

Corporate Finance Management in the Age of ARTIFICIAL Intelligence

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Abstract: *With the increasing maturity of artificial intelligence theory and technology, its application field is also expanding. This paper will explore the application of artificial intelligence in the company's financial management. Firstly, the development process and status quo of artificial intelligence as well as the development status of the company's financial management are studied. Then, the influence and application of artificial intelligence on the company's financial management are studied. Finally, suggestions on the transformation and positioning of the company's financial personnel in the era of artificial intelligence are put forward.*

Keywords: *Artificial intelligence, Corporate financial management, Technological progress*

1. Introduction

1.1 Research Background

Artificial intelligence is one of the top high and new technologies in the world at the present stage, which is deeply concerned by various countries. In China, artificial intelligence technology has been widely used in different fields. Some companies have handed over their financial management business to artificial intelligence to realize, and achieved great results.

1.2 Research Content

This paper mainly studies in the era of artificial intelligence, the application of artificial intelligence technology in corporate financial management and the transformation and positioning of corporate financial personnel.

1.3 Research Content

In the era of artificial intelligence, the existing financial accounting has been unable to meet the needs of enterprise management, the combination of artificial intelligence technology and corporate financial management development, will be conducive to improve the quality and efficiency of financial management. If complex and cumbersome financial management work to artificial intelligence for unified management, the company's financial management personnel can be freed from tedious and huge work tasks.

2. The Definition of Artificial Intelligence and its Development Process and Status Quo

2.1 What is Artificial Intelligence

Artificial intelligence is a technical science that researches and develops theories, methods, technologies and application systems for simulating, extending and extending human intelligence.

Artificial intelligence is a comprehensive new discipline, covering fuzzy mathematics, management, mathematical logic, computer science, management, information theory and other different disciplines.

The BF artificial intelligence neural network system in artificial intelligence has been applied in the aspects of financial management strategy formulation, data information mining, financial risk management and early warning, tax assessment and securities pricing on the micro level, and economic development identification and mode selection on the macro level [1]

2.2 Development Process of ARTIFICIAL Intelligence

The development of artificial intelligence can be divided into the following stages. I. The embryonic stage of artificial intelligence technology. Second, the formation stage of artificial intelligence technology. Third, the application stage of artificial intelligence technology. Fourth, the integration stage of artificial intelligence technology.

(1) The embryonic stage of artificial intelligence

The initial stage of artificial intelligence was roughly 1951-1955. Although, the germ of artificial intelligence in ancient Greece, originated in Aristotle's syllogism. But in the middle of the 20th century, a graduate student in mathematics at Princeton successfully developed the first neuron-intelligent computer in 1951, which meant the budding of artificial intelligence technology [2].

(2) The formation stage of artificial intelligence

The formative period of artificial intelligence was 1956-1961. In this period of a historical seminar conference, several mathematicians, scientists and other scholars from the United States in the fierce discussion, finally decided to adopt McCarthy's "artificial intelligence" the term to name this technology. The emergence of the concept of "artificial intelligence" has attracted the attention of scholars in different fields. Many scholars began to study artificial intelligence technology and achieved good research results, such as LISP language and GPS program, which greatly promoted the formation and development of artificial intelligence.

(3) The application stage of artificial intelligence

The application phase of ARTIFICIAL intelligence was 1962-1987. However, in this stage, scholars pay too much attention to the symbolic logic and form of ARTIFICIAL intelligence, and ignore the role of information guidance in the problem field of artificial intelligence. Finally, the research work of artificial intelligence falls into the "weak law dilemma".

It was not until the late 20th century that researchers at Stanford University developed Mycin and Dendral systems that the research of ARTIFICIAL intelligence got out of the "weak law dilemma".

(4) Artificial intelligence integration stage

The integration stage of ARTIFICIAL intelligence has been developed from 1995 till now. Artificial intelligence technology has become increasingly mature, increasing interaction with users, and timely obtaining user feedback information; On the other hand, the ai expert system has been continuously improved and improved, so that AI can achieve the so-called integration goal. Today, artificial intelligence technology has played an important role in different areas of society. It affects people's production and life all the time, and is developing to the humanized, timely and intelligent direction.

2.2.1 Current Situation of ARTIFICIAL Intelligence

In 2016, Google's ARTIFICIAL intelligence (AI) ALphaGo beat South Korean Go player Lee Sedol 4-1 in an impressive "Man-machine game", which brought ARTIFICIAL intelligence into the public eye. In 2017, ALphaGo beat Chinese player Ke Jie 3-0. Then, a Google team focused on advancing AI research published a new paper in The journal Nature and announced that the new ALphaGo Zero could surpass all previous versions without human guidance. ALphaGo's continued evolution offers a glimpse into the immense power of AI technology. With such rapid development, we can't help but worry whether our profession will also be easily replaced by intelligent robots.

