. Evaluate the return on investment and the impact on the financial health of the enterprise.

Develop recommendations: Based on the analysis, develop recommendations for improving the financial health and performance of the enterprise. These recommendations should be tailored to the specific needs and objectives of the enterprise [5].

Implement recommendations: Finally, implement the recommendations and monitor their effectiveness over time. Continuously review and adjust the financial management practices of the enterprise to ensure long-term financial success.

In summary, financial diagnostics for an agricultural enterprise involves analyzing financial ratios, working capital management, cash flow, capital structure, investment decisions, and developing recommendations for improving financial health and performance.

Financial diagnostics of an agricultural enterprise involves a thorough analysis of its financial performance to identify strengths and weaknesses in its financial management. The process typically involves the following steps:

Financial statement analysis: The first step is to analyze the financial statements of the agricultural enterprise, including the income statement, balance sheet, and cash flow statement. This analysis will help to identify trends in revenue, expenses, assets, liabilities, and cash flow over time.

Ratio analysis: Ratio analysis involves calculating various financial ratios that measure the enterprise's liquidity, profitability, efficiency, and solvency. For example, liquidity ratios such as current ratio and quick ratio measure the enterprise's ability to meet its short-term obligations, while profitability ratios such as return on assets and return on equity measure its profitability.

Benchmarking: Benchmarking involves comparing the financial performance of the agricultural enterprise with industry benchmarks and best practices. This will help to identify areas where the enterprise is lagging behind its peers and where improvements can be made.

Cost analysis: Cost analysis involves identifying the costs associated with various activities in the agricultural enterprise, including production, marketing, and administration. This analysis will help to identify areas where costs can be reduced and efficiency can be improved.

Cash flow analysis: Cash flow analysis involves analyzing the cash inflows and outflows of the agricultural enterprise. This will help to identify any cash flow problems and areas where cash management can be improved.

Risk analysis: Risk analysis involves identifying the risks facing the agricultural enterprise and assessing their potential impact on its financial performance. This analysis will help to identify areas where risk management strategies can be implemented to mitigate these risks [6].

Overall, financial diagnostics of an agricultural enterprise involves a comprehensive analysis of its financial performance to identify areas where improvements can be made to enhance its financial management and sustainability.

Financial diagnostics is the process of analyzing and evaluating the financial performance of a business. In the case of an agricultural enterprise, financial diagnostics can help identify the financial strengths and weaknesses of the business, and suggest ways to improve its financial performance.

The theoretical process of financial diagnostics of an agricultural enterprise can be broken down into the following steps:

Data collection: The first step is to gather all the necessary financial information related to the agricultural enterprise. This may include financial statements, tax returns, bank statements, cash flow statements, and other financial documents.

Financial statement analysis: The next step is to analyze the financial statements of the agricultural enterprise. This includes assessing the balance sheet, income statement, and cash flow statement to identify the financial strengths and weaknesses of the business.

Ratio analysis: The third step is to conduct ratio analysis, which involves calculating various financial ratios that provide insights into the financial performance of the business. These ratios may include liquidity ratios, profitability ratios, efficiency ratios, and solvency ratios.

Benchmarking: The fourth step is to compare the financial performance of the agricultural enterprise with industry benchmarks and best practices. This can help identify areas where the business is performing well, as well as areas that need improvement.

Financial forecasting: The final step is to use the financial information gathered to create financial forecasts for the agricultural enterprise. This involves projecting future revenues, expenses, and cash flows, and using this information to make informed decisions about the business's financial strategy.

By following these steps, financial diagnostics can provide valuable insights into the financial performance of an agricultural enterprise and help identify areas for improvement.

Financial diagnostics is an important tool for assessing the financial health of any enterprise, including agricultural ones. It involves a thorough analysis of an enterprise's financial statements and performance indicators to identify areas of strengths and weaknesses.

The process of financial diagnostics for an agricultural enterprise typically involves the following steps:

Gathering financial information: This includes collecting and organizing financial statements, tax returns, and other relevant financial documents.

Analyzing financial statements: This involves assessing the enterprise's financial performance by examining its income statement, balance sheet, and cash flow statement. Key financial ratios such as profitability, liquidity, and solvency ratios are calculated to help identify areas of financial strength and weakness.

Identifying key performance indicators (KPIs): KPIs are metrics used to measure the success of an enterprise in achieving its goals. For an agricultural enterprise, KPIs may include crop yields, production costs, and sales revenue.

Conducting a SWOT analysis: This involves identifying the enterprise's strengths, weaknesses, opportunities, and threats. This analysis can help identify potential areas for improvement and inform strategic decision-making.

Developing a financial action plan: Based on the results of the financial diagnostic, a financial action plan is developed to address identified areas of weakness and improve the enterprise's financial performance.

Overall, financial diagnostics is a crucial process for agricultural enterprises, as it can help them identify areas of financial weakness and take action to improve their financial health [7].

Financial diagnostics of an agricultural enterprise is a process of evaluating its financial performance and identifying areas for improvement. This process involves analyzing financial statements, assessing the company's liquidity, solvency, profitability, and financial stability, and benchmarking the company's financial performance against industry standards.

Scientists involved in agricultural finance and management recommend that financial diagnostics of an agricultural enterprise should be a continuous process rather than a one-time event. This approach enables the enterprise to regularly assess its financial performance, identify potential issues early on, and take corrective actions.

In addition, scientists recommend that financial diagnostics should be conducted using a variety of financial ratios and indicators, such as the current ratio, quick ratio, debt-to-equity ratio, gross profit margin, net profit margin, return on assets, and return on equity. These indicators provide insights into the company's financial health, including its ability to pay off its debts, generate profits, and efficiently use its assets.

Overall, financial diagnostics is an important process for agricultural enterprises as it helps them to make informed decisions about their financial strategies, optimize their financial performance, and achieve long-term success.

Financial diagnostics of an agricultural enterprise involves the analysis of the financial statements, financial ratios, and other financial indicators to assess the financial health of the organization. The theoretical foundations of financial diagnostics in agriculture are based on the principles of financial analysis and management, as well as the unique characteristics of the agricultural industry.

One of the key principles of financial analysis is the use of financial ratios to assess the financial performance of a company. These ratios are calculated by comparing two or more financial indicators, such as liquidity, profitability, and solvency, to determine the financial health of the company.

In agriculture, the unique characteristics of the industry, such as the seasonality of production, the dependence on weather conditions, and the long-term nature of investments, must be taken into account when conducting financial diagnostics. Additionally, agricultural enterprises often have complex ownership structures, with multiple stakeholders, including family members and investors, which can further complicate financial analysis [8].

The methodological foundations of financial diagnostics in agriculture involve the collection and analysis of financial data from various sources, such as financial statements, tax returns, and other financial records. This data is then used to calculate financial ratios and other financial indicators to assess the financial health of the company.

In addition to financial analysis, other methods of financial diagnostics may include scenario analysis, sensitivity analysis, and benchmarking. Scenario analysis involves creating hypothetical scenarios to assess the impact of various economic factors on the financial performance of the company. Sensitivity analysis involves testing the sensitivity of financial indicators to changes in key variables, such as interest rates or commodity prices. Benchmarking involves comparing the financial performance of the company to other companies in the same industry to identify areas for improvement [9].

Overall, the theoretical and methodological foundations of financial diagnostics in agriculture are based on the principles of financial analysis and management, as well as the unique characteristics of the agricultural industry. By using these foundations, financial analysts and managers can effectively assess the financial health of agricultural enterprises and identify areas for improvement.

Financial diagnostics is the process of analyzing the financial health of an enterprise to identify strengths, weaknesses, opportunities, and threats that could impact its performance. Financial diagnostics of an agricultural enterprise involves applying this process to the unique financial characteristics of agricultural businesses.

Theoretical Foundations:

The theoretical foundation of financial diagnostics for agricultural enterprises is based on financial analysis and management concepts. These concepts include financial ratios, cash flow analysis, budgeting, and forecasting. The primary objective is to assess the financial performance and health of the enterprise to identify areas for improvement and growth.

The financial ratios used in the analysis include liquidity ratios, solvency ratios, profitability ratios, and activity ratios. These ratios provide a quantitative measurement of the enterprise's financial performance and help to identify the strengths and weaknesses of the enterprise.

Cash flow analysis is also essential in financial diagnostics for agricultural enterprises. Cash flow analysis involves analyzing the inflow and outflow of cash in the enterprise. This helps to identify the enterprise's ability to meet its financial obligations and identify potential cash flow problems.

Budgeting and forecasting are also essential in financial diagnostics for agricultural enterprises. Budgeting involves estimating the enterprise's income and

expenses over a specified period, while forecasting involves predicting future financial performance.

Methodological Foundations: The methodology for financial diagnostics of an agricultural enterprise involves a series of steps. These steps include data collection, data analysis, and interpretation.

Data collection involves gathering financial information from the enterprise, including financial statements, tax returns, bank statements, and other financial records. The data collected is used to calculate financial ratios and perform cash flow analysis.

Data analysis involves reviewing and analyzing the financial data collected. This includes calculating financial ratios, identifying trends, and comparing the enterprise's financial performance to industry benchmarks.

Interpretation involves interpreting the results of the analysis and identifying areas for improvement and growth. This includes identifying the enterprise's strengths and weaknesses, potential cash flow problems, and opportunities for growth [10].

In conclusion, financial diagnostics of an agricultural enterprise involves applying financial analysis and management concepts to the unique financial characteristics of agricultural businesses. The methodology for financial diagnostics involves data collection, data analysis, and interpretation to identify areas for improvement and growth.

Financial diagnostics is a process that involves analyzing the financial position, performance, and prospects of an enterprise. In the case of an agricultural enterprise, financial diagnostics plays a crucial role in identifying the factors that impact the profitability and sustainability of the business. The theoretical and methodological foundations of financial diagnostics of an agricultural enterprise can be broken down into several key areas:

Financial statement analysis: Financial statement analysis is the process of evaluating a company's financial statements to gain an understanding of its financial performance and position. In the case of an agricultural enterprise, this involves analyzing the income statement, balance sheet, and cash flow statement to identify key financial ratios and indicators that can provide insights into the company's profitability, liquidity, and solvency.

Ratio analysis: Ratio analysis is a technique used to evaluate the financial performance of a company by comparing different financial ratios. In the case of an agricultural enterprise, key ratios to consider include liquidity ratios (such as the current ratio and quick ratio), profitability ratios (such as the return on assets and return on equity), and solvency ratios (such as the debt-to-equity ratio and interest coverage ratio).

Financial modeling: Financial modeling involves creating a mathematical model of a company's financial performance based on historical data and projections of future performance. In the case of an agricultural enterprise, financial modeling can be used to predict future cash flows and profitability, as well as to identify potential risks and opportunities.

Benchmarking: Benchmarking involves comparing the financial performance of an agricultural enterprise to that of other companies in the same industry or sector. This can provide insights into areas where the company is performing well and areas where it may need to improve.

Risk management: Risk management is the process of identifying and managing potential risks to the financial performance of a company. In the case of an agricultural enterprise, key risks to consider include weather-related risks, market risks (such as fluctuations in commodity prices), and operational risks (such as equipment breakdowns).

Overall, the theoretical and methodological foundations of financial diagnostics of an agricultural enterprise involve a range of techniques and tools for evaluating the company's financial performance and position, identifying key risks and opportunities, and developing strategies for improving profitability and sustainability.

Financial diagnostics is the process of analyzing and evaluating the financial performance of an organization to identify strengths, weaknesses, opportunities, and threats. In the case of an agricultural enterprise, financial diagnostics is essential for measuring its financial health, identifying potential problems, and making informed decisions about resource allocation and investments.

Theoretical foundations of financial diagnostics in agricultural enterprises:

Financial statements analysis: Financial statements, such as income statements, balance sheets, and cash flow statements, provide critical information about an organization's financial performance. Financial diagnostics involves analyzing these statements to identify trends, ratios, and other indicators of financial health.

Financial management principles: Financial management principles, such as liquidity, solvency, profitability, and efficiency, provide a framework for evaluating an organization's financial performance. Financial diagnostics involves assessing an agricultural enterprise's performance against these principles.

Risk management: Agricultural enterprises face a range of financial risks, such as market risks, credit risks, and operational risks. Financial diagnostics involves identifying and managing these risks to ensure the long-term financial viability of the enterprise.

Methodological foundations of financial diagnostics in agricultural enterprises:

Ratio analysis: Ratio analysis is a method for analyzing an organization's financial performance by comparing different financial metrics, such as liquidity ratios, profitability ratios, and efficiency ratios.

Trend analysis: Trend analysis involves examining an organization's financial performance over time to identify patterns, trends, and changes. This method can help identify areas of strength and weakness in an agricultural enterprise's financial performance.

Benchmarking: Benchmarking involves comparing an agricultural enterprise's financial performance to industry standards or best practices. This method can help identify areas where the enterprise is underperforming and potential areas for improvement.

Cash flow analysis: Cash flow analysis involves examining an organization's cash inflows and outflows to assess its ability to generate cash and meet its financial obligations. This method is especially important for agricultural enterprises, which often have seasonal cash flows and variable income streams [11].

In summary, the theoretical and methodological foundations of financial diagnostics in agricultural enterprises involve a combination of financial management principles, financial statements analysis, risk management, ratio analysis, trend analysis, benchmarking, and cash flow analysis. By applying these methods, agricultural enterprises can make informed decisions about resource allocation, risk management, and long-term financial planning.

Financial diagnostics is an essential tool for analyzing the financial health of an agricultural enterprise. It involves a comprehensive analysis of the financial statements, financial ratios, and other financial indicators of the enterprise. Theoretical and methodological foundations of financial diagnostics of an agricultural enterprise are as follows:

Financial statements analysis: Financial statements, including balance sheet, income statement, and cash flow statement, provide a comprehensive overview of an agricultural enterprise's financial position, profitability, and cash flows. The analysis of these statements helps in identifying the strengths and weaknesses of the enterprise's financial performance.

Ratio analysis: Ratio analysis is a tool for evaluating the financial performance of an agricultural enterprise. It involves calculating various financial ratios such as liquidity ratios, profitability ratios, and solvency ratios. These ratios provide a quick overview of the enterprise's financial position and help in identifying potential areas for improvement.

Trend analysis: Trend analysis involves analyzing the financial data of an agricultural enterprise over a period of time. It helps in identifying trends in financial performance, such as changes in revenue, expenses, and profits over time. This analysis helps in identifying potential areas for improvement and in making better financial decisions.

Comparative analysis: Comparative analysis involves comparing the financial performance of an agricultural enterprise with its peers in the industry. This analysis helps in identifying the enterprise's strengths and weaknesses relative to its competitors and in developing strategies to improve its financial performance.

Cash flow analysis: Cash flow analysis involves analyzing the inflows and outflows of cash in an agricultural enterprise. It helps in identifying the enterprise's ability to generate cash from its operations and in managing its cash flows effectively.

In conclusion, financial diagnostics of an agricultural enterprise is a critical process that involves the use of various financial analysis tools and techniques to evaluate its financial performance. Theoretical and methodological foundations of financial diagnostics help in identifying the enterprise's strengths and weaknesses and in developing strategies to improve its financial performance.

The agricultural sector is an important part of the Ukrainian economy, accounting for around 15% of the country's GDP and employing over 20% of the population. Here are some key aspects of the current state of development of the Ukrainian agricultural sector:

Land Reform: Ukraine has recently undergone significant land reform, which ended the moratorium on the sale of agricultural land and opened up the market for private land ownership. This has created new opportunities for investment and development in the sector.

Crop Production: Ukraine is one of the largest producers and exporters of grains in the world. The country's fertile soils and favorable climate conditions make it ideal for growing crops like wheat, corn, and barley. In recent years, there has been a shift towards more sustainable agricultural practices and an increase in organic farming.

Livestock Production: Livestock production is another important aspect of the Ukrainian agricultural sector. The country has a large number of farms producing meat, dairy, and poultry products. There has been a trend towards modernizing these farms and improving the quality of their products.

Export Markets: Ukraine is a major exporter of agricultural products, with the EU and Asia being the largest markets. The country's competitive pricing and high-quality products have made it a popular destination for buyers.

Challenges: Despite the progress made in the agricultural sector, there are still some challenges that need to be addressed. These include the need for further investment in infrastructure and technology, improving land tenure security and ownership rights, and addressing environmental issues such as soil erosion and pollution [12].

In conclusion, the Ukrainian agricultural sector has made significant strides in recent years, driven by reforms, modernization, and increasing exports. However, there is still room for improvement, and addressing the challenges facing the sector will be key to its continued success.

Land ownership: One of the biggest challenges facing the Ukrainian agricultural sector is land ownership. Ukraine has a highly fragmented land market, with small land plots owned by individuals or families. The lack of consolidation of land makes it difficult for farmers to achieve economies of scale, which could increase their productivity and profitability. However, in 2020, the Ukrainian government passed a new land reform law that will allow the sale of agricultural land from 2024, which is expected to improve the situation.

Production: Ukraine is a major producer and exporter of wheat, corn, and sunflower oil. In 2021, the country produced 28.3 million tons of wheat, 34.3 million tons of corn, and 15.8 million tons of sunflower oil. However, the production of other crops such as soybeans, sugar beets, and vegetables is relatively low. Additionally, the quality of Ukrainian agricultural products often does not meet international standards.

Infrastructure: The agricultural infrastructure in Ukraine is generally poor. There are few modern storage facilities and transportation networks, which can lead

to losses during the harvest season and reduce the competitiveness of Ukrainian products on the global market. However, in recent years, there have been some improvements in infrastructure, such as the construction of new grain terminals and the renovation of irrigation systems.

Technology: The adoption of modern agricultural technologies in Ukraine is still relatively low, compared to other countries. Many farmers still rely on traditional farming methods, which limits their productivity and profitability. However, there is increasing interest in precision agriculture, which uses technology such as drones, sensors, and GPS to optimize crop yields and reduce costs.

Government support: The Ukrainian government provides various forms of support to the agricultural sector, including subsidies, loans, and tax incentives. However, the effectiveness of these measures is often limited by corruption, bureaucratic inefficiencies, and a lack of transparency.

In conclusion, the Ukrainian agricultural sector faces significant challenges, but there are also opportunities for growth and development. The implementation of land reform, improvements in infrastructure, and the adoption of modern technologies could help to increase productivity and competitiveness [13].

Here are some additional points to further analyze the current state of development of the Ukrainian agricultural sector:

Export market: Ukraine is one of the largest exporters of agricultural products in the world, with the EU and Asia being its main export markets. In 2021, the country exported 20.8 million tons of corn, 17.9 million tons of wheat, and 7.1 million tons of barley. However, the Ukrainian agricultural sector is still heavily reliant on exports of raw materials rather than value-added products, which limits its potential for economic growth and diversification.

Climate change: Climate change is likely to have a significant impact on the Ukrainian agricultural sector, as extreme weather events such as droughts and floods become more frequent. This could lead to reduced crop yields, increased pest and disease pressure, and higher production costs. Therefore, it is important for the sector to invest in climate-smart agriculture practices and technologies to increase resilience and adaptation.

Labor force: The Ukrainian agricultural sector is facing a shortage of skilled labor, as many young people are leaving rural areas to seek employment in urban areas or abroad. This can lead to a lack of continuity in farming practices and a loss of traditional knowledge. It is important for the sector to attract and retain a skilled and motivated workforce to ensure its long-term sustainability.

Organic farming: There is growing interest in organic farming in Ukraine, both for domestic consumption and export. The country has favorable climatic and soil conditions for organic farming, and there is a growing demand for organic products in Europe and other markets. However, the adoption of organic farming practices is still relatively low, and there is a need for greater investment in research and development to support the growth of the sector.

