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EVOLUTION AND TRANSFORMATION OF MANAGERIAL TOOLS FOR PLANNING AND ORGANIZING INNOVATION ACTIVITIES IN ENTERPRISES UNDER ECONOMIC INSTABILITY

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Abstract. *The article studies the development and transformation of managerial tools for planning and organizing innovation activities on business structures in extreme conditions of economic instability. The study highlights the growing complexity of managing innovation caused by hostilities, volatile markets, and technological uncertainty. The main problem is the lack of adaptability of traditional planning tools to dynamic external environments. The purpose of the study is to develop measures to modernize innovation management tools to increase the resilience of business structures. The study uses comparative and systematic methods to identify structural shifts in approaches to planning and organization. The results indicate a trend towards digitalization, flexible planning and integration of risk management mechanisms. The article substantiates the importance of adaptive models for the management of innovation processes. It is emphasized that the transformation of managerial tools for planning and organization provides an increase in the efficiency of innovative systems of the enterprise. The conclusions emphasize the need for strategic adaptation of management in an unstable economy.*

Key words: *evolution, innovation, planning, organization, business structure, production, extreme conditions, instability.*

Introduction. Modern economic conditions are characterized by a high level of economic instability, which is due to the impact of global crisis phenomena, rapid technological changes and unpredictable external factors. In such conditions, innovation activity becomes a key factor in ensuring the competitiveness of business structures, but its effectiveness largely depends on the quality of management decisions, planning tools and organization of relevant processes.

Traditional approaches to innovation planning lose their effectiveness due to the rigidity of structures, linearity of strategies and limited flexibility of management tools. Therefore, there is a need to rethink, evolve and transform it in accordance with the new economic realities.

The problem lies in the lack of a universal model capable of ensuring a balance between strategic stability and operational adaptability of the enterprise. This

determines the relevance of the study of directions for improving the tools for planning and organizing innovation activities, focused on rapid response to changes in the external environment.

The purpose of the study is to substantiate the conceptual foundations and mechanisms of transformation of managerial tools that ensure the increase in the efficiency of innovation activity of enterprises in conditions of economic instability. The implementation of this goal involves the analysis of trends in the development of modern approaches to innovation management, the identification of barriers and opportunities for adaptation of innovation management to an unstable economic environment.

To achieve this goal, the following main tasks are defined in the work:

- To analyze the theoretical and methodological foundations of management of innovation activity of enterprises and to find out the essence and role of management tools in conditions of economic instability.
- To investigate the evolution and current trends in the development of tools for planning and organizing innovative activities, to identify their strengths and weaknesses in the context of adaptation to changes in the external environment.
- To assess the impact of economic instability on the effectiveness of management processes in the field of innovation, to identify the main risks and barriers in the implementation of innovative solutions.
- To develop conceptual approaches to the transformation of management tools aimed at increasing the flexibility, sustainability and effectiveness of the system of management of innovative activities of enterprises.
- To offer practical recommendations for improving the mechanisms for planning and organizing innovation processes that ensure the strategic adaptability of enterprises to conditions of uncertainty.

Thus, the study is aimed at the formation of scientific and practical guidelines that will contribute to the construction of flexible and sustainable management systems for the innovative development of enterprises in the modern challenges of the global economy.

Main text.

The development of innovation activity in the conditions of the modern economy is a determining factor in the formation of competitive advantages of enterprises.

Innovations are not only a means of increasing production efficiency, but also a mechanism of adaptation to a changing external environment. Management of innovation processes involves the use of a system of methods, models and technologies aimed at effective planning, organization, motivation and control of innovation projects.

Theoretical and methodological approaches to innovation management have evolved from classical models focused on linear research and development processes to integrated and system concepts that combine strategic vision, adaptability and flexibility of management decisions [1].

At the present stage, it is relevant to apply a systematic approach, which considers innovation activity as an integral dynamic system that interacts with the market, institutional and technological environment.

The effectiveness of innovation management largely depends on the quality of management tools. It covers both classical analytical methods (SWOT, PEST, GAP analysis) and modern digital solutions — forecasting systems, scenario modeling, knowledge management, and big data analytics [2].

Under the influence of economic instability, there is a need to form adaptive tools that can quickly respond to changes in economic conditions.

As we can see, the management of innovation activity is one of the key components of the strategic development of the enterprise, as it ensures the formation of competitive advantages, adaptation to technological changes and increase of economic efficiency. The theoretical basis of the innovation management process includes systemic, process, strategic and situational approaches that allow a comprehensive assessment of the relationship between innovation resources, risks and market opportunities.

