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MANAGEMENT OF INNOVATION AND INVESTMENT RISKS OF INDUSTRIAL ENTERPRISES IN THE CONTEXT OF ENSURING ECONOMIC SECURITY

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УПРАВЛІННЯ ІННОВАЦІЙНО-ІНВЕСТИЦІЙНИМИ РИЗИКАМИ ПРОМИСЛОВИХ ПІДПРИЄМСТВ В КОНТЕКСТІ ЗАБЕЗПЕЧЕННЯ ЕКОНОМІЧНОЇ БЕЗПЕКИ

In the article, features of management of innovation and investment risks of industrial enterprises in the context of ensuring economic security are analyzed. It is proven that the management system of innovation and investment risks plays a strategic role as an adaptive, stabilizing and anti-crisis mechanism that ensures the integrity, stability and development of the enterprise, and also allows for the identification, monitoring, adjustment of certain key goals of economic security of the industrial enterprise and their achievement. Taking into account the role of innovation and investment risk management in development of the economic security system of industrial enterprises, the key goals of ensuring stable operation are outlined, namely: ensuring sustainability of innovation and investment activities, forming safe environment for implementation of innovations, rationalizing the use of resources, integrating risk management into the economic security system, strengthening adaptability and survival strategies, strengthening the trust of investors and partners. It has been proven that to form safe innovation environment, the innovation and investment risk management system contributes to implementation of technological innovations at industrial enterprises in controlled conditions, ensuring minimization of risks at each stage of the life cycle of the innovative product, which allows the enterprise to update the technological base without the threat of violating functional integrity or financial stability. The main functions of the organizational and managerial subsystem in the management of innovation and investment risks are determined, namely: ensuring planning and strategic management in accordance with the goals and objectives of development of the economic security system of the industrial enterprise, coordinating interaction between subsystems and divisions of the enterprise, regulating management of innovation and investment activities, distributing responsibility, powers and resources in the innovation and investment risk

management system, ensuring monitoring, prompt response and feedback, making decisions on optimizing the structure of the innovation and investment portfolio. It has been studied that the impact of the organizational and managerial subsystem in management of innovation and investment risks on ensuring development of the economic security system of the industrial enterprise is monitored by the following indicators: institutionalization of risk management, ensuring manageability of innovation processes, adaptability to external challenges, maintaining integrity of the economic security system. A mechanism for ensuring economic security of the industrial enterprise has been developed, which provides for a holistic system of interconnected methods, tools and levers that are used to guarantee the sustainable strategic development of the enterprise.

У статті проаналізовано особливості управління інноваційно-інвестиційними ризиками промислових підприємств в контексті забезпечення економічної безпеки. Доведено, що система управління інноваційно-інвестиційними ризиками відіграє стратегічну роль як адаптивний, стабілізаційний та антикризовий механізм, що забезпечує цілісність, стійкість і розвиток підприємства, а також дозволяє здійснювати виявлення, моніторинг, коригування визначених ключових цілей економічної безпеки промислового підприємства та досягати їх. Враховуючи роль управління інноваційно-інвестиційними ризиками у розвитку системи економічної безпеки промислових підприємств, окреслено ключові цілі забезпечення стабільної роботи: забезпечення стійкості інноваційно-інвестиційної діяльності, формування безпечного середовища для реалізації інновацій, раціоналізація використання ресурсів, інтеграція ризик-менеджменту в систему економічної безпеки, посилення адаптивності та стратегії виживання, зміцнення довіри інвесторів і партнерів. Доведено, що для формування безпечного інноваційного середовища система управління інноваційно-інвестиційними ризиками сприяє впровадженню технологічних новацій на промислових підприємствах у контрольованих умовах, забезпечуючи мінімізацію ризиків на кожному етапі життєвого циклу інноваційного продукту, що дозволяє підприємству оновлювати технологічну базу без загрози порушення функціональної цілісності або фінансової стійкості. Визначено основні функції організаційно-управлінської підсистеми в управлінні інноваційно-інвестиційними ризиками: забезпечення планування та стратегічне управління у відповідності до цілей і завдань розвитку системи економічної безпеки промислового підприємства, координація взаємодії між підсистемами та підрозділами підприємства, регламентація процесів управління інноваційно-інвестиційною діяльністю, розподіл відповідальності, повноважень та ресурсів у системі управління інноваційно-інвестиційними ризиками, забезпечення моніторингу, оперативного реагування та зворотного зв'язку, прийняття рішень щодо оптимізації структури інноваційно-інвестиційного портфеля. Досліджено, що вплив на забезпечення розвитку системи економічної безпеки промислового підприємства організаційно-управлінської підсистеми в управлінні інноваційно-інвестиційними ризиками відслідковується за наступними показниками: інституціоналізація ризик-менеджменту, забезпечення керованості інноваційними процесами, адаптивність до зовнішніх викликів, підтримка цілісності системи економічної безпеки. Розроблено механізм забезпечення економічної безпеки промислового підприємства, який передбачає цілісну систему взаємопов'язаних методів, інструментів та важелів, які застосовуються з метою гарантування сталого стратегічного розвитку підприємства.

