

A Study on Financial Innovation and Risk Management Methods from an Accounting Perspective

Yifan Wang ^{1*}

¹ Yantai University, Yantai, China

Abstract. With the continuous development of global financial markets and rapid technological advances, a growing number of innovative products and services in the financial sector have emerged, providing new impetus to economic growth but at the same time bringing new risks. We study financial innovation and risk management methods from an accounting perspective, examining how accounting plays a key role in ensuring financial stability and transparency. First, this paper summarizes the definition and classification of financial innovation and analyzes its positive and negative effects on economic development. Second, our main focus is on the fundamental roles of accounting in risk management, which involve supplying financial data for decision-making, overseeing financial innovation and operational risks, and evaluating the efficiency of risk management actions. In addition, this paper discusses the risk management methods from the accounting perspective, such as improving the accuracy and transparency of financial reports, selecting and adjusting prudent accounting policies, strengthening internal control and external audit mechanisms, and improving the accuracy of asset and liability assessment. Enhancing accounting standards and regulatory frameworks to better align with the evolving trends in financial markets is recommended. Furthermore, we will strengthen the professional training of accounting personnel, improve the risk management capabilities of financial institutions, and promote the integration of accounting innovation and financial innovation.

1 Introduction

In today's dynamic and changeable global financial market, financial innovation, as one of the core driving forces of market development, not only opens up new investment and financing channels but also significantly enhances the flexibility and inclusiveness of the entire financial system. Nevertheless, the rapid advancement of financial innovation has led to new and intricate forms of risks, emphasizing the importance of risk management in ensuring financial stability and long-term growth. Predicting and explaining new risks can be challenging for individuals using traditional risk management methods, necessitating the enhancement and innovation of current risk management tools. As an important part of the financial system, the accounting function undertakes the important task of capturing and reporting risk information in the trend of financial innovation. The transparency and accuracy of accounting information directly affect the effectiveness of risk management and the overall operation of financial markets.

2 An Overview of Financial Innovation

2.1 Definition and Classification of Financial Innovation

Financial innovation is one of the main forces that promote development in the financial field. The term typically refers to using new financial instruments, technologies, institutions, or processes to ensure effective capital allocation and improve the depth and breadth of financial markets. [1]

There are many types of financial innovation, and we can classify it from different aspects. According to the nature of financial instruments, it can be divided into structural financial innovation and institutional financial innovation. Complex financial derivatives, like options, futures, and swaps, are part of structural financial innovation, offering a different approach to managing risk through reorganization and pricing. Institutional financial innovation involves new financial institutions and markets, such as Internet banking, crowdfunding platforms, and cryptocurrency markets, which optimize financial services by establishing innovative institutions or operating markets. Another classification method is based on the motivations of financial innovation, which can be divided into regulation-related, market demand-related, and technology-related types. Regulation-related financial innovation occurs when regulatory changes push financial markets to develop new products or institutions to meet regulatory requirements. Market

* Corresponding author: kasare@163.com

demand-related financial innovation is driven by customers' growing demand for risk management tools and financial services, such as asset securitization and risk hedging tools. At present, technology-related financial innovation is particularly noticeable. The application of modern information technologies such as blockchain, big data, cloud computing, and artificial intelligence has promoted the innovation of financial services.

2.2 The Impact of Financial Innovation on Economic Development

The impact of financial innovation on economic development is far-reaching and multi-faceted. It creates new financing channels and investment opportunities, allowing for a more efficient transfer of capital from savers to investors. The emergence of financial derivatives allows companies to hedge commodity price and exchange rate risks through options and futures markets. Such a risk management strategy ensures that enterprises focus on developing their core businesses and reduce the costs caused by uncertainty.[2]

Financial innovations have enhanced and expanded the financial market. By introducing new financial instruments and services, managers can enhance their ability to cater to various investors and enhance the appeal and fluidity of the market. Asset securitization transforms traditional non-tradable assets (such as mortgages) into tradable securities and expands the scale of the financial market. In addition, it attracts more investors. Financial innovation supports information flow and price discovery in the economy. Information transparency and price efficiency of financial markets are very important to the healthy development of the economy. Financial innovation helps investors and regulators evaluate asset prices and market risks more effectively by offering abundant market information and investment indicators.

