

ECONOMIC SECURITY IN THE PROCESS OF INNOVATIVE DEVELOPMENT OF THE ENTERPRISE

- prof. Dr. Hab. Marina V. Resler - prof. Dr. Hab. Artur Y. Horbovyi

Abstract

The economic security of the enterprise and its innovative development as objects of management are still being investigated for the most part separately from each other. Security-oriented aspects of enterprise management are almost not considered of innovation development of industrial enterprises and in practice, industrial enterprises mainly use separate development tools that take into account the impact of the economic security factor. Hence the objective necessity treatment of theoretical and methodological principles of safe-oriented management at the innovative development of industrial enterprises, the practical implementation of which will contribute to increase the level of economic security of industrial enterprises in the process and as a result of their innovation development. The relevant up-to-date status of the questions led to the choice of the topic of research defined its priorities and objectives.

Keywords: economic security, innovation, enterprise security, management

Introduction

The essence of the security-oriented management of innovation development is conceptually determined by its focus on ensuring economic security in the process and as a result of innovative development of the enterprise. It should reflect the specific approach to managing the innovative development of the enterprise based on the existing methodology of management.

Theoretical and methodological principles of at the innovative development of industrial enterprises in the native economy are considered in the work of many specialists V. Hrynovoi, I. Zakharchenka, S. Illiashenka, O. Kuzmina, T. Lepeiko, M. Merkulova, N. Rud, L. Fedulovoi, S. Filyppovoi, S.Kharichkova, which essentially developed them. According to L. Fedulovoi, the management of the innovative development of the enterprise should be regarded as an independent activity, which have specific features and unlike traditional management, which is characterized by high instability and variability of all elements [1]. From the point

of view of the system-functional approach management of innovative development of the enterprise, it is defined as the “..function of the control subsystem, which through systemic influence secure economic stability and long-term competitiveness of the controlled subsystem by creating an innovative environment for the use, cultivation and the realization of innovative capability” [1].

Since innovative development involves not only the development of innovations (implementation of innovation activities), but also the formation of factors and conditions which is necessary for successful realization, one of the target functions management of innovation development is the accumulation of equity for innovation development - the formation and realization of innovative capability. Correct approach of L. Fedulovoi [1], which introduces the concept of “innovative capital”, is expanding the traditional component of innovation development - the innovative capability - into the triad “Innovative (material, labor, financial, information) resources - innovative capability - innovation capital”. Accordingly, management of innovative development of the enterprise is proposed to be regarded as “systematic management of innovative activities aimed at creating and ensuring the achievement of economic growth through the rational use, increase and distribution of innovation capability in order to transform it into innovative capital capable of providing innovative development of the enterprise - qualitative evolution enterprises in time, providing him with a stable competitive advantage and strategic flexibility. “

Among the management principles of innovation development mentioned: adaptability, dynamism, self-organization, self-regulation and self-development [2, 3, 4, 5, 6]; systematic, priority of innovation policy, strategic purposefulness, continuity of innovation activity, integration of potentials and scholarship [1, 7]. The principles of forming a system or mechanism for managing innovation include: systematic (integrity, structural, interdependence of the system and the environment, hierarchy, multiplicity of descriptions of each system), complexity, orientation mainly on the innovative way of development, balance of interests of subjects of the innovation process, “reasonable “Orientation of innovations to meet the needs and demands of consumers, alternative development options, justifiable risk (a compromise between the degree of risk and the expected result) flexible response “smart extreme” market position.

Despite the diverse views of specialists on the essence and principles of managing innovation, based on their critical analysis and the results of their own research, the following generalizations can be made:

1. the enterprise that chose the innovative way of development is the object of management from the standpoint of the system approach as an open socio-economic dynamic system, which is a subject to the influence of external and internal environment, and at the same time, is a subsystem of the higher-level innovation system (branch, regional, national, geological level);
2. the subjects of management of innovative development of the enterprise is his management (depending on the chosen organizational structure of management);
3. the objects of management of the first order are innovation activities (innovations, innovation processes, innovative projects, economic relations that arise between the subjects of innovation activity and the participants of the innovation market). It perceived as a tool for increase the efficiency of an enterprise, so, management of innovation activity is successful if it ensures competitiveness;
4. second-order management objects are innovative potential (financial, material, intellectual resources, personnel potential) and innovation environment (enterprise competence, infrastructure, marketing support, information provision, innovation climate, susceptibility to innovations, etc.). Innovative development as a result depends on the human potential - the availability of knowledge and competences, motivation to generate ideas, readiness and receptivity to innovation;
5. the target orientation of innovation development management is the competitiveness of the enterprise and the economic efficiency of its activity on the basis of innovation, which ensures long-term survival and sustainable development of the enterprise in a competitive environment. It is the principle of the priority of the innovative way of development, the corresponding innovation strategy and policy that distinguishes the management of the EIA from general management;
6. modern concepts of innovation development require changes in the functions and tasks of the management system of the EWP. Thus, the concept of open innovation requires the use of external search methods and the development of internal knowledge, their integration is for creation a combination of new knowledge that can be an innovative product, commercialization methods, and at the same time, methods for protecting intellectual resources at different stages of the innovation process. Concept of intellectual capital - methods of management of intellectual resources of the enterprise, with knowledge and competence of our staff. The concept of social responsibility - balancing

