

ЕКОНОМІЧНІ НАУКИ

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DEVELOPMENT OF A MECHANISM FOR STRATEGIC MANAGEMENT OF SUSTAINABLE DEVELOPMENT OF REGIONAL ENTERPRISES

Klius Y.I., Fomenko D.V., Ivchenko Y.A.

РОЗРОБКА МЕХАНІЗМУ СТРАТЕГІЧНОГО УПРАВЛІННЯ СТІЙКИМ РОЗВИТКОМ ПІДПРИЄМСТВ РЕГІОНУ

Клюс Ю.І., Фоменко Д.В., Івченко Ю.А.

The successful implementation of innovation strategies of regional enterprises is determined by the parameters of sustainability of the enterprise as a mini-system and the parameters of sustainability of macro-, meso- and microeconomic systems of which it is an element. The study of economic development trends that determine the possibilities of transition to an innovative model and the peculiarities of the regional innovation system has shown that in order to intensify innovation processes and increase the sustainability of innovation systems, it is necessary to create a mechanism for strategic management of sustainable development of regional enterprises. In an unstable environment, it should be based on the principles of self-organization of complex systems in the process of their adaptation to the changes taking place. First of all, the principle of dynamic equilibrium, a prerequisite for compliance with which is the performance of the main functions in the innovation system by different subjects of innovation activity, which change at the stages of the innovation process. The range of research on strategic management of regional development is quite extensive, but given the current economic situation, the consequences of the pandemic and martial law, this issue needs to be given even more attention, because most regions of Ukraine are unstable and economically unprofitable, so it is necessary to consider special levers, directions that will help to strategically effectively manage regional enterprises and ensure their economic security.

The methodological basis of the article is a set of methods and principles of scientific knowledge, general and special methods and techniques used in the study. The theoretical basis of the study is the scientific works of

foreign and domestic scholars on sustainable development, economic security, and innovation. The information base is based on official statistics, reporting and accounting information of enterprises, resources and publications of the Internet, and the results of the author's own research. A mechanism for strategic management of sustainable development of regional enterprises has been formed, which includes a system of resources, methods and tools for influencing innovation processes and is based on the principles of self-organization of complex systems in the process of their adaptation to changes in an unstable environment and ensuring economic security, which will allow to coordinate the goals and directions of management of investment, operational and financial activities of enterprises in the region to ensure its sustainable development.

Keywords: sustainable development, innovation, economic security, management, enterprise

Introduction. Industrial enterprises provide other industries with the necessary equipment and tools; are a platform for the introduction of new innovative technologies; serve as an impetus for the development of educational services and the emergence of new educational programs demanded by production; provide jobs, contributing not only to employment growth but also to the growth of professional qualities of personnel. Therefore, in order for industrial enterprises to operate efficiently and in a balanced manner, bringing general

economic benefit not only in the present but also in the future, an appropriate mechanism is needed – a sustainable development strategy. Sustainable development has recently been studied at all levels: socio-economic programs and development concepts are being developed for individual enterprises and regions, as well as for the country as a whole. In this regard, and taking into account the innovative orientation of the economy proclaimed by the country's leadership, the methodological apparatus for sustainable innovative development of an enterprise is very relevant.

These circumstances, characteristic of the modern functioning of industrial enterprises, determine the fundamental role of managing the economic sustainability of industrial enterprises.

Analysis of basic research and publications.

The problems of sustainable development of business entities are the subject of many theoretical and applied studies. An important role in the scientific heritage of sustainable development was played by such scientists as R. Ackoff, I. Ansoff, P. Drucker, G. Kleiner, F. Kotler, A. Thompson. They viewed the development of enterprises as a result of the formation of a multi-level management system that allows to establish interrelations between the types and directions of their activities, areas of responsibility, resources, to ensure balanced and intensive use of potential, and to effectively implement external and internal reproduction processes. A significant scientific contribution to the development of a methodology for managing the sustainable development of social, economic, and environmental systems was made by the following, economic, and environmental systems were made by such scientists such as I. Blank, O. Vasylenko, V. Gerasymchuk, and O. Mnykh. The scientific foundations of sustainable development from different target aspects were devoted to V. Grosul, S. Derkach, and O. Zakharchenko devoted their works to the scientific foundations of sustainable development from different target aspects, C. Kozlovsky, L. Melnyk, S. Mishchenko, I. Tarasenko, A. Chernykh, who characterized the essence of sustainable development, based on the balance of enterprise sustainability and opportunities for its development. Despite the comprehensive study of the issues of ensuring sustainable development of business entities, further elaboration requires the identification of tools to influence the level of sustainable development of the enterprise and the priority areas of its activities that will facilitate the transition to a new qualitative level of development in the long term.

