Journal of Management & Technogy
e-ISSN: 2177-6652

EFFICIENT RISK ASSESSMENT AND MANAGEMENT STRATEGIES FOR ECONOMIC STABILITY

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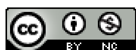
ABSTRACT

The purpose of the study is to identify the main patterns that define the features of risk assessment in business as a key element contributing to the achievement of an organization's economic security. The authors consider various types of economic risks, risk analysis and assessment methods, and risk neutralization strategies. The findings emphasize the importance of developing a comprehensive risk assessment methodology that accounts for the risks Russian enterprises face. The authors find that the most efficient ways to reduce risk in an unstable economic and political situation in Russia are the scenario method, the method of hierarchy analysis, and diversification, i.e., the distribution of risks between several business participants.

Keywords: financial risk, risk management, model, financial activity.

Editor Científico: José Edson Lara
Organização Comitê Científico
Double Blind Review pelo SEER/OJS
Recebido em 20.05.2023
Aprovado em 26.08.2023



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ESTRATÉGIAS EFICIENTES DE AVALIAÇÃO E GESTÃO DE RISCOS PARA A ESTABILIDADE ECONÓMICA

RESUMO

O objetivo do estudo é identificar os principais padrões que definem as características da avaliação de riscos nos negócios como elemento-chave que contribui para o alcance da segurança econômica de uma organização. Os autores consideram vários tipos de riscos económicos, métodos de análise e avaliação de riscos e estratégias de neutralização de riscos. As conclusões sublinham a importância do desenvolvimento de uma metodologia abrangente de avaliação de riscos que tenha em conta os riscos que as empresas russas enfrentam. Os autores consideram que as formas mais eficientes de reduzir o risco numa situação económica e política instável na Rússia são o método de cenário, o método de análise hierárquica e a diversificação, ou seja, a distribuição de riscos entre vários participantes empresariais.

Palavras-chave: risco financeiro, gestão de risco, modelo, atividade financeira.

ESTRATEGIAS EFICIENTES DE EVALUACIÓN Y GESTIÓN DE RIESGOS PARA LA ESTABILIDAD ECONÓMICA

RESUMEN

El propósito del estudio es identificar los principales patrones que definen las características de la evaluación de riesgos en los negocios como un elemento clave que contribuye al logro de la seguridad económica de una organización. Los autores consideran varios tipos de riesgos económicos, métodos de análisis y evaluación de riesgos y estrategias de neutralización de riesgos. Los hallazgos enfatizan la importancia de desarrollar una metodología integral de evaluación de riesgos que tenga en cuenta los riesgos que enfrentan las empresas rusas. Los autores concluyen que las formas más eficaces de reducir el riesgo en una situación económica y política inestable en Rusia son el método de escenarios, el método de análisis jerárquico y la diversificación, es decir, la distribución de riesgos entre varios participantes del negocio.

Palabras clave: riesgo financiero, gestión de riesgos, modelo, actividad financiera.

INTRODUCTION

Financial risks are an integral part of any financial activity. They arise from changes in financial market conditions, exchange rates, interest rates, etc. Financial risk management is a process of identifying, evaluating, and managing risks associated with financial instruments and transactions.

Financial risk modeling is a process in which mathematical models are created to estimate the probability of risks and their impact on a company's financial performance. These models help companies make more informed risk management decisions, although they do not guarantee the absence of losses. Financial risk models are employed to assess the risks of different types of financial instruments and determine the optimal risk management strategy (Lobanov, Chugunov, 2014; Novoselov, 1988; Tarakanova, Mukhina, 2018).

Financial risks can result in negative, zero, or positive economic results. However, there are various risk management measures that can anticipate the occurrence of risks and reduce their impact. Financial risks can bring serious consequences for a company, including financial loss and bankruptcy. For this reason, a financial manager must determine the most pertinent financial risks for a particular company.

At present, when the economy of each country is closely interconnected with the global economy, the studied topic is particularly acute, given the possible impact of international economic crises on domestic politics and economy (Krioni, Artemev, 2018). Despite the efforts of entrepreneurs, risk is always present to some extent and cannot be calculated or accounted for in advance. If a risk event occurs, there are three possible economic outcomes: a loss, a neutral result, or a profit. Despite some authors paying scant attention to risk in the theory of entrepreneurship, the analysis of risk and uncertainty has become an integral part of research in this field.

