

Research Overview on Operational Risks of Policy Banks

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Abstract: This paper provides an overview of the operational risks faced by policy banks, covering various aspects including bank operational risks, operational risk control, and the unique operational risks of policy financial institutions. The study discusses the shift in foreign experts' focus from credit risk to operational risk control, highlights the key role of the Basel III Accord in risk management, and examines the organizational and technical challenges in operational risk control. The paper also explores the role of policy financial institutions in resource allocation, the specific risks they face, and the results of research on their risk prevention and control measures. It identifies areas for further development in theoretical frameworks, regional studies, and case analyses, providing direction for future research.

Keywords: Bank Operational Risks, Policy Financial Institutions, Risk Management

1. Research on Bank Operational Risks

The Basel III Accord is currently the most important framework for risk control in the banking system. Ebenezer et al. (2018) emphasized that the centralized management of operational risks in the banking system should first rely on the relevant contents of the Basel III Accord for regulation^[1]. Anginer et al. (2021), after in-depth research, published a new capital accord, which, since its release, has quickly gained widespread recognition in the industry and has become the core basis for risk management in the banking systems of multiple countries^[2]. By categorizing, measuring, and identifying risks, the accord divides bank risks into categories, focusing on unexpected losses, systemic risks, and default risks, and designs corresponding risk management methods for different business processes. Through strict management of liquidity risks, the banking system's operational management has been effectively stabilized and made compliant.

Moltu B (2006) argued that the capital adequacy ratio is a key element of risk management, with external evaluations being particularly important^[3]. He suggested that external supervision and management should intervene in the risk control of banking systems, combining it with internal management to ensure fairness, transparency, and reasonableness in risk management, thus guaranteeing the quality of control^[4]. Based on this, mainstream commercial banks worldwide have applied new financial risk management methods over the past 15 years, particularly the successful application of the economic capital concept in market risk management. Stephen D (2000) pointed out that the advantages of internal model management include optimizing the bank's risk control procedures, increasing flexibility in financial innovation, and eliminating arbitrage motives, which reflect the value of internal control models^[4].

With the intensification of market turbulence, Nisar Q A et al. (2014) found that during the market turmoil of 1997-1998, traders used low-reputation and low-liquidity instruments, accelerating the development of credit risk derivatives^[5]. Additionally, Qu S et al. (2012) suggested that banks attempt to apply market-validated financial technologies to credit risk management, thereby strengthening their risk control capabilities^[6].

Meanwhile, Frederica D et al. (2019) found that as capital arbitrage increased, regulators began to question whether the existing risk management framework could successfully adapt to adjustments in market risks, operational risks, and credit risks, eventually prompting the refinement of the Basel III Accord^[7].

After conducting surveys, the Basel Committee confirmed that internal models for credit risk still need to be tested, as their reliability had not yet reached the standards for replicating market risk management. To better manage credit risk, the committee designed a more complex internal rating system and imposed strict regulations on its management processes. In 1998, the Basel Committee formally introduced the concept of operational risk, emphasizing its distinction from market and credit risks^[8]. Subsequently, the committee gradually streamlined the definition of operational risk, clearly defining it as the risk of losses resulting from internal system failures, human errors, or process breakdowns. Le D (2019) further defined two key aspects of operational risk: exclusion of reputation risk and indirect costs, and the exclusion of risks resulting from failure to reduce costs timely due to revenue decline^[8].

Ultimately, the Basel Committee 's goal was to promote institutions to strengthen their management and assessment of operational risks through the establishment of risk-sensitive capital requirements, preventing operational risks from replacing market and credit risks as the primary concern.

2. Research on Bank Operational Risk Control

Ayunku P E et al. (2020) argued that compared to other banking reform theories, business process reengineering (BPR) theory places greater emphasis on managing operational risks across all aspects of banking operations^[9]. This view highlights that when banks undertake business process reengineering, they must not only focus on improving efficiency but also ensure effective management and control of operational risks.