Key words: innovation; investments; innovative development; investment activity, economic security; industrial enterprises; risks, risk management; sustainable development.

Ключові слова: інновація; інвестиції; інноваційний розвиток; інвестиційна діяльність, економічна безпека; промислові підприємства; ризики, ризик-менеджмент, сталий розвиток.

PROBLEM STATEMENT

Innovation and investment risk management is a key element in the system of functioning and development of the industrial enterprise, which directly affects the level of its economic security. In conditions of high dynamics of the market environment, technological

changes, investment uncertainty and threats of various origins (economic, political, technogenic, etc.), effective risk management allows to ensure the increase of protective resources and preventively oriented potential in the economic security system. Correct functioning of the innovation and investment risk management system

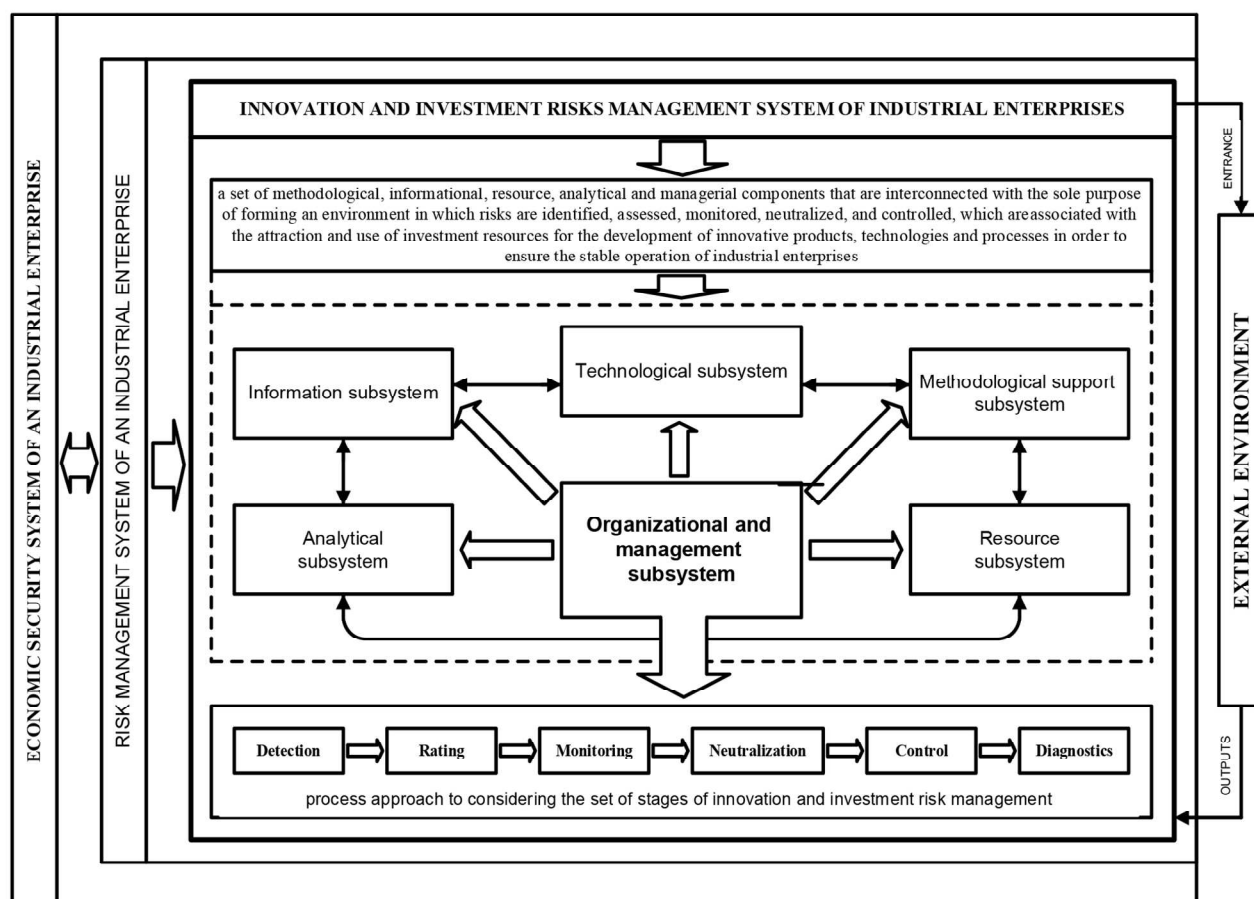


Fig. 1 System of innovation and investment risk management of the industrial enterprise

Source: developed by the authors.

ensures the achievement of key goals of the development of the economic security of an industrial enterprise.

The innovation and investment risk management system not only reduces the threat of losses from unsuccessful investments or technological innovations, but also creates the prerequisites for the sustainable functioning, development and increase of competitiveness of industrial enterprises. Its role in economic security is to ensure a balanced combination of innovative breakthrough and risk control, which is the basis of strategic stability in any economic conditions.

ANALYSIS OF RECENT RESEARCH AND PUBLICATIONS

Scientific articles by such scientists as: Voloshchuk L., Havrish O., Zaichenko K., Yakymenko N., Korachyna N., Strochenko N., Mohylna L., Parshina O., Horbach S., Vasileha V., Khaetska O., Prokhorova V., Ivanova N., Melnykova V., Kovalenko O., Germaniuk N. and others.

IDENTIFICATION OF UNEXPLORED PARTS OF THE GENERAL PROBLEM

Despite the significant number of scientific works on the specified research topic, the issue of determining features of managing innovation and investment risks of industrial enterprises in the context of ensuring economic security requires further research and thorough analysis.

PURPOSE OF THE ARTICLE

The purpose of the article is to study features of managing innovation and investment risks of industrial enterprises in the context of ensuring their economic security.

PRESENTATION OF THE MAIN MATERIAL