Therefore, the **purpose** of the article is to develop a mechanism for strategic management of the sustainable development of regional enterprises based on the study of its prerequisites

Materials and results of the study.

Implementation of innovative strategies characterized by increased risk is possible provided that the socio-economic system is sustainable and that there is a starting, basic innovation potential. Successful implementation of innovation strategies leads to an increase in sustainability and innovation potential. The innovation process is characterized by the targeted use and development of innovative potential to achieve a set of socio-economic goals, while the implementation of innovative projects is possible only if this potential is available. Thus, there are direct and reverse links between the sustainability and potential of the socio-economic system, on the one hand, and its investment activity and attractiveness, on the other hand [5].

In our opinion, the existence of feedback between investment attractiveness and investment activity dictates specific requirements for the principles, methods and tools for managing innovation development.

Most of the problems that hinder innovation activity cannot be solved without government involvement. The stability of the socio-economic system of the national economy is the most important factor in intensifying innovation processes not only at the enterprise level, but also at the regional level.

In most industrialized countries, the creation of a favorable economic climate for the implementation of innovative projects allows the state innovation policy to be a link between science and production. Agreeing with the opinion of a number of analysts, we note that one of the directions of implementation of innovation policy in the country should be, first, the creation of clusters of high-tech industries that act as growth points for the country's economy, second, reforming research institutions based on the integration of science, education and business, and third, attracting advanced foreign technologies [7]. The goal of the national innovation policy should be to create effective mechanisms for the development and use of domestic innovation potential, innovation infrastructure and the formation of a favorable investment and innovation climate. The state innovation policy is understood as a system of measures that would facilitate the intensification of innovation activities of economic entities; a part of socio-economic policy that defines the goals and

priorities of the innovation strategy, as well as the mechanisms for its implementation.

The state has been and still is the largest owner of high-tech production and the main consumer of high-tech technologies. Promotion of knowledge-intensive products with a high share of added value to the world markets is impossible without state support. It should be emphasized that national competitiveness is determined by the ability of the state to create and maintain a political and legal environment that promotes a sustainable process of value creation. In the absence of an innovation strategy and underdeveloped state institutions, innovative development of industrial enterprises in the region is impossible [2].

Today, industrialized countries are developing an innovation system characterized by the following features. Firstly, a research environment that has incentives to cooperate with the business environment; secondly, a competitive business environment that has incentives to innovate and the ability to adapt knowledge; thirdly, the existence of a mechanism for interaction between these two environments that ensures knowledge transfer, transformation of knowledge into competitive technologies.

Summarizing the above, we note that in order to intensify innovation processes and increase the sustainability of innovation systems of the enterprise and the region, it is necessary to improve the mechanism of strategic management of sustainable development of regional enterprises.

The mechanism for strategic management of sustainable development of regional enterprises (MSMSDER) is a system of resources, methods and tools for influencing innovation processes based on established principles and criteria. On the one hand, MSMSDER is the most active element of the overall economic management system, which includes organizational structures, management methods, forms of management and legal norms. On the other hand, it is a part of the national innovation system, which consists of innovative objects and subjects.

The purpose of the MSMSDER is to create innovation potential as an environment in which innovations are born, and to create the necessary conditions for their successful commercialization, dissemination and effective use in order to increase commercial, social and budgetary efficiency, sustainability and competitiveness of economic entities. The content of the MSMSDER is determined, firstly, by the peculiarities of modern innovation processes, and secondly, by the specifics of the innovation environment (large territorial extent; disproportions in the development of

individual regions). The characteristic features of modern innovation processes include the following.

The beginning of the innovation process is not always tied to scientific research and is not necessarily associated with basic research, research and development. This, in our opinion, is one of the differences between the interpretation of the concept of "innovation" and the broader concept of "scientific and technological progress." According to foreign researchers, innovations today are more likely to occur in response to a specific problem or opportunity of an enterprise. The impetus for the implementation of innovation strategies is the market demand and the subsequent adaptation of the enterprise to it, or the emergence of new opportunities for the enterprise and the "formation of its own market".