- the directions of innovation development in implementing technological and organizational innovations and principles of social responsibility;
7. innovation development management should be targeted, indicative, systemic (implemented by the system of IIRP, which is a subsystem of the general system of enterprise management), hierarchical (in terms of management levels - from strategic to operational), and adaptive (also provides flexibility and alternative response of the system to change of external and internal environment);
 8. the target orientation of the management of the IPP confirms the dual approach to the definition of innovation development, where innovation development as a process is the object of management in the context of innovation activity and innovation capability, and the target management result is innovation development as a result, which is reflected in the growth of the efficiency of the operation of the enterprise for account of a factor of innovation. According to economic growth indicators become indicators of innovation development - the result of influencing the functions of management - planning, accounting, analysis, control, motivation.

Management of economic security of an enterprise is also considered mainly from the point of view of the system approach, which is embodied in the concept of "system of economic security of the enterprise". Along with the principle of systemicity, among the key principles of the management of the UBP are: the rule of law, the rights and freedoms of citizens, centralized management, the integrated application of resources and funds, timeliness, coordination of interaction with authorities and leadership, improvement, continuity, economic feasibility and reasonableness, stable growth of value enterprises (within the concept of cost-oriented management) and efficiency of using the resources of the enterprise (within the traditional resource end epics) [7].

By the nature of the management of economic security, the enterprise is a greater extent preventive, where prevention is a guarantee of timely warning of threats, and indicative, which involves controlling the status of the EBP system of indicators. This is observed in the definition of the goals, tasks and functions of economic safety management proposed by L. Gnilitkaya [8] (table 1).

As can be seen, according to the target measure (purpose) for ensuring effective functioning and development, management of innovation development and the economic security of the enterprises are substantially almost identical, which in our opinion is incorrect. The difference in the management of the innovative development of the enterprise is the achievement of the stated goal precisely at

the expense of the innovation factor, where the increase of the level of innovation (activation of innovation activity) should ensure economic development and increase the efficiency of the operation of the enterprise.

Tab. 1 The purpose, task and functions of management economic safety of the enterprise

Control elements	Brief description
1. Purpose	Sustainable and effective functioning of business in today's conditions and ensure high potential its development and growing well into the future by preventing and address threats.
2. Task	sustainable financial and economic condition of enterprise; control of effective using corporate resources subjects in any business; identify, at an early stage problem areas in activities of the enterprise; neutralization crises and avoiding business failure; maintaining interests balance all groups of stakeholder as inside enterprise and beyond.
3. Functions	General functions specific for any control system - the formation of complete and reliable information necessary for the adoption of adequate, effective and legal decisions; Creation of a system information and analyses ensure diagnostic condition of economic security business, that would allow to determine the extent of destructive influence economic environment on his financial and economic priority; Creation of a system rewards and incentives for managers to adopt affective management decisions and system of sanctions for failure their actions; System organization of control activities aimed at detect violations and inconsistencies require conditions into management decisions.
	Specific functions of the economic security management system
	developing of a strategy for providing enterprise economy security based on the strategy of its long-term and going on planning; management of corporate resources of the enterprise; providing financial stability and solvency of the enterprise; management of business risks to minimize their consequences; Innovation management in the field of economic security

Source: on the basis of [8]

The difference between the management of the company's economic security is to achieve the goal by preventing and neutralizing threats, which will promote the most effective use of resources. At the same time, innovation generates additional threats and risks, and its growth depending on the type of innovations can cause rapid growth of innovation risks (the most effective are radical technological

(process) and derivative product innovations from them, but they are also the most risky ones).

Consequently, the identified methodologies, as well as the corresponding management subsystems, are interconnected in the whole system of enterprise management through common targets and risk management subsystems, the objects of management in which there are risks of different composition and nature.