Similarly, Gadzo S G et al. (2019) conducted research on process reengineering in 47 North American banks, demonstrating that while business process reengineering can improve the quality of bank operations, it also exposes banks to more security challenges^[10]. This study indicates that although reengineering brings managerial benefits, risks, particularly in information security, cannot be overlooked.

In the process of implementing BPR, Bhaskarc L H (2018) identified two primary risks: the first is organizational risk, which is currently the highest-risk category, primarily involving how banks respond to market changes. The second is technical risk, which refers to the potential failure of new technologies to fully achieve the expected outcomes after process adjustments. Therefore, during BPR implementation, banks must focus on effectively managing these two types of risks^[11].

To mitigate the above risks, Bhaskarc L H (2018) recommended that banks can validate the effects of reorganization through targeted pilot programs, ensuring the achievement of strategic goals. Additionally, timely and clear communication is

crucial for ensuring the smooth progress of projects, particularly in terms of coordination between decision-makers and executors, to ensure that management can effectively fulfill its commitments.

3. Research on Operational Risks of Policy Financial Institutions

Schumpeter J A (1936) proposed that policy financial institutions, as a "visible hand," play an important role in the resource allocation of market economies. He argued that while market mechanisms have their advantages, they are also flawed, and market regulation alone cannot efficiently allocate social resources, thus necessitating the intervention of a "visible hand" to compensate for the market's shortcomings^[12]. Minsky H P (2008) put forward the theory of financial instability, suggesting that financial crises often stem from the inherent instability of the market, with the volatility of economic cycles leading to an uncertain financial market. In this context, policy financial institutions, compared to commercial banks, possess stronger capabilities in market risk adjustment and economic stabilization^[13]. These theories provide a theoretical foundation for understanding the role of policy financial institutions in risk management.

The issue of operational risks in policy financial institutions is an important topic in the financial field. These institutions, as representatives of national strategic financial forces, not only bear significant policy tasks but also face a wide variety of risk challenges. Scholars have thoroughly examined the risks faced by these institutions, which primarily include policy risks, project risks, and risks closely related to national development strategies. Additionally, research has explored the internal mechanisms for risk management in these institutions, particularly their approaches to risk pricing, monitoring, and control, as well as their effectiveness. Some studies have also focused on the lessons learned from these institutions in managing risks and their attempts and successes in innovating risk management methods.

4. Research on Operational Risk Prevention and Control in Policy Financial Institutions

The prevention and control of operational risks in policy financial institutions has been a focus of attention for both scholars and practitioners. Due to their unique nature, these institutions bear the responsibility of executing national policies and providing financial support, thus they must place a high priority on effectively managing operational risks. In academic research, valuable results have been achieved, providing important references for further improving their operational risk prevention and control measures.

First, scholars have conducted comprehensive identification and classification of the risks faced by policy financial institutions. Policy risk refers to the potential impact of policy changes on the institution's operations, while credit risk involves the possibility of borrower defaults. Liquidity risk pertains to the institution's inability to meet short-term liabilities. Furthermore, external factors such as changes in the macroeconomic environment and policy adjustments pose potential risks to these institutions.

Second, scholars have explored the methods and tools employed by policy financial institutions in risk management. These studies focus on risk measurement models, internal control management mechanisms, and asset-liability management, aiming to improve the level of risk prevention and control. Additionally, some research has focused on innovative practices and successful cases in risk management,

providing valuable insights for the industry. For example, Reinhart C M et al. (2008) analyzed the severe credit risk operation case of Barings Bank and the 2007 U.S. subprime mortgage crisis, revealing the underlying causes of operational risks, moral hazards, and proposing corresponding risk prevention measures for similar credit business^[14]. Likewise, Nasieku T et al. (2016) suggested that information sharing mechanisms between banks could effectively reduce the risks of credit enterprises, offering new perspectives on risk management for policy financial institutions^[15].

In conclusion, significant progress has been made in research on operational risk prevention and control in policy financial institutions, particularly in the areas of risk identification and management tools. However, with the continuous changes in the financial environment, many unknown areas and challenges remain that require further exploration. Future research should focus more on interdisciplinary integration, combining practical experience with cutting-edge technologies to provide comprehensive and in-depth guidance and support for operational risk prevention and control in policy financial institutions.