During the war period, economic security of industrial enterprises becomes critical, because external threats, reduced investment activity, disruption of logistics, instability of resource supply and information uncertainty increase the level of destructive impact of risks to extreme values. In this context, the system of innovation and investment risk management (Fig. 1) plays a strategic role as an adaptive, stabilizing and anti-crisis mechanism that ensures integrity, stability and development of the enterprise, and also allows for identification, monitoring, adjustment of certain key goals of economic security of the industrial enterprise and their achievement [1—3].

Considering the role of innovation and investment risk management in development of the economic security system of industrial enterprises, it is advisable to include the following ones as the key goals for ensuring stable operation:

— ensuring sustainability of innovation and investment activities — under the influence of war conditions, traditional investment models lose their effectiveness due to the unstable environment. The risk management system allows you to quickly reassess riskiness of innovation and

investment projects, determine priority areas of investment and research, and maintain flexible balance between innovative development and security requirements;

- creating safe environment for implementing innovations — thanks to analytical and management tools, the system allows you to identify threats, to develop response scenarios, and to minimize consequences of destructive factors. This creates conditions for continuous implementation of technological innovations, even despite external competitive pressure;

- rationalization of resource use — in conditions of shortage of investments, materials and personnel, the risk management system ensures targeted allocation of resources to the most effective and viable innovative solutions. This helps to preserve production potential and to reduce losses due to ineffective or over-risky projects;

- integration of risk management into the economic security system — the system of innovation and investment risk management is a functional element of the overall economic security system of the enterprise. It provides proactive management not only of investment risks, but also of related economic threats (inflation, loss of sales markets, reduced solvency, etc.);

- increased adaptability and survival strategy — thanks to the process approach ("detection → assessment → monitoring → neutralization → control → diagnostics"), the system provides continuous feedback and correction of decisions in real time. This increases efficiency of management, ensures adaptation to dynamic conditions and reduces the impact of shocks;

- strengthening the trust of investors and partners — functioning of the transparent risk management system demonstrates controllability of innovation and investment processes, which is critically important for attracting external sources of financing in difficult conditions. This increases investment attractiveness even in turbulence periods [4, 11—14].