Food security: The Ukrainian agricultural sector plays a crucial role in ensuring food security for the country, as well as for export markets. However, there are

challenges related to food safety and quality, as well as to the affordability and accessibility of food for low-income households. The sector needs to address these challenges by adopting better production and processing practices, improving food safety standards, and increasing access to nutritious and affordable food for all [14].

Sure, here are some additional points to further analyze the current state of development of the Ukrainian agricultural sector:

Investment: Despite the potential of the Ukrainian agricultural sector, the level of foreign investment in the sector has been relatively low. This is partly due to the uncertainty and instability of the Ukrainian political and economic situation, as well as the lack of clear regulations and legal framework for foreign investors. However, there have been some recent positive developments, such as the establishment of the Agricultural Land Market and the Investment Nanny program, which aim to attract more investment into the sector.

Agribusiness: The Ukrainian agricultural sector is dominated by large agribusiness companies, many of which are vertically integrated and control multiple stages of the value chain. These companies have significant market power and can influence prices and market dynamics. However, small and medium-sized farmers often struggle to compete with these companies and face barriers to entry into the market.

Sustainability: The Ukrainian agricultural sector is facing increasing pressure to adopt sustainable practices and reduce its environmental footprint. This includes reducing greenhouse gas emissions, conserving natural resources, and protecting biodiversity. There is a growing demand for sustainable products in export markets, and the sector needs to adapt to meet this demand and ensure its long-term viability.

Research and development: The Ukrainian agricultural sector has significant potential for innovation and technology development, but the level of investment in research and development has been relatively low. There is a need for greater investment in research and development to support the growth of the sector and to address the challenges facing it, such as climate change, food safety, and productivity.

Cooperatives: Agricultural cooperatives can play an important role in increasing the competitiveness of small and medium-sized farmers in Ukraine. However, the level of cooperative development in the country has been relatively low, partly due to a lack of awareness and understanding of the benefits of cooperatives. There is a need for greater support for cooperative development, including education and training programs, access to finance, and legal and regulatory frameworks [15].

Certainly, here are some additional points to further analyze the current state of development of the Ukrainian agricultural sector:

Infrastructure: The Ukrainian agricultural sector faces significant infrastructure challenges, including poor road networks, outdated storage facilities, and a lack of irrigation systems. This can lead to high transportation costs, post-harvest losses, and reduced efficiency. There is a need for greater investment in infrastructure, particularly in rural areas, to support the growth of the sector.

Government support: The Ukrainian government has implemented a range of policies and programs to support the agricultural sector, including subsidies for inputs such as seeds and fertilizers, export promotion programs, and support for small and medium-sized farmers. However, there have been criticisms that some of these policies are poorly targeted and benefit larger agribusiness companies more than small farmers. There is a need for greater transparency and accountability in the distribution of government support to ensure that it benefits all farmers equally.

Land reform: The Ukrainian agricultural sector has long been constrained by the lack of a functioning land market. The recent establishment of the Agricultural Land Market has the potential to unlock the value of agricultural land and increase investment in the sector. However, there are concerns that the land market could lead to concentration of land ownership and reduced access for small farmers. There is a need for clear regulations and safeguards to ensure that the land market operates fairly and benefits all farmers.

International trade agreements: Ukraine has signed a number of international trade agreements, including with the EU and China, which have the potential to increase market access for Ukrainian agricultural products. However, there are concerns that some of these agreements may lead to increased competition from foreign imports and a reduction in domestic production. It is important for the Ukrainian agricultural sector to adapt to these agreements and to explore opportunities for value-added products and niche markets.

Digitalization: The Ukrainian agricultural sector has significant potential to benefit from digital technologies, such as precision agriculture, blockchain, and e-commerce. However, the level of adoption of these technologies has been relatively low. There is a need for greater investment in digital infrastructure and for education and training programs to support farmers in adopting these technologies.

Certainly, here are some additional points to further analyze the current state of development of the Ukrainian agricultural sector:

Labor force: The Ukrainian agricultural sector relies heavily on manual labor, particularly during the peak season. However, there have been challenges in attracting and retaining workers, particularly younger workers who are leaving rural areas for urban centers. There is a need for greater investment in education and training programs to develop the skills of the labor force and to make agriculture a more attractive career option.

Food safety: Ensuring the safety of agricultural products is critical for maintaining consumer confidence and market access. The Ukrainian government has implemented a range of food safety regulations and standards, but enforcement can be weak in some areas. There is a need for greater investment in food safety infrastructure, including laboratory capacity and inspection systems, and for greater collaboration between government and industry to ensure compliance with standards[16].

Climate change: Ukraine is particularly vulnerable to the impacts of climate change, which can affect crop yields, soil fertility, and water availability. The agricultural sector can also contribute to climate change through emissions from

fertilizer use and livestock production. There is a need for greater investment in climate adaptation and mitigation measures, including the development of drought-resistant crop varieties, the adoption of conservation agriculture practices, and the implementation of renewable energy systems.

Rural development: The agricultural sector is closely linked to rural development, and the prosperity of rural areas is critical for the long-term growth of the sector. However, rural areas in Ukraine face a range of challenges, including depopulation, poor infrastructure, and limited access to education and healthcare. There is a need for greater investment in rural development programs, including support for small businesses, education and training programs, and healthcare services.

Post-harvest value addition: The Ukrainian agricultural sector has significant potential for value addition through the processing of raw materials into higher-value products. However, the level of processing and value addition has been relatively low, with much of the raw materials being exported without any value addition. There is a need for greater investment in processing infrastructure and for education and training programs to support farmers in developing value-added products.

The agricultural sector is a crucial component of the Ukrainian economy, accounting for approximately 16% of the country's GDP and employing about one-third of the workforce. In recent years, the sector has experienced both positive and negative trends, which have impacted its development.

Positive Trends: Increased productivity: In recent years, there has been a notable increase in productivity in the Ukrainian agricultural sector due to the adoption of modern technologies and practices. This has led to an increase in agricultural output and higher profits for farmers.

Diversification of crops: The agricultural sector has diversified its crops beyond traditional wheat and corn, which has helped to reduce the country's dependence on a few key crops.

Export growth: Ukrainian agricultural exports have been on the rise, especially to Asian and African markets. This has been supported by favorable government policies and improved market access.

Negative Trends: Land ownership issues: Despite reforms aimed at addressing land ownership issues, the issue of land ownership and the lack of a clear land market system remains a significant challenge for the Ukrainian agricultural sector.

Climate change impacts: The country's agricultural sector is facing increasing climate variability, including droughts and floods, which can impact crop yields and threaten food security.

Lack of infrastructure: The lack of infrastructure, including inadequate transportation and storage facilities, remains a significant challenge for Ukrainian farmers.

Overall, the Ukrainian agricultural sector is still in a state of development, with a mix of positive and negative trends. Addressing the challenges facing the sector, including land ownership issues, climate change impacts, and infrastructure deficiencies, will be critical to ensuring its continued growth and success.

There are several main problems that can affect the financial condition of an agricultural enterprise, including:

Seasonal nature of agricultural production: Agricultural production is seasonal, which means that income is usually generated in a short period of time during the year. This can lead to cash flow problems throughout the rest of the year.

Fluctuations in commodity prices: Agricultural commodities are subject to fluctuations in prices due to changes in supply and demand, weather conditions, and other factors. This can affect the profitability of an agricultural enterprise.

High operating costs: Agriculture is a capital-intensive industry with high operating costs, such as equipment, labor, and inputs. These costs can be difficult to manage, particularly for small and medium-sized enterprises.

Dependence on external factors: Agricultural production is heavily dependent on weather conditions, market conditions, and government policies. This makes it difficult for farmers to control their income and expenses.

To solve these problems, there are several strategies that agricultural enterprises can employ.

Diversification: Agricultural enterprises can diversify their income streams by producing different crops or livestock, or by engaging in value-added activities such as processing and marketing. This can help to reduce the impact of seasonal fluctuations and commodity price volatility.

Cost control: Agricultural enterprises can reduce their operating costs by improving efficiency, adopting new technologies, and negotiating better deals with suppliers. This can help to improve profitability and cash flow.

Risk management: Agricultural enterprises can manage risks by using crop insurance, hedging, and other financial instruments. This can help to protect against losses due to weather events, price fluctuations, and other external factors.

Government support: Agricultural enterprises can access government support programs, such as subsidies, grants, and loans. This can help to reduce the financial burden of operating an agricultural enterprise and provide access to capital.

By adopting these strategies, agricultural enterprises can improve their financial condition and build a more resilient and sustainable business.

In addition to the strategies mentioned above, there are several other ways that agricultural enterprises can improve their financial condition:

Marketing: Effective marketing can help agricultural enterprises to increase their revenue and profitability. By identifying target markets, developing strong branding, and using effective promotional strategies, agricultural enterprises can increase demand for their products and command higher prices.

Access to financing: Agricultural enterprises often require significant investment in capital assets, such as land, buildings, and equipment. Access to financing is therefore essential for their success. Agricultural enterprises can seek out loans, grants, and other forms of financing to help them fund their operations and grow their businesses.

Training and education: Agricultural enterprises can benefit from training and education in business management, financial management, and other areas. By

developing skills and knowledge in these areas, agricultural enterprises can make more informed decisions, manage risks more effectively, and improve their overall financial performance.

Collaboration: Agricultural enterprises can benefit from collaborating with other businesses, such as suppliers, buyers, and other farmers. By working together, agricultural enterprises can share resources, reduce costs, and access new markets.

Sustainability: Increasingly, consumers and buyers are seeking out sustainably-produced products. By adopting sustainable farming practices, agricultural enterprises can attract customers who are willing to pay a premium for products that are produced in an environmentally-friendly and socially-responsible way [17].

Overall, improving the financial condition of an agricultural enterprise requires a combination of strategies and approaches. By adopting a proactive and strategic approach, agricultural enterprises can build a strong and resilient business that is able to weather the challenges of a rapidly-changing industry.

Certainly, here are some additional ways that agricultural enterprises can improve their financial condition:

Technology adoption: Agricultural enterprises can benefit from adopting new technologies that can help to increase productivity, reduce costs, and improve the quality of their products. For example, precision agriculture technologies can help to optimize crop yields and reduce the use of inputs such as fertilizers and pesticides.

Supply chain management: Agricultural enterprises can improve their financial condition by managing their supply chains more effectively. By working closely with suppliers and buyers, agricultural enterprises can reduce waste, improve quality, and reduce costs.

Diversification of revenue streams: Agricultural enterprises can benefit from diversifying their revenue streams beyond traditional farming activities. For example, they can consider generating revenue through agritourism, selling products directly to consumers through farmers' markets or online marketplaces, or offering value-added products such as jams, jellies, or preserves.

Strategic planning: Agricultural enterprises can improve their financial condition by developing a strategic plan that outlines their goals, objectives, and action plans. A strategic plan can help to focus the enterprise's resources and efforts on activities that are most likely to achieve success and profitability.

Networking: Agricultural enterprises can benefit from networking with other farmers, industry experts, and business professionals. By participating in industry associations, attending conferences and events, and engaging in social media and other online forums, agricultural enterprises can learn from others, share ideas, and identify new opportunities.

In summary, improving the financial condition of an agricultural enterprise requires a combination of strategies that are tailored to the specific needs and circumstances of the enterprise. By adopting a proactive and innovative approach, agricultural enterprises can improve their financial performance, build resilience, and achieve long-term success.

Of course, here are some additional ways that agricultural enterprises can improve their financial condition:

Efficient resource management: Agricultural enterprises can benefit from managing their resources, including land, water, and energy, more efficiently. This can help to reduce costs and improve sustainability. For example, water-efficient irrigation systems can help to reduce water usage and costs.

Continuous improvement: Agricultural enterprises can improve their financial condition by continuously improving their operations, processes, and products. By regularly reviewing their performance, identifying areas for improvement, and implementing changes, agricultural enterprises can increase efficiency, reduce waste, and improve profitability.

Risk assessment: Agricultural enterprises can benefit from conducting regular risk assessments to identify potential risks and develop strategies to manage them. This can help to reduce the impact of external factors, such as weather events or market fluctuations, on the enterprise's financial performance.

Partnership and collaboration: Agricultural enterprises can improve their financial condition by forming partnerships and collaborating with other businesses, governments, and stakeholders. For example, they can partner with research institutions to develop new technologies or collaborate with other farmers to share equipment and reduce costs.

Focus on customer needs: Agricultural enterprises can benefit from focusing on the needs of their customers and developing products that meet those needs. This can help to increase demand for their products and improve their financial performance.

In conclusion, improving the financial condition of an agricultural enterprise requires a comprehensive approach that addresses a wide range of factors, including resource management, continuous improvement, risk assessment, partnership and collaboration, and customer focus. By adopting a strategic and innovative approach, agricultural enterprises can improve their financial performance and achieve long-term success.

Certainly, here are some additional ways that agricultural enterprises can improve their financial condition:

Efficient production: Agricultural enterprises can benefit from optimizing their production processes to reduce costs and improve efficiency. This can be achieved through measures such as optimizing planting and harvesting schedules, using efficient farming equipment, and minimizing waste.

Product differentiation: Agricultural enterprises can differentiate their products from those of their competitors by offering unique or specialized products. This can help to increase demand and prices for their products, thereby improving their financial condition.

Access to markets: Agricultural enterprises can benefit from having access to markets that offer favorable prices for their products. This can be achieved through measures such as direct marketing to consumers, participation in farmers' markets, or export to international markets.

Data management: Agricultural enterprises can benefit from collecting and analyzing data on their operations and financial performance. This can help to identify areas for improvement, make informed decisions, and increase efficiency.

Human resource management: Agricultural enterprises can benefit from effective management of their human resources, including hiring, training, and retaining skilled employees. This can help to increase productivity and reduce turnover, which can have a positive impact on the financial performance of the enterprise.

In summary, improving the financial condition of an agricultural enterprise requires a multifaceted approach that addresses various aspects of the business. By adopting a combination of strategies, including efficient production, product differentiation, access to markets, data management, and human resource management, agricultural enterprises can improve their financial performance, reduce risks, and achieve long-term success.

References:

1. Andriychuk, V.G. (2015), Efektyvnist' diial'nosti ahrarnykh pidpryiemstv: teoriia, metodyka, analiz [The effectiveness of agricultural enterprises: theory, methodology, analysis], K.: KNEU, Kyiv, Ukraine.

2. Belomistna, I.I and Kramskaya, M.S.(2013), Finansovo kredytna diial'nist': problemy teorii i praktyky: zb. nauk. prats [Financial credit activity: problems of theory and practice: Coll. Sciences. wash], Kyiv, Ukraine.

3. Blank, I.O. and Sitnik, G.V.(2016), Upravlinnia finansamy pidpryiemstv [Enterprise Finance Management], Kyivs'kyj natsional'nyj torhovel'no-ekonomichnyj unt., Kyiv, Ukraine.

4. Voronkova, A.E. Vecherkovsky, R.Z. Voronkov, D.K. Kolyuzhna, N.G. Korenev, E.N. and Magura, I.V. (2018), Diahnostyka stanu pidpryiemstva: teoriia i praktyka [Diagnosis of the state of the enterprise: theory and practice], 2ne ed, Kh.: INZhEK, Kharkiv, Ukraine.

5. Gudz, O.E. (2016), Diahnostyka ta upravlinnia platospromozhnistiu v sil's'kohospodars'kykh pidpryiemstvakh. Stalyj rozvytok ekonomiky [Diagnostics and Management in Agricultural Enterprises. Sustainable Economic Development], Kyiv, Ukraine.

6. Demyanenko, N.Ya. and Malik, M.Ya. (2015), Finansova kryza v ahrarnomu sektori APK. Ekonomichni nauky [The financial crisis in the agrarian sector of the agroindustrial complex. Economic Sciences], Kyiv, Ukraine.

7. Zhidyak, O.R. (2011), "Financial status and improvement of control over financial indicators of agrarian enterprise", Visnyk Tavrijs'koho derzhavnoho ahrarnoho universytetu, vol. 10, pp. 138—142.

8. Kovalev, V.V. (2017), Fynansovyj menedzhment [Financial management], 2ne ed, Kyiv, Ukraine.

9. Koshelnik, V.M. (2013), Napriamy zmitsnennia finansovoho stanu ahrarnykh pidpryiemstv u post kryzovyj period ikh rozvytku [Directions of strengthening the financial condition of agricultural enterprises in the post-crisis period of their development], Ekonomichni nauky, Kyiv, Ukraine.

10. Melnyk, O.G. Alexey, I.B. Podolchak, N.Yu. and Shulyar, R.V.(2016), Innovatsijni systemy ekonomichnoi diahnostyky pidpryiemstv na zasadakh indykatoriv [Innovative systems of economic diagnostics of enterprises on the basis of indicators], Vydavnytstvo Natsional'noho universytetu "L'vivs'ka politekhnika", Lviv, Ukraine.

11. Ostrovskaya, O.A. (2014), Otsinkafinansovoho stanu pidpryiemstv ta shliakhy ii udoskonalennia [Estimation of financial condition of enterprises and ways of its improvement], Kyiv, Ukraine.

12. Poddyrogin, A.M. and Naumova, L.Yu. (2016), Finansova stijkist' pidpryiemstv u ekonomitsi [Financial sustainability of enterprises in the economy], Kyiv, Ukraine.

13. Sokirinskaya, I.G. and Khokhlov, O.V. (2016), "Aspects of strategic enterprise development", Visnyk Sums'koho derzhavnoho universytetu, vol. 4, pp. 165—168.

14. Khalatur, S. (2015), "Mechanism of adaptation of the agro-industrial complex of Ukraine in the conditions of the global food problem", Visnyk Dniprovs'koho derzhavnoho ahrarno-ekonomichnoho universytetu, vol. 1, pp. 114—116.

15. Khalatur, S. Hudym, K. (2016), "Systematization and analysis of MNC behavior patterns to enter the national agrarian market", Ekonomichnyj chasopys-XXI, vol. 5—6, pp. 34—37.

16. Chernenko, V.A. (2015), Antykryzove upravlinnia [Crisis Management], Vydavnytstvo Yurajt, Kyiv, Ukraine.

17. Chornyj, V. and Kolesnik, Ya. (2018), "Strategy of development of tax management of agricultural enterprises", Investytsii: praktyka ta dosvid, vol. 21, pp. 55—59.

SECTION 4. MODERN LEARNING TECHNOLOGIES IN HIGHER EDUCATIONAL INSTITUTIONS

4.1. INNOVATIVE DIGITAL TOOLS OF EDUCATIONAL ACTIVITIES IN HIGHER EDUCATIONAL INSTITUTIONS

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Summary. Using of Google digital tools and information technologies of the Word and Excel programs of the Microsoft Office suite in educational activities in higher educational institutions of teachers and students is considered in the work. Basic comparisons of functionality and usage are explored. It has been proven that using Google services allows you to use data anywhere on the planet and not be tied to one computer. The advantages of Google services and tools are the presence of a centralized data storage and a well-thought-out user interface. Attention is focused on the role of innovative technologies for continuing the educational process using all available forms: online (with the use of IT technologies), offline and in a mixed mode. The effectiveness of the use of modern information and web technologies to build a communication environment for education seekers has been proven. The top 100 learning tools of 2022 are characterized and have been implemented in all forms of learning: formal, informal, experiential and social. Examples of the application of the modular object-oriented dynamic platform Moodle for distance education in higher education institutions are given. It is proposed to use Google digital tools in the educational process, namely, Google Classroom, Google Drive, YouTube, Google Docs, Google Sheets, Google Forms.

Keywords: Google applications, extensions to Google web applications, innovative technologies, educational activity, distance education, mobile gadgets.

