Original research article / Originalus mokslinis straipsnis
Vol. 1 No. 10 (2025): Gruodis

Assessment of Risk Management Systems in Enterprises

[1] Brilyant Abbasova, [2] Mehriban Hasanova, [3] Gulnara Guliyeva, [4] Anar Huseynova, [5] Narmin Mirzazadeh

Accepted: 11.09.2025
Published: 12.04.2025

https://doi.org/10.69760/portuni.0110008

Abstract. Risk management represents a coordinated system of strategic and tactical measures aimed at achieving organizational goals by anticipating, assessing, and mitigating potential risks. In contemporary economic theory, risk is understood as a probable event that may lead to positive, neutral, or negative outcomes. When a risk carries both beneficial and harmful consequences, it is classified as a *speculative risk*. The overarching purpose of a risk management system within the economic sphere is to enhance the competitiveness of enterprises by preventing or reducing the realization of adverse events and optimizing responses when risks do occur.

In modern organizational environments, an effective risk management framework should be embedded into all operational and managerial processes, functioning as an integral component of day-to-day and strategic decision-making. However, in practice, risk management is still frequently delegated to an isolated department, which can disconnect it from core business operations and reduce its effectiveness. A comprehensive risk management system operates across various levels of management, allowing organizations to better anticipate threats and implement proactive measures.

[1] Abbasova, B. Senior Lecturer, Department of Agribusiness, Management and Marketing, Azerbaijan State Agrarian University, Azerbaijan. Email: brilyantabbas@gmail.com. ORCID: https://orcid.org/0009-0004-5459-4198

[2] Hasanova, M. Senior Lecturer, Department of Agribusiness, Management and Marketing, Azerbaijan State Agrarian University, Azerbaijan. Email: mehriban_adau@mail.ru. ORCID: https://orcid.org/0009-0008-1800-4049

[3] Guliyeva, G. Senior Lecturer, Department of Agribusiness, Management and Marketing, Azerbaijan State Agrarian University, Azerbaijan. Email: gulnara.quliyeva@adau.edu.az. ORCID: https://orcid.org/0009-0008-1284-9999

[4] Huseynova, A. Senior Lecturer, Department of Agribusiness, Management and Marketing, Azerbaijan State Agrarian University, Azerbaijan. Email: anar.huseynov@adau.edu.az. ORCID: https://orcid.org/0009-0003-3678-2083

[5] Mirzazadeh, N. Lecturer, Department of Agribusiness, Management and Marketing, Azerbaijan State Agrarian University, Azerbaijan. Email: narminmirzazada@gmail.com. ORCID: https://orcid.org/0000-0001-5060-0125

Because of this, risk management cannot be viewed as an independent system; rather, it functions in a holistic, interconnected manner.

Particular attention should be given to risk evaluation during the most critical phases of economic development, including strategic planning revisions, the launch of new projects, the introduction of new technologies or procedures, and before undertaking major financial investments or optimization measures. Strengthening risk management during these stages ensures greater organizational resilience and long-term stability.

Keywords: *process, finance, cost, analysis, strategy*

Introduction

Despite the growing recognition of its importance, the implementation of comprehensive risk management systems within enterprises remains insufficiently developed (Ekimova, 2013). One major limitation of many risk management approaches found in the economic literature is that they often overlook the true sources of entrepreneurial risk, the resource capacities of different enterprises, and the specific characteristics of various economic sectors. As highlighted by Vodyasov (2016), diverse types of risks require differentiated management tools rather than a universal methodology.

Empirical observations indicate that both small and large enterprises achieve the most effective results only through the combined use of multiple risk management methods. These methods should be applied in flexible combinations, with continuous attention to maintaining an optimal balance between acceptable levels of risk and the expected benefits (Omoshev, Zhoroeva, Abyshov, Kaparova, & Mamyrkulova, 2024). Although experts may disagree on the exact classification and number of components within the risk management process, the following set of stages is broadly recognized as comprehensive and methodologically sound (Yermekova, Romanenko, Zhanibekova, Aitzhanova, & Apakhayev, 2024).

1. Risk Management Planning

This initial stage outlines the overall approach to identifying, evaluating, and addressing risks. The plan specifies essential procedures and the key organizational actions to be applied. Identification requires recognizing events or conditions that may negatively influence project outcomes, and documentation of these risks is essential. Typically, risk recognition is based on the experience gained from previous projects or earlier phases of the current project.

2. Risk Analysis and Prioritization

Once identified, each risk is examined to determine its potential impact on project cost, schedule, labor, or resources. The likelihood of occurrence is also assessed. Risks are then prioritized by combining their probability levels with the severity of their expected consequences. This structured evaluation helps decision-makers focus on the most critical risks first.