LITERATURE REVIEW

System of risks

Under the classification of risks, we understand their distribution into groups based on specific criteria to achieve risk management goals. Such a classification allows for the effective

use of management methods and techniques for each risk. The categories of risks include pure and speculative risks (Prokopovich et al., 2022).

Pure risks relate to losses or damage that may come from unforeseen circumstances, such as natural disasters, fires, accidents, etc. These risks cannot be controlled or predicted but can be covered by insurance.

Speculative risks relate to the possibility of gains or losses as a result of investment or speculation in financial markets. These risks can be controlled and foreseeable but require solid expertise and market analysis.

Another method of risk classification relies on the probability of occurrence and impact on a company. Risks can be high, moderate, or low in probability and impact. High risks call for the most attention and control, while low risks can be taken without much precaution.

The classification of risks is not static and can change according to variations in conditions and circumstances.

Depending on the underlying cause of occurrence (a basic or natural feature), risks are divided into the categories of natural, environmental, political, transport, and commercial (Khominich, 2023; Pomorina, 2014).

Natural risks relate to natural phenomena, such as earthquakes, floods, hurricanes, etc. These risks can lead to the loss of property and lives.

Environmental risks are those associated with environmental impacts, such as water, air, and soil pollution. These risks can entail legal problems and damage to a company's reputation.

Political risks are tied to changes in the political situation in a country or region, such as a coup d'état, war, terrorist attacks, etc. These risks can lead to the loss of business and property.

Transport risks are related to transporting goods and people, such as accidents, theft, and delays. These risks can result in the loss of goods and delayed fulfillment of orders.

Commercial risks are related to a company's financial operations, such as non-payment of debts, bankruptcy, etc. These risks can result in the loss of funds and damage to a company's reputation.

Each type of risk needs its own approach to management and protection. Therefore, a financial manager needs to analyze all possible risks and develop appropriate strategies to manage them.

Commercial risks carry the risk of loss in the process of financial and economic activities. They imply the uncertainty of the result of a given commercial transaction.

Structurally, commercial risks are divided into property, production, trade, and financial risks.

Property risks refer to the possible loss or damage to a company's property, such as fires, thefts, natural disasters, etc.

Production risks relate to possible problems in the process of producing goods or services, such as product defects, delays in the production process, lack of raw materials, etc.

Trade risks concern possible changes in the market, such as changes in demand for goods or services, shifts in raw material prices, or competition in the market.

Financial risks are associated with possible financial losses for a company, such as non-payment of debts, changes in exchange rates, changes in interest rates, etc.

Commercial risk management comprises risk assessment, the development of strategies to minimize risks, and the selection of optimal methods of financing and protection against unforeseen circumstances. It is also important to have a prepared plan of action in case of risk occurrence and to constantly monitor the market situation and external factors that may affect a company's business.

Concept of financial risk

The concept of financial risk consists of the fact that each financial transaction or investment is followed by a certain level of risk. Financial risk can manifest as a loss of capital, inability to pay debts, changes in exchange rates or interest rates, etc.

Financial risk assessment involves the analysis of a company's financial performance, the assessment of its creditworthiness and financial stability, as well as the analysis of macroeconomic and political factors that may have an impact on a company's business.

Companies use various methods to manage financial risks, such as diversification of the investment portfolio, the use of financial instruments to protect against risks (e.g., futures, options), the use of the optimal capital structure, etc. (Dosugova, 2011; Redhead, Hughes, 2005).

Equally important is to have a readymade action plan in case of financial risk and to constantly monitor financial markets and external factors that may affect a company's operations.

Thus, the purpose of this study is to identify the main patterns that determine the features of risk assessment in business, particularly in the context of economic and political instability.

METHODS

The present study employed a combination of research methods to determine the specifics of risk assessment in business. These methods included a literature review, qualitative analysis, case studies, analytical methods, and comparative analysis.

Based on a literature review and the study of academic papers and studies, we formed the foundation for the understanding of various types of economic risks and the methods of risk analysis and management.