The educational process is an intellectual, creative activity in the field of higher education and science, which is carried out in higher educational institutions through a system of scientific-methodical and pedagogical measures and is aimed at the transfer, assimilation, multiplication and use of knowledge, skills and other competencies in the student of education, and also for the formation of a harmoniously developed personality. To achieve all competencies, it is necessary to use educational technologies in everyday life. Educational technologies is a broad concept, it includes pedagogical technologies, which include educational, educational technologies and management technologies. A special group of educational technologies - information and communication technologies, which cross all other groups of technologies, are used both in educational and educational, and in management processes and technologies.

The spread of innovative technologies in the field of education has become an objective pattern determined by the new philosophy of education. Innovations should be considered as effective and effective innovations in the content, methods, means and forms of education and personal training, in the management of the education system, in the organization of the educational process, in the structure of educational institutions.

Innovations became especially relevant during the COVID-19 pandemic and with the beginning of a large-scale war, when it became vital to make quick, non-standard, essentially innovative decisions.

The functioning of the education system in the conditions of martial law is characterized by an intensive search for new approaches to learning, innovative forms of organization of the educational process, effective pedagogical and information technologies. That is why supporting the active implementation of innovations in the educational sector during the war is one of the most relevant innovations today [1].

The educational process can only be considered perfect if it ensures not only the successful satisfaction of today's social demands, but also determines general approaches to solving future problems. The formation of the intellectual elite of the nation - scientists, researchers, public figures, innovators-entrepreneurs - is another basic component of education development, it is the support of future leaders of world science and Hi-tech, the introduction of STEM education, that is, the use of modern educational technologies.

Today, the concept of "educational technologies" is interpreted differently and is broader and more comprehensive in the educational environment. In the 21st century, educational technology is a theoretically grounded system of ordered professional actions of a teacher, which, with the optimality of resources and efforts, is guaranteed to ensure the effective implementation of the educational goal and the possibility of reproducing the process by any teacher, regardless of his skill level.

Innovation in education is considered as a realized innovation in the content, methods, techniques and forms of educational activity and personality education (such as methods, technologies), in the content and forms of organizing the management of the educational system, as well as in the organizational structure of educational institutions, in the means of education and upbringing and in approaches to social services in education. This significantly increases the quality, efficiency and effectiveness of the educational process, therefore pedagogical innovations, in accordance with the features of the latest processes in education, should cover certain theoretical blocks of concepts and principles, that is: the creation of new things in the system of education and pedagogical science, the perception of new things by the socio-pedagogical community, the application pedagogical innovations, a system of recommendations for theoreticians and practitioners regarding knowledge of innovative educational processes in education and their management.

It is worth noting that in this difficult time, the educators themselves have become more active in searching for ways to solve problems in the organization of training of education seekers, using modern information technologies. But, considering modern information technologies, the process of obtaining an education

by students can take place both within the educational process directly in educational institutions and outside them. Therefore, it is impossible to leave only the teacher the right to choose educational technologies.

Analyzing the introduction and use of computer equipment and information technologies in the educational process of higher education institutions of Ukraine from the second half of the 50s to the beginning of the 90s of the 20th century allows to identify the following historical stages:

1) emergence of programmed learning algorithms (50s of the 20th century);

2) emergence of automated learning support technologies (60s of the 20th century);

3) the appearance of the first computer training systems and the development of the first educational environments (70s of the 20th century);

4) nationwide support of computer equipment and technologies at all levels of education, development of intelligent educational systems and virtual reality systems (80s of the 20th century).

What we have today in the 21st century - the World Wide Web, communication services, the development of interactive technologies, Web 2.0 have created all the conditions for the use of blogs, social networks, collective encyclopedias, photo, video, audio hosting, Wikipedia in the educational process - all this contributes to the intensification of learning [2]. Under the influence of web services, the model of education is also transformed, which is manifested in:

• openness to society of educational materials at all levels;

• openness of the results of scientific research regardless of geographical, socio-economic and other factors;

• openness of the educational process and availability of tools for collective work.

Attention began to be paid to the organization of interaction between users of Internet services in the form of public exchange of information resources and mutual evaluation. Web technologies made it possible to build a communication environment for education seekers. The educator becomes an active element of the system, which not only controls and directs his activity, but also allows him to influence the functioning and filling of the system itself.

2021 was a year of experimentation with the progressive use of tools, when users of information resources tried new things. 2022 was a year of consolidation - when users began to return to their reliable, old and favorite means of communication. In fact, many instruments that lost relevance in 2021 regained their lost positions in 2022.

The 100 Best Learning Tools of 2022 was created from the 16th annual survey and provides a visual representation of the tools on the list and how they are used in different contexts (Fig. 1) [1, 2]. The top of these tools was divided into three groups: tools for personal learning, tools for learning in workplaces and educational environments.

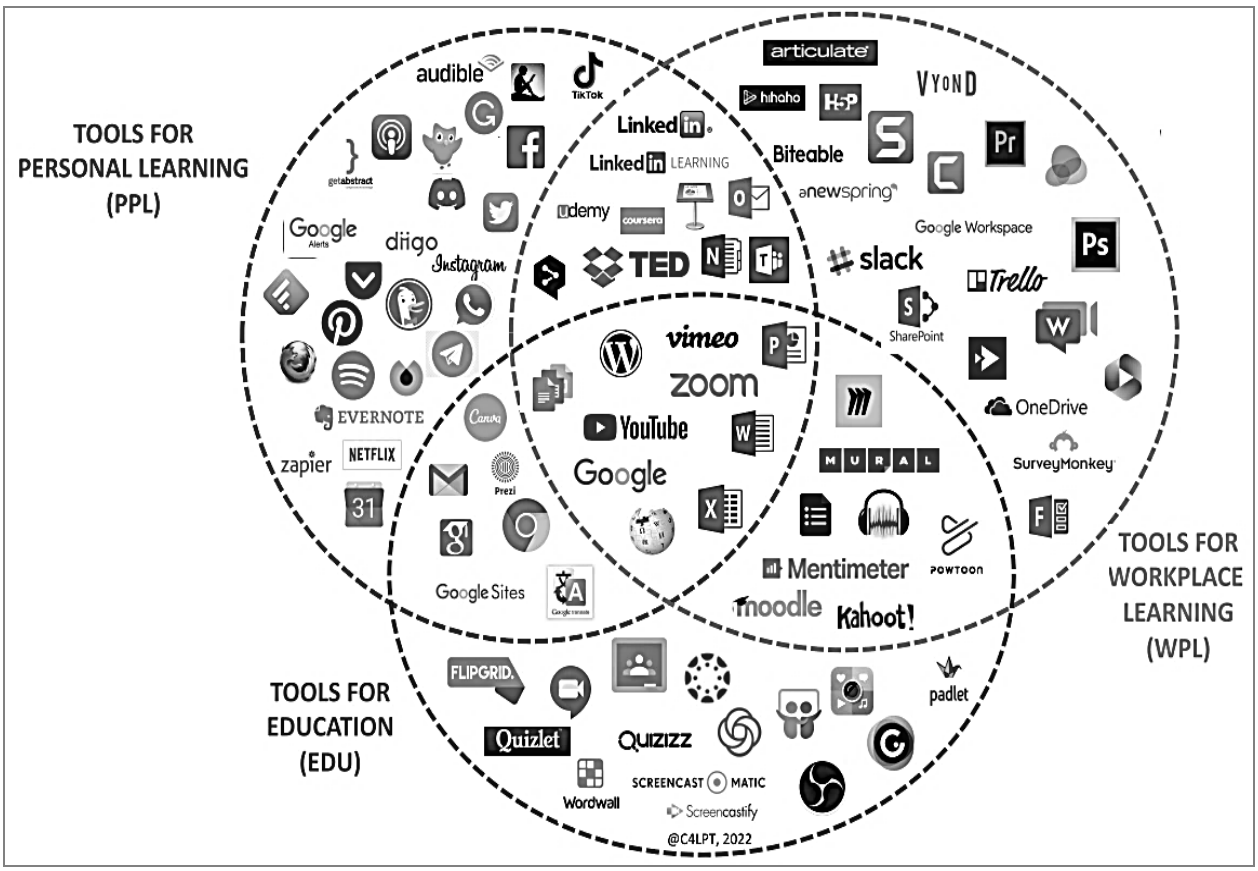

Fig 1 - TOP 100 Best Learning Tools of 2022

All these tools are used for learning, which happens every day in different ways: formal and informal learning, experiential and social learning.

Formal Learning - tools and platforms that can be used to create, deliver, host and manage formal learning experiences and self-directed learning.

Informal learning is the tools and platforms that a person uses to learn something for themselves.

Experiential learning – tools and platforms used as part of everyday activities (work/life) that allow people to learn as a by-product of these activities.

Social learning – tools and platforms that can support interaction and cooperation between people.

Figure 2 therefore shows the context in which each of the top 100 tools is used and is an indicator of how learning can be fully supported to ensure a holistic approach to learning and development.

Figure 3 shows 8 of the top 100 learning tools that received the highest ranking in the annual ranking from the Center for Technology for Learning and Work in 2022 compared to 2021.

The top five tools on the list were actually the continuous leaders: YouTube, PowerPoint, Google Search, Microsoft Teams, and Zoom - a good indication of how people and organizations see "learning" today - meaning that these tools are used for more than just learning (a learning activity) but also as a means of presenting and exchanging information.

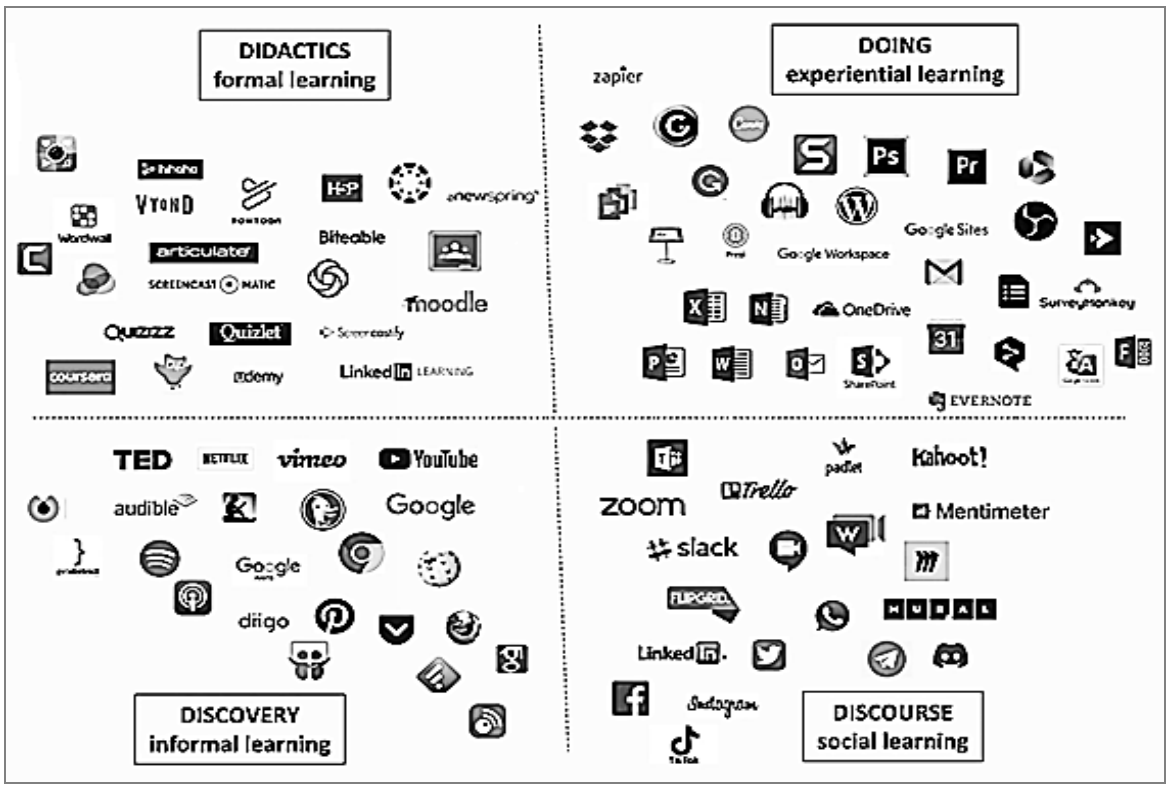

Fig 2 – TOP 100 tools for learning by learning methods

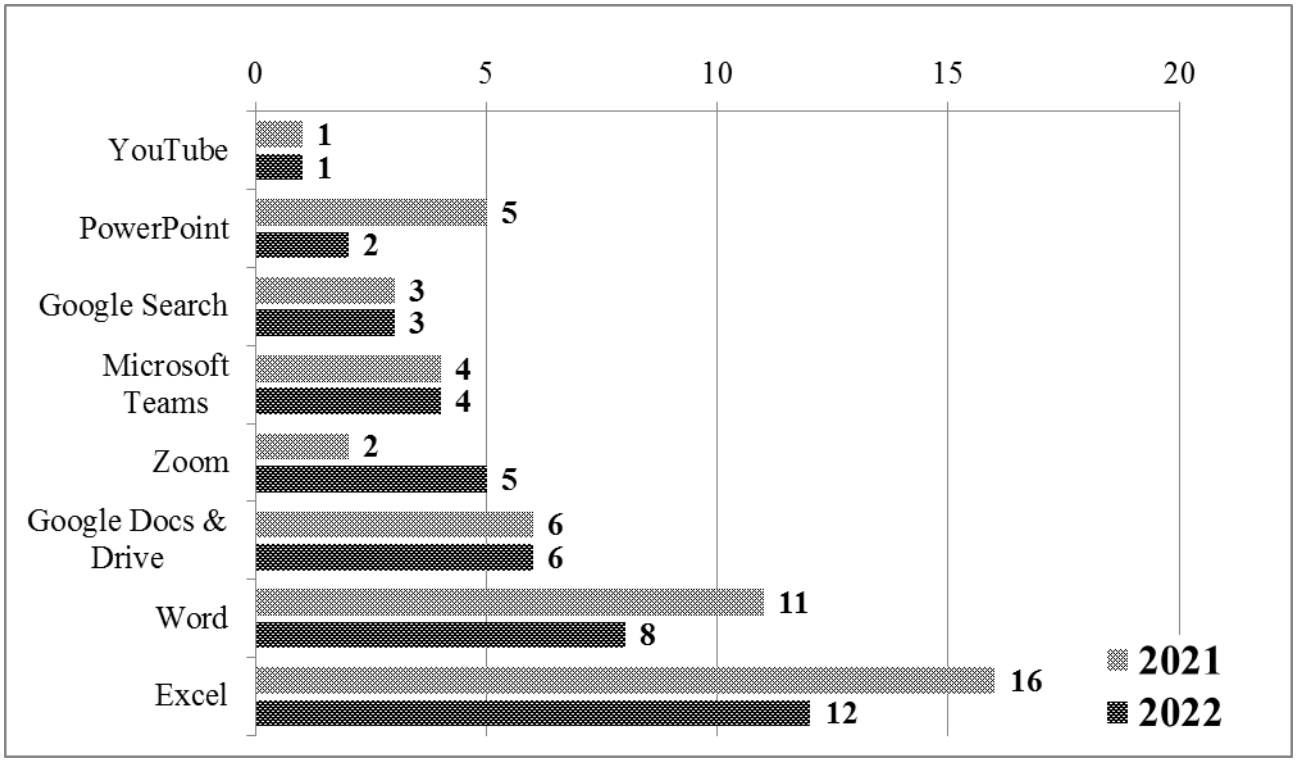

Fig 3 – Ranking of the best learning tools in 2021-2022

Here's how the top 100 learning tools of 2022 were divided into 5 key areas [1, 3, 4] (Fig. 4).

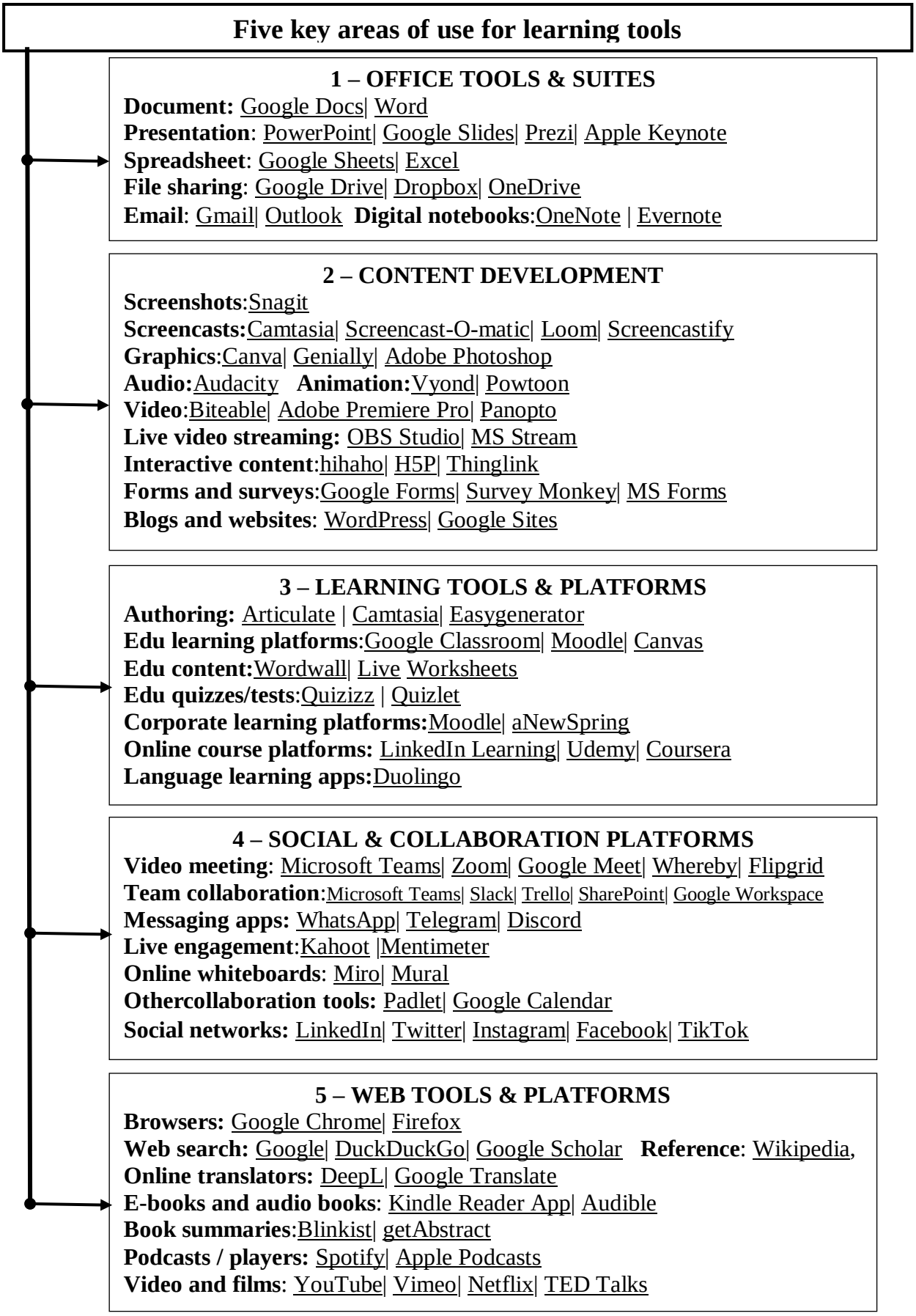

Fig 4 – Areas of use of the TOP 100 educational tools

If we consider the tools as educational technologies, then all of them are aimed at the professional development of pedagogical and scientific-pedagogical workers in terms of the organization of the educational process using forms, methods, techniques and ways of learning, which will allow to activate the educational and cognitive activity of students/pupils.