In 2017, Deloitte launched the intelligent robot "XiaoQin Ren" and cooperated with enterprises for the first time, which made outstanding achievements in financial reconciliation, monthly TB pair, VAT invoice issuance and input deduction. "Small diligent person" can work 7*24 hours efficiently, will be busy at the end of the month financial staff from the complex foundation work to save. In 2018, Huarui Heavy Industries Group in Dalian, China realized the first application of "Xiaoqin Ren" ARTIFICIAL intelligence technology in financial process. This "small diligent person" has his work card in China Rui Heavy Industry group, working position, has become a member of the group's financial department. He shows his value in the three automatic processes of bank reconciliation process, cost carry-over process and external statement filling

2.2.2 Questionnaire Survey Method

On the basis of consulting a large number of documents and interviews with experts, the Expert

Questionnaire on Strategic Environmental Analysis of the Development of Youth Campus Football Activities in China (two questionnaires) and the Coach Questionnaire on the Present Situation of Youth Campus Football Activities in China were formulated, which were distributed in the form of submission and e-mail. [3]

3. The Status Quo of Enterprise Financial Management and the Influence of Artificial Intelligence on it

3.1 Current Situation of Enterprise Financial Management

3.1.1 Lack of a Sound Financial Management System

If the financial management of the company lacks a system, it will make the management personnel's responsibilities are not clear, and there will be insufficient control and supervision of the financial department. This leads to financial management in the financial personnel are easy to work on the error, and even there will be fraud, favoritism fraud and other situations.

3.1.2 Insufficient Financing Capacity

The lack of funds caused by the company's insufficient financing ability will not only hinder the company's further development, but also make it difficult to achieve its sustainable growth target. At the same time, the lack of financing ability will also lead to the low level of financial management within the company, resulting in even the internal staff of the company's income and expenditure situation are not clear. In addition, the company will fail to gain the trust of relevant investors because of the lack of real data as a reference, which leads to the low level of financing and capital shortage of the enterprise. This forms a vicious circle, and the sustainable growth and development of enterprises is difficult to achieve. [4]

3.1.3 Lack of Risk Awareness

The lack of risk awareness in financial management is very detrimental to the long-term development of enterprises. In the current development of enterprises, due to the financial management is not rigorous, often lack of financial risk assessment of enterprises. This is not only not conducive to the development of enterprises, but also will make enterprises in the development of difficulties, and even make enterprises face the danger of bankruptcy.

3.2 The Impact of ARTIFICIAL Intelligence on Corporate Financial Management

The arrival of the era of artificial intelligence, for the financial management of enterprises, is undoubtedly on the high-speed train of science and technology, so that the reform of financial management has more sources and possibilities. Enterprise finance from the original manual bookkeeping, accounting computer, to the present intelligent system, especially like automatic identification, data comparison and analysis and other functions, intelligent robots fully show his advantages. However, every situation has its pros and cons. On the one hand, highly repetitive and low-complexity basic financial work will be gradually replaced by ARTIFICIAL intelligence, which will give financial staff more time to complete higher-value tasks. On the other hand, the rapid development of ARTIFICIAL intelligence does raise more concerns about whether it will replace financial staff one by one in the near future.

The impacts of AI on the financial management of companies are as follows:

(1) Intelligent financial management process. The existing financial accounting needs to be manually reviewed by the original bills, invoices, accounting, and the generation of statements. After the introduction of artificial intelligence, it can promote the intelligence of financial management process from the aspects of perception, computing ability and cognitive ability, and then use the implementation of financial standardized accounting as the theoretical basis to automatically identify, review, push vouchers and generate statements after the original documents are uploaded to the system. With the implementation of electronic accounting documents, electronic accounting documents and paper documents have the same legal effect, with the popularity of the national existing electronic bills, paperless office is just around the corner.

(2) Optimize data processing. In traditional financial accounting, thousands of information exchanges need to be compared manually, and a large amount of data needs to be collected according

to sales collection and purchase payment, so as to provide a basis for later sales, purchase and service receipt and payment. This process takes a lot of human time, and even then there is still a certain error rate. This link if the use of intelligent replacement of artificial, not only can not rest every day without interruption of work efficiency to complete, and can completely reduce the error rate due to human operation. Especially at the end of the month report day, the low error efficient working mode of the machine, as well as the advantages of low price and convenient use, make the financial management reform forward a big step.

