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Research on the Impact of Artificial Intelligence (AI) on Corporate Finance and Financial Professionals

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Abstract: The development of artificial intelligence has brought tremendous changes to enterprises and also pose higher demands on financial professionals. Through literature research, this paper explores the viewpoints of domestic and foreign scholars and industry experts on the impact of Artificial Intelligence (AI) on corporate financial management and the role transformation of financial professionals. It analyzes the current application status of AI technology in finance. The results indicate that AI will replace some repetitive and highly procedural tasks, such as simple data entry and bookkeeping. AI can improve the processing speed and accuracy of corporate financial data. With its learning capabilities, AI can assist financial professionals in addressing knowledge gaps. However, AI cannot completely replace human thinking, judgment, and decision-making, especially in areas like emotional communication and aesthetic experience. This requires financial professionals to continuously improve their overall qualities, leverage their strengths, and achieve complementary advantages with machines, jointly promoting innovative financial development in the era of artificial intelligence.

Keywords: Artificial intelligence; Corporate finance; Financial professionals

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1. Introduction

In July 2017, the State Council issued the "Development Plan for a New Generation of Artificial Intelligence", clearly stating the need to "promote the industrialization of artificial intelligence technology." In August 2018, the Ministry of Industry and Information Technology released the "Three-Year Action Plan for Promoting the Development of a New Generation of Artificial Intelligence Industry (2018-2020)", calling for pilot demonstrations in key industries such as healthcare, transportation, and education, vigorously promoting smart manufacturing, and building a self-controllable information technology system. Therefore, it is necessary to re-examine financial work, and financial professionals should transition from traditional bookkeeping roles to strategic management roles. The traditional financial management model has become inadequate to meet the demands of rapid modern economic development. How to effectively address this issue using new technologies has become a topic of

common concern in both academia and practice [1]. On one hand, enterprises are actively exploring AI-based financial management models; on the other hand, the state has introduced relevant policies to guide and regulate the development of AI. For example, the "13th Five-Year Plan for National Economic and Social Development of the People's Republic of China" proposes implementing smart transformation projects in manufacturing, agriculture, energy, and other sectors. The "13th Five-Year National Informatization Plan" emphasizes promoting the construction of smart cities and the application of emerging technologies such as the Internet of Things, cloud computing, big data, and spatial geographic information integration in areas like government services and city management [2]. The "Guiding Opinions on Accelerating the Establishment of a Government Purchase of Public Services System" proposes advancing structural reforms on the supply side of public services and exploring the use of government purchases to provide public goods and services [3]. The "13th Five-Year National Science and Technology Innovation Plan" proposes accelerating breakthroughs in key generic technologies such as human-computer interaction, natural language understanding, machine learning, and deep learning. These policies not only promote the popularization and application of AI technology but also place higher demands on corporate financial management. Artificial Intelligence (AI) refers to the ability of computer systems to simulate human intelligence, including learning, reasoning, perception, decision-making, and more [4]. Zhang Xinmin points out that financial work is an indispensable part of enterprise operations, mainly including financial accounting, financial analysis, budget management, fund management, tax planning, and other content [5]. Financial work is highly rule-based, repetitive, and data-dependent, making it an ideal field for the application of AI technology. Zhang Guiqiao, Chen Zhibin, and others have pointed out that AI can process large amounts of structured data through automation and intelligent methods, and make predictions and decisions based on algorithmic models, thereby significantly improving the efficiency and accuracy of financial work [6]. In recent years, the application of AI technology in the financial field has gradually deepened. For example, Robotic Process Automation (RPA) is widely used in repetitive tasks such as invoice processing and report generation; machine learning algorithms are used for complex analyses such as financial risk prediction and credit evaluation; and Natural Language Processing (NLP) technology is used for intelligent customer service and contract review [7]. However, the degree of AI application in the financial field varies depending on the industry and region. In highly digitized industries such as finance and technology, the application of AI is more mature [8]; whereas in traditional manufacturing and service industries, the penetration rate of AI is relatively low [9]. Furthermore, there are also gaps in AI application between domestic and foreign countries. Developed countries represented by the United States and the United Kingdom are leading in the research and development and application of AI technology, while developing countries such as China and India are accelerating their pursuit [10]. This article aims to explore the impact of AI on corporate finance and financial professionals, and analyze the current status of AI technology application in the financial field.

2. Current status of AI technology application in finance

Since Turing proposed the concept of Artificial Intelligence (AI) in 1956, AI has developed for more than 60 years. However, China started late in the research and application of AI. It was only in the 1980s that China began to explore the relevant theories and practices of AI.