The modern present of the educational process, for example in higher educational institutions, is the creation of such a high-tech information-communication educational-scientific environment in which an educator is every day in the process of the entire period of study at a higher school, which must meet the needs of the information society, the current state of the development of science and technology, global educational standards and to promote the formation of information and communication competences of all participants in the educational process, from the professor to the student.

Among the innovative technologies, based on which a new educational environment is created in higher education institutions, where students can access educational materials at any time and in any place, there are electronic (distance, mobile) learning technologies, the use of which makes the educational process more attractive, democratic, comfortable and will stimulate students to self-education and lifelong learning.

Many educational institutions have opened freely accessible platforms with their educational materials. One of the means of information and communication technologies that meets the specified conditions is the Moodle system.

Moodle (Modular Object-Oriented Dynamic Learning Environment, pronounced "Moodle") is a modular object-oriented dynamic learning environment, also called a learning management system (LMS), course management system (CMS), virtual learning environment (VLE) or simply a learning platform that provides teachers, students and administrators with a very advanced set of tools for computer-based learning, including distance learning. Moodle can be used in the education of schoolchildren, students, in upgrading qualifications, business education, both in computer classes of an educational institution, and for independent work at home.

Moodle is a free, open (Open Source) system. It is not only free itself, but also does not require any paid software for its operation. That is, every educational institution can implement not just a free and most perfect, but also a fully licensed system, without spending a single penny on the purchase of software. At the same time, he can make changes to the code in accordance with his needs.

Moodle is the most advanced and widespread system for this purpose in Ukraine and in the world. Currently, Moodle already has almost 200 million users worldwide and continues to grow at a pace much faster than its competitors. In 2022, a significant event took place. According to statistics, the use of the Moodle platform in the world exceeded the use of all other platforms combined [5, 6].

In Europe, 2/3 of educational institutions use Moodle. In Ukraine, where the use of paid platforms is very limited, Moodle has practically no competitors. The advantage of the Moodle e-learning platform is the fact that since its appearance, that

is, since 1999, it has been repeatedly modified and supplemented with new solutions and tools. The software of the platform is written in the PHP language using free public databases (MySQL, PostgreSQL). The Moodle platform can be installed on any operating system (MS Windows, Unix, Linux).

The Moodle system meets all the main criteria put forward for electronic learning systems, in particular such as [7]:

- functionality – the availability of a set of functions of different levels (forums, chats, analysis of the activity of listeners (students), management of courses and study groups, etc.);
- reliability – ease of administration and training management, ease of updating content based on existing templates, protection of users from external actions, etc.;
- stability – a high level of stability of system operation in relation to different modes of operation and user activity;
- cost – the system itself is free, costs for its implementation, development of courses and support are minimal;
- no restrictions on the number of licenses for listeners (students);
- modularity – availability of a set of blocks of material in educational courses that can be used in other courses;
- availability of built-in tools for development and editing of educational content, integration of various educational materials for various purposes;
- support of the international standard SCORM (Sharable Content Object Reference Model) - the basis of exchange of electronic courses, which ensures the transfer of resources to other systems;
- the availability of a system for checking and evaluating students' knowledge online (tests, tasks, control of activity on forums);
- convenience and ease of use and navigation - intuitive learning technology.

The Moodle educational content management system enables universities to: implement a modular organization of the educational process in accordance with the requirements of the Bologna Declaration; implement full-fledged scientific and methodical support of disciplines; to integrate universities into the European scientific and educational space; to include universities in the global register of owners of electronic forms of organization of the educational and methodological process; create an Internet environment for electronic forms of education; create a distance education center; ensure operational control of the educational process.

Possibilities and advantages provided by the use of the Moodle system in the educational process to the participants of this process:

- namely, to the teacher:
- to have in a structured form educational and methodical support of the discipline;
- have a convenient tool for recording and monitoring students' educational activities;
- to set the required deadlines for students to complete assignments;
- have software that meets European standards for organizing the educational process according to the modular system;

- use text, graphics, audio and video materials when organizing the educational process;
- to be included in the European register of authors' course owners;
- quickly and conveniently change, expand, supplement and correct the teaching and methodical materials of the discipline;
- organize computer testing of students' knowledge control, using different types of questions;
- to have an automated system for rating the independent work of students;
- involve students in the formation of educational and methodical materials for the discipline;
- have software that is protected against unauthorized access, changes and damage (destruction);
- to have software for carrying out scientific and methodological developments at one's own choice, sequence and pace;

to the student:

- have access to logically structured and completed educational and methodological material, which improves the conditions for independent mastery of the content of the discipline;
- have means for self-testing and performance of tasks and their assessment regardless of the human factor (teacher);
- personal participation and assistance to the teacher in computer support of the educational process;
- take a real part in the scientific and methodical work of the departments;
- extended access to Internet resources;
- the possibility to learn the educational material remotely;
- take the credit and examination session ahead of time.

The Moodle system includes a set of modules, the use of which provides an opportunity to collaborate at the "student-student" and "student-teacher" levels, in particular, these are the following modules: questionnaire, database, selection, Wiki, survey, glossary, assignment, lesson, workshop, page , book, chat, forum, file, quiz, text area, and media to work in Google Classroom, URL (web link).

In the Moodle system, the teacher can use both thematic and calendar structuring of the course at will. With thematic structuring, the course is divided into sections by topic. With calendar structuring, each week of studying the course is a separate section. Such structuring is convenient for distance education and enables students to properly plan their educational work [8]. Editing of the course content is done by the course administrator in an arbitrary order and can easily be done directly during the learning process. It is quite easy to add various elements to the e-course: Lecture, Assignment, Forum, Glossary, Wiki, Chat, etc. For each electronic course, there is a convenient page for viewing the latest changes in the course [8].

When uploading subject materials to Moodle, the teacher has the opportunity to connect students to the course, limit access to specific course topics, and set the deadline for practical, independent and control work. The system's capabilities allow you to view and review the course materials, check and evaluate completed tasks, and

conduct consultations on completing tasks in the chat. In addition, even if the student received a grade, the system has the possibility to change the results, time to revise the work or correct errors. The teacher independently adjusts the actions within the course.

Remote communication of the participants of the educational process can be carried out through means of communication built into the Moodle system, e-mail, messengers (Viber, Telegram, etc.), video conferences (MS Teams, ZOOM, Google Meet, Skype, etc.), forums, chats, etc.

So, the Moodle system provides the teacher with a toolkit for presenting the educational and methodological materials of the course, conducting theoretical and practical classes, and organizing both individual and group educational activities of students. In addition, thanks to the concept of open software espoused by the developers of the system, the features of the technological platform and its functionality, Moodle is gaining more and more popularity in the world information and educational space. Today, the Moodle system is used not only in universities, but also in secondary schools, non-profit organizations, private companies, individual teachers and even parents who teach their children independently.

An analogue of the Moodle system for organizing the educational process is the use of Google's digital tools, namely, Google Classroom.

Google Classroom is a universal place for teaching and learning. The easy-to-use and secure tool helps teachers manage, measure and enrich the learning process. Google Classroom allows you to combine all learning tools in one place and manage several classes in one place. Any member of the school community can get started with Class in minutes. It is possible to work simultaneously on one document with the whole class or communicate face-to-face using Google Meet; empower teaching and learning from anywhere, on any device, and make your classroom more flexible and mobile.

Google Classroom is a free online educational tool that allows you to organize the learning process with students in the virtual space. Google Classroom combines: Google Drive for creating and sharing tasks, Google Docs, Sheets and Slides for writing, Gmail for communication and Google Calendar for scheduling.

The Classroom tool can be used in post-secondary, post-secondary, and higher education settings to streamline assignments, improve collaboration, and facilitate communication. Classroom is available online or via a mobile app or through the Chrom browser and Chrombook. It is possible to use Classroom with many tools, such as Gmail, Google Docs and Google Calendar, among others.

Depending on your learning settings, you can sign in to Google Classroom using one of the following accounts:

- Education institution account — a Google Workspace for Education account created by an accredited educational institution. It looks like you@dsau.dp.ua , for example. If you do not know the details of your Google Workspace for Education account, you must ask the educational staff of the institution or the IT administrator of the institution.

- Personal Google account - created personally by the user. A personal Google Account is used outside of the educational institution. It looks like you@example.com .

- Google Workspace account — set up by the institution's administrator. It looks like you@yourorganization.com.

In Google Classroom, a teacher can organize work with several courses, distribute tasks, including individual ones. The platform also allows you to check tasks and evaluate them.

On the platform you can: create your class/course; organize students' registration for the course; share the necessary educational material with students; propose tasks for students; evaluate students' tasks and monitor their progress; organize students' communication. In addition, the features of Google Classroom are:

- Google Classroom is available anywhere there is an Internet connection. Classroom can be accessed on a computer in any browser, as well as from mobile devices based on Android and Apple iOS.

- Google Classroom can be used by people with complete and partial vision impairment - screen reading programs are provided for them. For example, VoiceOver was created for iOS devices, and TalkBack was created for Android.

- Google pays particular attention to the security of the information space: there are no advertisements in the Class, and all posted materials cannot be used for commercial purposes [9].

You can find Google Classroom by opening the Google Chrome web browser, browsing through Google apps, and finding Class among them. To do this, you need to open a new page in the browser and click on the Google apps button (nine dots) in the upper left corner, next to the account image. After opening Google Classroom, you can start creating your own course, or you can see here a list of previously accessed courses. By clicking the "+" button in the upper right corner, you can add a virtual class or join a class.

When creating a Classroom, you need to familiarize yourself with the rules and perform the following steps: specifying the name of the Classroom, section, topic and audience. Each course automatically receives a code by which students can later find their "virtual audience". Access is also open in the Google Classroom mobile application for Android and iOS.

After creating a course, a picture opens - the main screen: in the horizontal menu of the tab: "*Ribbon*", in which, by analogy, for example, with Facebook, all updates are visible; "*Tasks*" with all materials and "*People*", where information about classmates and teachers is placed; "*Evaluations*".

The feed - questions and topics for discussion are published in it, access to it can be configured manually - individual students can, for example, disable the commenting function.

Tasks - contains all materials (tasks) of the class. Objects on this page can be grouped by topic, as well as arranged in a convenient order.

Exercises are published on the "Tasks" tab. There are several formats for testing knowledge: a survey, a test, and others. You can provide additional

instructions in attached files, use the Blank Quiz template, or create multiple-choice questions.

By default, all jobs are graded on a one-to-one scale, and deadlines remain open. However, these options are easy to configure: choose a different rating system or specify the deadline for tasks: date, time, minutes, seconds.

Students can view assignments in the course feed or calendar, or on the To-Do List page. It will be visible which tasks are assigned, which have not yet been submitted, which have been completed. At the same time, the student can be assigned an individual task - this is convenient during tests, sessions or tests.

People - the ability to connect to the course of teachers, assistants or students themselves.

Assessments - information on the assessment of students of the class, an overview of the setting of the assessment method.

A comparison of the features of a personal account and a Google Workspace for Education account when working in Classroom is shown in Table 1.

Table 1

Personal Account and Google Workspace for Education Account Features [3, 9]

Activity or function	Personal Google Account	Google Workspace for Education account
Summary of classroom email for parent awareness	-	+
Originality reports	-	5 reports per class
Time limit for group meetings with Google Meet	60 minutes	24 hours
Ability to have a unique Google Meet link at the class level	-	+
The best moderator controls for teachers in Google Meet meetings	-	+
Whiteboard and raise hands controls for Google Meet meetings	-	+
Teachers per class	20	20
Teachers and students per class	250	1000
Classes that you can join	100 max, 30 per day	1000
Classes you can create	30 per day	-
Student invitations you can send	100 per day, per teacher	500 per day, per teacher
Topics for the class	200	200

In addition to Classroom, Google offers a number of applications and tools for various needs, including educational ones.

The COVID 19 pandemic has sparked a new wave of digital transformation around the world. And state institutions did not remain aloof from this process. Due to the expansion of the digital infrastructure, in particular, the creation of new applications and services, remote workplaces and the transition to the cloud environment, the number of potential applications has increased.

Cloud technologies are a fairly new phenomenon on the Internet in general and in education in particular. Cloud technologies are based on the concept of Web 2.0, which provides users with the opportunity to independently create and edit content. The implementation of cloud technologies in education is characterized by three key points: content creation by the user himself — a teacher or student; saving the materials created by the user on a remote server, thanks to which they are constantly available for viewing and editing on the Internet; Demarcation of access rights: the content owner can specify who has the right to view and modify the materials created or uploaded by him.

Cloud technologies in education are extremely popular, the number of their users is growing rapidly. Today, G Suite for Education has more than 85 million users worldwide. Such rapid growth indicates the relevance and popularity of cloud technologies, their demand and usefulness.

Cloud services are services that provide the user with network access to a scalable and flexibly organized pool of distributed physical or virtual resources, which are supplied in self-service and administration mode at his request (for example, software, data storage space, computing power, etc.).

The operation of high-tech infrastructure based on cloud computing is based on outsourcing, that is, such a service delivery mechanism, when the ICT services required by the system are implemented using another system external to it. The main types of cloud services reflect the possible directions of using ICT outsourcing for creation of educational services. SaaS (Software-as a Service)–“software as a service”–can be used to provide students with access to e-mail, operating systems, applications, and application programs. These services are used in order to provide the process of education and scientific research with specialized software for the implementation of processes that require the processing of significant volumes of data and high-speed calculations (for example, experimental data). PaaS (Platform as a Service) - "platform as a service". Unlike SaaS tools, which are more user-oriented, this type of service is more for the developer. A set of programs, services and libraries, or integrated platforms for creating your own web applications, is provided as a service. This type of services can be used to develop integrated educational programs that can be used "in the cloud" both for organizing individual and collective work. IaaS (Infrastructure as a Service) is "infrastructure as a service" designed to run any applications on cloud hardware of the user's choice. IaaS may include hardware (servers, data storage systems, client programs, and equipment); operating systems and software (virtualization tools, resource management); communication software

between systems (network integration tools, resource management, equipment management) provided over the Internet.

Cloud services are used in order to make available to the user electronic educational resources that make up the content of the cloud-oriented environment, as well as to ensure the processes of creating and supplying educational services.

In order to implement cloud services in an educational institution, it is necessary to conduct appropriate training, introducing its corresponding elements.

The use of cloud services in education has a number of advantages: significant savings on the purchase of software. Cloud services take into account all these costs and users pay only for using the network; reducing the need for special purpose premises. The use of services is available to everyone and anywhere. For this, you only need to have access to the Internet; all backup copies are stored on the basis of cloud computing. The user does not need to worry about the following: data deletion, virus infection or data loss due to hard disk damage. Everything located in the cloud is protected and saved in any case; performance of a large number of types of educational work, control and assessment of students' knowledge (online); ad-free, anti-virus, anti-hacker security and openness and accessibility of the educational environment for teachers and students.

It should be noted that the main advantage for all users of cloud services is access to the "cloud" from any mobile device (computers, tablets, mobile phones, etc.) with a browser installed and connected to the global network Internet. Using cloud services, each student can start doing tasks in the classroom, and continue doing work at home without the need to partially copy a part of the completed task to a certain medium, thanks to the fact that all the necessary material is stored in the data processing center on a remote server.

Regardless of the disadvantages, the use of cloud services significantly expands work opportunities for teachers and students, since at any time you can use free access to previously saved materials and documents; use video and audio files directly from the Internet without additional downloading to the computer; to implement online classes, laboratory work, practical work, online conferences, online seminars with students of other educational institutions.

The capabilities of cloud services used for educational needs can have a serious impact on the construction of educational tasks, assessment systems and the final result of knowledge formed by students.

The leaders in the provision of cloud services for education are the Google and Microsoft corporations, which offer G Suite for Education cloud service packages to educational institutions for free. A list of the most necessary and useful cloud services that should be mastered first: Google Drive, YouTube, Google Docs, Google Sheets, Google Forms, Google Meet.

Google Drive is required to save materials online. These can be documents, notes, presentations, textbooks, developments, any materials that can be used in your own activities or shared with other teachers-users. Educational materials, presentations, and videos can be placed on Google Drive. By making these materials available to students, they will always be able to view the materials at any time.

The easiest way to access Google Drive is from the Google search page. To access Google Drive, you must be logged in to a Google account. To upload files, you need to use the Create button, and then the Upload file command. Deleting, copying, renaming files is carried out by right-clicking on the icons of these files on Google Drive and selecting the appropriate menu command. In order not to accumulate scattered files on Google Drive, it is advisable to first create thematic folders and upload files to them. By default, files uploaded to cloud storage are available only to their owner. To share, view, or edit files with others, file sharing must be enabled. To do this, select a file on Google Drive and select the "Share settings" item in the context menu. Similar actions for a folder enable sharing of all the files stored in it: By default, file viewing sharing is enabled, while the link to the files is copied to the clipboard. Anyone with this link to the files can view them.

YouTube is the largest, most famous, most popular and, probably, the most convenient video hosting in the world. The use of YouTube by teachers is carried out in several directions: the use of videos from YouTube in classes; creation of educational video collections; viewing webinars, educational videos for the purpose of self-education; creating your own educational channels. YouTube is a source of diverse and relevant video content and has a well-organized search that allows you to find the video you need. Downloading videos from YouTube is not supported by video hosting, however, there are a significant number of online services, browser applications, and programs that will help you download videos for use in classes. The training video can be used directly from the youtube.com site itself, but this requires a fast and guaranteed Internet connection, as well as the absence of advertising in the video.

Google Docs is a free web-based word processor offered by Google as part of its complete office suite, Google Drive. Google Docs is available on all devices and platforms; requires an Internet connection and a web browser (or, in the case of mobile devices, appropriate apps that can be installed using Google Play) when operating in the cloud. Docs supports several different file types, including .doc, .docx, .txt, .rtf, and .odt, making it easy to view and convert Microsoft Office files directly from Google Drive.

Because Docs is an online word processor, it allows you to share and collaborate with multiple users on a single document, tracking changes and suggestions in real time.

To create a Google Document, you need to use the Google Apps button in the form of nine dots, and then choose Google Docs among the applications. As a result, a Document without a name appears, first of all, you need to give a name to the document. To do this, you need to set the text cursor in the Document without name area and enter the name of the document. All Google Docs are saved automatically on Google Drive or, if necessary, can be saved on a hard drive or other media. Working with the text in the document is done using the commands of the horizontal menu and the buttons of the instrument panel.

While working with the document, you can:  - mark the document;  - move the document to any place in Google Drive;  - enable "all changes saved to Google Drive" mode. In this mode, you can work with the document offline, that is, you can edit this document without an Internet connection. When the Internet connection is restored, the changes will be saved automatically to Google Drive.

The online word processor Docs can work with documents created in the word processor Microsoft Word. Once you download a Word file, Docs automatically opens it, and the Docs processor is ready for you to edit, share, and collaborate. To open a Word document in the online word processor Docs, you need to: File - Open - Download - the View button - select the document. When you're done with a document, you can download it back in DOCX or PDF, ODT, TXT, HTML, or EPUB format. To do this: File - Download - Format doc, and the document will be downloaded directly to the place where the files are saved from the browser.

One of the best features of Google Docs is the ability to generate a shared link that allows anyone who has it to view, suggest edits, or edit the document. Instead of sending files between contributors, there is some ability to make changes and suggestions simultaneously, as if all users were working on the same computer in real time. The only difference is that each user has their own text input cursor to use on their personal computer. To turn on this mode, you need to execute the following commands: Editing – Offering.

Although both word processors Google Docs and Microsoft Word may look similar, they actually differ in many ways (Table 2).