5. Conclusion and Discussion

This study indicates that the management of operational risk in banks has evolved from a focus on credit risk management to a comprehensive approach addressing multidimensional risks. The Basel II Capital Accord provides a scientific basis and operational framework for bank risk management, playing a significant role, especially in managing liquidity risks and internal controls within banking systems^[16]. However, for policy-based financial institutions, the characteristics and management requirements of operational risk are more complex. The risks involved not only include traditional credit and market risks but also encompass policy risks and risks related to national strategies^[17]. In the context of operational risk control within policy-based financial institutions, existing research has explored risk identification, pricing, and monitoring mechanisms in depth, but several unknown areas and challenges still require further investigation. In particular, how to leverage emerging technologies such as artificial intelligence and big data to enhance the efficiency and accuracy of risk monitoring and identification has become a key direction for future research^[18]. Additionally, considering the strong local characteristics of policy-based financial institutions, future research should also focus on regional financial risk response strategies and further refine risk management models through case studies^[19]. Overall, while policy-based banks undertake major national policy tasks, their operational risk prevention measures need to be more refined and intelligent. In this process, interdisciplinary integration and regional studies will provide crucial support for theoretical development and practical applications, promoting the sound operation of policy-based financial institutions in the complex global economic environment.

Although significant progress has been made in research on operational risk prevention and control in policy-based financial institutions, there are still several areas that require further exploration. First, as the global financial environment continues to evolve, the external risk factors faced by policy-based financial institutions are becoming more complex. Therefore, future research should strengthen the systematic analysis of the external economic environment, policy adjustments, and their impact on operational risks to refine the risk identification and assessment framework. Second, the application of emerging technologies, particularly artificial intelligence, big data, and blockchain in risk management, is still in its early stages. Future research should focus on how these technologies can more efficiently improve risk monitoring and emergency response capabilities. At the same time, given the

distinct local characteristics of policy-based financial institutions, how to tailor appropriate risk prevention measures based on local economic development and industry needs should also become an important direction for future research. By enhancing case study research, exploring the effectiveness of regional risk prevention strategies can further improve the risk management systems of policy-based financial institutions, enhancing their ability to respond to uncertain risks. In conclusion, future research should not only focus on optimizing traditional risk prevention methods but also actively integrate emerging technologies and region-specific differentiated strategies to provide more comprehensive and flexible risk management solutions for policy-based financial institutions.

6. New knowledge contribution

Policy financial institutions face unique challenges in managing operational risks, including policy risks, project risks, and risks closely tied to national development strategies. These institutions are tasked with executing national policies while maintaining operational stability in a dynamic economic environment. However, existing research predominantly focuses on traditional risk management methods, with limited exploration of the practical application of emerging technologies such as artificial intelligence, big data analytics, and blockchain. Further investigation into how these technologies can enhance the efficiency, accuracy, and scalability of risk monitoring and identification is critical. These advancements not only strengthen the real-time capabilities and precision of risk management but also provide effective tools for addressing the complexities and uncertainties inherent in the external environment.

The application of emerging technologies in policy financial institutions necessitates a context-specific approach tailored to regional economic conditions and regulatory frameworks. Variations in local economic development, institutional resource allocation, and regulatory environments demand differentiated strategies for technology implementation. Integrating financial theories with technological advancements to develop a hybrid risk management framework can address the multifaceted risks faced by institutions while promoting intelligent and localized system development. Future research should emphasize the cost-effectiveness, organizational adaptability, and potential disruptions associated with technological adoption, proposing phased implementation models to ensure a smooth transition. These efforts will not only enhance the operational risk management capacity of policy financial institutions but also support their sustainable operation in an increasingly complex global economic landscape.

Data Availability

The original contributions presented in the study are included in the article, and further inquiries can be directed to the corresponding author/s.: 13060223387@163.com

Interest Declaration

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article. The research did not involve any financial, personal, or other relationships with other people or organizations that could inappropriately influence (bias) our work. This submission is an honest, accurate, and transparent account of the study being reported, without any material omissions. Any

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