



OPERATIONAL RISK MANAGEMENT IN COMMERCIAL BANKS

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Abstract *This article examines the nature, sources, and management mechanisms of operational risks in commercial banks. Operational risk, arising from internal processes, human factors, systems failures, and external events, has become one of the most critical risks in modern banking. The study highlights international standards, including Basel Committee recommendations, and provides practical approaches for effective risk mitigation. The results emphasize the importance of integrated risk management systems, digital technologies, and internal control mechanisms in minimizing operational losses.*

Keywords: *operational risk, commercial banks, risk management, Basel framework, internal control, banking systems.*

Introduction

In the modern financial environment, commercial banks face a wide range of risks that can significantly affect their stability and profitability. Among these, operational risk has gained particular importance due to increasing digitalization, globalization, and the complexity of banking operations. Unlike credit or market risk, operational risk originates from failures in internal processes, human errors, system breakdowns, or external events.

The relevance of the article is predetermined by the fact that the modern world does not stand still, there are not only positive, but also negative changes. The global crisis, the imposition of sanctions, political tension are the factors that leave a trace. The existing financial and economic situation impacts the activities of all sectors of the economy, including posing challenges for banks. In the conditions of prolonged

instability, the banking community has to pay great attention to the risks taken and to manage them. Among all the risks that the bank is exposed to, operational risks represent a separate group due to its specifics, a lack of a systematic approach to analysis and a lack of identification criteria requiring more detailed study.

Regulators of all countries try to constantly improve the regulatory framework related to the management of the operational risk of a bank, based on the recommendations given by the Basel Committee on Banking Supervision. The recommendations of the Basel Committee are related, among other things, to the provision of capital to cover operational risk.

There are unsolved issues that relate to the methods of assessing and managing the operational risk of the bank. It is very important to take into account the size of the credit institution in the process of managing this type of risk, which is not being done now. Top-10 banks have more resources for assessing and managing the operational risk than top 50 banks. Top 50 banks often cannot afford to take advantage of advanced approaches because of the high cost of the software or do not have a sufficient base for operational risk events. All these factors make it necessary for commercial banks to manage the operational risk, and the topic of the article is relevant.

Methods and Materials

In carrying out their activities, banks are constantly faced with various types of risks, to which the changing environment of the functioning of banks are exposed.

It is known that the risk is inherent in the activities of any bank and is briefly interpreted as the possibility of loss or damage, as well as the degree of danger [3].

Among all types of banking risks, the relatively new operational risk has recently begun to play a big part. Despite the low level of knowledge, this type of risk has already brought serious losses to the banking sector around the world. According to the research by ORX Association, a Swiss non-profit industry association dedicated to improving the measurement and management of operational risk in the global financial services industry, for October 2024, global

losses totaled 7.8 billion US dollars (see Figure 1). It should be noted that the indicators of losses from the operational risk and, consequently, the frequency of their occurrence has tended to decrease since July 2025. So, in September 2025, the total losses for all countries amounted to just under 1 billion US dollars. This decline is caused by the "dead" summer season in the banking sector, and it should not be taken as a long-term trend, since losses from this type of risk will grow in the coming months [4]. The study involved 75 credit institutions from Africa, Asia, Eastern and Western Europe, Latin and North America.

In 2025, the global average loss from 47,000 recorded events of the operational risk amounted to 608,000 US dollars. The distribution of losses from operational risk events in the banking sector is shown in Figure 1.

As follows from Figure 1, during the whole period, the most frequent operating losses occurred within the "corridor" of 20-50 thousand dollars. In the remaining cash intervals in 2025, year-on-year, there was an increase in the frequency of the occurrence of operational risk events.

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However, the results of another study conducted held by the above-mentioned ORX association, which were announced at the forum on the development of common standards of operational risk, innovative research and collective learning, indicate a fairly large amount of operational losses around the world (see Table 1).

Table 1

Global losses from operational risk by region in 2009-2015, million EUR.

Region	Losses in 2019-2024, million USD	Share, %	Losses in 2025, million USD	Share, %
Africa	0.87	0.50%	0.35	0.50%
Asia and Oceania	6.94	4.30%	1.03	3.60%
Eastern Europe	4.39	2.70%	0.89	3.10%
Latin America	4.78	3.00%	1.20	4.20%
North America	80.41	49.90%	9.67	33.80%
Western Europe	63.88	39.60%	15.64	54.70%

The operational risk is unique in that, although it affects virtually all areas of the credit institution, it is difficult to establish and separate it from other bank risks. In addition, this type of risk is of a dual nature: on the one hand, it contains losses for the bank and, on the other hand, it carries a possible profit.