3. Response Planning

At this stage, specific measures are developed to reduce the likelihood of risk occurrence or minimize its consequences. Risk response activities are usually incorporated into broader operational or development processes rather than treated as separate tasks. Effective planning also includes allocating necessary resources—financial, human, and temporal—to support mitigation activities.

4. Risk Monitoring

Monitoring ensures that risk response strategies remain effective as conditions evolve. This stage involves ongoing reassessment of risks, adjustment of priorities, and timely identification of risks that have begun to materialize. As Mirzazada (2025) notes, this process is essentially a continuous feedback loop, repeating earlier steps of identification and analysis to maintain an accurate understanding of the risk environment.

Methodology

In the context of ongoing economic and financial instability, risk management has become one of the most critical functional areas for enterprises seeking long-term sustainability. The accelerating processes of globalization introduce additional layers of uncertainty and exposure to external shocks. For this reason, the systematic application of risk management principles is increasingly viewed as essential for ensuring that organizations—particularly those operating in complex sectors such as chemical production—can meet their strategic objectives while mitigating the likelihood and impact of adverse events. Implementing a comprehensive risk management system enables enterprises to (Vartanova, 2016):

- identify potential risks at every operational stage;
- forecast, compare, and evaluate emerging threats;
- develop an appropriate management strategy and a set of organizational decisions designed to minimize or eliminate risks;
- create the necessary conditions for the execution of preventive and corrective measures;
- continuously monitor the performance of the risk management system;
- analyze results and introduce improvements as needed.

These functions highlight the multidimensional nature of risk management and its importance in maintaining organizational resilience.

The defining characteristics of a modern risk management framework include (Uskova, Selimenkov, Anishchenko, & Chekavinsky, 2014):

- the need for advanced forecasting, intuitive judgment, and strategic foresight in managerial decision-making;
- the potential to formalize and institutionalize risk management as a structured system;

- the ability to rapidly identify opportunities for performance improvement and reduce the probability of undesirable outcomes.

In many developed economies—particularly in the United States—large corporations have adopted Enterprise Risk Management (ERM) systems, reflecting a broad consensus that traditional management approaches are insufficient for addressing contemporary challenges (Zubareva & Pilipenko, 2016). ERM models emphasize an integrated, organization-wide perspective, enabling companies to coordinate risk responses across multiple departments and strategic levels.

Successful implementation of risk management requires clear delineation of responsibilities across all structural divisions. Senior management must designate qualified personnel responsible for developing and overseeing risk management procedures at every organizational level (Isakov, 2010). These responsibilities must align with the company's long-term strategic goals and remain consistent with national legislation. In addition, it is essential to distribute tasks related to risk identification, evaluation, and control effectively among specialists so that emerging risks are addressed promptly and efficiently (Ariabod, Moghaddasi, Zeraatkish, & Mohammadi Nejad, 2019).

Risk management is considered one of the primary tools for reducing the cost of the product life cycle, optimizing production efficiency, and improving enterprise governance. When applied systematically, it serves as a preventive mechanism that reduces or eliminates potential disruptions that might threaten organizational success (Amrahov, 2015).

Achieving enterprise objectives requires a clear understanding of the company's core activities, technological processes, and the spectrum of possible risks. Preventing risks and reducing potential losses contribute directly to the sustainable development of the enterprise (Gazizov, 2014). In essence, risk management comprises the processes of directing and coordinating corporate activities to ensure their effectiveness. This includes identifying the types of losses that may occur, assessing their impact, and selecting the most appropriate method for managing each individual risk (Shchevyev, Bykov, & Zyablitseva, 2020).

From another perspective, risk management can be understood as a structured, iterative process through which risks are continuously monitored, analyzed, and reassessed to reduce or neutralize their consequences while ensuring the achievement of organizational goals. Thus, risk management is both a periodic and ongoing activity aimed at safeguarding enterprise viability. It encompasses identification, monitoring, control, and mitigation of all forms of risk, as well as communication and consultation practices that support long-term societal and organizational needs without compromising the needs of future generations (Ismayilov, 2019). Effective risk assessment and mitigation strengthen enterprise stability and accelerate sustainable development.

According to Amrahov, Rahimli, Mirzazadeh, Ibrahimli, and Valizadeh (2023), the procedural components of risk management planning and implementation include:

- defining the overall risk management framework;
- identifying risks and assessing their influence on business processes;

- conducting qualitative and quantitative analyses of identified risks;
- developing appropriate response strategies and implementing them in practice;
- monitoring risks and evaluating the performance of risk management activities;
- analyzing the relationship between risk management and overall enterprise performance;
- conducting a final evaluation of the integrated risk management system.