The role of science is fundamentally changing, acting not only as a source of innovative ideas, but also as the most important resource necessary for the effective implementation of all stages of the innovation process. In conditions of instability at any stage of the innovation process, there is often a need for additional research and experimentation.

The elements of the innovation process are connected by a qualitatively new type of direct and feedback links that change the structure and mechanism of the innovation process. The effectiveness of implementation of innovation strategies is determined by a set of feedbacks, the functional purpose of which is to ensure the integrity and increase the level of organization of innovation systems, their adaptation to external influences. Feedbacks work both within the system and are divided into short ones connecting the stages of the innovation process and long ones connecting it with the external environment: the market, consumers, suppliers, transmitting information about changing market needs to different stages of the innovation process.

The formation of the MSMSDER consists of the following stages: selection of management objects, goals for them and management evaluation criteria; management factors; methods of influence that affect the choice of resources; resources required to regulate and intensify innovation processes to ensure the achievement of the goal.

The MSMSDER is implemented at four interrelated levels: macro-level (country), meso-level (region, industry), micro-level (enterprise) and mini-level (individual enterprise units). At the macro level, the ISDSDS is based on the state innovation strategy and policy, the formation of the country's innovation potential and the creation of a favorable innovation climate through the

implementation of state innovation projects and programs. The tasks of the regional level coincide with the macro-level tasks listed above, but involve taking into account regional natural and climatic, socio-economic and other features. The elements of the ISDS at all levels are jointly aimed at developing industries with a high share of added value.

The effective functioning of the MSMSDER is determined by the system of its support, which includes regulatory and legal support; methodological support; organizational support; information support.

The experience of foreign countries in the field of innovation management shows that the management of innovation processes in the market is management based on self-organizing processes with indirect regulation of their development directions. The characteristic properties of innovation systems of an industry, region, or enterprise allow us to consider them as self-organizing, affecting the level of implementation of their functions through the mechanism of homeostasis, ensuring the dynamic equilibrium of the national innovation system as a whole. According to G. Hacken, self-organization is "the property of a system to acquire a spatial, temporal or functional structure without specific external influence". In accordance with the main provisions of the theory of self-organization, it is possible to formulate the principles of functioning of self-organizing innovation systems (Table).

The mechanism of self-regulation is based on positive and negative feedback between the managed and controlling parts of the system. The less regulated the program and structure of the managed object are, the higher is its ability to adapt to real conditions. It should be emphasized that a self-organizing system can function not only by reducing undesirable deviations in its parameters through negative feedback, but also by increasing the desired states through positive feedback. A model with negative feedback, when some factors go beyond the established range of values, is changed (supplemented) by positive feedback, allowing the system to be brought to the desired state. It should be emphasized that a characteristic manifestation of self-organization is the property of autonomy, which means that the system's reactions are determined mainly by its structure and internal features. The result of self-organization mechanisms is to maintain the system's adaptability, its readiness for environmental changes, and the ability to adapt is the main criterion for management. It should be noted that this fully

Table

Basic principles of functioning of self-organizing innovation systems

The principle of functioning	Essential characteristics of the principle of operation
The principle of dynamic balance	It is expressed in the preservation of the values of the main parameters of the system closely related to its core. At the same time, the degree of adaptation of the system to external conditions is high, and the realization of the objective function is most stable when the role of the core is played by a set of elements that changes (changes according to the stages of the innovation process) (technology parks, universities, financial institutions, enterprises). The main parameters of the system include two groups of elements, the violation of which leads to its destruction: - Structural components that form the core of the system, the destruction of which disrupts the realization of the system's function; - "prefixes" that can be destroyed, but the system will retain the level of realization of the target function
The principle of goal setting	Goals are the internal cause of self-development of self-organized systems. The implementation of innovative projects contributes to the growth of innovation potential. The source of self-movement of self-organized systems is inherent in the systems themselves, regardless of external influences (development of industries with a high share of added value)
The principle of feedback	It is the basis of the system's self-organization, as it ensures the integrity and interaction of the system with the environment
The principle of active reflection of the environment and reflection itself	It is an important condition for self-organization. The system's reactions are determined mainly by its structure, internal connections, and not by external forces and signals. The external environment at best triggers a chain of changes in the system
The principle of active transformation of the environment	It is realized on the basis of knowledge of objective laws in relation to the system's goals. Implementation of innovative strategies leads to the formation of new products and markets

correlates with the principle of permanence of innovations of leading enterprises, with innovativeness as one of the determinants of long-term success in the market.

