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RISK MANAGEMENT IN INVESTMENT PROJECTS

ALIMOV BAKHODIR BATIROVICH

Keywords:
project, investment project, risk, risk management, risk management.

Abstract

Risk management in investment projects is widely covered in the article, and the definitions of scientists for the terms project, risk, project management and investment projects are presented. At the same time, the functions of risks, the main characteristics of risks, and types of risks are presented in detail. Stages of the life cycle of the investment project , methods of risk management, criteria for systematic identification and classification of state risks, basic rules of risk management, parameters of quantitative assessment of risks in the implementation of investment projects are shown.

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INTRODUCTION

Modernization of the economy, technical-technological rearmament of priority sectors, production of competitive products on the world market, and increase of the country's export potential are among the urgent issues today. The implementation of these tasks cannot be imagined without investments. That is why we are paying serious attention to the financing of investment projects in our country. Because the investment project is an important factor that ensures the growth of the economy and the development of production.

In the development strategy of New Uzbekistan for 2022-2026, the issues "Goal 26: To further improve the investment environment in the country and increase its attractiveness, to take measures to attract 120 billion US dollars, including 70 billion dollars of foreign investments, in the next five years" [*]are specifically defined.

The number of investment projects implemented in the economy is increasing as a result of the measures to actively attract investments. In our republic, the market economy required the increase of business entities based on different forms of ownership, including expropriation and privatization of property, and the development of management activities. Also, the introduction of project management models in the further liberalization and development of the economy, the implementation of investment projects and the

[*]Decree of the President of the Republic of Uzbekistan dated January 28, 2022 No. PF-60 "On the Development Strategy of New Uzbekistan for 2022-2026"

implementation of optimal options for their financing caused problems.

One of the main models of project management, the introduction of the risk-controlling system brings great benefits not only for investors, but also for the economy by increasing the efficiency of investment project management. The fact that the implementation of project management in the implementation of investment projects has not found a solution to the problems at the level of today's demand makes it urgent to comprehensively research their theoretical and methodological foundations.

LITERATURE REVIEW

A project is a set of efforts carried out to obtain certain unique results within a specified time and within an approved budget, and certain financial funds are allocated for the resources used or consumed during the project.

According to a group of authors, a project is a temporary enterprise designed to create unique products, services or results. The project allows you to collect all types of enterprise activities in a single information space to see the whole picture, to understand, to see the necessary actions where there are budget or resource constraints.

The project will never be the same, and will always include some unique elements that require new problems to be solved and completely new technologies to emerge.However, the main projects, which use known methods and methods for implementation, will have their own characteristics to one degree or another.

The term project management refers to a relatively small range of subjects of a technological nature. However, this interpretation significantly narrows the problem and does not allow solving important practical issues.

Famous lexicographer S.I.Ojegov and N.Y.Shvedova's dictionary of the Russian language stated that "Risk means a desire for success, a happy event, hope."

According to V.T. Sevruk, he gave the definition that "Risk is the measure of the probability of damage or loss of benefit."

According to Professor V.M.Usoskin, "Risk is always accompanied by uncertainty, and in turn, it is associated with events that are difficult or impossible to foresee”

[ii].

According to P.G. Grabovoy, S.N. Petrova, S.I. Poltavtsev's work "Riski v sovremennom biznesa", "Risk is the risk of losing part of the company's resources or not being able to earn income, incurring additional costs [iii]. "

In the economic literature, it is noted that project risks mean a set of situations that cause a decrease in income or a set of risks that destroy the implementation of an investment project and reduce the efficiency of the project [iv]. Risk management can be understood as a set of actions aimed at determining the rational combination of risk and profit [v]. Risk management is a structural process that is continuously carried out in this company in order to identify, evaluate, calculate, control (monitor) and reduce risks

[ii]Usoskin V.M. Sovremennyy kommercheskiy bank: upravlenie i operatsii. - M.: IPTs "VazarFerro", 1994.
[iii]Grabovoy P.G., Petrova S.N., Poltavtsev S.I. Risky and modern business. M.: - Alans, 2006.
[iv]A. V. Vakhabov, Sh. Kh. Khajibakiev, N. G. Muminov Foreign investments. Study guide. - T.: "Finance", 2010, p. 165.
[v]Mamatov B.S., Khojamkulov D.Yu., Nurbekov O.Sh. Organization and financing of investments. Textbook. Tashkent Financial Institute. - T.: ECONOMY-FINANCE, 2014. -608 p.

affecting the company's profit goals and their consequences. The purpose of risk management and assessment is to provide the investor with the necessary information to make decisions about the advisability of participating in the implementation of an investment project and to develop measures to protect against possible financial losses.