Table 2

Basic comparisons of Google Docs and Microsoft Word documents [5, 9]

Basic comparisons	Google Docs	Microsoft Word documents
Functionality	It has a basic set of functionality for working with documents	The most advanced option for formatting characters and text paragraphs, managing tables, working with styles, and graphically implementing objects
Cooperation	You can easily see which files have been shared, and easily navigate to files that users have shared.	To be able to collaborate, several users need to upload documents to Google Drive.
Cloud and synchronization	Google Docs has a very powerful timeline feature that displays all previous editing steps	You need to create a backup copy
	Access is available on all major platforms, including Mac, Windows, Android, iOS and the web.	
Offline access	Documents do not have offline functionality, but it can be connected when using an	New offline documents can be easily created, and then when the user is online, the

	additional extension	documents can be uploaded to the cloud. Co-authoring will not be available
Formatting	When attaching images, tables, or spreadsheets, the formatting does not always match the formatting in the document processor	It is much easier to create unique text formatting rules
Accessibility	They are a little less versatile than in a word processor, but you can work with the document absolutely free	The licensed version of the program is not free

Today's age is information. A man with data can rule the world. A person who can extract the right information from a given set of data will conquer the world and can manipulate the market by easily predicting trends and data based on the market. To carry out such an analysis, spreadsheets are the most common tool used today by both professionals and non-specialists. A spreadsheet provides an advantage for data storage and data analysis and obtaining targeted analysis.

Currently, the spreadsheets on the market are developed by Apply (Numbers Apple), Microsoft (Microsoft Excel) and Google (Google Sheets). Google Sheets and Microsoft Excel are becoming similar to each other, trying to include more functionality that helps the user in better analysis.

Microsoft Excel is a spreadsheet program developed by Microsoft that helps you store data, manipulate data, extract data, and output information that can aid in strategic decision-making.

Google Sheets is a web application that allows users to create, modify, and update spreadsheets. Data used for spreadsheets can be transmitted in real time over the Internet. This program is compatible with Microsoft Excel and comma separated values. Spreadsheets can also be saved in HTML format.

The application has typical spreadsheet functions. Data can be added, deleted, and sorted into rows and columns. Multiple geographically distributed users can collaborate on a spreadsheet in real time. Google Spreadsheet has built-in messaging for real-time communication. The user also has the ability to download spreadsheets directly from their computers.

Today, Google Spreadsheet is available in your own Google Account. To work with spreadsheets, you need to sign in to your Google account and create a spreadsheet.

Creating a Google Sheet is performed similarly to Google Docs, that is, to create a spreadsheet, you need to use the Google Apps button in the form of nine dots, then choose Sheets from among the applications and press the button in the form of a colored plus. As a result, a Spreadsheet appears without a name, first of all, you need to give a name to the document. The spreadsheet contains one worksheet, the working field of which has the form of a table where the columns are marked with letters of the Latin alphabet, and the rows are numbered with numbers. Sheets can be added, renamed, protected, hidden, copied and moved. The main functionality

of Google Sheets is similar to Microsoft Excel spreadsheets, but there are many nuances. Both Google Sheets and Excel contain many of the same standard features. All functions are divided into categories or a general list of functions alphabetically can be found in the All of them category. Users who switch between apps don't notice that features they use are missing. Both tools offer different capabilities, from creating charts to applying formulas. The main difference is in the presentation of the user interface options.

However, Excel is the best choice for special features such as statistical analysis, macros, or data modeling. Only Excel supports such specialized capabilities, even though Google Sheets is constantly adding new features. Excel is much more functional for features like conditional formatting, pivot tables, and data analysis.

The main difference between Google Sheets and Excel is that Google Sheets allows a user to share links with other users, giving them access to read or update the sheet at the same time. Instead, only one user can edit the file in Excel at a time. The differences are discussed in more detail in Table 3

Table 3

Top 14 comparisons between Google Sheets and Excel [5, 9]

The basics of comparing Excel and Google Sheets	Google Sheets	Microsoft Excel
Developed	Google Sheets is developed by Google LLC.	MS Excel is developed by Microsoft Corporation.
Launched as a package	Google Sheets launches as a G Suite package.	MS Excel runs as an MS Office suite.
Start year	The Google suite was launched in 2006.	MS Excel was launched in 1987.
Languages supported by the program	Google Sheets is officially available in 83 languages.	Excel is officially available in 91 languages.
Large datasets	As the data size increases, it starts to slow down. Therefore, it is more suitable for small datasets.	Excel is ideal for large data sets and such data sets can be easily manipulated using Excel.
Chat	In Google Sheets, chat tools are available in the sidebar.	The chat function is not available in Excel.
Track changes	Track changes are always enabled by default in Google Sheets. And the best part is that such a track is available	Excel has a feature to track changes. However, this must be enabled or data changes will not be

	in real time.	tracked.
Use the Internet offline	Google Sheets can be used both online and offline.	Excel can only be used offline.
Number of cells	A maximum of 2 million cells are available in Google Sheets.	About 17 billion cells are available in Excel.
Number of functions	In comparison, Google Mail supports very limited functionality.	Excel supports about 400 functions in various categories.
Use in computers at a certain point in time	Google Sheets can be used on many computers over the Internet in real time.	An Excel file can be used on one computer at any time, and after using them, you need to share them with other users to further edit the data from your computer.
Price	Google Sheets is free or has little cost.	Excel is very expensive because you need the entire MS Office suite for a subscription.
Communication / synchronization with external data	Because Google Sheets runs in a direct Google environment, Google Sheets can directly import data from the web using functions.	In Excel data must be imported from an external source such as the Internet manually, and automatic feature-based filling is not available.
Expanded	Relatively unimproved, as it has limited functionality and is under development.	An Excel and Google Sheets spreadsheet with the best analytical tools and storage capacity.

Excel will remain the best choice for spreadsheet users because of its ability to work with large data and the ability to do advanced analysis with various functions. On the other hand, for a novice or small business that has a small database or requires real-time updates from their team, they will prefer Google Sheets because it provides the basic features that a novice or small business needs. Also, Google Sheets is freely available and as a result may have an advantage over Excel.

Google Forms is another tool in the line of Google services. The service interface is very similar to Google Sheets or Google Docs. Google Forms (Google Forms) is a free online service for collecting information using surveys, registration forms for events, tests and receiving feedback. All information entered by

respondents is automatically entered into Google Sheets, and thanks to this function, you can quickly analyze the data with minimal expenditure of time and effort. All you need to do to start using Google Forms is sign in to your Google Account. The application has a simple and concise design and various examples and templates in Google Forms are available for users, on the basis of which you can create your own versions of questionnaires, forms for registering for events, forms for monitoring knowledge, etc.

The convenience of the Google Forms tool lies in its:

- adaptability – creating, editing and viewing materials is available on any device;
- accessibility – being in any place and at any time, the user can work with the application. Google Forms for surveys and testing are stored on Google Drive;
- ease of use – consists in ease of work at all stages, from creation to completion by respondents;
- unique design – you can choose ready-made Google Forms themes for design or add your own images;
- ease of analysis – after filling out the forms, the test information is automatically processed by the application, and this allows you to get ready-made statistics of student-respondent answers. Before you can use any form, you must create it, give it a name, and set the necessary settings. The created form can be sent to respondents by e-mail, using a link to the form, or even embedding the form on a website. To choose a convenient method, you need to use the Send button. The Send button allows you to choose the method of sending the Google Form test from one of the available options:

E-mail - the recipient can fill out the survey immediately in the letter, he does not need to go anywhere, because the form is embedded in the body of the message (it is necessary to set the switch next to the Includethe form in an email command.

Link is an accessible link that can be copied and sent to respondents. For convenience and correct display of the link, you can create a short URL with a link.

Users who want to conduct a survey on the website can use the option to install a form on it. To do this, you need to make sure that the website is built using HTML. In other cases, it is necessary to use IFRAME to display the questionnaire. In order to insert the form on the website, it is necessary to generate the HTML code prepared for insertion on the website in the corresponding window. Copy the HTML code for further placement of the form on the site. In addition, there are additional possibilities when working with forms. For example, sending a confirmation email to respondents. That is, Google Forms allow respondents to receive an email confirming their submission. But this is not a built-in feature and the additional extension Form Notofications must be installed.

To install additional extensions in the forms, the user just needs to click the button with three dots in the upper right corner, and then select the "Additions" option from the menu in the settings. So, for example, a convenient addition for a teacher working with forms for assessing students' knowledge is the Form Scheduler extension.

Using the Form Scheduler extension for Google Forms can limit the number of responses and schedule the form to open or close based on Google calendar events. Free features are: stop the form from working after the maximum number of responses or stop the form from working on a specific date and time.

To find out the Google Forms answers, you need to go to the "Answers" tab to work with the results. This section will display all the necessary information after the answers — from the general summary, statistics on individual questions of different users to the answers of a specific respondent. All answers are collected in the table automatically. To import them, click on the Google Sheets icon. To deactivate the function, move the "Accept responses" slider if the required amount of information is received. If you need to save a Google form in PDF, you must first open it in Google Sheets format, then go to the File - Download - PDF Document section [10]. It is enough to close the tab in the browser. The created form will be automatically saved to Google Drive. A convenient and understandable interface will allow you to create Google Forms tests without much difficulty, and with the use of various elements. The application has a simple and concise design. Google Forms is a convenient and effective tool for education. It allows conducting surveys at various stages of knowledge control of education seekers (preliminary, main, final, modular, formal, final), survey statistics based on the collected data. For this, you need to know how to create a survey, which will then be easy to analyze. You can also record feedback, send emails with a built-in form and perform many other tasks. It is important that before creating a questionnaire, tests in Google Forms, the logic of building the test, structure and form should be thought out in advance.

Under the conditions of the transition to the online education format, there was a need to use tools with the functions of group chats, calls and conferences. One of the most suitable and easy-to-use tools for learning is the Google Meet app.

Google Meet is one of the applications for communication with students. It can be used for synchronous learning in combination with Google Classroom. In addition, this application can be used for children with special needs during individual or inclusive education. With the help of Google Meet, you can conduct an online lesson. During such a lesson, students can be shown a presentation explaining the new material. You can watch a short video and then ask questions about it. In addition, you can conduct a survey of students. The main advantage of this application is that neither the teacher nor the student needs to register additionally. It is enough to have an account on the Google network. This application works well both on a PC and on a phone or tablet.

The Google Meet application can work in the mode of video communication and conference communication. In the free version, up to 100 people join. The duration of the session (class) is 1 hour (60 minutes). If necessary, the class can be continued, but for this you need to go to the same link again.

In addition to Google applications, there are additional advanced features that you can find in the Chrome web store and apply them to your work with your account and applications.

The Chrome online store is an online online store of the Google company that allows users to install and run web applications, extensions and themes for the Google Chrome browser and the Google Chrome OS operating system [11].

One such service is LanguageTool grammar and spelling checker. The verification is carried out using the LanguageTool verification program. Works on almost any website including Gmail, Facebook, Twitter. With the LanguageTool extension, it is possible to check the grammar and style of texts anywhere on the network. LanguageTool finds many errors that a simple spell checker cannot detect, such as the use of incorrect cases, repetition of words, unusual language combinations, and more. LanguageTool supports more than 25 languages, including English, Spanish, French, German, Polish, and Ukrainian. This extension does not require registration and the interface is easy to use.

SeatMath: Forms-Friendly Equation Editor–or Equatio - Math made digital formula extension converts math equations to utf-8 text for Google Forms or anywhere on the web. SeatMath's capabilities allow you to write equations in a convenient equation editor, and then the result will be changed to text in utf-8 encoding, which can be copied into any text field (including Google Forms tests). Students can also display their work in the workflow window and copy it to the clipboard to paste into a Google Forms question that is set up for paragraph responses. This allows educators to work directly with the forms instead of pasting URLs to images of their answers as in some other equation editors, making grading much easier.

During meetings of teachers with students of higher education, it is necessary to spend time on recalling the presence of students in class, personally this applies to large groups or whole streams. Firstly, it is not convenient for work, and secondly, seekers can join the class at any time of the meeting. It is convenient to use the Google Meet Attendance List extension to solve the issue of recording attendees at the class. Google Meet Attendance List is the easiest way to keep a list of attendees for meetings or lectures. Meeting participants are saved automatically. There is no need to click an extra button or perform extra steps. From teachers to business professionals, the Google Meet Attendance List extension is designed to provide an easy way to have all meeting attendees on an automatically generated list. In addition, the saved data of the created attendance list contains information about the first time seen and the time of the call for each meeting participant. Google Meet's elegant user interface integration includes controls that are built in [11].

The use of the Screenity - Screen Recorder & Annotation Tool extension is no less interesting and useful. This is the most powerful screen recorder for Chrome. By installing it from the Chrom Web Store [11] , you can record, edit, and annotate your screen, make notes for work, study, and more, providing contextual feedback, detailed explanations, or simply demonstrating your knowledge and skills. There is an opportunity to make an unlimited number of recordings of your tab, desktop, any program and camera. In addition, by drawing anywhere on the screen, adding text and creating arrows, highlight your clicks, focus the mouse cursor or hide it from recording; customize countdowns, show controls only on hover, and many other

customization options. The recording can be compiled in mp4, gif and webm formats or save the video directly to Google Drive. Trim or delete recording sections and more - all free and no login required.

YouClick.link is a free link shortener. This is a powerful extension that allows you to make a short URL right on the page the user is visiting. The YouClick.link extension is fully integrated with your account, manage your links directly from your browser. A Chrome extension adds an icon to the toolbar to shorten a URL with You Click.link, just clicking on the icon will give you a short link and a QR code [11].

QR code generator - create a QR code. This is a QR code reader extension to scan and create a new QR code. QR Code Generator is the fastest way to generate or scan QR codes with a set of unique features. Generates a QR code from the URL of the current tab's page with one click. This QR code allows the user to right-click on the selected text and create a new QR code. This is very useful when exchanging text on different devices and reduces the laboriousness of manual input. And user can scan any image from all websites just by right clicking on it.

Chrome Capture - Screen and GIF tool in Chrome. This tool allows you to make: screenshots and recordings of selected areas; screenshots and recordings of the full tab; full page screenshots; save recordings as files in GIF or WebM format; edit entries and screenshots in a simple editor; share recordings and screenshots [11].

Adobe Acrobat - tools for editing, converting, and signing PDF documents, as well as a tool for exporting data to and from PDF, creating PDF files, merging and organizing PDF documents, reducing their size, and more. Adobe Acrobat is the leader in the industry of tools for working with the PDF format, which is used by millions of people. Acrobat tools for working with PDF directly in Google Chrome will help users to view PDF files in the most convenient way and work more productively on the Internet. There is an opportunity to add comments to PDF files, including sticky notes, text, and selections - and all this is absolutely free [11].

OpenOffice Excel Online for XLS Spreadsheets is an extension that allows you to create, edit and view any Microsoft Excel spreadsheet in xls and xlsx formats. It is a spreadsheet processor integrated with our file manager to manage only XLS file types with this desktop application. The main functions of OpenOffice Excel are: wizards that will help users in choosing and using a wide range of advanced functions of spreadsheets; flexible cell formatting options: content rotation, templates, backgrounds, borders and much more; the possibility of cross summarization and generalization; creating formulas using words; a smart summation button automatically inserts a summation function or subtotals depending on the context; a range of templates from the extension repository for ready-made spreadsheet solutions; advanced styles and formatting, and also allows you to save spreadsheets in the OpenDocument format, the new international standard for office documents. You can also freely use old Microsoft Excel spreadsheets, or save your work in Excel format, or use the portable document format (.pdf).

The rapid spread of mobile Internet and compact devices has opened a lot of opportunities to the world. In this regard, such an educational trend as mobile learning is becoming more and more relevant. Today's practice shows that mobile

devices and applications are easily integrated into the learning process and make it more effective. The student of the 21st century is progressive and has access to any information from world sources with the help of his gadgets. Students themselves are using mobile technologies more and more and use them regularly in their personal lives. Therefore, it is not surprising that for today's young people it will not be difficult to use mobile devices for learning, and not only for their specific needs. One example of such an application is the use of QR codes to access information. It is the active use in everyday life, the ease of reading and coding, and the presence of smartphones in most of the population that made the use of QR codes popular among teachers and students for education. After installing the recognition program, a student can instantly enter text information into his phone, add contacts to the address book, follow web links, send SMS messages, watch lectures and take tests during the educational process.

It is worth noting that modern technologies contribute not only to the high-quality study of educational subjects, but also to the formation of digital competence of both students and teachers. The use of mobile phones in classes leads to saving time, increasing the motivation of educators and high-quality feedback between teachers and students.

During distance learning, test control is widely used to determine the level of knowledge, which fully considers all control functions. Test control of students' knowledge, abilities and skills makes it possible to assess students' academic performance effectively and objectively. Many programs and services are used to create tests, to control students' knowledge, for example, Online Test Pad, it is also possible to create tests using Google Forms or on the Moodle platform, etc. An innovative testing system for educators from schoolchildren to students on the Vseosvita website [12] is easy to use.

Today, every educator of the 21st century must be clearly aware of the trends in educational technologies for the intensification of learning and master the skills of using these technologies in 21 days. As we can see, despite the difficult conditions in which our country is today, innovative and research-experimental activity in the education system continues, and its result is new pedagogical thinking, new pedagogical ideas, forms of education, models of organizing the educational process, and digital tools.

References:

1. Top 100 Tools for Learning 2022 Results of the 16th Annual SurveyTop 100 Tools for Learning 2022 Results of the 16th Annual Survey. Retrieved from: https://www.toptools4learning.com/ [in Ukraine].

2. Official website of the State Statistics Service of Ukraine. Retrieved from: http://www.ukrstat.gov.ua/ [in Ukraine].

3. Nuzhna, S. (2022). Innovative exsperimental activities in the education system of Ukraine in the conditions of war. *European humanities studies: State and Society,* 2, 115-129. DOI: https://doi.org/10.38014/ehs-ss.2022.2.06

4. Nuzhna, S. (2022). Educational technologies of learning intensificat 1st century skills in 21 days. *Digital educational environment in institutions of higher*

education [monograph] / N. Bondarchuk, N. Dubrova, O. Bovkunova and others. – Dnipro: Monolit, 21-29.

5. Center for educational and innovative technologies. Retrieved from: https://ceit.ucu.edu.ua/resursy/instrumenty/testi-ta-opituvannya/mentimeter/ [in Ukraine].

6. Letter of the Ministry of Education and Science of Ukraine 1/12471-22 dated October 24, 2022 «On the recommended distribution and use of computer equipment, which is transferred as part of cooperation with development partners to meet educational needs.» Retrieved from: https://osvita-omr.gov.ua/wp-content/uploads/2022/11/1_12471-22-3.pdf [in Ukraine].

7. Moodle in Ukraine URL: https://moodle.org/mod/page/view.php?id=8174 [in Ukraine].

8. Tryus Yu. V., Herasymenko I. V. & Franchuk V. M. (2010). The MOODLE-based electronic learning system of higher education institutions: methodical manual. Tryus Yu. V. (editor). Cherkasy. 220 p.

9. Academy of digital development. Retrieved from: https://www.digitalacademy.in.ua [in Ukraine].

10. Kalita Ye., Abrosimova D. & Nuzhna S. Google's digital tools in educational activities. *Informatsiini tekhnolohii v ahrobiznesi ta ahrarnii osviti* : materialy XI Vseukrainskoi naukovo-praktychnoi konferentsii (pp. 31-32). 19–21 kvitnia 2023. Dnipro: DDAEU [in Ukraine].