3 Financial Innovation Risk Management from the Perspective of Accounting

3.1 The Role of Accounting in Financial Risk Management

3.1.1 Provide Financial Information to Support Decision-Making

One of the basic functions of accounting is to collect, process, and report financial information. They are very important to the decision-making of enterprises. In financial innovation, the financial information accountants provide becomes more important because it helps managers and investors understand the nature, benefits, and risks of financial products and services. For example, through accounting records and reports on derivative transactions, managers can understand the extent of market risk the company is exposed to and decide whether to reduce that risk through hedging.

Moreover, high-quality financial reports help increase market information transparency, reduce the cost of capital, and improve investment efficiency. The reliability and timeliness of accounting information directly affect the accuracy of investment decisions related to financial innovation tools.[3]

3.1.2 Monitoring the Risks in the Process of Financial Innovation and Operation

Accounting not only plays a role in recording and reporting financial information but also plays a key role in monitoring an organization's internal and external risks. The products and services brought by financial innovation often have high complexity and opacity, which challenges risk identification and monitoring. By establishing an effective internal control system and risk assessment mechanism, accounting can help enterprises identify potential risk points such as credit, market, and liquidity risks.[4] By continuously reviewing and analyzing financial data, the accounting department can detect abnormal transactions and activities on time and alert management of necessary risks. Figure 1 is a schematic diagram of monitoring financial risks.

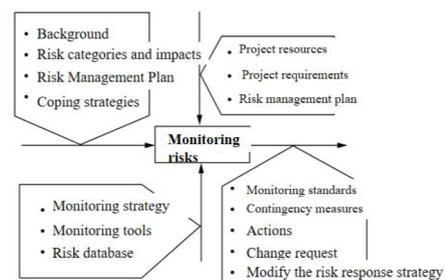


Fig. 1. Monitoring financial risks

3.1.3 Effectiveness Evaluation of Risk Management Measures

Effective risk management requires identifying and monitoring risks and evaluating whether the control measures implemented have achieved the desired results – accounting plays a key role in this. By thoroughly analyzing the economic impacts of risk management practices, accounting aids organizations in assessing the efficacy of their risk management tactics, for example, measuring the impact of hedging on reducing income volatility or assessing the actual performance of capital protection products. Accounting cycle analysis, analysis of financial indicators, and several other financial analysis tools are the primary means of assessing the effectiveness of risk management. The assessment results are crucial for adjusting risk strategies, optimizing resource allocation, and improving the overall risk management framework.[5]

3.2 Risk Management Methods from the Perspective of Accounting

3.2.1 Financial Reporting and Transparency

Accurate financial reporting is critical to any organization's risk management, providing internal and external stakeholders with reliable information to make informed decisions. In the context of financial innovation, accuracy and transparency become particularly critical.[6] Accountants need a deep understanding of complex financial instruments and their performance in corporate finance to ensure that all transactions are fairly recorded and reported according to international accounting standards. Transparency is shown in the report by revealing all crucial information impacting corporate value, including possible financial obligations, risk exposures, and accounting policy changes, for investors and regulators to comprehend completely. Increased transparency fosters trust and reduces hidden market risks among market participants, thus mitigating moral hazard.

3.2.2 Prudent Choice and Adjustment of Accounting Policy

The choice and adjustment of accounting policies is a key part of ensuring the fairness of financial reporting, and it is also an important tool for effective risk management. Given the increasing diversity and complexity of financial instruments, selecting appropriate accounting policies that reflect the actual nature of the financial instruments is particularly important. Organizations should follow conservative principles, such as fair value assessment and impairment testing, to reflect the market value of assets and potential losses on time. In addition, the policies involve being mindful of both income and costs, maintaining adherence to regulations while steering clear of excessively aggressive earnings management. By carefully selecting and adjusting accounting policies, organizations will more accurately represent their operating conditions to effectively manage and reduce financial risks.[7]

3.2.3 Strengthen the Internal Control and Audit Mechanism

Strengthening internal controls and audit mechanisms is crucial to identifying and avoiding risks. A robust internal control system can ensure the accuracy and completeness of financial reporting, prevent fraud, and improve the organization's overall risk management capabilities.[8] They should cover effective monitoring measures, such as regular reporting and review processes, risk assessment, and management procedures. Our internal control system emphasizes transparency and accountability, ensuring that employees at all levels understand their role in managing risk. External audits confirm a company's financial well-being, which is crucial for building trust with investors and maintaining market stability. Figure 2 is a diagram of internal control.

