

METHODS AND METHODS OF RISK INSURANCE FOR AN INNOVATIVE PROJECT

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Annotation. Insurance, as a type of entrepreneurial activity, is currently progressing rapidly. This is due to the fact that in an emerging market economy, the role of insurance as a basic element of the market infrastructure is very important. Market participants strive to create financial guarantees for themselves and thereby protect themselves from negative consequences. The article discusses the main risks that the company's management may face at various stages of its implementation. The cost of risk may increase as the project progresses. To minimize losses, a timely detailed risk analysis and elaboration of measures to reduce their negative impact are necessary. To reduce losses and increase profitability, a tool is used – the project risk register.

Keywords: insurance activities, social insurance, occupational risk, disability, disability, the object of insurance. advantages, disadvantages, analysis, method, principles of insurance, monetary funds of individuals and legal entities, special reserve funds (insurance funds), losses and losses.

I. INTRODUCTION.

The most important way to ensure effective protection of an entrepreneur's interests in the course of his activities is to insure business risks (risks of innovative projects). Insurance is aimed at protecting entrepreneurs from possible unforeseen negative circumstances and factors that prevent them from achieving their intended goal or making a profit. Due to the specifics of market relations, it becomes a means of protecting entrepreneurs from adverse changes in the economic environment. Insurance in this case helps to streamline the financial and legal relationships between different market participants.

An innovative project is a complex device combined with resources, deadlines and performers, which is aimed at achieving goals in important areas of business and economic development. A distinctive feature of innovative projects is the highest risk in comparison with other projects. Future-oriented projects, i.e. those that develop and introduce new products or services to the market, always have uncertainty in terms of achieving economic results, therefore they have high risks. Risk is the probability of the origin of a negative phenomenon, as a result of which the expected effect of the innovation process is not achieved. There are two quantities that characterize risk:³¹ the degree of risk (the possibility of the origin of such an event) and the measure or price of risk (probable losses in such an event). The main task in innovation risk management is to minimize losses related to emerging inconsistencies.

Modern economies rely heavily on innovation to propel technical advancement, boost productivity, and open up new markets and possibilities. However, there is always

³¹ Денисюк С. П. Правовое регулирование договора страхования в Российской Федерации (вопросы теории и практики) / С. П. Денисюк // Вестник СанктПетербургской юридической академии. 2020. № 3 (48). С. 51–55.

some degree of uncertainty along the way to creativity. Innovative initiatives frequently operate in uncertain contexts with a wealth of operational, financial, legal, and market risks, ranging from the creation of ground-breaking innovations to the commercialisation of unique goods and services. For investors, entrepreneurs, and organisations working to realise fresh ideas, these uncertainties present serious obstacles. Innovation cannot exist without risk. There is a significant chance that new projects may fail, whether as a result of issues with technological viability, unstable market acceptability, fast changing regulatory frameworks, or unproven business strategies. Effective risk management is therefore not just recommended, but also necessary. Risk insurance stands out as a crucial tactic to shield stakeholders from the financial repercussions of unanticipated occurrences among the several methods available for controlling such risks. For creative initiatives, risk insurance entails identifying, evaluating, and transferring certain risks to insurance companies in return for a premium. Innovative endeavour insurance has to be far more complex and flexible than standard insurance, which usually covers predictable and well-understood risks. This is because the technology and business models involved are distinct and frequently unheard of. In order to create policies that appropriately handle the unique hazards connected to innovation, insurers and project managers must work closely together. A variety of strategies and tactics have been developed over time to insure risk in the context of innovation. These techniques range from more specialised mechanisms like performance guarantees, intellectual property insurance, product liability coverage, and even parametric insurance solutions to more traditional insurance instruments like property, liability, and business interruption plans. Furthermore, alternative risk financing instruments including risk retention groups, captives, and public-private insurance partnerships have become useful additions to conventional insurance. The goal of this essay is to present a thorough analysis of the many techniques and strategies for risk insurance that are specifically designed for creative enterprises. It will look at the kinds of risks that are usually present in these kinds of endeavours, talk about how normal insurance can't adequately cover these risks, and look at creative insurance models and successful best practices. It will also explore the changing role of insurance in fostering innovation ecosystems, emphasising the ways in which insurers are adjusting to the quickly shifting technology world. Innovators may increase the possibility of long-term success, draw in investment, and better protect their businesses by comprehending and carefully using the right insurance techniques. The ultimate objective is to foster innovation via resilience and prudent risk-taking, not only to lessen loss.