Summarizing the views on risk, prof. V.V. Kovalyov gives the definition as follows: risk is defined as the level of financial loss: failure to reach the set goal; determine the result in case of uncertainty ; subjective assessment of the marked result.

DISCUSSIONS

It is worth noting that the difference between risk and uncertainty depends on the method of providing information and is determined by the presence (in the case of risk) or absence (in the case of uncertainty) of probabilistic descriptions of uncontrolled variables. In the mentioned sense, these terms are used in the mathematical theory of operations research, where decision-making issues are distinguished under risk and uncertainty, respectively. If it is possible to qualitatively and quantitatively determine the degree of probability of this or that option, then this is exactly the risky situation.

Thus, a risk situation (risky situation) is a type of uncertainty in which the probability of occurrence of events exists and can be determined, that is, in this case, joint activities with production partners, countermeasures of competitors or enemies, the impact of the natural environment on economic development, the national economy there will be an objective opportunity to assess the probability of events arising as a result of the introduction of scientific achievements and others.

There are three main perspectives in the literature that recognize the subjective, objective or subjective-objective nature of risk. In our opinion, the most correct approach is the subjective-objective one, because the main argument for its justification is the recognition of the fact that the activity itself has subjective and objective aspects, as the individual, group, team, etc. are involved in subjective relations in the process of activity.

Due to the fact that risk reflects a special activity in conditions of uncertainty and in a situation of forced (necessary) choice, it also represents an objective and subjective dialectical unity. Therefore, risk is always associated with choosing certain alternatives and estimating the probability of their results - this is where its subjective aspect is revealed. At the same time, the magnitude of risk is not only subjective, but also objective, as it is considered a qualitative and quantitative expression of real uncertainty.

Risk can be described as the probability of positive or negative consequences that may occur as a result of the decision to expand business activity, but it can also be considered as an integral part of this activity.

The protective function of risk is manifested in the fact that if risk is a natural state for an entrepreneur, then patient attitude to failure should also be considered a normal state. Enterprising, ambitious business leaders need social protection, legal, political and economic guarantees that prevent punishment in case of failure and encourage appropriate risk-taking . An entrepreneur must be sure that a possible error (risk) cannot damage his work or his reputation, because, although it is alleged, it happened as a result of an unjustified risk.

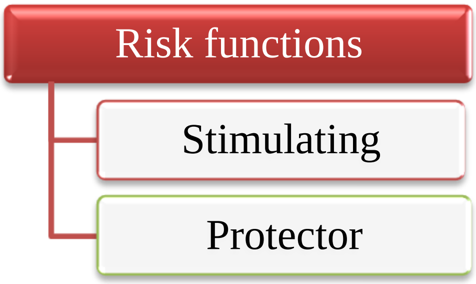

Figure 1. Risk functions [vi].

The existence of entrepreneurial risk is, in essence, the reverse side of economic freedom, that is, its own compensation. The freedom of one entrepreneur means that other entrepreneurs have the same freedom at the same time, and in turn, with the development of market relations in our country, uncertainty and entrepreneurial risk increase. There is no way to eliminate future uncertainty in entrepreneurial activity, because it is an element of objective reality.

There are two aspects of the motivational function of risk: the first aspect occurs in a situation where risk plays a key role in economic decision-making, which is especially evident in innovative, investment decisions; and the second aspect arises as a result of decisions taken and implemented with unreasonable risk. The protective function of risk also has two aspects: historical-genetic and social-legal.