In this paper, we identified various types of economic risks, risk analysis and assessment methods, and risk minimization strategies. For the assessment of a company's financial stability considering risks, the methodology of complex analysis, which accounts for all possible risks typical for Russian enterprises, was proposed.

RESULTS AND DISCUSSION

Analysis and assessment of financial risks

The analysis and assessment of financial risks include several steps (Fig. 1).

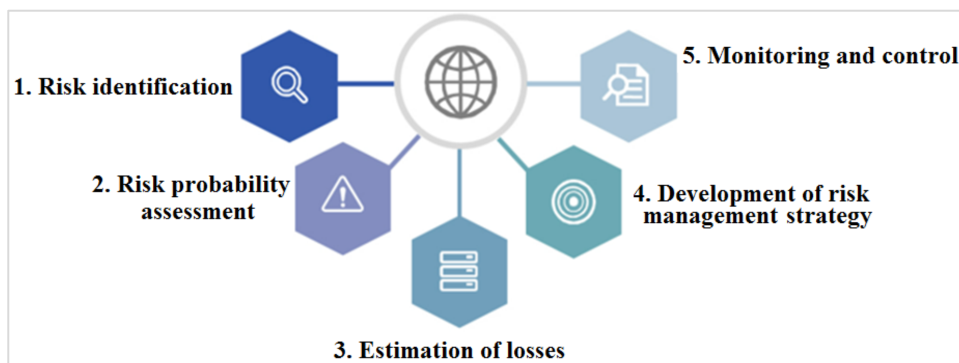

Figure 1. Analysis and assessment of financial risks.

1. Risk identification. It is necessary to identify all possible risks that may affect the financial performance of a company.

2. Risk probability assessment. The probability of occurrence of each risk must be analyzed and its level determined.

3. Estimation of losses. It is required to estimate the amount of loss that may arise in the event of the realization of each risk.

4. Development of risk management strategy. According to the results of risk analysis and assessment, it is necessary to develop a risk management strategy, which will determine the methods and tools to be used for risk management.

5. Monitoring and control. Continuous monitoring of a company's financial activities is required in order to timely identify possible risks and take measures to manage them.

Assessment of financial risks is an important part of a company's financial management, which allows for timely detection and management of risks, thus improving a company's financial stability and profit growth (Shapkin, Shapkin, 2013).

Financial risks can be classified by various criteria (Fig. 2).