The risk management system in the development management of economic security identifies functional areas of influence and allows for timely identification of threats related to three main sectors in management of industrial enterprises: the main economic activity, financial and investment activity. Management of innovation and investment risks is directly related to implementation of innovation and investment projects, allows for assessment of their potential benefits, as well as probability and volume of damage and losses for the enterprise, and becomes the basis for developing measures to minimize or to neutralize risks of this nature. The latter influences allow for effective implementation of the preventive function in maintaining economic security and act as a tool for preventive management of innovation and investment risks. Thanks to integration of analytical and management subsystems, the system of innovation and investment risk management forms the basis for making informed investment decisions that take into account not only the expected benefits, but also the level of risks associated with innovation activities. This reduces the likelihood of financial losses, strengthens economic stability of the enterprise, and directly affects effectiveness of investment decisions in the long term,

which ensures implementation of the motivational function in the development of the economic security system.

To create a safe innovation environment, the system of innovation and investment risk management promotes implementation of technological innovations at industrial enterprises in controlled conditions, ensuring minimization of risks at each stage of the life cycle of the innovative product. This allows the enterprise to update the technological base without the threat of violating functional integrity or financial stability. In conditions of macroeconomic turbulence, the system performs the function of anti-crisis response, providing the enterprise with the opportunity to quickly adapt to changes in the external environment [9—10].

To optimize the use of resources within the system, risks are assessed not only as threats, but also as factors that require appropriate resource provision and contribute to effective allocation of material, financial and human resources in accordance with strategic goals of security and innovative development. Thanks to the process approach, the enterprise receives a flexible mechanism for stabilizing its activities, which allows it to ensure resource adaptability to external changes.

The system of innovation and investment risk management is an integral part of the economic security system, ensuring its integrity, flexibility and proactivity. It is aimed at protecting against destructive influence of external and internal factors that can make sustainable development of the enterprise impossible, which is strengthening of the economic security system of the enterprise itself. Therefore, it is necessary to pay attention to the organizational and management subsystem in the system of innovation and investment risk management of the industrial enterprise and its role in ensuring economic security of this enterprise. The organizational and management subsystem is a central coordinating element in the structure of the system of innovation and investment risk management of the industrial enterprise. It ensures interaction of all functional subsystems (information, analytical, resource, technological, methodological), integrating their results into a single system for making management decisions. The basis of this subsystem's activities is regulated management of risk-oriented processes at all stages of the innovation and investment cycle — from initiation to implementation and assessment of the project performance.

The main functions of the organizational and management subsystem in managing innovation and investment risks are to ensure planning and strategic management in accordance with the goals and objectives of development of the economic security system of the industrial enterprise; to coordinate interaction between subsystems and divisions of the enterprise; to regulate managing innovation and investment activities; to distribute responsibility, authority and resources in the system of innovation and investment risk management; to ensure monitoring, prompt response and feedback, and to make decisions on optimizing the structure of the innovation and investment portfolio.

The impact of the organizational and management subsystem in managing innovation and investment risks on ensuring development of the economic security system