11. Chrome web ctore. Retrieved from: https://chrome.google.com/webstore/category/extensions?hl=uk [in Ukraine].

12. Vseosvita - Natsionalna osvitnia platforma. Retrieved from: https://vseosvita.ua/news [in Ukraine].

SECTION 5. LANGUAGE AND PROFESSIONAL TRAINING OF THE SPECIALIST IN AGRICULTURAL SECTOR

5.1. PECULIARITIES OF FOREIGN LANGUAGE VOCATIONAL TRAINING OF AGRICULTURAL SPECIALISTS

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Summary. The article analyses the regulatory documents that confirm the fact that foreign language training in agricultural higher education institutions takes up only 2 % of the total hours, but is a mandatory component in the overall system of professional training. The purpose of teaching the discipline is to develop readiness for professional communication in a foreign language. During the course of study, all components of foreign language professional competence are developed: linguistic, socio-cultural, educational and professional. The leading approach to teaching a foreign language for professional purposes in agricultural higher education institutions is professionally oriented. But recently, there has been an active introduction of new approaches, the value and effectiveness of which has been confirmed by foreign experience. Among them, we have identified CLIL (Content and language integrated learning), which combines foreign language teaching through the content of other disciplines (content-based second language instruction) and foreign language immersion. The advantage of applying such approaches in an agricultural university is that they will help, if not overcome, at least reduce students' unmotivation during foreign language vocational training, as students will receive professional educational material in a particular discipline in their speciality while learning a foreign language. This will help to bridge the existing gap between learning a foreign language and learning a speciality and help to develop foreign language professional competence more quickly.

Keywords: agrarian university, approaches to teaching foreign language, experiential-interactive approach, content-based second language instruction, case method, discussion, presentation, professional portfolio.

The development of close international relations between countries, the establishment of business contacts, the expansion of business relations in the agricultural sector and the increase in opportunities for academic and professional mobility have spurred an increase in interest in learning foreign languages at a sufficient level to enable not only personal but also professional communication. Therefore, the scientific community is increasingly raising the issue of transition from traditional approaches to teaching foreign languages to innovative ones that will facilitate the acquisition of foreign languages for fluent communication in academic and professional environments.

Many domestic (K. Vyshnevetska, L. Gaponenko, I. Hladun, O. Zelikovska, A. Kovalchuk, S. Kozak, S. Konovalchuk, I. Korneva, A. Kuznetsov, T. Lozben, N. Logutina, O. Rezvan, N. Saenko, L. Spodin, etc.) and foreign scientists (R. Arnon, R. De Beaugrande, L. Beamer, G. Grosling, I. Ward, T. Hutchinson, A. Waters, J. Richards) have studied the foreign language professionally oriented communication of future specialists in various specialities (R. Arnon, R. De Beaugrande, L. Beamer, G. Grosling, I. Ward, T. Hutchinson, A. Waters, J. Richards), in particular, agrarian specialities – S. Amelina, L. Baranovska, H. Berehova, K. Boharyrev, Z. Dziubata, N. Zuienko, A. Kucher, O. Lazarev, O. Lytvynova, Y. Nikolayenko, O. Rezunova, K. Yakushko and others. Despite the fact that many Ukrainian and foreign scientists have studied the peculiarities of foreign language professional communication of specialists in various agricultural specialities, the issue of peculiarities of foreign language professional training of agricultural specialists cannot be considered sufficiently resolved.

Problems of foreign language vocational education in the leading industrial countries of Europe and the USA began to develop most actively along the lines of competence-based education in the 1970s. By this time, the issues of foreign language training of students were considered first in the context of foreign language teaching and then in the context of bilingual education. At the beginning of the 21st century, the conceptual boundaries between the course of "foreign language" and the acquisition of such concepts as "linguistic consciousness", "linguoculture", "foreign language competence / competency" were expanded. Most actively, these processes occur in the USA vocational education. The content of the USA educational space is increasingly associated with the expansion of the "foreign language" subject to the level of "foreign language education", which characteristic feature is multicultural programs [1]. The concept of the tricyclic model (political education, intercultural education and international education), developed by American specialists, shapes not only their personal educational space, but also resolves the same issues as the countries of Europe.

It should be noted at the outset, that the analysis of foreign experience of studying foreign language communicative competence makes it possible to establish the existence of independent approaches that are implemented in the USA and European countries. Thus, the American model is focused primarily on the willingness and ability of university graduates to apply the results of foreign language education in practice. In this case, the competence is considered to be authentic, practically oriented to the formation of skills, abilities, personal achievements in self-development based on the actualization of situations, as close as possible to the requirements of professional activity.

The American tradition of competences research is based on behaviour. American researchers study "people-in-work", and the concept of "competency" is deciphered through the individual characteristics inherent in behaviour: personal characteristics, motives, values, habits, self-concept, knowledge, skills. In fact, competencies in this approach are certain "repositories" filled with a variety of content.

Today we can say that the American approach to the study of competencies is simultaneously developing in two directions. The first area is focused on the study of individually presented competencies. Nowadays, they are more rated as functional rather than behavioural because they are aimed at a specific class of professional tasks. This area can be called psychological, as it is based on the work of psychologists. The second area is related to the systematic approach, which involves the view of the student as a particular subject of learning, while also bearing the characteristics of integrity and structure.

From this point of view, it is customary to speak of specific competences / competencies, which in the American context are called nuclear (central), and in the national literature are called key ones. The American model views competencies as a description of the subject's behaviour.

The European approach to the formation of students' competencies (in particular, in France and Germany) is related to the accentuation of two main areas: personal and collective, related to the assessment of linguistic behaviour, the formation of behavioural characteristics. In this regard, communication in a foreign language is considered as one of the universal signs of readiness for professional activity.

Besides the American tradition, there are other approaches that are fundamentally different in terms of both tasks and content. The most developed non-USA perspective on competence issues is the British approach, which is largely related to the development of the national education system. The UK Department for Education has taken into account a specific competence model. It is different from the basic American models and not just a set of competences, but also tries to determine their relationship. The result is a special "tetrahedron of competences", which includes: cognitive competences (knowledge and understanding based on formal learning and experience), functional competences (abilities, specific skills that a person can demonstrate in his field), personal competences (understanding how to deal with specific situations, motivation to improve performance), ethical competences (values, points of view, on the basis of which decisions are made and actions taken), meta-competences (ability to respond to criticism positively, to cope with difficult situations). In the frames of this approach, some traces of the American model can be found, but there are differences. In particular, the British model is more clearly structured and provides equal opportunities for the development of each competence cluster [17].

In general, one can say that a distinctive feature of the British approach is the fact that competences are seen as requirements for a specialist for professional tasks. It is based on professional standards containing a set of roles for each profession. These roles are divided into competences for which behavioural indicators are defined. It is believed that British models are more functional. They contain two clusters of competences – behavioural and functional (technical). The latter are more often specified as computer and Internet use (according to The Chartered Institute for Personnel and Development – CIPD). Among the most commonly stated competences for different professions are: communication skills, people management

skills, focus on outcomes, problem solving. An important aspect that fundamentally differentiates the British approach from the American one is that for British researchers, the starting point for the competency issues exploration is social problems. Such British interpretation of competences is fundamentally opposed to American models that are built from the standpoint of efficiency.

The difference between American and British approaches to competence research is complemented by specific features of the competency approach development in European countries. Thus, by analysing the development of the competences theory in France, it can be found out that at present it is impossible to speak of any form of approach that would clearly identify the French position in matters of competence. At the same time, one can speak of a certain peculiarity of French models.

French models represent something in-between American and British, as they use analogues of behavioural and functional competences. It is generally accepted, that the structure of French models always includes three elements: knowledge, experience and behavioural characteristics. German studies are even more complex than French ones. This is explained by the practice of using qualification standards. In Germany, they are based on a list of key knowledge related to the history of the craft communities' development [25].

The German educational model includes three clusters of competences: vocational or subject, personal and social. These competences are based on methodological competences (ability to extrapolate skills, problem solving, creativity) and educational competences (ability to learn, to develop learning skills). German models are slowly evolving and tend to standardize.

The analysis of scientific literature and foreign language teaching experience allowed us to study the current state of foreign language teaching in agricultural higher education institutions in Ukraine and the world. Today, the system of higher agricultural education includes 22 educational institutions of the IV level of accreditation, which provide multi-level training for future agricultural professionals at the first (bachelor's), second (master's) and third (doctoral or PhD) levels. The Standards of Higher Education for the first (bachelor's) level of various specialities state that the volume of the educational and professional programme for obtaining a bachelor's degree on the basis of complete general education is 240 ECTS credits, the study lasts almost 4 years, and on the basis of a "junior bachelor" or "junior specialist" – 120 ECTS credits, the study period is 1 year 10 months. The learning objectives focus the educational process on the formation of a set of knowledge, skills and abilities for use in professional activities aimed at solving complex problems through theoretical and practical training.

Vocational training in an agricultural university is focused on providing students with in-depth theoretical knowledge and practical skills to perform future professional tasks of a research and innovation nature, and to develop readiness to perform professional duties at agricultural enterprises and/or research institutions. The Law of Ukraine "On Higher Education" (2014) defines vocational training as "obtaining a qualification in a relevant field of study or speciality" [20]. There is no

consensus in the scientific literature on this issue. Some scholars understand the concept of "vocational training" as a process (a specially organised process of forming readiness to perform future professional tasks), while others understand it as a result (readiness - the availability of knowledge, skills and competences necessary to perform professional activities). Professional training is also understood as a complex phenomenon that combines the process (learning) and the result (readiness), these phenomena are determined by the set of requirements for a particular specialist (M. Bubnova, 2010). The Pedagogical Encyclopaedic Dictionary interprets vocational training as "a system of vocational training, the main purpose of which is the rapid acquisition of skills and abilities necessary for work performance" [21]. A different opinion is held by V. Bezlyudna (2016), who understands vocational training as a system of organisational and pedagogical measures focused on the personal development of students, the purpose and result of such training is to form students' readiness for future professional training. The professional training of future specialists is characterised by multidimensionality and involves the acquisition of fundamental knowledge, the formation of readiness for their creative practical application, the development of personal qualities, which together ensures the readiness of graduates of higher education institutions to successfully perform professional functions [24]. In our study, we share the opinion of O. Pylypenko and understand professional training as a purposeful process of education in vocational and higher education institutions, which results in the readiness of specialists to perform professional activities. Among the main forms of vocational education, we distinguish studying in higher education institutions, internships and improving professional skills at work [18].

The main goal of professional training is to develop general and specific competences. It is generally recognised that general competences are the knowledge, understanding, skills and abilities that a student acquires as part of a particular study programme, but which are universal in nature. They do not depend on the subject area, but are important for the successful further professional and social activities of the applicant in various fields and for his or her personal development. In contrast to general competences, special competences are those that are specific to a given subject area (industry/field/discipline) and are important for successful professional activity in a particular speciality. Among the general competences, the ability to communicate in a foreign language should be highlighted. Its special status is explained by the active European integration processes taking place in the state, education and business. Thanks to the German Academic Exchange Service (DAAD) and the German Society for International Cooperation (GIZ), students have the opportunity to do internships at leading international companies or study at one of the best universities in Germany. Such opportunities change the status of foreign language training in higher education institutions. In this regard, scholars emphasise the need to modernise approaches to teaching foreign languages and the importance of developing readiness for foreign language professional communication. Fluent communication in a foreign language provides an opportunity to create business,

professional and cultural contacts, contributes to the overall cultural and professional level of personal development [11].

The analysis of the educational and professional programmes of Dnipro State Agrarian and Economic University, National University of Life and Environmental Sciences of Ukraine and Kharkiv National Agrarian University named after V.V. Dokuchaev showed that the discipline "Foreign Language (for Professional Purposes)" is a mandatory component of the cycle of general training of students of various agricultural specialities. It is generally accepted that the course is taught in the first year and has 5 ECTS credits, with an exam as the form of final control. In the system of professional training, the course takes up only 2% of the total workload. The name of the discipline is fully in line with current trends related to the professional orientation of foreign language training. According to N. Sura, the professional component in foreign language training has significant potential to improve the effectiveness of foreign language teaching in higher education institutions [26].

The issue of foreign language training of future non-philological specialists has been the subject of a number of scientific studies by foreign and domestic scholars. The term "foreign language training" has been actively used in the scientific pedagogical literature. However, it should be noted that there is no clear definition of this concept. In non-philological higher education institutions, foreign language vocational training is considered as "a comprehensive systematic process that combines the capabilities of various areas of professional training, forms of organisation of activities in higher education institutions and beyond, the essence of which is to ensure the use of a foreign language as a means of professional training of the applicant to perform professional functions" [31]. In our study, we consider foreign language training in an agricultural university as "systematic mastery of foreign languages based on interdisciplinary integration, taking into account individual qualities of a personality, aimed at achieving a level of professional foreign language communicative competence that will ensure intercultural and interpersonal communication to solve professional problems in a multicultural, multilingual globalised society" [15]. Such definitions of foreign language training are focused on meeting the needs of society for competitive specialists capable of maximum self-realisation and continuous self-improvement.

We agree with the opinion of R. Hryshkova [10], who considers that foreign language education should become an integral part of professional training of specialists in all fields of study and emphasises the fact that a student should know at least one foreign language, identify and respect the differences in native and foreign cultures and be ready for intercultural communication. Only in combination with the developed foreign language competence does a professionally educated student have a good chance of realising his or her professional and personal potential.

As G. Zelenin emphasises, learning a foreign language for professional purposes plays a significant role in the overall system of training specialists and performs the following functions [31]:

1. Ensuring the overall development of the specialist's personality, broadening his/her outlook, knowledge of the world around him/her and other national cultural characteristics.

2. . Formation of both universal human qualities (friendliness, correctness, etc.) and important professional qualities.

3. Developing a culture of intellectual activity of students by forming the ability to use bilingual linguistic dictionaries, reference books, teaching them to work independently, creating the prerequisites for the formation of the need for linguistic self-education.

4. Influence on the culture of communication, on speech activity in the native language. Formation of skills to design your own speech behaviour, to express your own thoughts logically.

5. Formation of interest in the future speciality, the desire to gain knowledge of various foreign language communication channels, which provides an opportunity to study achievements in the professional field abroad.

The basic document that ensures the organisation of the process of German language training in higher education institutions is the Framework Programme for German for Professional Purposes. It was created with the support of the Ministry of Education and Science of Ukraine and the German cultural centre Goethe-Institut in Ukraine. It is based on the Common European Framework of Reference for Languages, the European Qualifications Framework and the Europassport Framework. The authors of the programme offer ways and opportunities to organise German classes not only on the basis of an activity-based and communicative approach, but also a professionally oriented one.

The Framework for the German Language for Professional Purposes for Higher Education Institutions states that when planning the content of ESP teaching, it is necessary to focus on the knowledge acquired in secondary education institutions, as well as on the programme learning outcomes specified in the educational programmes of specialities. The principles of the Framework provide an opportunity to learn German for both advanced and beginners. Teachers should draw students' attention to the fact that in order to undertake internships or further study in Germany or other German-speaking countries, they must have at least B2 level according to the Common European Framework of Reference for Languages. This fact should be taken into account by teachers during the final exams. In addition, when planning the learning process, it should be borne in mind that a certain number of hours is required to reach any level and cannot be reduced. Increasing the number of hours for learning a foreign language for professional purposes in modern conditions is possible through elective courses.

It should be noted that the Framework offers a framework within which curricula can be developed for each specific HEI, due to the nature of the discipline of Foreign Language (for Specific Purposes), on the basis of which the development of any curriculum should begin with an analysis of the needs and capabilities of all stakeholders in a particular speciality.

When planning the Foreign Language (for Specific Purposes) course, it is extremely important to determine the place of foreign language teaching in the overall model of specialist training. Teaching foreign languages in agricultural higher education institutions is a non-specific requirement for training specialists, but it is currently in great demand. Meeting this requirement makes an agricultural specialist competitive not only in their home country but also abroad. Therefore, specifying the objectives is a very important element in building a course. To do this, the teacher studies the general requirements for teaching foreign languages in non-philological higher education institutions, then the requirements for a particular higher education institution, determined by a particular field of professional activity and specific training goals, and only then the requirements for teaching a foreign language in accordance with the activities of a particular profile, which is expressed in specific training goals at the faculty level. The last and most important thing that a teacher pays attention to is the requirements for teaching a foreign language in accordance with the specific training objectives of a particular speciality. Therefore, when compiling syllabuses, a teacher of a foreign language should consult with the guarantors of educational and professional programmes in order to ensure that the goals of foreign language training coincide with the goals of training specialists in a particular speciality based on the requirements for their professional activities.

According to this approach, foreign language teaching for professional purposes is seen as teaching that focuses on the needs of students in learning a foreign language with an orientation towards the specifics of their future speciality. Scholars emphasise that such teaching involves a professional focus not only on the content of teaching materials, but also on practical activities, including the development of professional skills. The professional component in the content of foreign language training allows to improve the level of training in professional subjects by studying foreign experience and practices in the agricultural sector.

Foreign language training of agricultural specialists is aimed at: the interaction of teachers and students in the process of learning a foreign language, which is a source of intensive self-development of students; integration of the processes of mastering a foreign language in a professional direction with the development of personal qualities of students, knowledge of the culture of the country of speakers of the language being studied and the acquisition of special skills based on professional and linguistic knowledge; student learning motivation; individualization of students' foreign language training; implementation of information and communication technologies; use of interdisciplinary connections, authentic materials and simulation of communicative situations close to real ones; orientation of the educational process to active independent work, which forms the autonomy of students, creates conditions for their self-expression and self-development [11].

As already mentioned, the main goal of vocationally oriented foreign language training in agricultural universities is to train a specialist capable of using a foreign language as a tool for professional activity and professional knowledge. In our opinion, in order to achieve this goal, it is necessary to develop various components

of foreign language professionally oriented communicative competence, namely: linguistic, sociocultural, educational and professional.

The linguistic component includes linguistic and speech competences. Linguistic competence combines phonetic, lexical, grammatical and spelling knowledge of the language system. It is formed at the level required for oral and written communication in academic or professional settings. Linguistic competence is the basis for the formation of holistic foreign language competence. Speech competence determines the ability of future professionals to communicate fluently in academic and professional contexts. It is aimed at improving skills in such types of speech activities as speaking, writing, reading and listening, namely

- skills related to the subject of speech: reproduce various speech actions: description, argumentation, characterisation, narration, explanation, summary, instruction;
- the ability to carry out appropriate communicative intentions in oral/written speech in accordance with the purpose and conditions of communicative interaction;
- skills related to the functions and purposes of the speech genre: to formulate the goals of foreign language communication; to determine the main and additional purpose of communication in accordance with a particular speech genre;
- skills related to the structure of the speech genre;
- skills related to the properties of language and the language means used;
- listening skills: to understand the interlocutor's statements in the course of dialogue communication, including in the presence of unfamiliar language tools in order to extract specific, necessary communicative information;
- ability to read texts in a foreign language: to make a general analysis of the content, search and extract the necessary information;
- dialogic and monologic skills [23].

The socio-cultural component involves knowledge of another culture, social and cultural features of the country of study, which are necessary for interpersonal interaction. In the process of students' socio-cultural development, the teacher broadens their worldview, fosters a culture of communication with representatives of other cultures, and develops feelings, emotions and a positive attitude towards a foreign language. Among the skills that are formed during the development of this component are the following:

- ability to navigate in communication situations caused by the cultural context of the foreign language environment;
- ability to implement international standards of business communication culture;
- ability to build speech behaviour in accordance with the norms established by business etiquette;
- ability to choose and apply specific strategies that meet the requirements for foreign language professional communication;
- the ability to pay attention to cultural norms in professional communication with foreign partners, to independently identify and assimilate components of the organisational culture of business partners;

- ability to manage situations of professionally orientated communication in different cultural settings;

- ability to direct and stimulate the interest of foreign partners;

- ability to apply the necessary verbal and non-verbal means aimed at the success of foreign language communication interaction;

- ability to express emotions and personal attitudes in professional communication;

- ability to assess the emotional state of the interlocutor;

- the ability to tolerantly persuade a partner, defend one's own position, etc. [4]

The learning component involves the ability to educate and self-educate, self-improve and satisfy cognitive interests while learning foreign languages. Today, this component is very important, because with the increasing flow of information and rapid changes, the primary task of the teacher is to teach students not just to perceive the presented educational material, but to find and critically study the necessary information on their own. The formation of learning competence occurs through the development of skills and abilities, namely: to apply different methods of performing learning tasks depending on the learning situation and type of tasks; to use technical means of learning; to interact in the learning process.

