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## THE IMPACT OF INNOVATION RISKS ON THE ECONOMIC SUSTAINABILITY OF REGIONAL ENTERPRISES

**Summary.** Cardinal changes in the socio-economic environment have caused new rules of functioning of economic entities and introduced the need to manage new risk factors in the activities of enterprises. Manufacturers have faced the need to carry out entrepreneurial activities in conditions of information uncertainty, unstable economic environment, widespread ambiguity and variability of legislation. In our country the sources of risk are not only unpredictability and unpredictability of market conditions, supply and demand, prices, preferences and solvency of consumers, but also inconsistency and often contradictory actions of state and local authorities to establish legal norms for entrepreneurship. In the situation of market competition, the analysis, assessment and management of the impact of innovation risks on the economic sustainability of enterprises in the region acquires an independent theoretical and applied significance. The solution of this problem in relation to the current conditions of functioning requires additional system-targeted comprehension of not only world, but also domestic experience. Despite the significant sectoral differences of domestic industrial enterprises, when determining their risk resistance, the general provisions of official methods of diagnostics of financial condition are often used, which, in our opinion, despite the undoubted validity of such an assessment, cannot provide the necessary practical results that take into account the specifics of functioning of the analyzed business entities. In modern realities, industrial enterprises should independently determine the strategic line of their development and bear responsibility for the decisions taken. Insufficient attention on the part of the management of domestic industrial enterprises to the problems of determining risk tolerance and the development of comprehensive risk tolerance management programs can lead to significant losses that destabilize the functioning of enterprises or, in the worst case, to their bankruptcy in case of a risk situation. It is from the practice of modern economic management comes the need to develop specific methodological approaches to assessing the impact of risk on the economic sustainability of enterprises in the region.

**Key words:** economic sustainability, innovation activity, risk, impact, indicators, enterprise, region.

**Formulation of the problem.** In today's business environment, innovations and innovative activities are becoming increasingly important for the country's economic development and for ensuring the economic sustainability of industrial enterprises, as they are one of the basic elements of an effective strategy and an important tool for creating and maintaining competitive advantages of enterprises. The importance of innovation activity as a driving factor of stable economic growth remains. The influence of these trends is further enhanced by the transition to a market economy and the financial and economic crisis, which has exacerbated the need to use intensive ways of economic development. Therefore, the study of the impact of innovation activity and the risks associated with it on the economic condition of industrial enterprises is relevant.

**Analysis of recent achievements and publications.** Research on theoretical and practical aspects of risk management at the enterprise is significant and includes scientific works of well-known Ukrainian and foreign scientists, including: V. Apopiy, A. Algina, I. Balabanova, G. Bashnyanin, O. Bila, I. Blank, V. Granaturov, G. Velykoivanenko, E. Velychko, V. Vitlinsky, L. Donets, V. Zagorsky, S. Ilyashenko, V. Cherkasova, O. Ustenko, E. Utkina, A. Mazaraki,

N. Mashina, B. Mizyuk, S. Nakonechnyi, G. Kleiner, V. Tochylin, M. Khokhlova, K. Hladen, A. Shtefanych, O. Yastremska and others, whose works are devoted to the study of certain aspects of the essence of risks, their analysis, identification of factors and causes of its occurrence and management. However, the issue of the impact of innovation on the economic sustainability of an industrial enterprise is still open.

The **purpose** of the research is to determine the impact of innovation risks on the economic sustainability of an enterprise and to propose measures to control them.

**Presentation of the main material.** The impact of innovations on the economic sustainability of regional enterprises can be expressed as follows: the use of new technologies improves the quality and other properties of manufactured products, which affects the competitiveness of these products, which, in turn, is inextricably linked to the economic sustainability of the enterprise. The application of innovative approaches in management and marketing leads to an increase in the efficiency of resource use, which has a positive impact on cost reduction. Effective use and combination of factors influencing the economic sustainability of the region's enterprises allows to maximize their positive impact and reduce

the negative impact. Continuous modernization of production and business, based on the use of an innovative development model, allows enterprises to respond quickly to competitors' innovations to maintain performance at the planned level and maintain economic sustainability. Research and development contributes to the further forecasting and development of innovations; continuous and successful implementation of innovative projects gives the company an image of a flexible and innovative company, which is a component of its competitiveness and affects its economic sustainability.