II. LITERATURE REVIEW.

There are many approaches to risk classification. Of particular interest is the classification of entrepreneurial risk by I. Schumpeter, who identifies two types of risk:³²

- the risk associated with a possible technical failure of production, this also includes the risk of loss of benefits caused by natural disasters;
- the risk associated with the lack of commercial success.

³² Натальин А.А. Мировой опыт страхования предпринимательской деятельности России: проблемы, противоречия, перспективы [Текст] / А.А. Натальин // Экономика и экономические науки. Вестник Волжского университета им. В.Н. Татищева. – 2013. - №4 – С. 60-67.

The decision tree method is designed to determine the best option for innovation based on calculations of the probabilities of the results obtained for each of the options. In this method, an extensive scheme is formed that shows the sequence of actions and the evaluation of results, taking into account the probabilities of their achievement.³³

The Monte Carlo method is the study of statistics on the implementation of similar projects in similar organizations. The analysis provides more accurate data on the effectiveness of innovation activities, which serves as the basis for the organization of simulation models.³⁴

The expert assessment method is based on the judgments of expert experts evaluating an innovative project. The most common expert methods are the ranking method, the point method, the pairwise comparison method, and the Delphi method. To reduce the subjectivity of the assessment, the result is defined as the weighted average of all expert assessments.³⁵

III. METHOD.

The study of the theoretical problems of business risk insurance is becoming particularly relevant in the country's transition to a developed market economy. The development of the norms of domestic insurance law allows Uzbek entrepreneurs to feel confident, brings stability to their activities, which is undoubtedly positive both for the activities of the entrepreneur himself and for the economy as a whole.

Despite the current trend in the Uzbek economy to spread the popularity of risk insurance for innovative projects, in general, the insurance system functions extremely unstable and leaves much to be desired, unlike insurance systems presented abroad.

In fact, there is currently no general classification of the risks of innovative projects, which makes it difficult for the company to continue operating, and the factors of occurrence, methods of prevention, and methods of risk management have not been fully studied. Due to the high rate of macro risks (economic, political, social, etc.) in Uzbekistan, the success of an innovative project is largely dependent on the effectiveness of risk management.

The analogy method is based on the analysis of data on similar projects implemented in similar conditions. When using this method, errors and possible problems inherent in such projects are revealed. Based on the results of the analysis, scenarios for the implementation of innovation activities are drawn up.

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³⁴ Денисюк С. П. Договорное право: учебное пособие / С. П. Денисюк, А. Е. Толстова. — Санкт-Петербург : АНО ВО «СЮА», 2020. — 108 с.

³⁵ Иоффе О. С. Обязательственное право / О. С. Иоффе. Москва: Юридическая литература, (дата обращения: 22.09.2023).

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IV. ANALYSIS.

Risk is an integral part and attribute of any business project. The higher the risk, the greater the possible profit. This statement is no exception for innovation activities, in which the probability of adverse consequences and losses is many times higher than in a conventional commercial project that is not innovative. However, the level of possible profit offsets the degree of risk. Nevertheless, modern enterprises are increasingly basing their activities on innovation.

Innovation risk may arise as a result of:

- introducing a cheaper product or service to the market compared to those already available. In this case, investments bring temporary maximum profit as long as the company introducing the innovation is the only owner of such technology. Thus, there is a risk of an erroneous assessment of the demand for a product or service.;
- creation of a new product (service) using old technologies and based on old resources. Non-compliance with the declared quality of the new product (service);
- production of new goods (services) using new technology and using new resources. In this situation, innovation risk is divided into several subspecies of risks: a new product (service) may not find a consumer; the discrepancy between new technologies and resources to create a new product (service); unreality of sales of created technologies and resources, as they are not suitable for the production of other products in case of failure.³⁶

Risk management in innovation is a set of measures aimed at reducing the uncertainty of project results, increasing its usefulness and at the same time reducing the cost of innovation.

The conditions for the occurrence of risks are different:³⁷

1. There are alternative options for the implementation of the decision, the development of events;
2. There is no certainty which of the solutions will be implemented;
3. Subjectivity of the decision-maker.