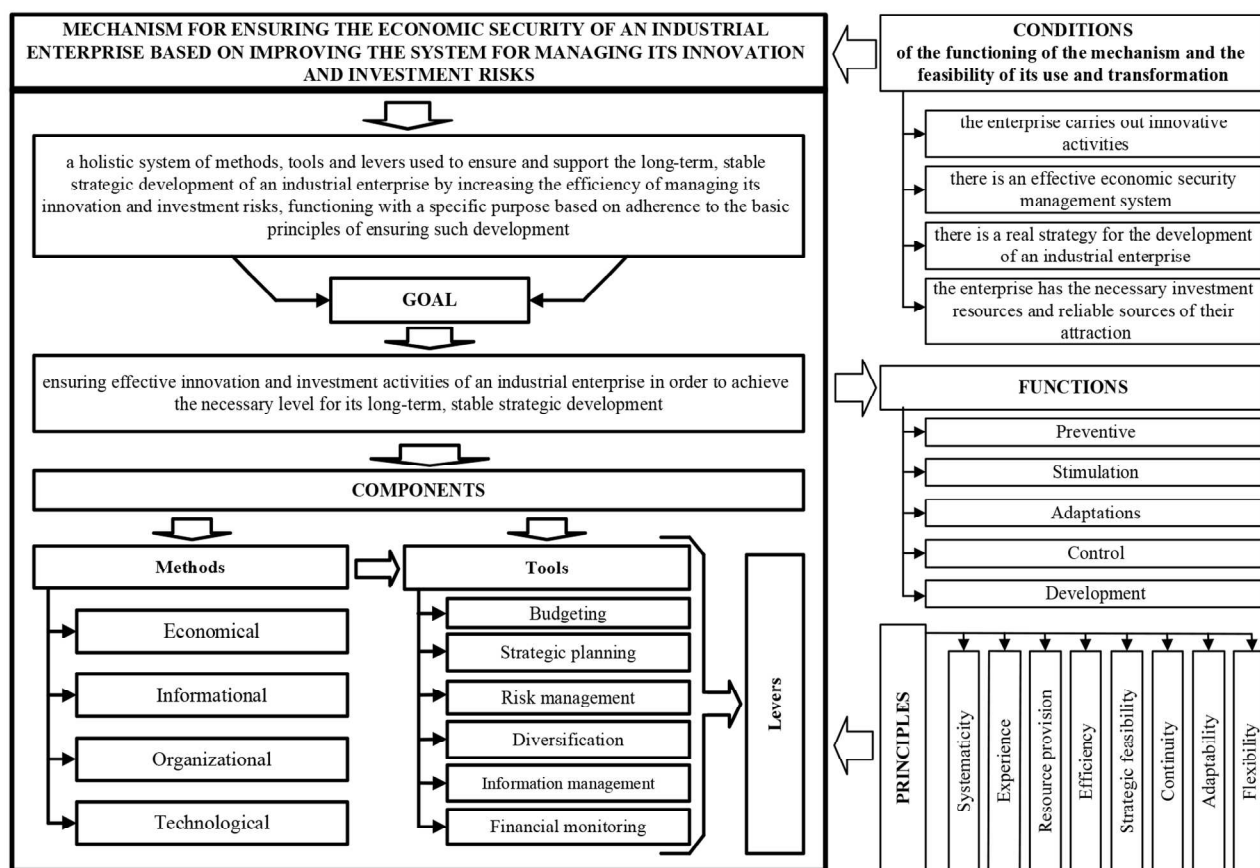


Fig. 2. Mechanism for ensuring economic security of the industrial enterprise

Source: developed by the authors.

of the industrial enterprise is monitored by the following indicators:

- institutionalization of risk management (organizational and management subsystem forms clear management mechanisms and procedures for responding to innovation and investment risks, which makes chaotic or intuitive decision-making impossible. This increases predictability of innovation and investment activities of the industrial enterprise in the unstable environment);

- ensuring manageability of innovation processes (within the framework of economic security, the subsystem performs the function of controlling risky innovation projects, ensuring their implementation without the threat of financial instability or disruption of technological continuity);

- adaptability to external challenges (in conditions of war or economic upheaval, it is this subsystem that ensures revision of investment and research priorities, prompt adjustment of strategies, and adaptation of management decisions to new conditions with minimal losses);

- supporting integrity of the economic security system (thanks to the integration function, the organizational and management subsystem connects innovation and investment risks with other threats — financial, technological, personnel — providing comprehensive vision and management of the enterprise's risk profile) [15—16].

It is worth noting that the mechanism for ensuring economic security of the industrial enterprise has a

significant impact on formation of a stable, adaptive and controlled system of response to internal and external threats that accompany innovation and investment activities. Thanks to combined methods, tools and management decisions, this mechanism increases efficiency of resource use, reduces the risk of losses and ensures strategic stability, which is the basis of economic security of the enterprise (Fig. 2).

