Piterska Varvara, Ph. D., Associate professor Department of port operations and cargo works technology Odessa national maritime university

SYSTEM APPROACH OF RISK MANAGEMENT OF INNOVATIVE PROJECTS

The study presents the features of innovative project, offered the methodological bases of innovations' risk management.

Keywords: project management, innovation, risk management.

Problem statement and research aim. The results of risk assessment should be taken into account when making business decisions on choosing the strategy and tactics of innovation development, planning of scientific and technical, production, marketing and financial activities. In deciding on the implementation of an innovation project, it is necessary to analyze the possible consequences of the impact of both internal, subjective risk factors and external, objective factors beyond the competence of project managers, and in the domestic environment, the impact of the latter is particularly significant [1]. The definition of the advantages and disadvantages of risk assessment methods in innovative projects and proposing of effective solutions to minimize uncertainty in the management of innovative projects is the task of the article. The investigation of the feasibility of applying risk-taking methods in assessing of the effectiveness of innovative projects is the aim of the article.

Research results. The risk of an innovation project should be understood as a marginal category and focus on the future, rather than on the past experience of innovation [2]. Thus, the concept of "risk of an innovation project" implies how much the firm's financial situation will be affected by the implementation of a particular innovation project, that is, how much the company's overall risk as a result of investing financial resources in the development and organization of a specific venture capital will change. Therefore, when assessing the risk of an innovative project, only risks that are directly related to this project, and not to other activities of the entity, should be taken into account, although it relates to innovation [3].

The main types of risks that arise in the process of creating and implementing innovative projects, systematized on the basis of generalization of the views of domestic

and foreign scientists, are reflected in [4]. There are various kinds of losses in innovative projects, in particular: financial (direct cash losses: over-spending of money, unforeseen payments, fines, payment of additional taxes, loss of securities, lack of funds in case of non-payment of debts, non-payment of delivered products by customers, decrease of revenues as a result of lower prices for innovative products); technological (loss of technological advantage due to aging of technology or the appearance of its legal or illegal imitation of competitors); social (the growth of social tension in society, the change in the demographic situation, the complication of the political situation); time (time losses caused by accidental circumstances or violation of the schedule of implementation of the innovation project); environmental (harm to the environment); material (losses of material resources: property, products, raw materials, materials, fuel, spare parts, equipment, etc.); image (loss of company image, loss of credibility in the market, loss of customers, deterioration of relations with suppliers, change in the attitude of real or potential buyers to the innovation made by the company towards the benefits of other products); moral and psychological (losses caused by the deterioration of the psychological climate in the team of innovative managers, the turnover of personnel); labor (labor losses, personnel problems, labor migration) [5].

The variety of forms of manifestation of the risk of introducing innovations, the frequency and severity of the consequences of its manifestation, the impossibility of absolute elimination necessitate the study of causal relationships and ways of reducing of the consequences of occurring risk events [6]. Under the discount rate, taking into account the risk, it is accepted to understand the maximum of such discount rates, at which at least one alternative or available investor to the direction of investment, having the same risk as the given project, will provide him with the inherent integral discounted effect [7].

The method of adjusting of the discount rate is to adjust some basic risk-free rate of return on the so-called "risk premium", which reflects the integral assessment of all types of risks of the project. The value of the risk premium can be determined using any risk assessment method acceptable for these purposes, but most often statistical or expert estimates are used for these purposes. This value is determined for each project participant, taking into account his functions, obligations to partners and obligations of

other participants before him. A project participant may not take into account the risk value in his discount rate, if the receipt of his part of the income from the project is insured or there are guarantees of payment for his performed work [8].

Conclusions. This approach can be used to take risk into account when evaluating the effectiveness of innovative projects. However, in practice, it involves the need to compile and process a large number of project scenarios. The question of use of the method should be decided by each project manager individually, depending on the scale and features of the project, the degree of novelty and scale of the introduction of innovative products, the number of participants and their level of requirements to justify project efficiency and other factors.

References

- 1. ISO 31000:2010 (2012) Risk management, guidelines. Moscow, Standartinform, 28. Available at: URL http://gostpdf.ru/cont/files/31000-2010/gost-31000-2010.3895.pdf.
- 2. Bushuev, S.D., et. al. (2011) Sozdanie i razvitie konkurentosposobnyih proektnoorientirovannyih naukoemkih predpriyatiy. Nikolaev: Torubary E.S., 260.
- 3. Tanaka Kh. (2010). An emerging wave to expand the national industrial competitiveness. Proceedings of Scientific PPM Conference PM Kiev 2010, 25-52.
- 4. Piterskaya V. M. (2016) Zastosuvannya proektno-orientovanogo pidhodu v upravlinni innovacijnoyu diyal'nistyu. Visnyk NTU "KhPI". Kharkov, NTU "KhPI" Publ., no. 1 (1173), P. 35–42.
- 5. Shakhov A.V., Piterska V.M. (2017) Otsinka ryzykiv v innovatsiynykh proektakh metodom dostovirnykh ekvivalentiv. Visnyk NTU "KhPI". Kharkov, NTU "KhPI" Publ., no. 2 (1224), 35–41.
- 6. Piterska V.M., Kramskiy S.O. (2017) Methodological basis of innovative project-oriented organizations' management. Management of the development of complex systems. Kiev, KNUBA, no. 30, 11-20.
- 7. Piterska V.M. (2017) Modeling of innovation activity of knowledge-based enterprises based on project management methodology. Visnyk ONMU. Odessa, ONMU, no. 1(50), 178-190.
 - 8. Piterskaya V.M., Bokareva M.O. (2013) Energeticheskaya model' upravleniya tsennost'yu proyektno-oriyentirovannoy organizatsii. Eastern-European Journal of Enterprise Technologies. Kharkov, Technological Center, no. 1/10 (61), part 3, 199-203.