The professional component is aimed at using a foreign language in foreign language communication on professional topics. This component helps to expand students' professional knowledge in a foreign language through the use of primary sources. This component of foreign language professionally oriented communicative competence is formed through the development of such skills and abilities as: mastering basic skills at the general professional level (conversation, argumentation, visualisation, presentation, etc.); disclosure and reproduction of professional content using communicative techniques with specific professional content (definitions, naming, description, etc.).

Foreign language teachers working in agricultural higher education institutions are teachers of a general foreign language, so they need additional training. Firstly, it is the constant mastery of professionally oriented vocabulary material of a particular speciality, and secondly, it is communication and consultation with teachers of specialised departments when drawing up work programmes and studying a particular professional topic in a foreign language.

An integral part of the professional activity of an agricultural specialist is professionally oriented communication. In the pedagogical literature, professional communication is interpreted as "a communicative activity characterised by a fairly high degree of formalisation" (V. Siegert, L. Lang), as "a system of techniques and methods that ensure the realisation of the goals and objectives of professional activity" (A. Shcherbov), as "a specific type of activity" (G. Andreeva, A. Leontiev, B. Lomov), as "a means of professional activity of modern professions" (A. Mudryk) and as "official contact with feedback" (V. Sementovska).

In our opinion, foreign language professionally oriented communication is a phenomenon that combines the features of professionally oriented and foreign language communication and is carried out by means of a foreign language. This is

confirmed by the definitions provided by scholars in their research. Thus, Y. Nikolaienko emphasises that "professional communication in a foreign language environment is a process of interaction between specialists, which is determined by the needs of their joint professional activity and takes place in a linguistic and cultural society where the main means of communication is a language that is not native to at least one of the communicators" [14]. According to A. Zinchenko, foreign language communication for future agrarians consists in the ability to "translate intentions as a communication tool" within the framework of general professionally oriented communication [22]. Accordingly, professionally oriented communication can be seen as the exchange of information through various sign systems involving extralinguistic signals and knowledge about the cultural characteristics of the ethnic group [22]. L. Gaponenko defines foreign language professionally oriented communication as "interpersonal interaction in the field of information and cognitive contact, which involves the exchange of information on the basis of feedback, taking into account the possibilities of cognitive and emotional impact on employees, which are carried out on the basis of behavioural etiquette of foreign language speakers" [9].

In her dissertation study, Y. Nikolaienko proposed an analytical model of the structure of professional communication in a foreign language environment of future agricultural specialists, which includes the following components: subjects of communication - representatives of a certain profession united by common activities; needs and motives of the subjects of communication; goals - the general goal of professional communication, which is to organise and optimise joint activities, and personal goals of the subjects; means and strategies of communication, the choice of which is determined by the communicative situation [14].

In her dissertation research, K. Yakushko understands foreign language communication of students of agricultural universities of technical specialities not only as the use of lexical and grammatical structures of a certain foreign language in speech (Yu. Nikolayenko), but also "taking into account non-verbal means of communication" (O. Vovk), "communication through symbols-signs" (A. Volkov), "somatic preferences of future agrarians" (N. Grabovsky), "linguistic and sociocultural competence" (L. Yermakova), "dialogue of textual features" (G. Maletske), etc. S. Barsuk emphasises the fact that foreign language professionally oriented communication is regulated by the norms of official interaction and official relations [30].

Depending on the tasks facing an agricultural specialist, foreign language professional communication can take place in different forms - oral or written. The forms of oral professionally oriented communication of an agricultural specialist include dialogues, discussions, conversations, meetings, monologues, meetings, negotiations, briefings, press conferences, presentations, receptions on personal issues, telephone conversations. Written forms include business correspondence with representatives of various agricultural companies, reports, notes, business cards, messages in social applications (Messenger, WhatsApp, Viber, Telegram or Skype).

In the course of performing their professional duties, agricultural specialists communicate with many people on various issues, using different styles of speech,

namely formal business, scientific and colloquial. Each of these styles has its own grammatical, syntactic and lexical features. In this study, we will look at them in detail.

First of all, an agricultural specialist uses the formal business style in business correspondence with agricultural enterprises, firms and organisations to establish cooperation or solve urgent problems. This style is characterised by the following features: formality, documentation, stability, brevity, extreme clarity of expression, high standardisation of a large part of expressions, strict regulation of the text, accuracy, unambiguity of wording, clarity, and avoidance of speech clichés and clichés. The grammatical features of this style include the use of the Indicative, Conditional (Konjunktiv II) and Imperative moods; the use of first- and third-person plural pronouns. Simple syntactic constructions are typical for this style. Formal business style has its own official business vocabulary, but it is not particularly extensive. In business correspondence with representatives of agricultural firms about ordering new equipment, fertiliser or seeds, the texts use professional vocabulary. It should be noted that the flavour of formality is formed not by the vocabulary, but by the stable composition of the text. The texts lack emotionally expressive vocabulary and any manifestation of the author's individuality; synonymy is limited.

The scientific style is often used in agricultural discourse, when communicating orally or in writing with colleagues and subordinates on professional topics. This type of communication usually takes place at conferences, symposia, and seminars. The main stylistic features of the scientific style are informative, conceptual and substantive, objective, logical sequence, generalisation of concepts, unambiguity, accuracy, conciseness, evidence, persuasiveness, argumentation, explanation of cause and effect relationships, and conclusions. Traditionally, there are three sub-styles of the scientific style: scientific (dissertations, monographs, articles, scientific reports, etc.), whose texts are intended to explain a scientific idea to an agricultural specialist; popular science (essays, articles, lectures, etc.), whose genres are addressed to the general public to make people as familiar as possible with scientific achievements; scientific and educational (textbooks, manuals, lectures, etc.), whose purpose is to convey a system of knowledge to an agricultural specialist at a certain stage of his or her scientific and educational development.

Agrarian texts of the scientific style are characterised by impersonal and subjective presentation of material, the use of the passive voice, nominal style, and the dominance of the third person singular of verbs. In communication, such parts of speech as a verb and a noun are used more often. Verbs are mostly used in the third person singular, less often in the first person plural to indicate the plurality of authors, sometimes a polite form of address is used, and all other verb forms are not used in this style. The subjunctive mood (Konjunktiv I) is used to convey quotations, but the more scientific the text becomes, the less the subjunctive mood is used. Almost all texts of different sub-styles are formed in the Indicative Mood. In German agricultural texts, modal verbs and modal infinitive constructions are used. To express possibility or necessity, the modal verbs *"können", "müssen" and "sollen"* are most often used. The modal verb *"dürfen"* is used to express a negative or limited

portrayal of a certain phenomenon or process. Only in texts of the popular science sub-style can we observe a high frequency of the modal verb *"wollen"* to express a desire or to express one's own position. Modal infinitive constructions are used to express possibility or necessity, the most commonly used being the passive construction *"sein+zu+Inf"*. In addition, the use of the passive voice is common in the scientific style. A typical feature of all sub-styles is the nominal style. Nouns are very common in agricultural texts. Verbal nouns formed from transitive verbs and the suffix *-ung (die Verdunstung; die Atmung; die Einlagerung)* are frequently used, while noun infinitives with -en are not common. Definitions are widely used to clarify and define nouns. They serve as a means of linguistic economy and are an additional indicator of the nominal style, which, as noted above, is characteristic of this style of speech. The genitive case is often used as a determiner (*Sprossknolle der mehrjährigen Kartoffelpflanze; die Größe der Knollen*), and common determiners have the first participle *(tiefliegende Knospen; die ausreichende Luftzirkulation)* or second participle *(ein biologisch geführter Bauernhof; der kompostierte, von den Tieren erzeugte Mist)*. In agricultural texts, adjectives are used for linguistic and semantic compaction, they create semantic clarification and completeness, which is also typical for the scientific style of agricultural texts. Also, the analysis of German-language agricultural scientific literature has shown that this style of literature is characterised by a low frequency of pronoun use.

In addition to the grammatical features of agricultural texts in the scientific style, there are syntactic features. First, we should note the length of the sentence. Usually, sentences are compound or complex, and there is a high frequency of using conjunctions and secondary clauses to explain complex phenomena and relationships. Secondly, in scientific agricultural texts, relative subordinate clauses (Relativsätze) and conjunctive subordinate clauses (Konjunktionalsätze) are most often used. In texts of the scientific sub-style, there is a high frequency of subordinate clauses of time and condition (Temporal- und Bedingungsätze). The use of adverbial subordinate clauses (Adverbialsätze) is a stylistic feature of popular science publications. Thirdly, for texts on agriculture, it is typical to use interphrasal communication, which are signals of logical combination. U. Ohm identifies the most frequently used conjunctions *(weil; da; so dass; obwohl; um... zu; sondern)*, adverbs *(nämlich; folglich; jedoch; anderseits)*, prepositions *(bei; wegen; aus; mit; trotz; zu; für; durch, vor, nach)* and phrases *(aus diesem Grund; im Falle; zu diesem Zweck; mit Hilfe von; durch den Einsatz)* used as means of interphrasal communication in sentences of all types [19].

There are also lexical features of German-language agricultural texts of scientific style. Firstly, the richness of the language with terms and terminological phrases. The terms used by an agricultural specialist in communication can be divided into commonly used, cross-sectoral and narrow-sectoral terms. Commonly used terms are terms that are unambiguously used in almost all areas of the specialist's activity *(der Ertrag; die Quelle; der Markt; das Merkmal)*. These terms form the main part of the language of agricultural discourse. They are used in an everyday, well-known sense, so they are simple and universally understood A feature

of interdisciplinary terms is that they can be found either in related or distant areas of specialist activity *(das Getreide; die Radlast; die Mälzerei; die Brauerei; der Stickstoff; der Getreidespeicher; die Schädlinge)*. But the greatest difficulty is created by the so-called narrow-sector or special terms – they are used in only one field of science.

Within a particular science, such as agronomy, there are a great many of them in accordance with the huge number of objects and subjects of scientific and professional activity of a specialist *(die Ernte; die Aussaat; die Silierung; der Kleegrass; das Freiland; die Triebspitze)*. They are characterised by the unambiguity and non-separability of the structure of multicomponent terms. Secondly, the use of scientific and technical phraseology. In foreign language professionally oriented communication, agricultural specialists often use stable phrases *(in der Lage liegen, zur Verfügen stehen, in diesem Zusammenhang, eine schlagende Bedeutung erhalten, eine bedeutende Rolle einnehmen, in Erwägung ziehen)*, words and phrases for consistent and logical connection of individual text elements *(einerseits, aufgrund, zentrale Punkt, auf der Basis, nach dem Befund, konsequenterweise, nach dem Befund)*, words indicating the degree of probability *(deutlich, direkt so, sicher, eben, nicht einschließlich, unbesprechen, bestimmt, natürlicherweise)*, the objectivity of the information provided *(erheben, beweisen, behaupten, finden, überlegen)* and the absoluteness of the statements *(mit Bewusstheit, mit Sicherheit)*. Third, the use of abbreviations and acronyms. The use of abbreviations and acronyms is typical for professionally oriented written communication, such as acronyms *(AG – Arbeitsgemeinschaft – Employees' Union; GEBA – Gemüsebau – Vegetable Growing; DWD – Deutscher Wetterdienst)*, apocopies (*Glc – Clucose – Glucose; Öko-Produkte – Ökologische Produkte – environmentally friendly products; Biogas – biologische/biochimische Gas – biological/biochemical gas)* and contamination *(GaLaBau – Garten- und Landschaftsbau – landscape and garden design; GefStoffV – Gefahrstoffverordnung – law on the use of harmful substances)*. In addition, graphic abbreviations are used in the texts to indicate measures, units or values: *kg – Kilogram; mm – Millimeter; km – Kilometre; cm – Zentimeter; qm – Quadratmeter. This group also includes abbreviations such as d.h. – das heißt; z.B. – zum Beispiel; usw. – und so weiter: i.D. – im Durchschnitt.*

In his/her communication, an agricultural specialist also uses the colloquial style, the main function of which is to exchange ideas between two or more speakers to clarify production or everyday relations. Unlike the scientific and formal business styles, it functions only in oral form. It is characterised by the use of emotionally expressive vocabulary (jargon, professionalisms, colloquialisms, dialectisms, phraseology). Syntactic structures are simple, sentences are mostly short. Grammatical features include the use of the active, conditional and imperative moods; the pronouns *ich, wir; modal verbs*.

Recently, the methodology of teaching foreign languages for professional purposes has been undergoing active changes aimed at solving the problems associated with the small amount of classroom time spent on foreign language learning. This is due to the fact that in agricultural higher education institutions, the

primary task is to train future specialists in a professional manner, not in a linguistic one. In this regard, language teachers have to constantly look for new approaches that can interest and encourage students to study a non-core discipline.

As Z. Korneva has aptly noted, today there is a deviation from the absolutisation of the communicative approach and the formation of pure communicative competence in future specialists [12]. The aim of teaching foreign languages in higher education institutions is to develop intercultural professionally oriented foreign language communicative competence. Accordingly, the main approach to teaching foreign languages in non-linguistic higher education institutions is professionally oriented. Its goal is to simultaneously develop students' foreign language communicative and professional competence. Like other teaching approaches, it is based on the principles of multilingualism didactics, namely (G. Neuner, M. Krüger, U. Grewer):

- cognitive learning (consciously expanding knowledge about the language and about the peculiarities of one's own learning process);
- establishing linguistic parallels (comparing bilingual texts, preparing a terminology dictionary, relying on grammatical and syntactic correspondences);
- content orientation (selection of thematically related texts);
- text orientation (understanding of authentic texts: summarising the content, evaluating it, commenting on it, supplementing it and continuing it);
- optimisation of the learning process (awareness of parallels in language systems, testing effective teaching strategies and techniques, providing aids for independent work).

In the Ukrainian context, it was built on the basis of such foreign approaches as English for specific purposes and German for the profession, but it should be noted that these approaches are primarily aimed at experienced professionals who focus on language acquisition rather than on the subject content they are familiar with. Very often, a professionally oriented foreign language course in Ukrainian universities is based on authentic professional texts with a system of pre- and post-text exercises aimed at developing the necessary skills and abilities for successful communication within their speciality. However, in today's reality, this is often not enough to develop readiness for professionally oriented foreign language communication. Therefore, more and more often, teachers of non-linguistic higher education institutions are turning their attention to integrated learning, which combines the subject content of specialised disciplines with the goals of teaching foreign languages.

We agree with O. Tarnopolsky's opinion that the use of a professionally oriented approach alone is not sufficient in foreign language teaching. After immersing the student in the world of the future speciality, studying the course "Introduction to the profession" and some professional disciplines, it is more effective to use such types of learning as experiential and interactive learning and learning through the content of academic disciplines [27].

Experiential-interactive learning consists of two approaches - experiential and interactive, which is explained by the peculiarities of these two approaches. The experiential learning approach to teaching foreign languages for professional

purposes in non-linguistic universities is characterised by the fact that it requires students to perform real practical actions that are somehow related to the future professional activity that is being modelled [27]. These actions are performed by means of a foreign language in the process of foreign language professional communication. Thus, Z. Korneva gives the following definition of this type of learning: "Experiential learning is learning through the experience of practical activities carried out by means of the language being taught" [12]. The effectiveness of the experiential approach is due to the fact that it provides the most natural way of language acquisition and communication, since learning a foreign language always starts on the basis of students' extralinguistic goals. In cases where language learning takes place within the framework of another activity, the acquisition of language forms and the development of speech skills and abilities becomes a by-product of this main activity. It is carried out from the student's point of view as if in passing. It has been proven that these processes greatly facilitate the assimilation of language material and the process of learning a foreign language.

The peculiarities of experiential learning indicate that such learning is closely related to interactivity. Scientists define it as dialogic learning, pointing out that interactivity is "the ability to interact or be in a conversation or dialogue with something (a computer) or someone (a person)" [28]. In his works, O. Tarnopolskyi understands interactivity as the process of active interaction of participants in the educational process with each other, as well as with the surrounding extracurricular environment and extracurricular sources of information [27].

Interactive teaching methods include those methods that organise the process of social interaction in such a way that, based on this interaction, students acquire some "new" knowledge or new skills and abilities that were born directly in the process of interaction or as a result of it. O. Maliuga refers to the following interactive teaching methods: project method, associative bush, microphone, work in pairs/groups, brainstorming, mosaic, collaboration technology [13].

O. Tarnopolskyi sees the difference between interactive learning and any other, more traditional, learning process in the fact that it provides learning interaction not only between the teacher and students, but also between the students themselves, who actively interact with each other in search of and create new knowledge or in the process of forming and developing new skills and abilities [29]. During interactive learning, the teacher-student interaction fades into the background.

In this interaction, interactive learning is similar to the so-called cooperative language learning [22]. In the Western scientific literature, it is considered as one of the most important approaches to activate students, intensify the learning process and increase its effectiveness. Cooperative learning is interpreted as "a technology of learning in small groups, when it is possible to discuss each problem, prove, argue one's own opinion" [5]. Cooperative learning is not just about working in pairs and small groups, it is about working where the knowledge, skills and abilities of all students are summed up so that students not only learn, but also teach and learn from each other to increase the overall learning effect [2]. Cooperative learning is considered to be one of the interactive learning technologies.

When studying according to the interactive learning model, students have to interact not only with each other, with the teacher and with the educational material that comes to them through the teacher (textbooks, manuals, etc.), but also have to independently search for information in extracurricular sources of information in order to complete their learning tasks. Thus, they come into contact with the surrounding (professional) environment.

Thus, having studied the peculiarities of experiential and interactive learning, we agree with O. Tarnopolskyi's opinion that effective experiential learning of a foreign language for professional purposes is simply impossible if it is not simultaneously interactive. According to O. Tarnopolskyi, experiential and interactive teaching of a foreign language for special/professional purposes is a learning process that is implemented through a system of special types of learning activities [28]. They provide language acquisition and communication as by-products of extralinguistic activities that model the real professional activity of a future specialist. These types of learning activities are based on cooperative learning, which does not exclude individual learning, but, on the contrary, requires it as an integral part of the learning process. Experiential-integrated teaching of a foreign language for professional purposes also necessarily requires students to go beyond the purely educational environment into the extracurricular professional environment using extracurricular foreign language professional sources of information [27].

Integrated learning combines such approaches to teaching foreign languages as content and language integrated learning (CLIL), which includes such approaches as teaching a foreign language through the content of other disciplines (content-based second language instruction) and foreign language immersion. These approaches are very widespread in developed countries and are considered to be one of the leading ways to improve and intensify the process of teaching ESP in universities. Unfortunately, these approaches have come to the Ukrainian methodology of teaching foreign languages relatively recently, but they have already won their place. An analysis of foreign experience shows that they are most in line with modern ideas and goals of teaching foreign languages for professional purposes in non-linguistic higher education institutions. Their concepts position a foreign language as a means of mastering a future speciality and professional information from various sources.

Content and language integration in education consists of four elements: content, communication, cognition and culture. Let's look at each element separately.

Content involves the acquisition of knowledge and the development of skills to understand the professional terminology of a particular field. The learning material should be selected based on a specific professional discipline. It should be noted that the amount of vocabulary that students need to learn is quite large.