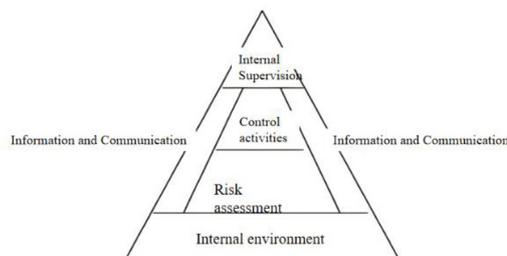


Fig. 2. Internal control

3.2.4 Improve the Accuracy of Asset and Liability Assessment

An accurate assessment of assets and liabilities is the foundation upon which risk management strategies are built. Financial innovation frequently entails using intricate financial instruments, such as derivatives and special purpose entities, which often necessitate applying specialized assessment techniques and a comprehensive understanding. Accounting standards provide a framework for evaluating these financial instruments, but their implementation requires the judgment and expertise of professionals. The enhancement of precision in evaluating assets and liabilities necessitates the precise estimation of their fair value and an appreciation of the implications of cash flow, credit risk, and market fluctuations pertaining to these financial instruments. It requires a high degree of expertise, experience, and a comprehensive understanding of market analysis and financial models. Accurate assessment of assets and liabilities is indispensable for preparing and interpreting financial reports, managing liquidity and solvency, and predicting and responding to market changes, as shown in Table 1.

Table 1. Improving asset and liability valuation models

Evaluation Project	Currency	Required value
Accuracy of fair value assessment	85%	95%
Credit risk exposure	5 million yuan	≤ 4 million yuan
Cash flow forecast error	3%	≤1%
Accounting standards compliance	Good	Excellent

4 Suggestions for Financial Innovation and Risk Management

4.1 Improve Accounting Standards and Regulatory Framework

4.1.1 Timely Updating of Accounting Regulations to Accommodate Financial Innovation

The rapid change in the financial market and the continuous innovation of financial products require that accounting standards constantly evolve to meet emerging challenges. Various complex financial instruments such as derivatives, graded bonds, and other structured financial products are constantly being introduced in the market. Their characteristics and risk management methods differ from traditional financial instruments, challenging accounting standards' appropriateness and relevance.[9] To maintain the quality and comparability of financial reports and create a transparent and fair market environment, accounting standard-setting institutions need to review and update their standards promptly to ensure they keep up with the pace of financial innovation; for example, introducing more flexible valuation methods to deal with market fluctuations or setting new disclosure requirements to reflect the actual risks of financial instruments. Constantly updating accounting standards is conducive to improving risk management efficiency and accuracy, enabling investors and regulators to assess enterprise risks using consistent standards.

4.1.2 Strengthen the Supervision and Guidance of Regulatory Agencies on Accounting Treatment

With the development of financial innovation, regulators pay more and more attention to accounting to ensure that accounting treatment is correct and compliant. Regulators must pay close attention to market dynamics and understand emerging financial instruments and how they are represented in corporate financial reports. The guidance and assistance regulatory agencies provide concerning accounting treatment can assist financial institutions in correctly understanding and implementing relatively complex accounting standards. Furthermore, the supervisory bodies conduct periodic assessments of financial institutions' financial reports and accounting treatment to identify and rectify discrepancies. Communication with accountants and financial institutions is conducive to getting timely feedback on problems in practice and improving the practical applicability and relevance of accounting standards. Regulators will assess financial institutions' internal control and risk management capabilities and guide them to improve their risk monitoring and control mechanisms to enhance the stability of the overall financial system.

