

Research on the optimization of financial management of financial enterprises — Take Y company as an example

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ABSTRACT

Financial management of financial enterprises is an important part of enterprise management, but also the embodiment of the core competitiveness of enterprises. With the development and application of artificial intelligence technology, the financial management of financial enterprises faces new opportunities and challenges, and it needs to adapt to the changes of the market environment and the diversification of customer needs. Taking Y company as an example, this paper discusses the application status, existing problems and improvement countermeasures of artificial intelligence technology in the financial management of financial enterprises, aiming to provide reference and reference for the financial management of financial enterprises.

KEYWORDS

Artificial intelligence; Financial enterprise; Financial management; Optimization

1. INTRODUCTION

With the development and innovation of information technology, artificial intelligence technology has penetrated into the financial field, and has had a profound impact on the financial management of financial enterprises. On the one hand, artificial intelligence technology for financial enterprise financial management provides new tools and means, such as big data analysis, cloud computing, the chain blocks, machine learning, etc., can improve the financial data collection, processing, analysis and application of efficiency and quality, realize the real-time, accuracy and transparency, support the scientific and rationality of financial decision. On the other hand, artificial intelligence technology has also brought new challenges and risks to the financial management of financial enterprises, such as data security, privacy protection, ethics, laws and regulations, etc., which require the financial management of financial enterprises, so as to adapt to the changes of the market environment and the diversification of customer needs. Taking Y Company as an example, this paper discusses the application status, existing problems and improvement countermeasures of artificial intelligence technology in the financial management of financial enterprises. Y Company is a comprehensive financial services group, mainly engaged in banking business, securities business, insurance business and investment business. In recent years, Y Company has actively introduced and applied artificial intelligence technology, and has achieved some achievements in its financial management, but it also faces some difficulties and problems, which need to be further improved and optimized. Make use of Case study method [1].

2. LITERATURE REVIEW

The application of artificial intelligence technology in the financial management of financial enterprises is an emerging research field. Scholars at home and abroad have carried out some exploration and analysis, mainly from the following aspects: The application status and trend of artificial intelligence technology in the financial management of financial enterprises. Some scholars introduced the application scope and form of artificial intelligence technology in the financial management of financial enterprises, such as big data analysis, cloud computing, blockchain, machine learning, etc., and pointed out its advantages and value in improving financial efficiency, reducing financial costs, and enhancing financial competitiveness and other aspects. At the same time, some scholars also look forward to the application prospect and development direction of artificial intelligence technology in the financial management of financial enterprises, such as intelligent finance, intelligent audit, intelligent risk control, etc., and put forward corresponding suggestions and strategies. For example, Wang Jun et al. analyzed the status quo and trend of the application of artificial intelligence technology in the financial management in the banking industry, and put forward the ideas and framework for building the financial management system of intelligent banks. Li Na et al. discussed the application status and trend of artificial intelligence technology in the financial management of the insurance industry, and put forward the path and measures to build an intelligent insurance financial management system. Zhang Yu et al. studied the application status and trend of artificial intelligence technology in the financial management of the securities industry, and put forward the mode and method of building an intelligent securities financial management system. Scholars at home and abroad have conducted a certain degree of research on the application of artificial intelligence technology in the financial management of financial enterprises, but there are still some deficiencies and defects, such as a relatively single research perspective, relatively traditional research method, and relatively scattered research content. From the perspective of a comprehensive financial service group, this paper tries to explore the application status of artificial intelligence technology in the financial management of financial enterprises, in order to provide reference and reference for the financial management of financial enterprises.

3. CASE ANALYSIS

Taking Company Y as a case, this paper analyzes the application status of artificial intelligence technology, existing problems and improvement countermeasures in the financial management of Company Y from four aspects: asset liability management, income and expenditure management, risk management and internal control.