In R & D management methodology, the risks of innovation development (innovative risks) are identified only with the risks of innovation (from the point of view of the process approach to innovation development), which include, in particular, the risks (threats) of «internal immunity» and «non-commercials» of innovations, and consequence of financial loss or other kind (social, ecological, etc.) inefficiency of innovation activity. Innovative risk is defined as the probability of losses that arise when an enterprise invests in the production of new products (services) that may not find a place on the market [10, 11].

In the methodology of management of the EBP, the objects of management (prevention, control, neutralization) are threats and risks of entrepreneurial activity that arise as a result of uncertainty (negative) influence of external (political, regulatory, macroeconomic, sectoral, environmental, social, etc.) and internal (resource, techno-technological, organizational-management, financial-economic, etc.) factors.

Both methodologies within the existing theories of innovation management development and economic security of enterprises coincide in that development as a positive qualitative changes in the state of the enterprise is directed and neutralization of threats, minimization of risks, ensuring economic security. But in none of the methodologies, the threats and risks of innovation development from the standpoint of the result are not defined, namely the threats and risks arising from the increase of innovative potential, economic growth and increase of efficiency of the enterprise activity, strengthening of its competitive positions and investment attractiveness as a result of successful innovation activity. At the same time, the success of enterprises that chose the innovative way of development, characterized by stable rates of economic growth, higher than the average level of efficiency, etc., creates additional threats, such as increasing the «attention» of competitors, which manifests itself at the risk of raider hijacking, theft of innovation knowledge, enticing staff that is their bearers, etc.

Given that the enterprise that chose an innovative way of development has the same business risks as any enterprise, one of the typical classifications of business threats and risks should be supplemented in terms of threats and risks of innovation and innovation development (Table 2 .)

Tab. 2 Classification of threats and risks of entrepreneurial activity of the innovative-active industrial enterprise - factors of economic security

Indicators	Species	
1	2	
Risks		
1.	Threat placement as to object	Inside, outside
2.	The moment of origin and existence	Real (actually), potential
3.	Frequency of occurrence	Constant, random
4.	The degree of obviousness	Available, hidden
5.	Objectivity of existence	Realistic, fictitious
6.	Influence on the object	Active, passive
7.	Scope of appearance in the external environment	Foreign economic, state security, military, internal political, economic, social and humanitarian, scientific and technological, ecological, informational.
8.	Scope of emergence in the external economic environment	Foreign economic, state security, military, internal political, economic, social and humanitarian, scientific and technological, ecological, informational.
9.	Scope of activity in the enterprise	Threats of usual activity (operational, investment, financial); Threats to innovation (innovation-operational, innovation-investment, innovation-financial).
10.	Signs of development	Threats of activity (factors hindering the activity and development of the enterprise); The threats of development (the reaction of external and internal environment to the economic development of the enterprise).
Risks		
11.	Nature of occurrence	Natural, unnatural, technogenic, born of people
12.	Duration in time	Instant, long lasting, permanent
13.	The scale of manifestation	Local, local, territorial, regional, cross-border
14.	Frequency of occurrence	One-time, multiple
15.	Opportunity of insurance	Insured, unsafe, partially insured
16.	Forecast of occurrence	Predictably, not predicted, partially forecasted
17.	Ability of prevent	Prevents, improperly, partially prevented
18.	The nature of economic consequences	Without consequences, permissible, critical, catastrophic
19.	Scope of manifestation in the external environment	Political, legal, economic, financial, industrial, sectoral, investment, innovation, ecological

20. Sphere of manifestation in the internal environment	Intra-system (enterprise-systems), financial, material, technical and technological, intellectual, personnel, information, image
21. Type of activity	Normal, extraordinary, innovative.
22. Kind of economic development	Extensive development, intensive development, innovation development

Innovative development, from the position of the process and from the standpoint of the result, is characterized by qualitatively different threats and risks. If the first arises in the process of implementing innovation, then others - due to its success.

Consequently, the definition of innovation risks of an industrial enterprise, as containing the risks of innovation, which determine the probability of inefficiency (loss) of innovation activity, and the risks of innovation development, which determine the likelihood of losses in the event of the success of innovation activities (innovation development - the result), needs to be clarified. caused by perturbations of the environment in response to the company's economic growth. Characteristics of typical innovative threats and risks are shown in Table 3.