It is advisable to distinguish two main, interrelated groups of components of the mechanism for ensuring economic security of the industrial enterprise: methods and tools.

The key methods are:

- economic (aimed at analyzing costs, revenues, investment feasibility and developing economically sound decisions to reduce risks and increase economic security);

- information (ensuring collection, processing, transmission and use of information about risks, innovation processes and economic situation necessary for management decisions);

- organizational (include structuring risk management processes, forming relevant departments, regulating procedures and increasing managerial responsibility);

- technological (covering the use of innovative technologies and digital solutions to identify, assess and control innovation and investment risks).

Key tools include:

- budgeting (ensures planning and distribution of financial resources taking into account risk factors affecting innovation and investment activities);

- strategic planning (forms goals of long-term development of the enterprise, taking into account potential innovation and investment risks and scenarios for their implementation);

- risk management (includes procedures for identifying, analyzing, assessing, monitoring and minimizing risks that threaten economic security);

- diversification (involves distribution of resources and projects to reduce dependence on individual risky investment areas or technologies);

- information management (management of information flows that are critically important for making informed management decisions in the field of innovation and investment);

- financial monitoring (constant control over financial condition of the enterprise, investment flows and expenses to promptly respond to risks).

To ensure functioning of the mechanism and expediency of its use and transformation, the following conditions are required: the enterprise carries out innovative activities; available operating economic security management system; available real strategy for development of the industrial enterprise; the enterprise has necessary investment resources and reliable sources of their attraction. Conditions for functioning of the mechanism are decisive for achieving the appropriate level of economic security of the enterprise, as they create the basis for effective implementation of management decisions in the field of innovation and investment activities. Available innovative activity, effective security management system, strategic vision of development and access to investment resources ensures stability, predictability and ability of the enterprise to withstand risks, adapting to changes in the external environment.

The key functions of the mechanism for ensuring economic security of the industrial enterprise are as follows:

- preventive;
- stimulation;
- adaptation;
- control;
- development.

The preventive function, which consists in the timely identification of potential threats and risks that may affect stability of the enterprise, is aimed at preventing crisis situations through preventive measures. The stimulation function ensures activation of the enterprise's innovative and investment activities. It contributes to development of initiative, introduction of technologies and attraction of capital to strengthen competitiveness. The adaptation function is responsible for the enterprise's ability to flexibly respond to changes in the external environment, which in turn ensures adaptation of management, production and financial processes to new conditions. The control function ensures constant monitoring of the status of key enterprise security parameters and allows for prompt response to deviations and adoption of corrective decisions. The development function is focused on the long-term growth of the enterprise, introduction of innovations, expansion of markets and strengthening of economic potential, which ensures strategic stability and competitive advantages in the face of risks [5—8].

It is also necessary to formalize and describe principles of functioning of the mechanism for ensuring economic security of the industrial enterprise, which together describe conditions and directions of influence. In particular, the principle of systematicity provides for the comprehensive approach to development and implementation of the mechanism in which the main elements are management structures, processes, tools, resources, which are interconnected and interact as a single whole. This principle ensures consistency of actions of various subsystems of the enterprise when responding to innovation and investment risks. Systematicity avoids duplication of functions and ensures the logic of the mechanism functioning in accordance with the goals of economic security. Application of this principle increases reliability and predictability of management decisions. This principle also contributes to creation of structural and functional integrity of the risk management mechanism.

The principle of expediency means that all measures within the mechanism must meet real needs of the enterprise, its development strategy, economic condition and level of risk. This principle excludes the use of excessive or unjustified management decisions that do not produce the expected effect. Expediency requires constant analysis of costs and results, as well as logical justification of each step. Thus, effective use of limited resources in critical conditions is ensured. Implementation of expedient solutions minimizes internal threats and optimizes innovation and investment processes. Without proper resource support, the mechanism loses its ability to implement its functions; therefore, the principle of resource provision assumes availability and effective use of necessary financial, material, information and personnel resources for implementation of risk management measures.