3.1. Asset And Liability Management

Asset and liability management refers to the effective planning and adjustment of the structure and portfolio of their assets and liabilities, so as to realize the matching and balance of assets and liabilities, improve the rate of return and security of assets, and reduce the cost and risk of liabilities. In terms of asset and liability management, Company Y mainly applies the following functions of artificial intelligence technology:

Big data analysis. Y company using big data analysis technology, the holdings or investment of all kinds of financial assets to conduct a comprehensive collection, sorting, analysis and evaluation, including the type of assets, size, term, liquidity, yield, risk, as well as asset market, industry trends, customer demand, thus forming a dynamic asset database, provides the asset allocation and adjustment. At the same time, Y company also use big data analysis technology, to its issue or undertake all kinds of financial liabilities to conduct a comprehensive collection, sorting, analysis and evaluation, including debt type, scale, duration, cost, indicators such as risk, and debt market supply

and demand, competitors, regulatory policies, thus forming a dynamic debt database, for debt raising and repayment provides data support [2].

Y company using machine learning technology, the assets and liabilities management of historical data and real-time data for deep learning and intelligent optimization, established a assets and liabilities management model based on artificial neural network, the model can automatically calculate the optimal target and the constraint structure and combination, and according to the market environment and internal changes, real-time adjustment and update model parameters and output results, so as to realize the intelligence and automation of assets and liabilities management.

Cloud computing. Company Y uses cloud computing technology to deploy the data and models of its asset and liability management on the cloud server, which realizes the centralized storage and distributed processing of data and models, improves the security and reliability of data and models, and reduces the maintenance cost and running time of data and models. At the same time, the Y Company also uses the cloud computing technology to display the results of its asset and liability management on the cloud platform in a visual form, realizing the rapid transmission and multi-dimensional display of the results, and improving the ease of use and visibility of the results.

3.2. Risk Management.

Risk management refers to the activities in which financial enterprises can effectively identify, evaluate, control and respond to all kinds of financial risks they face, mainly including market risk, credit risk, liquidity risk, operational risk, etc. In terms of risk management, Company Y mainly applies the following functions of artificial intelligence technology:

Blockchain. Company Y uses blockchain technology to record and verify the decentralized, distributed and immovable records of all kinds of financial transactions and contracts involved, so as to realize the security and credibility of transactions and contracts, and reduce market risks and credit risks. At the same time, Company Y also uses blockchain technology to track and monitor all kinds of financial assets held or invested in in real time, so as to realize the liquidity and transparency of assets and reduce the liquidity risk and the risk of information asymmetry.

Deep learning. Y company using deep learning technology, for all kinds of financial risks for thorough analysis and prediction, established a risk management model based on convolutional neural network, the model can according to different risk types and scenarios, automatically extract the characteristics and rules of risk, and according to the historical data and real-time data, automatically calculate the probability of risk and influence, and according to the change of risk, real-time adjustment and update model parameters and output results, so as to realize the precision of risk management and early warning.

3.3. Artificial Intelligence Assistant.

The Y Company uses the artificial intelligence assistant technology to intelligently assist and supervise all kinds of financial operations and businesses, realize the standardization and optimization of operation and business, and reduce the operational risks and compliance risks. At the same time, Y Company also uses artificial intelligence assistant technology to conduct intelligent emergency response and disposal to various financial crises and emergencies it faces, thus realizing the response and mitigation of crises and events.

Through the application of artificial intelligence technology, the Y Company has achieved certain results in risk management, such as improving the efficiency and effect of risk management, and reducing the cost and loss of risk management. According to the financial report of Y Company in the first quarter of 2023, the total assets of Y Company are RMB 1.2 trillion, up 12% year on year; the total liabilities are RMB 0.8 trillion, up 10% year on year; and the asset-liability ratio is 66.7%, down 1.5 percentage points year on year. Net income of Company Y was RMB 0.2 trillion, up 25%

year on year; net profit was RMB 0.04 trillion, up 30% year on year; net profit margin was 20%, up 1 percentage point year on year. The non-performing loan ratio of Y Company was 1.5%, down 0.5 percentage points year on year; the provision coverage rate was 200%, up 20 percentage points year on year. Company Y's liquidity ratio is 150%, up 10 percentage points year on year; its capital adequacy ratio is 15%, meeting regulatory requirements [3].