2.1. Automation of financial processes

In the study of financial process automation, RPA (Robotic Process Automation) and OCR (Optical Character

Recognition) technologies have become important forces driving the digital transformation of finance. These technologies not only focus on the automation of routine processes such as account processing, report generation, and expense reimbursement, but also gradually extend to more complex financial activities, such as automatic reconciliation and budget control [11]. Researchers have delved into how these technologies can standardize and normalize financial processes by simulating manual operations, and how to continuously optimize process efficiency through learning mechanisms. Li Weihong's research not only revealed that RPA has significantly reduced processing time by 70% in accounts receivable management, but also further analyzed how this efficiency improvement can be translated into improved cash flow and enhanced credit management capabilities for enterprises [12]. The study pointed out that the application of RPA reduces human error, improves customer satisfaction, and saves a lot of human resources for the enterprise. Zhao Yan's research on OCR technology in invoice recognition and entry not only achieved an accuracy rate of over 95% but also emphasized the importance of this technology in improving the flexibility and response speed of financial processes [13]. Through OCR, enterprises can quickly process large amounts of paper or electronic invoices, greatly reduce the financial cycle and provide management with more timely and accurate financial information.

2.2. Intelligent financial analysis and decision support

With the advent of the big data era, AI technologies such as machine learning and deep learning are increasingly applied in financial data analysis, risk prediction, investment decision-making, and other related fields. Researchers not only focus on the construction and optimization of algorithmic models, but also actively explore how to combine AI technology with the actual business needs of enterprises to achieve intelligent and personalized financial analysis. For instance, Cheng Ping and other researchers have constructed an enterprise financial risk warning model, which not only achieves a prediction accuracy rate of 85% but also automatically adapts to market changes and identifies potential risks ahead of time. This provides a valuable time window for enterprises to formulate response strategies [14]. Furthermore, research has demonstrated how this model can assist enterprises in optimizing their capital structure and reducing financing costs. Min Tong's analysis of stock market data using deep learning techniques not only provides a scientific basis for investment decisions but also reveals the impact of factors such as market sentiment and policy changes on stock prices [15]. This study highlights the significant potential of AI technology in improving investment decision efficiency and reducing investment risks.

2.3. Intelligent tax management

In the field of intelligent tax management, the application of AI technology is not limited to the automation of tax declarations but also covers various aspects such as tax planning and tax risk control. Through big data analysis, machine learning, and other technical means, researchers deeply explore the value hidden in tax data, providing enterprises with more precise and efficient tax management solutions. Zhang Shaofei has developed an AI-based intelligent tax declaration system that not only improves declaration efficiency and accuracy but also helps enterprises discover potential tax optimization points through intelligent analysis, achieving refined tax management [16]. The system can also automatically update declaration rules based on the latest tax law changes, ensuring tax compliance. Xu Wenwen's research on tax risk identification and evaluation using big data and AI technology not only helps enterprises avoid tax risks but also achieves tax burden minimization through data-driven tax planning [17]. The study points out that AI technology can monitor enterprises' tax status in real time, discover and alert potential tax risk points, providing strong support for enterprises' tax management.

3. The impact of AI technology on financial professionals

3.1. The changing role of financial professionals

With the rapid development of AI technology, the role of financial professionals is shifting from the traditional "accountant" to a "strategic decision support" role. Research mainly focuses on how AI technology is changing the functional positioning of financial professionals and how they can adapt to this transformation. The application of AI technology is replacing basic and repetitive tasks of financial professionals, such as data entry and report generation, enabling them to devote more energy to high-value strategic work. For example, Peng Yan proposes that future financial professionals need to possess capabilities such as data analysis, business insight, communication, and collaboration to better support corporate decision-making [18]. Research indicates that financial professionals need to extract business value from data to support corporate strategy development. Liu Ziqi explores how financial professionals can utilize AI technology to enhance their own value and become drivers of corporate digital transformation. The study finds that financial professionals can optimize financial processes and improve overall corporate operational efficiency by mastering AI tools [19]. This role transformation requires financial professionals to not only possess traditional financial knowledge but also develop cross-domain comprehensive abilities, such as business analysis, technology application, and strategic thinking.

3.2. Changing skill requirements for financial professionals

In the context of AI technology application, significant changes have occurred in the skill requirements for financial professionals. Research primarily focuses on what new skills financial professionals need to master to adapt to the demands of the AI era. The application of AI technology has raised higher requirements for the skills of financial professionals. They need to master skills such as data analysis, programming, and AI tool application to cope with the increasingly complex financial environment. For instance, Fu Yuanlue constructs a capability framework for financial professionals in the AI era, including data analysis ability, business analysis ability, and technology application ability [20]. Research shows that financial professionals need to have data processing and interpretation capabilities, able to extract valuable information from massive amounts of data. Zhang Yaning explores how universities can reform the curriculum system of financial management majors to cultivate financial talents who meet the needs of the AI era [21]. The study finds that future financial education needs to strengthen the curriculum settings of data analysis, programming languages such as Python and R, and other AI tool applications. Additionally, financial professionals need to have strong learning abilities and adaptability to cope with the rapidly changing technological environment [22]. The popularity of AI technology makes it necessary for financial professionals not only to master financial expertise but also to understand the basic principles and application scenarios of technology, enabling better collaboration with technical personnel and promoting the digital transformation of corporate finance.