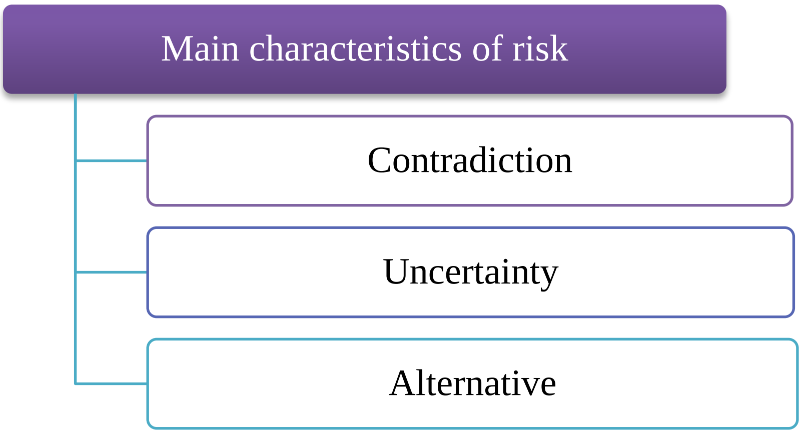

Figure 2. Main characteristics of risk[vii]

encountered in the economic and financial activities of enterprises can be classified according to the following characteristics:

1) according to the form of economic activity: commercial risk; financial risk. All types of risks according to the form of appearance: pure risks; speculative risks.

2) according to the field of occurrence of risks: external risks; internal risks.

3) according to the nature of appearance: subjective; objective.

Financial risk refers to the risks that arise during the implementation of financial transactions (depositing funds in the bank, stock trading, stock market activity, etc.).

Financial risks:

- currency risk means losses (or gains) that may occur in the course of foreign economic activity due to changes in exchange rates or in the implementation of various other currency operations;

[vi]Developed by a researcher.
[vii]Developed by a researcher.

• credit risk means non-fulfillment of the terms of the loan agreement by the borrower, i.e. non-payment of the loan amount (partially or fully) and the interest on it within the terms specified in the agreement;

• interest risk is the probability of not getting the profit at the specified level as a result of the probability of exceeding and decreasing its interest indicators or payments for certain types of activities;

• investment risks are the probability that the enterprise will not receive the expected income as a result of the implementation of investment activities;

• Inflation risk is the depreciation of income in the form of money received as a result of inflation. In this case, entrepreneurs will suffer significant financial losses. Inflation risks are external systematic risk, and the possibilities of influencing it are very small.

ANALYSIS AND RESULTS.

Throughout the time that project management technology has been used, a number of methodologies and principles have been developed to help project managers. However, the modern world of Project Management is much more demanding than the old way, requiring adherence to “on time, on budget and on specification”. It consists of project management as an entity, object, economic unit and business.

Significant growth of competition in the field of gas industry and acceleration of scientific and technical progress, in turn, will lead to an inevitable increase in the integration of science and production, as well as the emergence of new, more effective forms of their interaction. Despite the fact that project management was created and developed in the conditions of a market economy, it should take into account the characteristics of national experience, traditions and socio-economic conditions, as well as the existing specific problems of the implementation of investment projects.

It should be noted that any investment project goes through certain stages called the general stage of its life.

One of the main stages of project management is the assessment of the investment attractiveness of the project.Risk management methods:

• Zabelin P.V., Fedotov V.G. Predprinimatelskie risk i hejirovanie v otechestvennoy i zarubezhnoy ekonomie: abandoning risky situations; notice of loss; insurance; compensation for damages.

• Richman DJ, Mescon MK, Bawy KL Modern business: risk control; risk aversion; compensation for damages; minimize loss of income; transfer of risk control; self-insurance; risk transfer.

• Balabanov I.T. Risk management: choosing a method of effective exposure to risk; risk avoidance; risk prevention; transfer of risk ("peredacha riska"); reduce the level of risk; diversification; receiving additional information; limitation; self-insurance; insurance.

• Morozov D.S. Proektnoe finansirovanie (upravlenenie riskami): risk avoidance; risk prevention and control; risk insurance; transfer of risk to project participants.

• Khokhlov N.V. Upravlenie riskom: reduction of risk (implementation of measures aimed at elimination of risk; reduction of probability of occurrence of risk;

reduction of losses that may occur.); risk retention (self-insurance at the expense of a reserve fund; risk compensation at the expense of external sources (state grants and loans); refusal to compensate for losses from risk); transfer of risk (insurance; obtaining financial guarantee and surety; contractual or legal choice of other methods).

Table 1 lists the stages of the life cycle of an investment project.