3.4. Internal Control.

Internal control refers to the various systems, norms, procedures and measures adopted by financial enterprises to achieve their business objectives, mainly including internal audit, internal supervision, internal checks and balances, etc. In terms of internal control, the Y Company mainly applies the following functions of artificial intelligence technology:

Intelligent audit. The Company Y uses intelligent audit technology to carry out automatic, comprehensive and continuous audit and evaluation of its financial statements, financial indicators and financial policies, so as to realize the authenticity and compliance of financial information, improve the quality and credibility of financial information, and enhance the disclosure and communication of financial information. [4]At the same time, the Y Company also uses the intelligent audit technology to conduct automatic, refined and real-time detection and reporting of its financial risks, financial abnormalities and financial vulnerabilities, so as to realize the prevention and control of financial risks and improve the identification and response of financial risks.

Intelligent supervision. Y Company uses intelligent supervision technology to automate, comprehensive and continuous supervision and evaluation of its employees' behavior, performance and attitude, so as to realize the incentive and restraint of employees, improve the efficiency and effect of employees, and enhance the responsibility and discipline of employees. At the same time, Y Company also uses intelligent supervision technology to automate, multi-dimensional and timely supervision and evaluation of the decision, execution and feedback of the management, so as to realize the guidance and supervision of the management and improve the decision and execution of the management.

Intelligent checks and balances. Y company using intelligent checks and balances technology, the various departments, positions, functions of automation, balance, coordination of checks and balances and collaboration, implements the various departments, positions, functions between mutual restriction and mutual cooperation, improve the coordination between various departments, positions, functions and efficiency, enhance the departments, positions, functions of communication and coordination.

Through the application of artificial intelligence technology, Y Company has achieved certain results in the internal control, such as improving the efficiency and effect of the internal control, and reducing the cost and risk of the internal control. According to Y Company's financial report for the first quarter of 2023:

Company Y found and corrected the financial error of 0.01 trillion yuan through the intelligent audit technology, and timely disclosed and explained to the relevant parties. Y Company evaluated and rewarded 1,000 employees through intelligent supervision technology, and timely reported to and reported to relevant parties. Y Company coordinated and optimized 20,000 business processes through intelligent checks and balances technology, and timely communicated and negotiated with relevant parties [1].

4. CONCLUSION AND SUGGESTION

Taking Y Company as an example, this paper discusses the application status, existing problems and improvement countermeasures of artificial intelligence technology in the financial management of

financial enterprises. Artificial intelligence technology in the financial enterprise financial management has extensive and profound application value, can optimize from many aspects of financial enterprise financial management efficiency and effect of artificial intelligence technology in financial enterprise financial management also exist some problems and challenges, such as data security, privacy protection, ethics, laws and regulations, etc., need the corresponding financial enterprise financial management. Because of more than finding. This paper proposes the following suggestions [5]:

(1) In In practical application, it is necessary to decide whether it is appropriate to build different framework systems based on the enterprise's own situation. If the enterprise itself does not have enough ability to build and maintain artificial intelligence models, outsourcing data services can be considered from the perspective of economy.

(2) In enterprise management, data can only be used as a reference or as a directional policy, vigilant in the process of data management Improper use, then the conclusion is often problematic, and even will cause serious consequences.

(3) Pay attention to prevent crisis big data platform architecture, a lot of centralized data storage bring new security problems, including enterprise operation data, data, financial data, customer data concentration, conventional backup, recovery means usually require more energy and time, has been unable to meet the demand, once the data loss, to the enterprise will cause incalculable consequences, so, do a good job of data security protection is crucial.

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