The following should be noted regarding the feedback between the management and managed systems of the MSMSDER. The result of the activities of business entities at the micro level is their income, which forms the budgets of higher levels. The state activity in the innovation sphere is conditioned not only by the interests of social development, but also by the fiscal interest, since the basis of the state apparatus depends on the stability and solvency of business entities - taxpayers, which, in turn, are determined by the success of the implementation of development strategies, the most effective of which are innovation strategies.

Conclusions and proposals. In view of the above, the MSMSDER, which has a complex nature and systemic orientation, should be built on the principle of a self-regulating cyclic or polycyclic system of relations capable of maintaining its own existence through a moving specialization, which is fundamentally focused on interrelated macro-, meso- and micro-levels. The MSMSDER can be represented as a complex reproductive system of incremental value added that is self-organizing. The system-forming environment of the MSMSDER consists of the following components: substance and information circulating in the system; process as a mutual transformation of substances with inputs and outputs; system of connections or transfer of substance from the output of one process to the input of another. By combining innovative processes into a cyclic system, efficiency is increased and the combination is optimized with respect to the chosen criterion - increasing economic added value.

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**Клюс Ю.І., Фоменко Д.В., Івченко Ю. А.
Розробка механізму стратегічного управління
стійким розвитком підприємств регіону.**

Успішна реалізація інноваційних стратегій підприємств регіону обумовлена параметрами стійкості підприємства як міні-системи та параметрами стійкості макро-, мезо- та мікроекономічних систем, елементом яких він є. Дослідження тенденцій розвитку економіки, що визначають можливості переходу на інноваційну модель, та особливості регіональної інноваційної системи показало, що для активізації інноваційних процесів та підвищення стійкості інноваційних систем необхідне створення механізму стратегічного управління сталим розвитком підприємств регіону. В умовах нестабільного середовища має будуватися на принципах самоорганізації складних систем у процесі їх адаптації до змін, що відбуваються. Насамперед, принцип динамічної рівноваги, передумовою дотримання якого є виконання основних функцій в інноваційній системі різними суб'єктами інноваційної діяльності, що змінюються на стадіях інноваційного процесу. Спектр дослідження стратегічного управління розвитком регіону є достатньо великим, але враховуючи сьогоденню економічну ситуацію, наслідки пандемії і військовий стан, даному питанню необхідно приділити ще більше уваги, адже більшість регіонів України є нестабільними і економічно нерентабельними, тому необхідно розглянути особливі важелі, напрямки, які допоможуть стратегічно ефективно управляти підприємствами регіону та забезпечувати їх економічну безпеку. Методологічною основою статті є сукупність способів і принципів наукового пізнання, загальних і спеціальних методів і прийомів,

що використовувалися в дослідженні. Теоретичною основою дослідження є наукові праці зарубіжних і вітчизняних учених з питань сталого розвитку, забезпечення економічної безпеки, інноваційної діяльності. Інформаційною базою послужили офіційні статистичні дані, звітність та облікова інформація підприємств, ресурси й видання мережі Internet, результати власних досліджень. Сформовано механізм стратегічного управління сталим розвитком підприємств регіону, що включає систему ресурсів, методів та інструментів впливу на інноваційні процеси та заснований на принципах самоорганізації складних систем у процесі їх адаптації до змін нестабільного середовища та забезпечення економічної безпеки, що дозволить узгодити цілі та напрями управління інвестиційною, операційною та фінансовою діяльністю підприємств регіону задля забезпечення його сталого розвитку.

Ключові слова: сталий розвиток, інновації, економічна безпека, управління, підприємство

Клюс Юлія Ігорівна – доктор економічних наук, професор, завідувачка кафедри обліку і оподаткування СНУ ім. В. Даля, м. Київ.

Фоменко Денис Володимирович – докторант СНУ ім. В. Даля, м. Київ.

Івченко Юлія Анатоліївна – старший викладач кафедри публічного управління менеджменту та маркетингу СНУ ім. В. Даля, м. Київ.

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