Within the framework of classical approaches, the managerial tools of innovation activity are defined as a set of methods, models, technologies and mechanisms that

provide planning, organization, motivation and control of innovation processes. However, in modern conditions of economic instability, these tools undergo significant transformations, since traditional models of strategic planning turn out to be too static and do not take into account the rapid changes of the external environment.

It is worth emphasizing that the methodological evolution of innovation management reflects the transition from mechanistic hierarchical structures to adaptive, flexible management systems based on the principles of open innovation, digitalization and partnership. This approach requires new forecasting, analytics and modeling tools that can take into account the uncertainty and turbulence of market processes.

The tools for planning innovation processes have evolved from linear research and development (R&D) models to integrated, dynamic systems for managing the enterprise's innovation portfolio. In the 1980s and 1990s, classical strategic planning methods dominated, including SWOT analysis, PEST analysis, BCG and GE/McKinsey matrices, which made it possible to assess competitive positions and allocate resources. However, in the digital economy, these tools lose their effectiveness due to excessive static and failure to take into account behavioral factors.

Modern trends involve the integration of agile planning methods — Agile management**,** Design Thinking**,** Lean Innovation**,** Scrum, which are based on iterativeness, customer focus and quick response to changes [3]. Enterprises are increasingly implementing Digital Forecasting Systems and Big Data Analytics to justify innovative solutions [3]. The organizational aspect is also undergoing changes. If earlier innovation management was carried out within separate departments (R&D department), now there is a transition to network structures in which innovations are implemented together with partners, universities, startups and consumers. Economic instability, which manifests itself in fluctuations in exchange rates, changes in consumer demand, inflationary processes and political turbulence, creates new challenges for enterprises. It leads to increased uncertainty in the planning and implementation of innovative projects, complicates long-term forecasting, and requires prompt decisions. On (**Fig. 1**) we will highlight and present the main risks that affect

innovation activity.

Economic instability creates both risks and new opportunities for innovative development. Fluctuations in macroeconomic indicators, a decrease in investment activity, political uncertainty and the destruction of logistics chains require enterprises to increase the level of managerial adaptability. Under the influence of instability, traditional planning methods lose their effectiveness due to long decision-making cycles and low flexibility. Instead, scenario planning**,** crisis management**,** dynamic budgeting, and risk-based management become relevant. Such approaches allow you to form several alternative scenarios and choose the most optimal strategy depending on the situation. The role of human capital and managerial competencies is growing. Successful innovative companies form teams that are able to make quick decisions, experiment and learn from mistakes. Instability, therefore, acts as a catalyst for the formation of a new managerial culture focused on flexibility, self-organization and continuous improvement.

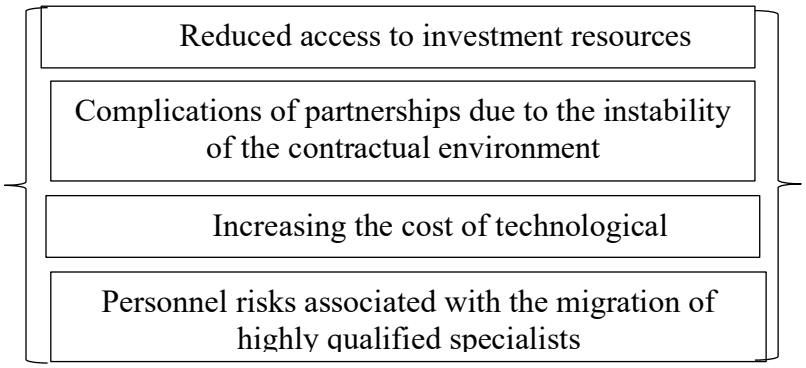

Figure 1. Main risks of influencing innovation activity

Source: [3]

In such conditions, tools for anti-crisis management of innovations, including scenario planning, risk management, financial modeling and adaptive strategies, are of key importance. It is important to form an Early Warning System, which allows you to quickly identify potential threats to innovative development. The transformation of management tools involves rethinking its functional structure and methods of application (**Tab. 1**).

Table 1 - The main directions of transformation

Direction	Характеристика
Digitalization of management processes (Intellectualization of management)	Allows you to use artificial intelligence and machine learning to analyze innovative solutions, to support decisions in the field of forecasting, market analysis, resource optimization.
Transition to flexible management systems (Digitalization of business processes)	Provides adaptability to rapid changes in the environment. Implementation of digital systems to automate planning, control and monitoring of the results of innovation activities.
Integration of environmental and social criteria (ESG approach) into the innovation planning process	Finds new opportunities to improve the situation, allows you to combine economic goals with environmental and social goals.
Flexibility and modularity of management systems	Enables the transition from centralized structures to decentralized command models with short planning cycles
Development of platform interaction	Forms interaction with external stakeholders, which creates added value and promotes joint development and forms an environment of open innovation and accelerates the commercialization of new products

Notes: grouped by authors.