The application of AI technology is profoundly changing the role and skill requirements of financial professionals. Financial personnel need to shift from traditional accounting roles to strategic roles, while mastering new skills such as data analysis and technology application. This transformation not only places higher demands on financial personnel but also provides new opportunities for their career development.

4. Summary

Artificial intelligence and finance are two different fields, but there is a certain connection between them. Overall, the application of artificial intelligence (AI) in corporate finance will have a significant impact on its development,

but it also brings opportunities and challenges to corporate financial personnel. Therefore, enterprises should actively take measures to promote the integration of artificial intelligence (AI) and corporate finance, thereby improving the management level and work efficiency of corporate finance. In the future development, artificial intelligence will become an important productive force and have a profound impact on the financial management of enterprises.

Disclosure statement

The author declares no conflict of interest.

References

[1] Zhang Y, 2024, Exploration of Intelligent Financial Talent Training in Applied Universities in the Era of Artificial Intelligence. Business Accounting, 2024(12): 119–122.

[2] Jin Y, Li C, Jia B, 2024, Business Ethics and Accounting Professional Ethics in the Context of Intelligent Finance. Friends of Accounting, 2024(9): 57–63.

[3] Wang L, 2019, Research on the Impact of Artificial Intelligence on Accounting – Taking the "Big Four" Financial Intelligent Robots as an Example. Journal of Wuhan Business University, 33(6): 48–51.

[4] Rădulescu R, Mannion P, Roijers D, et al., 2020, Multi-objective Multi-agent Decision Making: A Utility-based Analysis and Survey. Autonomous Agents and Multi-Agent Systems, 34(1): 10.

[5] Zhang X, 2019, Some Thoughts on the Reform of Enterprise Accounting Standards. Journal of Beijing Technology and Business University (Social Science Edition), 34(01): 1–8.

[6] Zhang G, Chen Z, Xu Z, 2022, Development of Artificial Intelligence, Expansion of Government Accounting Functions, and Improvement of Digital Government Governance System. Chinese Public Administration, 2022(01): 48–54.

[7] Zhou S, Li X, 2023, Wealth Measurement, Accounting Development, and Common Prosperity. Accounting Research, 2023(05): 3–21.

[8] Bian J, 2024, Research on the Application of AI Finance in the Digital Intelligence Era: Significant Effects and Regulatory Challenges. Contemporary Accounting, 2024(7): 172–174.

[9] Ding F, 2024, Application of Artificial Intelligence Technology and Total Factor Productivity of Listed Companies. Journal of Yunnan University of Finance and Economics, 2024(10): 56–69.

[10] Paolo R, 2023, Excluding Specificity from Research and Development Priorities is Delaying the AI Adoption in Breast Cancer Screening. European Radiology, 33(7): 4597–4599.

[11] Cui E, 2024, Research on the Application of Financial Decision Support System Based on AI Technology. Business Accounting, 2024(16): 39–42.

[12] Li W, Yao X, Zhang R, 2022, Research on the Optimization of Accounts Receivable Management Based on RPA and Big Data Algorithms. China Collective Economy, 2022(28): 131–133.

[13] Zhao Y, 2024, Design and Implementation of Invoice Entry and Processing System Based on OCR and QR Code Technology. Information Recording Materials, 25(3): 186–188, 191.

[14] Cheng P, Yu C, Wang J, 2024, Intelligent Early Warning of Enterprise Internal Audit Based on Deep Autoencoder Network in the ChatGPT Era – Taking Current Account Audit as an Example. Systems Engineering Theory and Practice, 44(1): 316–337.

[15] Min T, 2021, Stock Market Analysis Based on Deep Learning and Technical Analysis, thesis, Tianjin University.

[16] Zhang S, 2018, Design and Implementation of an Electronic Tax Declaration Platform for the Tax System, thesis, Tongji University.

[17] Xu W, 2024, Smart Technology Empowerment: Application and Strategies of Artificial Intelligence Technology in Improving the Efficiency of Tax Planning. China Electronic Business, 2024(3): 109–111.

[18] Peng Y, 2024, A Brief Exploration of the Transformation of Financial Personnel in the Digital Economy Era. New Accounting, 2024(8): 61–62.

[19] Liu Z, 2023, Artificial Intelligence, Familiarity, and Financial Personnel's Accounting Valuation Judgments – An Experimental Study Based on Psychology, thesis, Shandong University of Finance and Economics.

[20] Fu Y, 2019, Smart Accounting: Financial Robots and Accounting Reform. Journal of Liaoning University (Philosophy and Social Science Edition), 47(1): 68–78.

[21] Xie F, 2020, Thoughts on the Transformation of Corporate Finance in the Context of Digitization. China Business Review, 2020(13): 143–144.