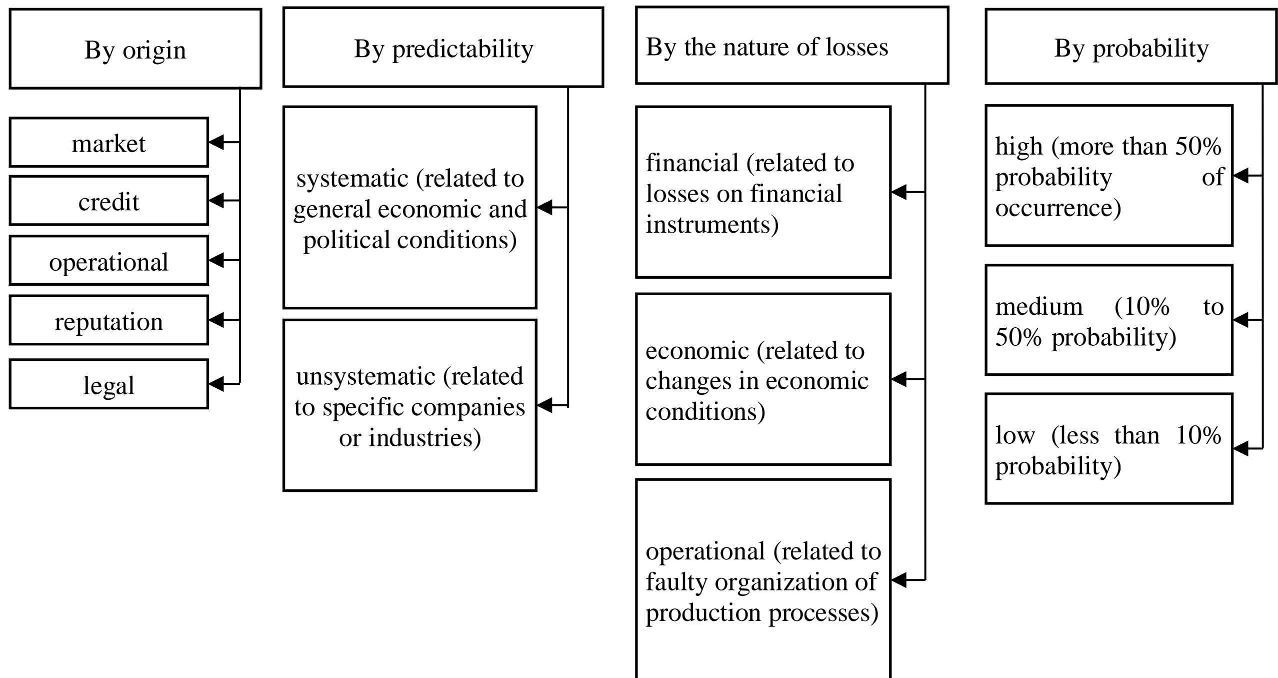

Figure 2. Classification of risks

Classification of financial risks can help companies determine the most impactful risks and develop reactive management strategies.

Risk assessment methods

Many financial transactions, such as venture capital investments, stock purchases, and loan transactions, involve a high level of risk. Making decisions in such situations requires analyzing the degree of risk, determining the likelihood of losses, and their possible extent. We determined that both qualitative and quantitative analysis can be used for this purpose.

Quantitative analysis consists in determining the amount of monetary damage that can be incurred by each type of financial risk. Qualitative analysis can include an assessment of the impact of internal and external factors on an enterprise's operations and financial performance.

Although qualitative analysis takes more time and effort, it can provide a more accurate assessment of the impact of various factors on financial risk. It is important to pay due attention to quantitative financial risk analysis methods, as their application calls for specialized knowledge and skills.

Risks in the sphere of finance can be defined as potential losses expressed in tangible or monetary terms. However, a more accurate definition of risk involves its measurement in relative terms. Such a measurement allows the receiving party to assess the degree of risk and decide whether to take or avoid it.

In risk assessment, it is also essential to consider the likelihood of losses, which can be random. This probability can be determined by both objective methods and subjective assessments. Additionally, the risk assessment can be expressed as a percentage relative to the estimated cost or profit (Foss, 2007; Morrow et al., 2007).

Financial risk assessment methods

- Risk-adjusted discount rate method;
- Reliable equivalents method;
- Sensitivity analysis of performance criteria;
- Distribution probability analysis;
- Decision trees;
- Scenario method;
- Imitation modeling, etc.

Financial risk assessment uses methods based on establishing a link between the amount of possible losses and the probability of their occurrence (Gubanov, 2014; Khokhlov, 2003). This

dependence is represented in the probability curve of a certain level of losses, which can be constructed using various methods, including statistical, expert assessment, analytical, and analogy.

The construction of such a curve is a complex process, which requires a lot of experience and knowledge from employees dealing with financial risks. Among these methods, the statistical method, the method of expert assessments, and the analytical method are considered the most common.

Analytical method

The analytical method, which includes model sensitivity analysis, is used to construct the risk curve (Fig. 3). This method is the most complex and requires a high qualification of specialists in game theory.