Communication involves the development of skills and abilities to use a foreign language as a means of communication in the professional sphere. This is made possible by full immersion in the foreign language environment. A wide range of different technologies enables students to freely express their point of view, compare, contrast and describe the opinions of others.

Thinking (cognition) involves the development of students' mental and cognitive activity. This happens through the performance of search, problem and creative tasks. It teaches students to apply the knowledge they have already acquired in practice and to develop new skills and abilities.

Culture involves getting to know the culture of the country whose language is being studied. Since it is not enough to have a certain linguistic knowledge to communicate in a foreign language, you also need to know the peculiarities of the country's culture.

It should also be noted that CLIL (Content and language integrated learning) is a rather broad concept, which is interpreted as any foreign language teaching when it is used as a means for teaching and learning extra-linguistic content by students [6, 27]. In the process of implementing this approach, language and content are integrated.

The analysis of the European experience of applying this approach to teaching ESP allows us to highlight the general advantages:

1. Growth of linguistic competence and confidence in one's language and speech abilities.
2. Raising expectations of efficiency and effectiveness of learning on the part of both teachers and students.
3. Developing decision-making skills in risky situations and problem-solving abilities.
4. Better development of foreign language vocabulary and grammatical speaking skills.
5. Motivation and encouragement to develop their own autonomy and independence in the learning process.
6. Transition from studying artificial topics typical for foreign language classes to real and practically important topics.
7. Improving the level of native language proficiency, especially literacy.
8. Increasing the level of speech spontaneity in communication due to the fact that the language is used as a means rather than an end of learning.
9. Developing the ability to learn and concentrate on learning.
10. Developing learning motivation and a positive attitude towards the learning process.
11. Opportunity to integrate the development of intercultural communication skills into the curriculum.
12. Development of critical thinking and creative potential, increase of self-esteem.

This approach has many advantages, but its full implementation in the educational process has some difficulties. Firstly, it requires qualified teaching staff; secondly, it requires constant cooperation between language teachers and teachers of various specialised disciplines; and a high level of language training of students.

In addition, special attention should be paid to the selection of teaching material and the development of tasks for it. The content of the course will depend on

the number of hours in a particular speciality. In practice, there are three basic models of course design:

- extension of language education (one or two hours per week are devoted to working with materials on specific topics of a subject or several subjects);
- modular teaching (at different stages of the educational process, modules for studying a single or several subjects in a foreign language are included);
- partial merger with the subject (up to 50% of foreign language classes are conducted in the CLIL format).

The first and second models are very progressive and effective, but they are aimed at students with high or intermediate language proficiency and require a large number of classroom hours. Given the small number of classroom hours and the low level of language proficiency of students in agricultural higher education institutions, it would be appropriate to use the third model of course design, namely partial fusion. This will make it possible to combine the methodology of language and content integration with traditional vocationally oriented training. This slower pace of work will improve the level of language training for unprepared students and expand the knowledge of intermediate students. Thus, language teachers are increasingly choosing content and language integration over the traditional vocationally oriented methodology.

As noted above, content and language integration in teaching is a rather complex concept, and this approach includes teaching a foreign language through the content of other disciplines (content-based second language instruction). This methodology is practically oriented and includes only such types of learning activities that are relevant to the future profession. These include brainstorming sessions, discussions, presentations on professional topics and project work. Scientists (D.M. Brinton, M.A. Snow, M.B. Wesche) understand foreign language teaching through the content of specialised disciplines as a combination of certain content of disciplines with the goals of foreign language teaching [3]. In their opinion, it ensures the parallel acquisition of knowledge in a particular discipline, as well as speech and language skills related to the target language and communication in it. In applying such teaching, the Foreign (German) Language (for Specific Purposes) programme should be closely related to or directly based on the programme of study of a particular professional discipline, so that the sequence of language/speech content is consistent with the needs of the sequential acquisition of the content of the professional discipline. The focus of students' attention is on the acquisition of extra-linguistic information of a particular professional discipline through the means of a foreign language.

Learning a foreign language through the content of other disciplines is a good basis for a gradual transition to foreign language immersion. The practice of foreign language immersion is quite widespread in many countries around the world. Its essence lies in the teaching of one or more professional disciplines in a foreign language. Foreign language immersion programmes for higher education institutions define such immersion as a specific type of integrated learning when the goal is for

students to master a professional language. Scientists distinguish three types of foreign language immersion:

1) full immersion - these are regular classes in professional disciplines conducted in a foreign language without translation;

2) partial immersion is a type of classes that involves a temporary combination of foreign and Ukrainian languages at the initial stage with a gradual transition to full immersion;

3) moderate immersion is the simplest type of immersion, which is also based on the combination of Ukrainian and foreign languages in the teaching process throughout the course.

It is moderate immersion that ensures students' language development, creates the basis for mastering the subject content of specialised disciplines and is the main basis for a gradual transition to partial and full immersion [12]. We agree with the opinion of O. Tarnopolsky, who emphasises that there is no need to abandon traditional language teaching for professional purposes. This approach should be the basis for the implementation of the above approaches. It should also be borne in mind that the number of hours for studying the discipline "Foreign language (for professional purposes)" is small, so for most specialities in agricultural higher education institutions, foreign language immersion is possible only outside the main course [27].

Analysis of foreign experience and research by Ukrainian scientists allow us to highlight the benefits of foreign language immersion and foreign language learning through the content of other disciplines, including

1) professional skills and abilities are formed and developed mostly spontaneously, as a by-product of extradialgic activity;

2) because it is impossible to separate language learning from learning a future profession, a foreign language becomes a professional discipline, which has a positive impact on the motivation to learn.

It should be noted that the practice of foreign language immersion is widely used in Germany and Canada, and the model of foreign language education in these two countries is based on a single principle - the use of a foreign language as a tool for mastering the content of an academic discipline. In Germany, this approach differs in the following aspects: the selection of disciplines to be taught in a foreign language, their number and duration of study. Scientists emphasise the fact that the use of a foreign language in professional training is a didactic reserve that can improve the level of students' communicative professional competence [16].

When developing foreign language professional communicative competence, based on such approaches as professionally oriented, experiential-interactive or learning through the content of special disciplines, such types of learning activities as case studies, discussions, presentations and professional portfolios are usually used. All of these types of learning activities are united by the fact that each of them, in one way or another, provides modelling of such practical activities of the future agrarian that require communication in a foreign language to solve professional problems. In addition, these types of learning activities ensure the parallel mastery of all types of

foreign language speech activities, including reading, and in the most natural conditions of their integration.

Since the profession of an agrarian is a managerial one, a graduate is responsible for his or her subordinates and the processes taking place on the farm. During their studies, they must learn how to find solutions to professional situations in a foreign language, and the case method is a useful tool in this regard.

The case method is a teaching technique that uses descriptions of real professional situations. In the course of learning, students must familiarise themselves with the situation, understand the essence of the issue and suggest ways to solve it. According to the structure, the following types of cases are distinguished: highly structured cases, unstructured cases and ground breaking cases [22]. According to Y. Degtyareva, the peculiarity of teaching by the case method is that students should have a high level of skills in all types of speech activities (reading, writing, speaking and listening) [7]. Therefore, the use of this method in the formation of foreign language professional competence is best applied at the final stage, when the student has sufficient vocabulary in the speciality.

Due to the country's development and international relations, more and more often agricultural business professionals travel abroad to sign contracts, meet with international partners, and participate in agricultural exhibitions and conferences. To ensure the success of their business trips, they need to be prepared to participate in discussions and have experience in preparing presentations for their speeches. The use of such learning activities as discussion and presentation by the teacher in the course of teaching a professionally oriented foreign language will help them prepare for public speaking in a foreign language. These types of learning activities will also be useful in the development of professionally oriented competence in German reading, because, as experts note, it is impossible to prepare for an oral presentation or discussion without reading certain professional literature. This also confirms the interpretation of O. Tarnopolskyi, who defines a presentation "as a prepared professionally oriented statement, united by specific tasks and situational conditions, based on the results of an analytical study of a particular problem, has a clear logical and compositional design and is aimed at effectively informing, motivating or persuading a certain audience, taking into account its main cultural and socio-demographic characteristics" [8, p. 56].

In addition to the above-mentioned types of learning activities, such a teaching method as a professional portfolio or a specialist portfolio is undoubtedly effective. It is the leading method in the formation of foreign language professional competence in future agrarians. In the teaching methodology, a professional portfolio is considered as a method of organising learning, its control and evaluation. It is a collection of completed work and learning materials for a certain period of study. According to researchers, the professional portfolio method enables students to develop self-assessment, analysis, synthesis, critical thinking, the ability to make connections, and to implement theoretical knowledge in practice.

Thus, the analysis of regulatory documents shows that foreign language training in agricultural higher education institutions takes up only 2% of the total

hours, but is a mandatory component of the overall system of professional training. The purpose of teaching the discipline is to develop readiness for professional communication in a foreign language. During the course of study, all components of foreign language professional competence are developed: linguistic, socio-cultural, educational and professional. The leading approach to teaching a foreign language for professional purposes in agricultural higher education institutions is professionally oriented. But recently, there has been an active introduction of new approaches, the value and effectiveness of which has been confirmed by foreign experience. Among them, we have identified CLIL (Content and language integrated learning), which combines foreign language teaching through the content of other disciplines (content-based second language instruction) and foreign language immersion. The advantage of applying such approaches in an agricultural university is that they will help, if not overcome, at least reduce students' unmotivation during foreign language vocational training, as students will receive professional educational material in a particular discipline in their speciality while learning a foreign language. This will help to bridge the existing gap between learning a foreign language and learning a speciality and help to develop foreign language professional competence more quickly.

References:

1. Bautista I. Generic competences acquisition through classroom activities in first-year agricultural engineering students. *International Journal of Educational Technology in Higher Education.* 13 (29). Retrieved from https://doi.org/10.1186/s41239-016-0028-8

2. Bezhenar I. V. Metodyka navchannja majbutnikh filologhiv anghlijsjkogho pysemnogho movlennja z vykorystannjam movnogho portfelja : dys. … kand. ped. nauk: 13.00.02. Kyjivsjkyj nacionaljnyj linghvistychnyj un-t. Kyiv, 2012. – 341 s

3. Brinton D. M., Snow M. A., Wesche M. B. Contentbased second language instruction. New York: Newbury House Publishers, 1989. 241 p.

4. Cherniavskyi B. R. Formuvannia inshomovnoi kompetentnosti u maibutnikh ekonomistiv u protsesi intehrovanoho navchannia : dys. ... kand. ped. nauk: 13.00.04. Zaporizhzhia, 2021. 260 s.

5. Cooperative language learning: A teacher's resource book. Carolyn Kessler, Editor. Englewood Cliffs, NY: Prentice Hall Regents, 1992. 257 p.

6. Coyle D., Hood P., Marsh D. Content and Language Integrated Learning. Cambridge : Cambridge University Press. 2010. 184 p.

7. Deghtjarjova Ju. V. Metodyka navchannja studentiv vyshhykh nemovnykh navchaljnykh zakladiv chytannja anghlijsjkoju movoju dlja dilovogho spilkuvannja: dys. … kand. ped. nauk : 13.00.02. Kyiv, 2006. 225 s.

8. Ghumenjuk O. M. Porfelj fakhivcja – profesijne oblychchja studenta-medyka. *Visnyk Lvivsjkogho universytetu. Serija pedaghoghichna.* Lviv, 2005. Vyp.19, chast.1. P.337 – 348

9. Haponenko L. P. Formuvannia hotovnosti studentiv vyshchykh pedahohichnykh zakladiv do inshomovnoho spilkuvannia: avtoref. dys…k. ped..n.: 13.00.04 / Kryvorizkyi derzhavnyi ped. un-t. 2003. 20 s.

10. Hryshkova R. O. Inshomovna osvita v Ukraini u konteksti yevrointehratsii. Naukovi pratsi Mykolaivskoho derzhavnoho humanitarnoho universytetu im. Petra Mohyly. S. 145 – 148.

11. Ivasiv N. S. Profesiina inshomovna pidhotovka maibutnikh fakhivtsiv z turyzmoznavstva u vyshchykh navchalnykh zakladakh : dys. … kand. ped. nauk : 13.00.04. Ternopil, 2018. 441 s.

12. Kornjeva Z. M. Eksperijencijne navchannja studentiv nemovnykh specialjnostej anghlijsjkoji movy profesijnogho sprjamuvannja na I kursi VNZ nemovnogho profilju. *Nauka i osvita: nauk.-prakt. zhurn. Pivd. nauk. Centru NAPN Ukrajiny.* 2012. № 5. S. 102 – 105.

13. Maljugha O. S. Do pytannja interaktyvnykh metodiv navchannja inozemnoji movy studentiv nefiloghichnykh specialjnostej na zakljuchnomu etapi vyshhoji shkoly. *Molodj i rynok.* 2014. № 2. P. 86 – 90.

14. Nikolaienko Yu. O. Pidhotovka studentiv ahrarnykh spetsialnostei do profesiinoho spilkuvannia v inshomovnomu seredovyshchi: avtoref. dys. … kand. ped. nauk: 13.00.04 / Instytut pedahohichnoi osvity i osvity doroslykh. Kyiv. 2009. 21 s.

15. Nitenko O. V. Inshomovna pidhotovka fakhivtsiv prava v trytsyklovii systemi vyshchoi osvity: yevropeiskyi dosvid : dys. ... d-ra ped. nauk : 13.00.04. Kyiv, 2015. 446 s.

16. Pakhomova T. O. Problema formuvannia inshomovnoi komunikatyvnoi kompetentnosti v systemi vyshchoi profesiinoi osvity. Visnyk Zaporizkoho natsionalnoho universytetu. Pedahohichni nauky № 1 (34). 2020. S. 172 – 179.

17. Pakhomova T, Piddubtseva O. Foreign language competence in the context of vocational training: the evolution of the concept and modern tendencies. *Scientific trends: modern challenges. Volume 1* **:** collective monograph / Compiled by V. Shpak; Chairman of the Editorial Board S. Tabachnikov. Sherman Oaks, California : GS Publishing Services, 2021. P. 131 – 136.

18. Pylypenko O. P. Profesiina pidhotovka fakhivtsiv veterynarnoho profiliu u VNZ Nimechchyny : dys. … kand. ped. nauk : 13.00.04. Kyiv, 2018. 394 s.

19. Piddubtseva O. I. Linhvistychni osoblyvosti formuvannia profesiino oriientovanoi nimetskomovnoi chytatskoi kompetentnosti u studentiv-ahrariiv. *Science and Education a new Dimension. Pedagogy and Psychology.* Budapest, 2018. Issue 155. P. 45 – 49.

20. Pro vyshchu osvitu : Zakon Ukrainy vid 01.07.2014 r. № 1556-VII. URL: http://zakon2.rada.gov.ua/laws/show/1556-18

21. Profesiina osvita : slovnyk [navch. posibnyk] / uklad. S. U. Honcharenko ta in. / za red. N. H. Nychkalo. Kyiv, 2000. 380 s.

22. Pometun O. I., Pyrozhenko L. V. Interaktyvni tekhnologhiji navchannja: Nauk.-metod. posibn. K.: Vydavnyctvo A.S.K., 2004. 192 s.

23. Ramkova prohrama z nimetskoi movy profesiinoho spilkuvannia dlia vyshchykh navchalnykh zakladiv Ukrainy / Azzolini L. S., Amelina S. M., Hamaniuk V. A., Zhdanova N. S. Kyiv : Lenvit, 2014. 136 s.

24. Rohova T. V. Profesiina pidhotovka studentiv u VNZ: yii oznaky ta yakist. Pedahohika ta psykholohiia. 2017. № 56. S. 294 – 301.

25. Shandruk S. I. Inshomovna osvita u SShA z pozytsii multykulturnosti. Naukovi zapysky Berdianskoho derzhavnoho pedahohichnoho universytetu. Seriia : Filolohichni nauky. 2015. № 7. S. 62-65.

26. Sura N. A. Systema profesiinoi inshomovnoi pidhotovky maibutnikh fakhivtsiv z informatsiino-komunikatsiinykh tekhnolohii u tekhnichnykh universytetakh : dys. … d-ra ped. nauk : 13.00.04. Kyiv, 2013. 509 s.

27. Tarnopoljsjkyj O. B. Eksperijencijno-interaktyvne navchannja inozemnoji movy dlja specialjnykh cilej u nemovnomu VNZ: sutnistj pidkhodu. *KhNU*. 2010. № 17. S. 125 – 137

28. Tarnopolskyi O. B., Kornieva Z. M. Proektna robota yak odyn iz zasobiv pidvyshchennia navchalnoi motyvatsii v eksperiientsiinii metodytsi navchannia inozemnoi movy. Visnyk Zhytomyrskoho derzhavnoho universytetu imeni Ivana Franka. 2013. Vyp. 6. S. 91 – 95.

29. Tarnopoljsjkyj O. B., Kozhushko S. P. Metodyka navchannja studentiv vyshhykh navchaljnykh zakladiv pysjma anghlijsjkoju movoju. Vinnycja: Nova knygha, 2008. 288 s.

30. Yakushko K. H. Pedahohichni umovy formuvannia profesiino-oriientovanoho inshomovnoho spilkuvannia u studentiv tekhnichnykh spetsialnostei ahrarnykh universytetiv: dys. ... kand. ped. nauk: 13.00.04. Pereiaslov-Khmelnytskyi derzhavnyi ped. un-t im. Hryhoriia Skovorody. Pereiaslav-Khmelnytskyi, 2016. 232 s.

31. Zelenin H. I. Teoretychni i metodychni zasady inshomovnoi profesiinoi pidhotovky maibutnikh vykladachiv tekhnichnykh dystsyplin : dys. … d-ra ped. nauk : 13.00.04. Kharkiv, 2021. 475 s.

CONTENT

Preface 3

Section 1. Mechanism for ensuring economic security of agribusiness entities 4

1.1. Improvement of the risk management mechanism in the financial and economic security system of the enterprise
(*Lesia Vasilieva*) 4

1.2. New standards of quality management in audit. The risk-based approach
(*Liudmyla Volchans'ka*) 25

1.3. The influence of the investment climate on the investment security of the process of reproducing technical resources of agricultural enterprises
(*Sergey Yurchenko*) 46

1.4. Current issues of improving personnel and economic security of the enterprise
(*Oleksandr Atamas*) 75

1.5. Theoretical basics of production cost management in the system for ensuring economic security of the enterprise
(*Oleksandr Tkachenko)* 104

Section 2. Development of the system of accounting, taxation and analysis of production and economic activity of agribusiness entities 131

2.1. Analysis of trends in the economic development of agricultural enterprises of Ukraine: prospects and challenges
(*Daria Karamushka*) 131

2.2. Depreciation of fixed assets and its influence on the development of modern production: accounting aspect
(*Olena Dubyna*) 138

2.3. Features of the analysis and audit of the economic activities of enterprises under the conditions of the martial state
(*Mariia Bardadym*) 161

Section 3. Financial policy and mechanism of its implementation in the system of ensuring sustainable development of agribusiness entities 183

3.1. Analysis of the development of bank lending of agricultural enterprises
(*Larisa Brovko*) 183

3.2. Diagnostics of the financial state of agrarian enterprise is in the conditions of crisis
(*Anna Sirko)* 209

Section 4. Modern learning technologies in higher educational institutions 230

4.1. Innovative digital tools of educational activities in higher educational institutions
(*Svitlana Nuzhna*) 230

Section 5. Language and professional training of the specialist in agricultural sector 255

5.1. Peculiarities of foreign language vocational training of agricultural specialists
(*Olga Piddubtseva*) 255

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