Results

For effective implementation of risk management activities, enterprises must establish a structured methodology or program that supports continuous and systematic risk monitoring. A Modern Networked Risk Management (MNRM) framework represents such a theoretically grounded program, designed to integrate best-practice processes, analytical methods, and management tools into a unified enterprise-wide system. This framework fosters active decision-making, ongoing identification and evaluation of risks, assessment of their materiality, and measurement of their potential influence on managerial decisions. It also enables the deployment of strategic countermeasures while considering essential project parameters, including scope, budget allocations, and implementation timelines (Dewanta & Sidiq, 2023).

The enterprise performance management process functions as a complementary instrument, supplying critical data for the operation of the risk management mechanism. Negative performance indicators and emerging unfavourable trends must be carefully analyzed to determine their potential effects on risk exposure. Based on this assessment, appropriate control measures should be activated within the enterprise's key operational areas. Such corrective interventions may include resource redistribution—financial adjustments, reassignment of personnel, revised production scheduling—or activating pre-planned strategies for mitigating specific risks. When applied effectively, this control mechanism allows the enterprise to account for severe deviations, prolonged negative shifts, and fluctuations in key performance indicators (Amrahov, 2014).

A crucial component of this system is the requirement to regularly reassess identified risks, especially those exerting a consistent influence on enterprise operations. As the organizational system advances through its developmental phases, additional and more detailed information becomes available, enabling more accurate risk evaluations. If the magnitude or probability of a particular risk changes substantially, corresponding management strategies must be recalibrated. This iterative, progressive approach strengthens the overall management cycle and ensures that risk dimensions remain under appropriate and effective control.

The enterprise’s risk management policy must therefore focus on establishing a mechanism that guarantees efficient and uninterrupted risk oversight. The mechanism should encourage early, accurate, and continuous detection and assessment of risks. Furthermore, it must promote transparency through comprehensive reporting, support the planning and implementation of risk-

reduction actions, and anticipate shifts in internal and external operational conditions. These elements collectively reinforce the stability, effectiveness, and adaptability of the risk management program (Mirzazadeh & Zeynalli, 2024).

Additionally, the mechanism must encompass the identification and monitoring of risks associated with counterparties, contractors, and other external stakeholders. Its successful operation requires a clearly developed plan composed of directive documents tailored to the enterprise's functional areas. These documents specify the procedures, responsibilities, and timeframes required for implementing the Integrated System of Risk Management (ISRM). Rather than hindering other organizational activities, such a structured plan enhances managerial oversight and strengthens decision-making capacity, thereby positioning enterprise leadership at the forefront of proactive risk governance (Amrahov, Mirzazadeh, Guliyeva, & Gazanfarova, 2024).

Discussion

The effectiveness of any risk management system depends on its ability to remain flexible, forward-looking, and integrated into strategic decision-making processes. A proactive approach enables enterprises to continuously assess factors that might lead to potential disruptions, identify opportunities, and evaluate the likelihood and severity of possible impacts (Shchevyev, Bykov, & Zyablitseva, 2020). This ensures that risks are detected early, correctly classified, and mitigated before they escalate into costly problems. The process also requires generating timely and reliable information, maintaining transparent communication among stakeholders, and adjusting risk priorities as conditions evolve. Such adaptability is crucial because risks differ in origin, intensity, and timing, requiring tailored responses rather than a single, uniform method.

In practical application, risk management must account for both technical and non-technical threats. Enterprises benefit most when risk identification and response measures are embedded into daily operations, allowing teams to anticipate and neutralize problems before they significantly influence productivity or financial performance. As emphasized by Mirzazada and Camalov (2025), well-designed strategies help organizations intervene early, reduce the possibility of losses, and maintain operational stability. The overarching goal is to create a risk-aware environment where each unit—management, departments, and employees—participates actively in managing uncertainties and safeguarding enterprise sustainability.

Conclusion

The risk management process comprises several interrelated components—identification, analysis, planning and response, monitoring, and control—that collectively support effective enterprise decision-making (Amrakhov, 2022). Identification requires systematic review of data, brainstorming sessions, independent assessments, and continuous updates to the risk register. Once identified, risks must be analyzed using qualitative and quantitative tools, including probability assessments, fault-tree analysis, historical data review, and expert judgment. This analytical stage helps classify risks according

to categories such as cost, schedule, technical, or procedural factors and determines their potential severity. Planning and response measures then establish priorities, assign responsibilities, select appropriate strategies, and develop actionable plans that can be implemented promptly when risks materialize. Monitoring ensures that emerging risks are tracked, reporting remains consistent, and adjustments are made based on real-time triggers.

For these processes to function effectively, enterprises often require a dedicated risk management unit responsible for coordinating activities across departments (Mirzazadeh, 2025). Directors, managers, and employees each play distinct roles: leadership oversees risk policies and approves financing for mitigation measures, managers support implementation and organizational coordination, while employees maintain the risk register, communicate developments, and promote an active decision-making culture. As noted by Amrahov et al. (2023), effective risk management depends on collaboration, clear communication, and ongoing knowledge development among all stakeholders. Although risk identification is inherently complex, a well-structured system enhances organizational resilience, reduces uncertainty, and supports sustainable long-term development.