The principle of resource provision emphasizes the need for availability and timely involvement of all types of resources (financial, human, information, material) for implementation of management activities, because without a proper resource base, the mechanism loses its effectiveness and ability to implement strategic tasks. This principle also requires assessment of the enterprise's potential and the search for reliable sources of resources in unstable conditions. Resource provision is the basis for stable functioning of the risk management system, and successful implementation of this principle increases the enterprise's adaptability to environmental challenges.

Achieving maximum results with optimal use of available resources implies the principle of efficiency, because its implementation requires regular monitoring of results of management decisions and adjusting actions in accordance with the identified deviations. Efficiency is assessed using quantitative and qualitative indicators, including the level of risks, resource savings, achievement of safety targets. The principle contributes to increasing competitiveness of the enterprise, reducing losses and increasing resilience to external threats, which also forms the basis for sound strategic planning.

The principle of strategicity implies orientation of the risk management mechanism towards achieving long-term goals of the enterprise development and security. It requires taking into account future

challenges, market trends, technological changes and threats at the decision-making stage, and the strategic approach ensures stability of management actions even in conditions of military turbulence. This approach allows building flexible trajectory of the enterprise development, taking into account changing risks. As a result, the enterprise gets the opportunity not only to respond to threats, but also to proactively manage future opportunities.

Management of innovation and investment risks, which is carried out on the ongoing basis, without interruptions or episodicity, is ensured through the principle of continuity. Risks in the dynamic external environment can appear at any time, so the management system must always be active. Constant monitoring, data updates, analysis of changes allows you to identify threats in a timely manner and respond to them promptly. This principle ensures stability of the mechanism even in emergency situations, and also forms a culture of safety in management processes.

The principle of adaptability orients the mechanism to the ability to change in accordance with external and internal factors, and in the context of the war period, adaptability is a key condition for survival and effective functioning of the enterprise. The specified principle assumes constant readiness to adjust management decisions, the risk management structure, resource allocation. Adaptability allows the enterprise to promptly respond to changes in market conditions, legislation or resource situation, which ensures reduction in vulnerability of the enterprise to environmental instability.

The principle of flexibility, allows for selection of variable management solutions that meet current conditions of the enterprise. Flexibility allows for the use of both standard and innovative approaches to overcoming risks, which in turn requires the mechanism to quickly switch between strategic goals and operational actions in crises. Thanks to this principle, the management system can balance between stability and change, and flexible response allows the enterprise to maintain economic security even in the face of unpredictable external challenges.

CONCLUSIONS AND SUGGESTIONS

Summarizing the above, it can be stated that the organizational and management subsystem is a key element of the system of innovation and investment risk management, without which effective functioning of the entire system is impossible. Its role in economic security is to ensure integrated risk management, coordinate innovation and investment activities, and maintain stability of the industrial enterprise in conditions of multi-vector threats and changes.

It is proven that the mechanism for ensuring economic security of the industrial enterprise, which is a holistic system of interconnected methods, tools and levers used to guarantee sustainable strategic development of the enterprise, has a significant impact on formation of stable, adaptive and controlled system of response to internal and external threats accompanying innovation and investment activities. It is substantiated that this

mechanism functions in dynamic external environment, focusing on increasing efficiency of risk management accompanying innovation and investment activities. The basis of the mechanism is a combination of managerial, information, resource and technological approaches that allow forming reliable environment for achieving economic security, ensuring adaptability of the enterprise and resistance to internal and external threats. The main purpose of this mechanism is to ensure effective innovation and investment activities of the industrial enterprise to achieve the necessary level of long-term, stable and strategic development.

Components of the mechanism are analyzed, which play a key role in its functioning, as they ensure systematicity, integrity and practical implementation of management decisions. Thus, methods form the approach to the analysis and impact on risks, and tools provide specific means of implementing the mechanism in activities of the enterprise, and their coordinated use allows you to effectively respond to threats, optimize innovation and investment processes and maintain appropriate level of economic security.

The principles outlined in the article play the fundamental role in functioning of the mechanism for ensuring economic security, as they determine general rules, logic and boundaries of management actions; ensure integrity, consistency and efficiency of implementation of the mechanism for ensuring economic security of the industrial enterprise, orienting it towards strategic expediency, flexibility, adaptability and resource balance. Adherence to the principles allows the enterprise to systematically respond to threats, make informed decisions and maintain stability in the dynamic environment.

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