

Artificial Intelligence Ethics Best Practices Model for Financial Decision-Making in Chinese Financial Institutions

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ABSTRACT

Chinese financial institutions (CFIs) are increasingly embracing artificial intelligence (AI) for their financial decision-making driven by AI's capacity to mitigate risks and enhance efficiency and accuracy. However, there remain ethical challenges related to the integration of AI in financial decision-making. This study develops the AI ethics best practices model (AB-PraM) to mitigate ethical concerns and enhance the application of AI in financial decision-making. By employing a quantitative methodology, this research collected questionnaire data from 320 financial experts in CFIs. Structural equation modelling (SEM) was adopted to identify AI ethics best practices for the implementation of the AB-PraM. The findings of this research will mitigate AI ethics challenges in CFIs and provide a practical framework for transparent and accountable decision-making in alignment with ethical standards and regulations.

KEYWORDS

Artificial Intelligence, Chinese Financial Institutions, Ethics Best Practices, Financial Decision-Making

INTRODUCTION

In recent years, artificial intelligence (AI) technologies have demonstrated exceptional capabilities in intelligent tasks, such as problem-solving, pattern recognition, and decision-making (Marda, 2018; Mogaji & Nguyen, 2022). Since recognizing this potential, financial service providers have increasingly incorporated AI into their operations to enhance the accuracy of financial decisions (Truby et al., 2020). The use of AI algorithms, capable of vast dataset analysis and intricate pattern recognition, not only streamlines operational processes but also delivers personalized financial services to ensure customer satisfaction (Northey et al., 2022). Moreover, AI's rapid fraud detection capabilities play a crucial role in protecting institutions and clients from financial losses and security breaches (Ghazwani et al., 2022).

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China, a global financial powerhouse, demonstrates a particularly pronounced commitment to AI adoption. According to *China Daily*, Chinese financial institutions (CFIs) have invested over 56 billion yuan (approximately USD 7.6 billion) in AI-related hardware and software. The rapid implementation of AI technology by CFIs has given rise to new theoretical and managerial challenges (Bussmann et al., 2020). Ethical concerns, particularly regarding data collection, algorithmic biases, and discrimination, have surfaced as CFIs collect data to train and operate their AI systems (Jiang et al., 2020; Xie, 2019; Zhao, 2021). Roberts et al. (2021) have emphasized the need to identify and address ethical issues for responsible and effective AI utilization in financial institutions. However, there remains a critical theoretical gap, particularly in the identification and resolution of the ethical issues surrounding the use of AI in financial decision-making processes.

The unique cultural and regulatory environment of China's financial industry introduces distinct challenges and considerations that significantly influence the implementation of AI ethics best practices. In the context of deeply ingrained cultural conventions, CFIs are characterized by collective values, social harmony, and Confucian principles (Wen et al., 2021). These cultural factors may shape the perception of ethical considerations in AI adoption and influence the interpretation and prioritization of fairness and transparency. Additionally, the active role of the government in shaping the regulatory framework adds another layer of complexity (Lee, 2020). The regulatory environment plays a crucial role in defining the boundaries within which financial institutions operate, affecting the implementation of AI ethics best practices. For instance, compliance with government directives and regulations may influence the extent to which financial institutions can adopt certain AI technologies or the degree of transparency required in algorithmic decision-making. Thus, Chan et al. (2022) opined that ethical practices regarding AI need to be adaptable to these specific cultural and regulatory considerations to ensure their effectiveness and relevance in guiding responsible AI use in the Chinese financial context.

Building upon the recognition of cultural and regulatory factors in AI integration, studies have been conducted to enhance the integration of AI in financial decision-making. For instance, Fan et al. (2022) proposed an explainable AI model for application in fintech risk management. Roberts et al. (2021) analyzed the strategic areas in which China is investing in AI and the concurrent ethical debates delimiting its use. Boukherouaa et al. (2021) investigated the opportunities and risks associated with AI in finance, and Gigante and Zago (2023) conducted a comprehensive assessment of AI-based frameworks in the financial industry. Despite these efforts, a critical knowledge gap remains unaddressed concerning the identification and resolution of the ethical issues of AI utilization in financial decision-making processes. Mogaji et al. (2022) highlighted the persistent AI ethical challenges confronting financial service providers. In the Chinese context, Roberts et al. (2021) and Chan et al. (2022) emphasized the absence of a comprehensive and context-specific AI ethics framework tailored to the unique challenges and dynamics of the Chinese financial sector. The identified gap underscores the need for further research that develops practical best practices to address AI ethical challenges in the financial decision-making landscape.

Therefore, this research addresses this gap through the development of practical best practices to handle AI ethical challenges in financial decision-making within CFIs. The primary objective is to contribute valuable insights and applicable guidelines for the mitigation of AI-related ethical concerns in financial decision-making processes. The proposed AB-PraM is a framework that guides transparent and accountable decision-making. The research employs a quantitative methodology, including a questionnaire survey and structural equation modeling (SEM), to understand and identify the core factors influencing AI-driven decision-making.

The research is expected to make several contributions. Firstly, it explores the ethical implications associated with the integration of AI into financial decision-making processes to fill the outlined theoretical gap. Secondly, the research seeks to mitigate AI ethics challenges in financial decision-making processes and contribute to the broader discourse on the responsible use of AI in the financial sector. Thirdly, the study is specifically tailored for CFIs, as it considers their unique challenges and dynamics.

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