Conceptually, such a transformation is based on a combination of strategic stability and operational adaptability. This means that enterprises must maintain a holistic direction of development, but be ready to quickly change tactical approaches depending on the situation. The proposed conceptual approach provides for the construction of an innovative management circuit that combines strategic vision, operational flexibility and digital analytics. It is based on the principles of adaptability, integration and result-orientation, which allows reducing risks and increasing the innovative capacity of the enterprise (**Tab. 2**).

The conceptual approach to building an innovative management circuit involves the formation of an integrated system in which strategic vision is combined with operational flexibility and digital analytics. This approach is based on the principles of adaptability, integration and result-orientation, which allows the enterprise to respond in a timely manner to changes in the external environment, optimize management processes and increase the level of innovation. Thanks to the use of digital tools, in particular analytical platforms and artificial intelligence technologies, management decisions are gaining greater evidence and accuracy. The innovation management circuit functions as a dynamic ecosystem within which strategic, tactical and operational elements operate in a coordinated manner. This creates conditions for reducing risks, increasing the efficiency of resource use and forming a culture of

constant innovation, which is a key factor in the sustainable development of the enterprise.

Table 2 - Conceptual approach to building an innovative circuit of business structure management

Concept element	Content / characteristics	Implementation principle	Expected effect
Strategic vision	Formation of long-term guidelines for the development of the enterprise, taking into account market trends, technological innovations and competitive environment.	Adaptability — the strategy must flexibly respond to changes in the external environment.	Increasing business model resilience and competitiveness.
Operational flexibility	Introduction of mechanisms for rapid adaptation of management, production and communication processes.	Integration is the coordination of strategic, tactical and operational decisions.	Reducing the time of decision-making, increasing the efficiency of managerial actions.
Digital Analytics	Leveraging analytics, AI, and Big Data to predict trends, risks, and opportunities.	Result-oriented — management decisions are based on evidence and KPIs.	Reducing uncertainty, improving the accuracy of forecasts and the effectiveness of decisions.
Innovative control circuit	An integrated system that integrates strategy, analytics and adaptive mechanisms for the development of innovations.	Synergeticism is the interaction of elements in a single digital analytical environment.	Increasing innovation capacity, minimizing risks, forming a flexible management model.
Culture of innovation	Creating an environment that supports creativity, experimentation and team interaction.	Leadership and staff engagement — supporting initiatives and developing competencies.	Increased motivation, increased teamwork efficiency, generation of new ideas.

Notes: grouped by authors.

Summary and conclusions. The study confirms that the evolution of management tools is a continuous process aimed at increasing the adaptability, efficiency and innovative capacity of enterprises. Economic instability is not only a threat, but also an incentive to improve management systems. The formation of new management mechanisms based on digital technologies, network interactions and the principles of agile management, which ensures an increase in the stability of business and its ability to self-development, was considered. It is determined that for the effective functioning of the innovation management system in conditions of economic instability, it is expedient to: form a portfolio of innovative projects with different

levels of risk; implement flexible planning systems with short cycles of strategy revision; apply digital transformation tools**,** in particular ERP, CRM, PLM systems for knowledge management; provide institutional training of personnel new management technologies; develop mechanisms of partnership and open innovation. It was found that enterprises that adapt management tools to new economic challenges in time demonstrate higher resilience and innovative productivity. Adaptation of management tools to conditions of instability involves the introduction of a number of managerial innovations: First, it is necessary to create a risk management system that includes the identification, assessment, monitoring and minimization of risks at all stages of the innovation process. Secondly, the use of integrated information and analytical platforms that provide data processing in real time is effective. Third, an organizational culture of innovation should be developed that encourages initiative, teamwork, and continuous improvement. An important role is played by the system of personnel training and advanced training, aimed at developing digital and managerial competencies. Successful examples of management toolkit transformation are demonstrated by enterprises that have implemented agile project management models**,** adaptive financial planning, and innovation labs (Innovation Labs) to test new ideas. Such practices allow you to combine stability with flexibility, which is a key factor for survival in a turbulent economic environment. Management transformation not only increases the flexibility of the enterprise, but also creates prerequisites for long-term sustainable development. Thus, the evolution of management tools in combination with transformative mechanisms of innovation management is the key to increasing the competitiveness of enterprises in the era of economic instability.

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