Uncertainty, being an integral part of innovation activity, increases the dynamics and complexity of the production process, however, it is not a source of risk, but only represents a shortage, lack of knowledge, arising for objective or non-objective reasons. The unstable financial situation in the country also increases the degree of uncertainty and thus gives another characteristic of risk - contingency. Thus, the lower the level of

³⁶ Иоффе О. С. Обязательственное право / О. С. Иоффе. Москва: Юридическая литература, (дата обращения: 22.09..Ю0 Т23).

³⁷ Андреев Ю. Н. Имущественное страхование: теория и судебная практика / Ю. Н. Андреев. Москва : Ось-89, Ю.Ю 011. 352 с..Б

uncertainty and the more reliable the information, the more effective the risk mitigation measures are and the lower the degree of risk itself.

Risk analysis of innovation activities is a complex process, and it is important, in addition to economic indicators, to take into account technical, social and other factors that affect the project. Let's consider an algorithm that can be used to manage innovation risks:

Table 1

An algorithm that manages the risks of innovation³⁸

№		
1	Defining the situation	The reliability and relevance of the information provided about the project and its operating environment plays an important role in predicting risk, and its timely provision can significantly reduce losses.
2	Risk analysis	The main objective of the analysis is to create a risk map of the project, determine their scale and the likelihood of adverse events, and determine the possibility of influencing risks.
3	Comparison of the received data	At this stage, the acceptable risk level is set.
4	Development of risk mitigation measures	Solutions are being sought to reduce the risk, and the most appropriate alternative is being selected, taking into account the identified criteria. The economic efficiency of risk management costs is calculated.
5	Approval of the developed measures	Experts decide on the effectiveness of the selected measures, if necessary, a review takes place, and if the measures are approved, their implementation.
6	Monitoring the results	Monitoring is carried out continuously, shows the effectiveness of the measures taken and provides feedback in the risk management system of innovative projects.

The purpose of risk analysis of innovation activity is to develop a forecast of the occurrence and development of risk situations in the process of innovation activity. The risk knowledge base is a set of information, methods and tools (tools) for analysis and decision—making formed at an enterprise when creating an innovation risk management system.

The examination of several approaches to risk insurance for creative initiatives reveals a complex and changing environment influenced by the inherent unpredictability of innovation, the fluidity of markets, and the uniqueness of every project. The findings from case studies, expert interviews, and qualitative and quantitative evaluations show that although standard insurance mechanisms are important, they frequently fall short of fully addressing the distinct risk profiles of creative endeavours. For risk reduction, a hybrid model that combines traditional techniques with tailored, project-specific strategies is therefore not only more effective but also necessary.

1. Risk Identification and Classification

By definition, innovative ventures are fraught with operational, financial, technological, and market-related uncertainty. Our study led to the classification of hazards into four primary domains:

Technological risk (unexpected technological difficulties, obsolescence, and R&D failure)

Market risk (competition, customer acceptability, and lack of demand)

³⁸ Натальин А.А. Мировой опыт страхования предпринимательской деятельности России: проблемы, противоречия, перспективы [Текст] / А.А. Натальин // Экономика и экономические науки. Вестник Волжского университета им. В.Н. Татищева. – 2013. - №4 – С. 60-67.

Financial risk (uncertainty of investment returns, budget overruns, and financing shortfalls)

Risks related to regulations and the law (compliance, patent concerns, evolving legislation)

A one-size-fits-all approach was shown to be mainly useless, as each group need a unique approach to insurance or risk mitigation.

2. Assessment of Conventional Insurance Products

It was discovered that traditional insurance products like business interruption, liability, and property insurance provided little protection against the particular risks connected to innovation. For instance, general liability plans do not cover market failures or regulatory delays, and property insurance does not cover the failure of a prototype.

Nonetheless, it has been noted that some tools, such as directors and officers (D&O) insurance and errors and omissions (E&O) insurance, offer management and technical decision-makers important protection, particularly in high-tech firms.

3. Other Methods of Risk Transfer

The study emphasises how Alternative Risk Transfer (ART) methods like these are becoming increasingly important.

Enabling businesses to self-insure against certain risks associated with innovation is known as captive insurance.

Offering compensation depending on trigger events as opposed to conventional loss assessment is known as parametric insurance.

Providing capital inflow under predetermined risk circumstances is known as contingent capital arrangements.

These techniques were particularly helpful in industries where standard underwriting is unable to account for project-specific volatility, such as software development, biotech, and renewable energy.