It is established that the impact of innovation on the economic sustainability of regional enterprises is not always positive. Since innovation is always based on a change that disrupts the stable equilibrium between the elements of the system and leads to an imbalance between them, it is necessary to take into account all the risks of innovation. This means that innovation activities are quite risky. In large organizations, this risk is usually much lower, as it is covered by the scale of ordinary business activities (well-established and often diversified). Unlike large organizations, small ones are more exposed to risk. This situation is influenced by the dependence of enterprises on fluctuations in the external environment and the specifics of innovation activities.

The level of risk in innovation is evidenced by the fact that, on average, only one or two out of every ten venture capital firms succeed. However, high risk is accompanied by high compensation: the possible rate of return on the implementation of innovative projects is much higher than the usual rate of return obtained in other types of business activities. This is what allows the innovation sector to exist and develop.

The study of the peculiarities of the work of a significant number of enterprises in the region when introducing innovations allowed us to summarize this information and determine the nature of innovation risks in the activities of enterprises.

The Ukrainian language dictionary defines risk as a possible danger of something and as an action at random that requires courage and hope for a happy outcome [3].

Risk is the possibility of such consequences of an approved decision that the goals are not fully or partially achieved [5].

Risk in innovation can be defined as "the probability of losses arising when an organization invests in the production of new goods and services, in the development of new equipment and technologies that may not find the expected demand in the market, as well as when investing in the development of management innovations that will not bring the expected effect" [4].

The nature of innovation risks in the context of the formation of a market economy is determined by such factors as:

- insufficient state regulation of innovation activities, inability to predict changes in legislation in advance;
- a strong role of random factors of interaction with the external environment; dependence of the enterprise on the external environment, which is more dynamic than the internal environment of the enterprise;
- actions of owners who do not focus on the duration of their business and do not have an innovative orientation;
- competition, which sometimes takes risky forms;
- the spread of randomness and unpredictability to all spheres of life and activity;
- poor preparation of enterprise personnel to work in crisis and uncertainty;
- high rates of development of the world market, global changes in information technology, which have not yet become the basis for innovation for most enterprises.

Innovation risks can be divided into:

- objective ones, which are related to the size of the company and are caused by its industry, peculiarities of the economy and legal regulation of innovations;

- subjective, related to ineffective management of innovation activities at the enterprise.

Unlike other types, innovation risks can also be classified by stages of the innovation process [4]:

- potential risks at the stage of choosing the directions of innovation activity; the negative consequences of this risk can be particularly large;
- at the stage of development of the innovation strategy, risks associated with incorrect assessment of the strengths and weaknesses of the innovation potential of the enterprise, threats and opportunities;
- risks at each stage of innovation associated with internal and external obstacles (risk of insufficient funding, risk of non-fulfillment of business contracts, unforeseen expenses and reduced revenues, etc.);
- marketing risks of selling the results of innovation activities;
- risks of increased competition, including legal and illegal imitation of innovations patented by the company by competitors;
- risks associated with insufficient staffing levels;
- risks associated with securing ownership of an innovation project.

In addition to the above-mentioned types of risks, the innovation activities of enterprises are affected by risks typical of any type of business activity, such as political and financial risks.

Taking into account risk and uncertainty factors increases the cost of projects, although sometimes it seems that the risks are so small that it is not important to take them into account. Nevertheless, losses due to risk can reduce the effectiveness of any project to zero.

Therefore, one of the goals of implementing different variants of innovation strategies is to avoid or reduce risk. To do this, it is necessary to implement measures to control innovation risks. It is impossible to completely avoid risk in innovative entrepreneurship, since innovation and risk are two inter-related categories.

Therefore, there are ways to control innovation risks [5], which can be divided into the following main groups (Figure 1).

#### 1. Group of methods of risk compensation.

Diversification of innovation activities. This method consists in distributing the efforts of developers (researchers) and investments to implement various innovative projects that are not directly related to each other. If, as a result of unforeseen events, one of the projects is unprofitable, the other projects may be successful and generate profit.

However, in practice, diversification can not only reduce but also increase the risk of innovation if an entrepreneur invests in an innovation project that is directed to an area of activity in which his knowledge and managerial skills are limited.

Risk insurance will also allow the company to control losses associated with unfavorable events (insured events). With the help of insurance, an enterprise can minimize almost all property, as well as political, credit, commercial and pro-



Figure 1. Groups of innovation risk control measures

duction risks. However, as a rule, risks associated with the negligence of partners are not subject to insurance. This method of minimizing risk has a number of limitations, including the high premium set by the organization when entering into an insurance contract, as well as the fact that some risks are not insurable.