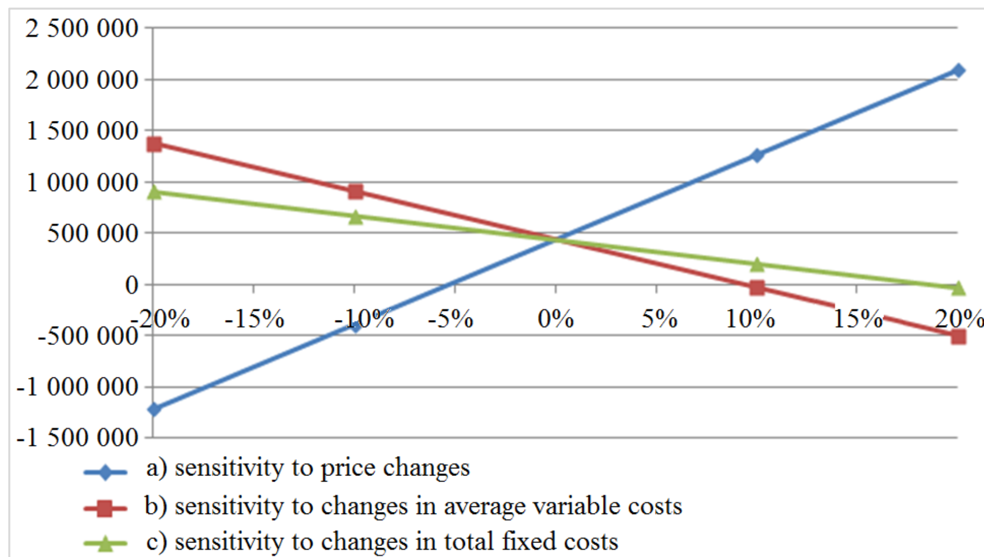

Figure 3. Risk curve

Model sensibility analysis involves choosing the key indicator, the factors, and the values of the key indicator at different stages of a project. Cash flows and efficiency indicators are determined for each moment in time. Diagrams reflecting relationships between the indicators and input parameters help identify the key indicators that affect project profitability.

Sensitivity analysis is a risk assessment method that can be useful but has its limitations because it does not account for the likelihood of alternative projects.

The analogy method for risk analysis for a new project can be helpful since it uses data on the effects of financial risks on other similar projects.

Overall, the existing risk curve methods are not fully equivalent, although they do provide a rough estimate of the total level of financial risk.

Expert assessment method

Conducting an expert assessment requires identifying a sample of experts (they can give estimates on various parameters, such as product quality, process efficiency, and risk level), making a list of parameters for assessment, and establishing a methodology for data collection and analysis. The results of an expert assessment can be used to make decisions in various fields, such as business, science, medicine, education, etc.

This method assumes the collection and study of estimates made by various specialists (by a given enterprise or third-party experts) of the probability of losses of various levels. These estimates are based on the consideration of all financial risk factors, as well as statistical data. The implementation of the expert assessment method is significantly more complicated if the number of assessments is small.

For example, the method of expert assessment can be used to assess the financial condition of an enterprise. In this case, experts can be financial analysts, accountants, financial managers, etc. These specialists can give estimates on various parameters, such as the level of income and expenses, profitability indicators, liquidity, and financial stability.

The results of an expert assessment of a company's financial condition can be used to make decisions on improving financial performance, optimizing costs, increasing the efficiency of resource use, etc.

The method of expert assessment is used in the following cases (Fig. 4).

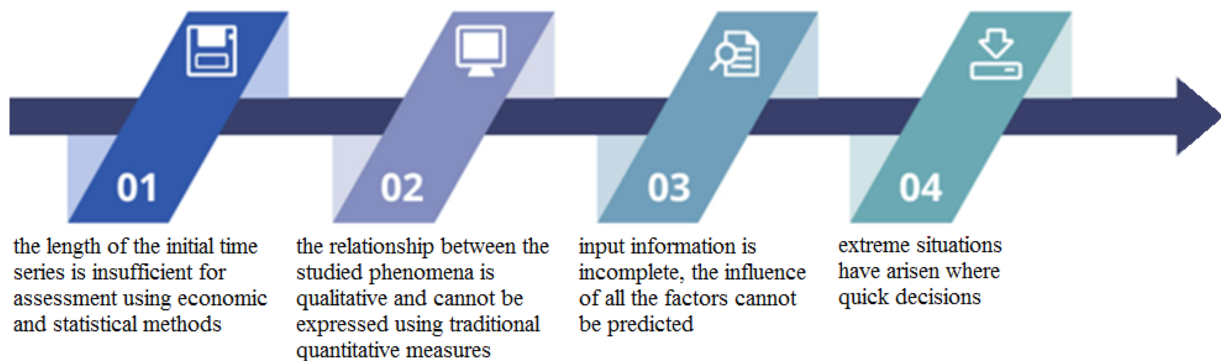

Figure 4. Expert assessment method

The essence of expert assessment consists of the organized collection of expert opinions and assumptions with further processing of the acquired responses and the formalization of results.

Impact of financial risks on the financial condition of an enterprise

Financial risks can have a considerable impact on the financial condition of a company. These can be risks associated with changes in exchange rates, interest rates, inflation, changes in commodity prices, and other factors.