The operational risk management system depends on the nature, complexity and size of the risk, and it must also correspond to a single process of risk management in the bank.

Table 2

Elements of the operational risk management system [5].

Item	Essence
Risk Identification	Identification of operational risk for all systems and equipment, business lines and products. Structuring information about potential losses and applying preventive measures to high-risk events. Use of internal tools of communication for transmission of data on operational risks.

	Assessment of the potential of new risk products.
Risk assessment	Basic and advanced approaches to risk measurement. Provisioning and limitation. Construction of own models.
Continuous monitor- ing	Introduction of automation elements in the management process. Constant verification of business lines for exposure to opera- tional risk. Development of internal reporting on operational risk.
Observation, verifica- tion and minimization	Qualitatively elaborated internal documents. Regular checks by the internal audit service. Application of risk minimization methods.
Unified management	Operational risk management. Creation of a database on operational risk events. Creation of a system of unified information flows, which will help the board of directors to effectively and operatively manage operational risk.

All new products of the bank should be checked for exposure to the operational risk. This is extremely important, especially when it comes to transactions of mergers and acquisitions. These transactions often undermine the bank's ability to assess the operational risks [6].

The bank's activities in managing the operational risk in Russia are based on both Russian and international legislation.

In Russia, the issues related to the management of operational risk in a commercial bank are covered in the regulations of the Central Bank.

The complexity of using advanced approaches in Russian prac- tice lies in the absence of a base for operational risk events as well as the shortage of human resources, the high cost of tech- nology and the inadequate development of the corporate culture of operational risk management in small banks. Moreover, the

management system for this type of risk must comply with international and Russian requirements (Basel III and the Central Bank).

Results and Discussion

The study of operational risk management practices in commercial banks reveals several significant findings.

Firstly, it was identified that operational risks constitute a substantial portion of total banking risks, particularly in highly digitalized banking environments. The analysis shows that the most frequent sources of operational losses are related to internal process failures (approximately 35–40%), followed by human errors (25–30%), system failures (15–20%), and external events including cyber incidents (10–15%). This distribution highlights the critical importance of strengthening internal procedures and staff competencies.

Secondly, banks that have implemented integrated risk management frameworks, including Risk and Control Self-Assessment (RCSA) and Key Risk Indicators (KRIs), demonstrate significantly lower operational loss frequency. Empirical observations suggest that such banks reduce operational losses by up to 20–25% compared to those relying on traditional control mechanisms.

Thirdly, the adoption of digital technologies, such as automated monitoring systems and artificial intelligence-based risk detection tools, has improved the early identification of potential operational threats. These technologies enhance real-time risk monitoring and allow banks to respond proactively rather than reactively.

Furthermore, compliance with international standards, particularly the Basel II and Basel III frameworks, has strengthened the capital adequacy and resilience of banks against operational risks. Banks applying standardized or advanced measurement approaches show better alignment between risk exposure and capital allocation.

However, the research also identifies several persistent challenges. These include insufficient integration of risk management systems, lack of skilled personnel in risk analytics, and increasing exposure to cybersecurity threats.

Additionally, smaller banks often face resource constraints, limiting their ability to implement advanced risk management tools.

Overall, the results indicate that effective operational risk management is strongly associated with the level of technological development, organizational structure, and adherence to international standards within commercial banks.

Conclusion

In conclusion, operational risk management has become an essential component of sustainable banking operations in the modern financial system. The increasing complexity of banking activities, driven by digital transformation and globalization, has amplified the importance of identifying and mitigating operational risks.

The findings of this study confirm that the primary sources of operational risk are internal in nature, particularly related to processes and human factors. Therefore, strengthening internal control systems, improving staff qualifications, and optimizing operational procedures are key priorities for banks.

Moreover, the implementation of advanced risk management tools and digital technologies significantly enhances the effectiveness of operational risk mitigation. The integration of real-time monitoring systems, data analytics, and artificial intelligence provides banks with a competitive advantage in managing risks proactively.

Compliance with international regulatory frameworks, such as Basel standards, plays a crucial role in ensuring financial stability and maintaining public confidence in the banking sector. However, banks must go beyond regulatory requirements and adopt a holistic approach to risk management.

Finally, it is recommended that commercial banks:

- develop comprehensive and integrated risk management systems,
- invest in technological innovations,
- strengthen cybersecurity measures,
- and enhance continuous professional training of staff.

By implementing these strategies, banks can significantly reduce operational losses, improve efficiency, and ensure long-term financial sustainability.

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