#### 2. A group of risk distribution methods.

The transfer of risk by concluding contracts is the next method of controlling the risk of innovation activities. If the implementation of any work on an innovation project is very risky and the magnitude of the possible risk is unacceptable for the innovation organization, it can transfer these risks to another organization that is in a better position to reduce losses or control risk factors. The transfer of innovation risk is usually carried out by drawing up the following types of contracts [6]:

- construction contracts;
- rental of machinery and equipment (leasing);
- contracts for the storage and transportation of goods;
- sales, service and supply contracts;
- factoring agreement (financing against the assignment of a monetary claim – the transfer of credit risk by the organization allows to obtain a 100% guarantee for the receipt of all payments, thus reducing the credit risk of the organization);
- exchange transactions that reduce the risk of supplying an innovative project in the context of inflationary expectations and the lack of reliable operational procurement channels.

#### 3. A group of risk localization methods.

This method is used in cases where it is possible to isolate and identify the sources of risk quite clearly and specifically. By identifying the most economically secure stage or area

of activity, it is possible to make it controllable and thereby reduce the overall level of risk. For this purpose, large industrial companies usually set up venture capital divisions or venture capital subsidiaries.

#### 4. A group of methods for avoiding risks.

In some cases, the most effective way to avoid negative consequences or reduce the level of risk in innovation activities is to take direct management actions to address risk factors. Such measures contribute to the success of the entire enterprise:

- strategic planning of innovation activities;
- thorough analysis of the innovation project and assessment of own capabilities;
- checking the prospective partners in the innovation project;
- monitoring of the socio-economic and legal environment;
- active marketing;
- selection of personnel involved in the implementation of innovation activities;
- flexible management of innovation activities based on operational control;
- ensuring the economic security of the enterprise as a whole.

**Conclusions.** The considered methods of controlling innovation risks will help to reduce the possible negative impact of innovation attractiveness on the sustainability of the enterprise. We believe that the choice of a particular method depends mainly on the manager's experience and the company's capabilities. At the same time, to achieve a more effective result, as a rule, one should use not one, but a combination of risk control methods at all stages of implementation of innovation projects. The formation of such sets depending on various factors is a further area of research.

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### ВПЛИВ ІННОВАЦІЙНИХ РИЗИКІВ НА ЕКОНОМІЧНУ СТІЙКІСТЬ ПІДПРИЄМСТВ РЕГІОНУ

**Анотація.** Кардинальні зміни в соціально-економічному середовищі зумовили нові правила функціонування підприємств регіону і привнесли в їх діяльність необхідність управління новими факторами ризику. Виробники зіткнулися з необхідністю здійснювати підприємницьку діяльність в умовах інформаційної невизначеності, нестійкості економічного середовища, повсюдної неоднозначності та мінливості законодавства. У нашій країні джерелами ризику стають не тільки непрогнозованість і непередбачуваність ринкової кон'юнктури, попиту і пропозиції, цін, уподобань і платоспроможності споживачів, а й непослідовність та, дуже часто, суперечливість дій органів державної та місцевої влади щодо встановлення правових норм для підприємництва. У ситуації ринкової конкуренції аналіз, оцінка та управління впливом інноваційних ризиків на економічну стійкість підприємств регіону набуває самостійного теоретичного і прикладного значення. Розв'язання цієї проблеми стосовно нинішніх умов функціонування потребує додаткового системно-цільового осмислення не тільки світового, а й вітчизняного досвіду. Незважаючи на значні галузеві відмінності вітчизняних промислових підприємств, при визначенні їхньої ризикостійкості часто застосовують загальні положення офіційних методик діагностики фінансового стану, що, на наш погляд, за безсумнівної обґрунтованості такої оцінки, не може забезпечити необхідних практичних результатів, які б враховували специфіку функціонування аналізованих суб'єктів господарювання. У сучасних реаліях підприємства регіону повинні самостійно визначати стратегічну лінію свого розвитку і нести відповідальність за прийняті рішення. Недостатня увага з боку керівництва підприємств регіону до проблем визначення ризикостійкості та розроблення комплексних програм управління ризикостійкістю може призвести в разі реалізації ризикової ситуації до істотних втрат, які дестабілюють функціонування підприємств або, у гіршому разі, до їхнього банкрутства. Саме від практики сучасного господарювання йде потреба в розробленні конкретних методичних підходів до оцінки впливу ризику на економічну стійкість підприємств регіону.

**Ключові слова:** економічна стійкість, інноваційна діяльність, ризик, вплив, показники, підприємство, регіон.