Tab. 3 Brief description of innovative threats and risks of an industrial enterprise

Innovation activity (innovation development - process)	Innovative development (innovative development-result)
1	2
Threats to innovation	The Threat of Innovation Development
Innovative-operational (R & D sphere, introduction of process innovations, production and sales of product innovations, innovations in marketing and management organization, provision of innovation activity and innovation potential (except financial component); Innovation-investment (investment support for innovation); Innovative-financial (sphere of financial relations with counteragents (creditors, borrowers, in the process of innovation activity);	- Competitive (available and hidden reaction of competitors in response to economic growth and strengthening of market positions of the enterprise); - market (reaction of financial markets); - intra-system (reaction of management system and enterprise managers); - personal (reaction of personnel); - information (reaction of the information environment, preservation of information resources); - criminal (reaction of the criminal environment); - foreign economic (reaction of regulators and competitors of foreign markets);

Risks of innovation activity	Risks of innovation development
<ul style="list-style-type: none"> - risks (ineffective strategy of innovation activity, ineffective organization of work of the units involved in innovation activities, and interrelationships between them, etc.); - marketing risks (ineffective selection of marketing innovative strategies, false choice of target segment); product risks (inefficient selection of appropriate technologies, resource providers, contractors, etc.); financial risks (lack of funds necessary for the implementation of innovation activities, deterioration of the financial state of the enterprise, etc.); risks of personnel management (inability of full-time employees of the enterprise to independently realize an innovation project, insufficiency of personnel potential, etc.); the risk of the immutability of innovations (the internal resistance to the implementation of innovation); project risks (risks of false choice of innovative projects, the risk of failure of an innovative project with a sufficient level of financing); the risk of intellectual property rights; - the risk of causing losses to third parties in the process of innovation activity; - risks of export of innovative products (currency, customs, compliance with quality standards, etc.); - the risk of increasing competition in the target segment (outsourcing competitors to market the same innovation product, or the application of the same technology, etc.). 	<ul style="list-style-type: none"> - the risks of unfair competition (competitive pressure by price policy (dumping), lobbying their own interests in the regulatory environment, behavior in the financial markets, espionage, measures for remuneration of staff, etc.); - risks of financial markets (fluctuations in the value of securities of an enterprise in financial markets due to the growth of their profitability); - risks of dividend payments (the reaction of holders of ordinary shares to development may be in the conditions of growth and immediate payment of dividends); - risks of management scale (excessive growth of the management system and increase of unit costs of its maintenance); - risks of reorganization (separation of separate structural subdivisions or project teams, absorption); - risks of unexpected reaction of personnel (pressure of criminality, competitors, personal peculiarities); - risks of loss of personnel (the bearers of innovative knowledge and competencies) involved in innovation activity as a component of intellectual capital); - risks of intellectual assets (loss of unregistered intellectual property objects, the flow of confidential information, „cyberattacks“ on information resources and enterprise repositories); - risks of the information environment („information attacks“ in the mass media, social networks, etc.); - The risks of criminal actions against assets and personnel of the enterprise; - risks of access restrictions on external markets (by regulators or competitors).

B The significance of the identified threats and risks in the context of the life cycle of a particular innovation (innovation project) or the life cycle of the enterprise that chose the innovative way of development, is distributed as follows:

1) the risks of innovation activity are more significant in pre-design studies and trials, commercialization and market launch, while the risk of innovation development involves more risk of loss of intellectual potential (information, knowledge, personnel);

2) the risks of innovation development are more significant at the stages of growth and sustainability (maturity), and the most probable and significant at the maximum of the life cycle curve.

Conclusion

Therefore, measures to prevent and minimize risks in order to maintain and ensure the economic security of an enterprise are necessary not only in the process of innovation activity (innovation development-process), but also in the state of innovation development - the result.

This confirms the expediency and necessity of distinguishing the security-oriented management of the innovative development of an industrial enterprise as a separate type of management activity within the framework of an innovation management system aimed at ensuring a satisfactory level of economic security in the process and as a result of innovation development. This is the direction and defines its purpose.

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Contacts

prof. Dr. Hab. Maryna Resler
Head of the Department of Accounting, Taxation and Marketing
Academy of Economic Sciences of Ukraine
Mukachevo State University
Uzhorods'ka str. 26, 89 600, Mukachevo, Ukraine
E-mail: reslermarina76@gmail.com

prof. Dr. Hab. Artur Horbovyi
Head of the Department of Information Activity and Documentation
Academician of Slovak Academy of Agricultural Sciences
Academician of Economic Sciences of Ukraine
V. I. Vernadskyi Taurida National University
01042, I.Kudri,33, Kyiv, Ukraine
E-mail: horbovyia@gmail.com