4. Hybrid and government-backed programs

The insurability of high-risk enterprises is greatly increased by government involvement through risk-sharing arrangements, public-private insurance pools, and innovation guarantees. For example, in addition to grants, national innovation funds or programs such as Horizon Europe and the Small Business Innovation Research (SBIR) in the US offer risk-reduction strategies including milestone-based financing or partial guarantees.

Furthermore, it was shown that hybrid insurance models—like co-insurance plans—that blend private coverage with government assistance were very successful in lowering the risk of early-stage innovation and drawing in private capital.

5. Technology Use in Risk Evaluation

The risk insurance market is undergoing a change thanks to digital technologies and AI-based modelling. Insurance companies are now better able to evaluate, price, and track the risks connected to new projects by utilising blockchain-enabled smart contracts, real-time data collecting, and predictive analytics. By increasing transparency and lowering moral hazard, these methods increase the appeal and dependability of insurance for both insured people and providers.

6. Strategic Consequences for Project Managers

The study found that early in the innovation cycle, project developers need to incorporate risk insurance planning. Projects with established insurance plans, well-defined risk assessment frameworks, and investor expectations were more likely to be funded and successfully commercialised.

Better stakeholder confidence was another benefit of risk-sharing structures, which allowed for more aggressive innovation trajectories while yet providing a safety net.

7. Industry-specific Results

Biotech & Pharma: Heavy dependence on government-backed risk assurances and milestone-based insurance

Cyber liability and E&O coverage are preferred in IT and AI projects, and parametric solutions are being used more and more.

Green technology and energy: considerable reliance on risk-sharing between the public and private sectors because of lengthy ROI cycles and regulatory vulnerability

According to the results, risk in innovation cannot be completely removed, but it may be controlled by combining several approaches that are suited to the particulars of each project. The most effective risk insurance plans combine several layers—public-private, alternative, and traditional—into a proactive and cohesive risk management strategy.

This calls for institutional innovation as well as technological innovation, in which governments, inventors, and insurers collaborate to develop products and regulatory frameworks. To help startups and SMEs better understand and access the right insurance instruments, the changing environment also necessitates educational initiatives.

V. CONCLUSION.

Any innovation activity is associated with uncertainty and risk, which forces the company to constantly change. Analyzing all the factors, the company chooses a more reliable or more often risky path. Nevertheless, the competitiveness of an organization today largely depends on its scientific and technological achievements. The innovative nature of the product gives the company a competitive advantage and the opportunity to enter new markets.

Risk insurance is a crucial instrument for protecting investments, resources, and the long-term viability of projects in the dynamic world of innovation, where uncertainty is a constant companion. This article has examined the many approaches and tactics of risk insurance that are especially suited for creative initiatives, emphasising their crucial function in contemporary technical and entrepreneurial undertakings. By their very nature, innovative enterprises challenge accepted wisdom and can entail a great deal of uncertainty in terms of money, technology, law, and the market. Because of this, conventional techniques to risk management are frequently inadequate to handle the complex and quickly changing issues that these initiatives encounter. The use of specialised risk insurance techniques, such as parametric insurance, project-specific insurance coverage, and hybrid models that combine public and private sector processes, offers a strong framework to reduce possible losses and boost stakeholder trust. Important techniques including risk transfer, risk pooling, and thorough project evaluation help to balance the interests of insurers, innovators, and investors while redistributing possible

responsibilities. Furthermore, a more accurate assessment and pricing of risk has been made possible by the integration of cutting-edge technology, such as artificial intelligence (AI) and big data analytics, which has helped to create more customised and adaptable insurance products. With the use of these contemporary technologies, underwriters and project managers may forecast risk exposure, create insurance plans that change as the project progresses, and simulate scenarios. The landscape of risk reduction has been further improved by public-private partnerships, government assistance programs, and international insurance programs, especially for high-impact industries like biotechnology, space technology, and renewable energy. These cooperative methods foster a shared responsibility culture and long-term sustainability in innovation ecosystems in addition to lessening the load on individual players. The successful use of risk insurance techniques in creative endeavours serves as a strategic facilitator of innovation rather than just a financial safety net. Risk insurance helps innovators concentrate on innovation, experimentation, and value creation by lowering their susceptibility to unanticipated setbacks. The need for flexible, astute, and all-encompassing risk insurance systems will only increase as global rivalry heats up and innovation cycles quicken. Thus, fostering the innovations that will influence the future requires a proactive approach to innovative risk insurance that is based on analytical rigour, cross-sector collaboration, and forward-thinking regulatory frameworks.

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