4.2 Improve the Accounting Risk Management Ability of Financial Institution

4.2.1 Professional Training and Quality Improvement of Accountants

Accountants are central in identifying, measuring, and monitoring financial risks. In the evolving financial market, they must constantly improve their professional ability. Professional training is vital for maintaining the professional quality of accountants and keeping up with the speed of financial innovation. It is incumbent upon financial institutions to provide regular training for their accounting personnel to ensure that they possess a comprehensive understanding of emerging financial instruments and are conversant with the latest accounting standards and regulatory requirements. Accountants are trained to use advanced risk assessment models, improve their analytical skills, and work closely with risk management teams. Financial institutions that offer continuing education and professional certification opportunities encourage accountants to maintain their knowledge and skills at the cutting edge, thereby effectively reducing the complexity and uncertainty in this field. Professional training should also include ethics and compliance to ensure that accounting practices meet industry standards and social responsibilities.

4.2.2 The Introduction of Advanced Accounting Information Systems and Risk Management Tools

In the rapidly changing financial environment, relying on outdated accounting and risk management systems will greatly increase uncertainty. Financial institutions must introduce and adopt cutting-edge accounting information systems and risk management tools to improve efficiency and accuracy. The system can collect and integrate data from different business fields and markets, making risk assessment more rapid and accurate. For example, an accounting information system based on cloud computing can provide real-time data analysis and reporting functions, which is helpful in quickly identifying and responding to potential risks. The risk management tools of artificial intelligence and machine learning algorithms can provide more advanced predictive analysis so that financial institutions can manage risks proactively instead of just reacting to the risks that have occurred. Similarly, applying advanced technology facilitates the automation of internal control processes, reduces the incidence of human error, and enhances monitoring capabilities. Ultimately, deploying advanced technology enables financial institutions to construct a more robust risk management structure, thereby safeguarding themselves and their customers from unwarranted financial hazards.

4.3 Promote the Integration and Development of Accounting and Financial Innovation

4.3.1 Encourage Accounting Innovation to Meet the Needs of Financial Development

It is imperative that the accounting profession adopt a receptive and inclusive approach to innovation to effectively adapt to the dynamic and ever-changing financial landscape. This innovation encompasses the adoption of novel accounting standards and practices that reflect the intricate nature of financial products and the integration of cutting-edge technologies into the work process. For example, blockchain technology can create an accounting platform that cannot be tampered with and can be verified step by step, improving the transparency and efficiency of transactions. Similarly, artificial intelligence and big data analysis assist accountants in conducting more in-depth data analysis, enhancing prediction accuracy, and providing comprehensive insight for risk assessment.

4.3.2 Enhance Communication and Collaboration Between the Accounting and Finance Communities

The significance of accounting roles in financial innovation underscores the necessity for accounting professionals to collaborate closely with other financial sector stakeholders. The collaboration facilitates a deeper comprehension of financial instruments' operational mechanisms and potential hazards. At the same time, financial practitioners can obtain key financial information from accounting reports to guide decision-making. To strengthen this exchange, we can organize professional forums, seminars, and workshops involving all kinds of professionals in the financial and accounting industries. It is a platform for sharing knowledge, discussing industry trends, and conducting joint research. On the other hand, establishing a robust alliance between academic institutions and private enterprises, facilitated by the incorporation of case studies and internship opportunities, can facilitate a fruitful exchange of theoretical and practical knowledge between learners and practitioners. Furthermore, industry guidance and supervision suggestions help accounting professionals better understand market demands. Conversely, financial professionals will have a clearer understanding of the value of accounting information. These two areas work together through interaction and cooperation to promote the healthy development of financial innovation while ensuring effective risk management.

5 Conclusion

This study discusses financial innovation and its impact on risk management approaches from an accounting perspective and demonstrates the core role of accounting in modern financial ecology. Financial innovation stimulates the economy but also brings new risks. Accounting is an important part of risk

management because it ensures the accuracy of financial reporting, improves transparency, monitors risks, and evaluates the effectiveness of risk control measures. This study underscores the necessity for revising accounting standards and regulatory frameworks to reflect the reality of financial innovation, enhance the professional training and caliber of accounting professionals, and fortify collaboration and exchanges between accounting and financial circles to facilitate knowledge sharing and practice advancement. These measures will effectively manage the risks brought by financial innovation and ensure the stable operation of the entire financial system. In the future, the accounting industry must adapt to the prevailing trend of technological development, entailing integrating innovative technologies into risk management strategies and ensuring the stability and sustainable development of the financial market driven by innovation.

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