References

Amrahov, V. T. (2015). The institutional aspects of the formation of agricultural market. *Theoretical & Applied Science, 10*(30), 72–74.

Amrahov, V. T. (2014). Improvement of the economic mechanism of the structural policy of the state in the agricultural market. *Theoretical & Applied Science, 11*(10, Special Issue), 471–476.

Amrakhov, V. T. (2022). Risk assessment in agrarian entrepreneurship. *Mitteilungen Klosterneuburg, 6*(72), 99–107.

Ariabod, A., Moghaddasi, R., Zeraatkish, Y., & Mohammadi Nejad, A. (2019). Governance and agricultural growth: Evidence from selected developing countries. *Economic Journal of Emerging Markets, 11*(1), 73–80.

Amrahov, V., Narimanov, N., Hajiyeva, S., Mirzazadeh, N., Ismayilova, T., & Osmanova, G. (2025). Development of effective financial strategies for long-term economic viability. *International Journal of Accounting and Economics Studies, 12*(SI-2), 1–9.

Amrahov, V., Rahimli, F., Mirzazadeh, N., Ibrahimli, G., & Valizadeh, H. (2023). Satisfying the consumer demand for agricultural products: Possibilities and its prediction. *Scientific Horizons, 26*(7), 160–170.

Amrahov, V. T., Mirzazadeh, N. G., Guliyeva, K. N., & Gazanfarova, J. V. (2024). Economic effectiveness and forecasting of scientific activity in Azerbaijan. *International Journal of Religion, 5*(7), 422–430.

Amrahov, V. T., Mirzazadeh, N. G., Taghiyev, M. Z., Muradov, R. J., Hamidov, A. V., & Karimova, M. H. (2023). Modeling and forecasting of production in agriculture. *Journal of Law and Sustainable Development, 11*(7).

Dewanta, A. S., & Sidiq, S. (2023). Intensity of the creative economy agency and partnership in empowering micro and small enterprises. *Economic Journal of Emerging Markets, 15*(1), 56–71.

Ekimova, K. V. (2013). *Finance of organizations (enterprises)*. INFRA-M.

Isakov, D. A. (2010). *Risk management for the development of municipal economic systems*. MAKS Press.

Ismayilov, Kh. N. (2019). The impact of structural changes in agriculture on risk reduction. *Economics and Entrepreneurship, (1)*, 456–459.

Gazizov, R. M. (2014). Foreign experience in the development of rural areas. *Young Scientist, 2*, 416–418.

Mirzazada, N. (2025). The state of organization of the management system and its characteristics. *Global Spectrum of Research and Humanities, 2*(4), 107–113.

Mirzazadeh, N., & Zeynalli, M. (2024). Improvement of information provision of small business in the agricultural sphere. *Journal of Economics, 1*(1), 23–27.

Mirzazada, N., & Camalov, T. (2025). Mechanism for regulating business relations. *Porta Universorum, 1*(8), 26–36.

Mirzazadeh, N. (2025). Scientific and theoretical foundations of the formation and development of management strategy in business entities. *Global Spectrum of Research and Humanities, 2*(5), 7–15.

Omoshev, T., Zhoroeva, A., Abyshov, I., Kaparova, G., & Mamyrkulova, D. (2024). Green technologies of the agroindustrial complex as the main element of increasing the competitive innovative development of Central Asia. *Scientific Horizons, 27*(12), 103–115.

Shchevyev, A. N., Bykov, A. A., & Zyablitseva, I. V. (2020). Principles, strategic trends and mechanisms of food security in development areas, the North and the Arctic of Siberia. *Economic Review, 1*(3), 15–20.

Uskova, T. V., Selimenkov, R. Yu., Anishchenko, A. N., & Chekavinsky, A. N. (2014). *Food security of the region* (Monograph). ISEDT RAS.

Vartanova, M. L. (2016). Main directions of ensuring food security in the Russian Federation. *Regional Problems of Economic Transformation, 5*(67), 29–39.

Vodyasov, P. V. (2016). Assessing the physical availability of food for the population of the region (using the example of the Altai Territory). *Economics and Entrepreneurship, 4–2*(69–2), 227–230.

Yermekova, Zh., Romanenko, S., Zhanibekova, G., Aitzhanova, B., & Apakhayev, N. (2024). Integration of digital technologies to improve the efficiency of small and medium-sized agricultural enterprises. *Scientific Horizons, 27*(12), 142–152.

Zubareva, Yu. V., & Pilipenko, L. M. (2016). Problems of running agribusiness and directions for their solution. *Fundamental Research, 12–4*, 858–862.