Table 1

Stages of the life cycle of an investment project[viii]

Pre-investment stage of the project		**Investment stage of the project**		
1. Carefully research and plan the project	Preparation of documentation and implementation	Tender sales and execution of contracts	Start the project	Completion of the project
2. Learning predictions	Designing them and making a plan of research work	Conclusion of contracts	Development of graphics	Initialize the object
3. Analysis of the conditions for the implementation of the initial plan. Development of the project concept	Development of technical and economic basis	Delivery contract	Development of graphics	Initialize the object
4. Pre-project justification of investments	Coordination, examination and approval of feasibility studies	Contract for the contract	Doing things	Demobilization of resources, analysis of results
5. Choose and confirm the place	Issuing a design assignment	Develop plans	Monitoring and control	Exploitation
6. Ecological justification	Agreement and Confirmation.	x	Correcting the project plan	Repair and development of production
7. Expertise	Making the final decision	x	Making payments for completed work	Close the project, dismantle the equipment

In order to systematically identify and classify state risks, the following criteria have been developed:

1. Risks are divided into insured and uninsured risks according to the criterion of insurance. The first type includes state risks assessed in terms of value. Insured risks can be defined in several options: the probability of occurrence of data beyond control; insurance against the possibility of damage to human health and life; the appearance of the insurer's liability; event expected in case of insurance.

2. The second criterion for the classification of state risks is related to the functions of the state, which can be grouped in the following form: political, economic, social, military, administrative management.

[viii] Developed by a researcher.

3. Risks of the third group can be divided according to the scale of popularity, that is, into local, regional, national, international and global types.

4. The criteria of the fourth group can be classified according to the impact potential. They include manageable and unavoidable (natural disasters, climate change, economic and political crises, social conflicts, pandemics, etc.) risks.

5. The fifth criterion is divided into pure (not shared with other structures, individuals and organizations) and shareable (risk can be transferred) risks.