Assessment of the influence of financial risks on a company's financial condition can be conducted through modeling. In this case, it is necessary to determine model parameters to account for risk factors and conduct the analysis of possible scenarios.

For example, it is possible to model the effect of changes in exchange rates and interest rates on a company's financial situation. This provides the opportunity to further analyze the obtained results and determine possible risks and the methods of their management.

The results of financial risk modeling can be utilized in making risk management decisions, developing an enterprise's strategies, and establishing the amount of financial resources necessary to minimize the risks.

Objective assessment of the financial condition of an enterprise calls for the study of both absolute and relative indicators across several years in dynamics. However, due to the instability of the economic situation in Russia, it is inadvisable to calculate financial indicators based on quarterly reports.

To prevent the risk of bankruptcy and assess the financial risk, particular attention needs to be paid to an enterprise's solvency and liquidity, financial stability, profitability, and business

activity. Solvency reflects the reliability of an enterprise and its ability to repay debt obligations at the expense of its own funds at a certain point in time. A distinction is made between short-term and long-term solvency, depending on the liabilities considered.

Financial risks can have a serious impact on an enterprise's financial condition. Some of the major financial risks that may affect the company include:

1. Credit risk: occurs when a customer fails to pay their debts on time. This can lead to losses for a company and weaken its financial stability.

2. Market risk: related to fluctuations in financial markets, such as changes in exchange rates, stock prices, etc. If a company does not know how to effectively manage this risk, it can lose a significant portion of its assets.

3. Operational risk: arises from unforeseen events, such as industrial accidents, legal problems, etc. This risk can lead to significant financial losses for an enterprise.

4. Liquidity: occurs when an enterprise does not have enough cash to cover its liabilities. This can cause problems with debt repayment and ruin a company's credit history.

5. Interest rate risk: occurs when an enterprise has variable interest rates on its loans or investments. Drastic changes in interest rates can cause significant shifts in the financial condition of an enterprise.

In general, financial risks can have a substantial impact on the financial condition of a business. Therefore, it is important to be able to efficiently manage these risks to minimize losses and ensure the stability and growth of an enterprise.

Impact of digitalization on financial risks

Technological innovations have a profound impact on trends in the financial system. In recent years, the largest percentage of global innovations has been linked to the evolution of digital technology. From year to year, there has been an increase in new applications under development, simplifying the opportunities for contactless, instant, mobile payments, investment consulting, data management and information storage, asset management, and informing various participants in financial and economic relations about the state of their assets (Aminov, 2019; Bstudy.net, 2021; Nesterenko, 2018).

First and foremost, the digitalization of financial activity poses a threat to central banks, which operate to ensure safe financial transactions. With the development of the financial services market and the appearance of numerous new players in this segment, as well as new payment methods, new sources of risk have emerged in terms of payments. Closely related to financial risks are data privacy risks. The latter, in turn, are associated with information technology fraud and data theft for blackmailing data owners, i.e., various companies. Another risk is the loss of financial gain for companies (Domashchenko, Finogenova, 2010; Kiseleva, 2002; Kosov et al., 2016).

CONCLUSION

We concluded that although risks are an integral part of business, it is still necessary to determine the maximum acceptable level of risk under the uncertain conditions of an organization's financial operations. Currently, there are some methods of quantitative assessment of financial risks and the choice of financial risk management methods and preventive measures to reduce the impact of financial risks on the financial performance of an enterprise. We determined that in the context of the unstable economic and political situation faced by Russia, the most effective methods of risk reduction are the scenario method, the method of hierarchy analysis, and diversification.

The scenario method allows organizations to anticipate and prepare for potential risks by developing contingency plans based on various future scenarios. The hierarchy analysis method facilitates the identification of critical risk factors and their hierarchical relationships, helping to prioritize risk reduction efforts. Diversification involves the distribution of risks among multiple business participants, reducing the impact of individual risks on a single organization. These findings stress the importance of developing a comprehensive risk assessment methodology that accounts for the unique risks facing Russian businesses. By integrating scenario methodology, hierarchy analysis, and diversification into their risk management practices, businesses operating in unstable economic and political environments can improve their ability to manage risk and protect their economic security.

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