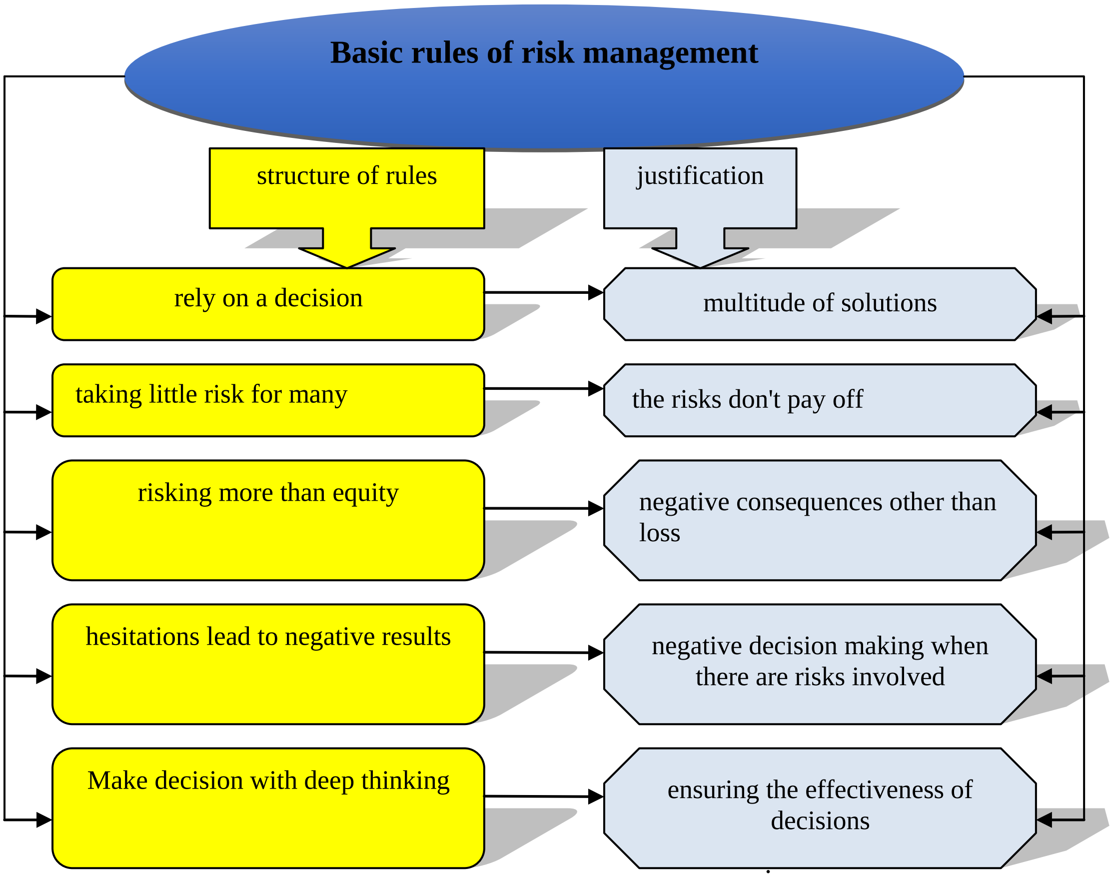

Figure 3. Basic rules of risk management[ix]

The gas industry has its own characteristics of applying project management methods. Figure 3 shows the types of project management. Traditional project management, as the most common form of investment project management, includes clear steps between each task - deadlines and expected results are set. Risk management consists of a specific set of rules, compliance with which ensures the correctness of the decisions being made (Figure 3).

Types of project management in the gas industry:

- Traditional project management: existence of clear steps between each task; a systematic approach is used; each phase ends before the next phase begins.
- Belt project management: the project is divided into small parts; software is used; constantly improving methods.
- Critical chain: the path to the optimal implementation of the project is distinguished; variable external environmental factors are taken into account; project tasks and finances are planned in advance.

[ix]Developed by a researcher.

• Rational project management: organization of the supply chain for continuous operation; focus on the effective implementation of the entire project; responsibility of all construction team members for the project.

Table 2

Parameters of quantitative assessment of risks in the implementation of investment projects[x]

Parameters	Score in points
Probability of risk occurrence	
insignificant - at least 10%	0-1
Small - 10 - 20%	1.1-2
Average - 20 - 45%	2.1-3
large - 45-75%	3.1-4
high - above 75%	4.1-5
The amount of possible potential loss or lost profit	
It doesn't matter	1-2
Small	2.1-4
Average	4.1-6
Big	6.1-8
High	8.1 - 10

The probability of this or that risk and the probability of possible losses are determined by experts in each form of points. Evaluation intervals can be set symmetrically. We offer an assessment of the risk situation with a five-point frequency (the smallest probability is less than 10%, from 10% to 20%, average from 20% to 45%, high from 45% to 75%, and extremely high from 75% high); using a ten-point scale to estimate the amount of possible damage - insignificant; small; medium; large; we are divided into high risks (Table 2).

Changes in indicators are monitored based on early detection of potential risks and comparison of the set calculation values of the assessment of their change with a set of sample indicators. When the current indicators are outside the range of model indicators, that is, the actual level of risk for the implementation of the investment project exceeds the value of the relevant indicator, prompt management decisions are required to correct the situation.

Thus, the indicators offered in the risk-controlling system allow solving three main interrelated tasks: conducting a panoramic monitoring of the actual state of risks, evaluating them and monitoring compliance with permissible values, as well as potential risk for early detection of problems in the field of project implementation and identify threats. As a result, the risk-control mechanism for the implementation of the investment project fulfills its main purpose - to provide the most complete information on making management decisions that ensure the effective implementation of the investment project and the enterprise as a whole.

[x]Developed by a researcher.

CONCLUSIONS

The need to introduce project management in the field of implementation of investment projects is associated with the following problems: underutilization of production capacities causes an excess cost burden in the cost of manufactured products; Hierarchical distribution of power and responsibilities of project participants, management based on standardized rules, methods do not work well in today's economic conditions; companies, on the one hand, when the lack of funds is acute, on the other hand, they use resources inefficiently: equipment, reserves, employees.

Using project management tools effectively manages investment projects and increases their quality. Therefore, the main goal of LB is the management process, which includes proportional management of elements such as the adequacy of funds, the classification of risks by quality, the balance of the investment portfolio, and the separation of components of liabilities .

The implementation of risk-controlling in the management of investment projects raises the activities in the field of risk management to a new level and ensures a sharp reduction of credit risks.

We suggest applying a calculation model using statistical methods and expert data to determine the risks of investment projects. The proposed model is used to develop a risk-controlling mechanism for the implementation of the credit project.

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