(3) Financial analysis and decision support. The advantages of computers in data processing are well known, and cloud computing, as a powerful booster behind artificial intelligence, has played this advantage to the extreme. This data processing method enables financial analysis to be more focused and more accurate. The data analysis model can have more customized models, and data adoption and comparison are more flexible. In addition, the analysis based on big data can provide enterprises with more decision support systems, such as indicators and business warning according to the historical data and existing dynamic data of the same period.

4. Application of Artificial Intelligence Technology in Financial Management Field

4.1 Application of Expert System

In essence, expert system is to equip a specific field such as the financial management field of a company with an ARTIFICIAL intelligence system that reaches the understanding and level of experts. Like a human expert, an expert system can use its accumulated experience and expertise to analyze specific problems and give relevant suggestions.

The application of expert system in the company's financial management system is mainly through the integration of financial management knowledge and skills to establish related systems, so as to solve the different problems in the field of corporate financial management.

4.2 Pattern Judgment and Recognition

Pattern judgment and recognition is the scientific processing and analysis of the different kinds of information of those things, and then the phenomenon of things to describe identification, analysis, classification, interpretation, explanation and other operations.

Bionic patterns in pattern judgment and recognition have been applied in financial management. It includes the identification of financial management objectives, financial management environment judgment and financial events on the financial impact of enterprises, and analysis of their causes, and then give reasonable suggestions.

4.3 Intelligent Sharing System

Intelligent sharing system is mainly to share financial management information construction, the system mainly includes financial management information query system and operating system.

The construction of financial management data information sharing system can ensure the rationality of enterprise economic expenditure and help enterprises to provide the necessary financial management information for each stakeholder at the lowest cost.

The successful construction of intelligent financial management information system will mean the initial maturity of artificial intelligence in financial management.

5. The Transformation and Positioning of Financial Personnel in the era of ARTIFICIAL Intelligence

The application of artificial intelligence in financial management has made it an inevitable trend for low-complexity, high-repetition and process-based jobs to be replaced. But as one scholar put it, "camps made of iron, soldiers made of water." Any industry, any career has its own life cycle, in this era, work and industry will betray you, the only will not betray you, only your cognition and ability. Therefore, financial personnel need to look at the following points:

5.1 Transition to Management Accounting

Management accounting is an accounting branch parallel to financial accounting. The main difference between management accounting and financial accounting lies in that it lays more emphasis on serving the internal management needs of enterprises and maintains and creates value through the integration of financial data and production business. For example, comprehensive budget implementation, cost control, project management and capitalization investment decisions require financial personnel to provide more decision support for enterprise strategic management and enterprise risk management based on historical and future data. Therefore, the key to the transformation of basic financial personnel to management accounting is to allow themselves to have a role positioning in advance, and develop management analysis ability in the work.

5.2 Deepen the Integration of Industry and Finance, and Dig Deeper value of Data

The integration of business and finance requires financial personnel to change their thinking. Their vision should not be limited to finance, but should be combined with finance and business. Corporate management is the business elite, but not all of them are proficient in finance, if the finance only provides the existing financial reports to the management, the actual impact on decision-making is negligible. Therefore, financial personnel should change their thinking, take the position of business personnel, and then dig deeper value of financial data, break through the original model of data analysis and analysis, and create value for the company more effectively.

5.3 Improve my Learning Ability and Build a Cross-Domain Composite Knowledge System

Fundamentally speaking, to improve their own learning ability and build their own exclusive core competitiveness is the way to stay the same. Therefore, financial personnel should strengthen peacetime learning, learn more cross-field compound knowledge, such as law, strategic management, enterprise internal control, and reconstruct professional knowledge system. Others include investment m&a, IPO practice skills and innovation in the financial sector. Although basic financial personnel usually have less contact, but this kind of business requires the unique analysis of professionals, and these ARTIFICIAL intelligence has not been able to do, irreplaceable.

5.4 Improve Communication and Coordination Ability

Aside from the hard power of various professional skills, improving one's soft power, such as communication and coordination skills, is also an important step. An enterprise is a social circle. Various departments need to communicate with each other, customers and superiors, which can mobilize the work enthusiasm of all aspects. Especially financial personnel, if they are liberated from basic work, they should spend more energy to learn communication skills and improve their ability. [5]

6. Summary

With the continuous development of artificial intelligence technology, IT is believed that in the near future, artificial intelligence technology can play a larger role in the company's financial management work.

Artificial intelligence technology can improve the quality and efficiency of financial management. After all the repetitive, huge and tedious financial management of the company is handed over to ARTIFICIAL intelligence, the financial management employees of the company can be liberated from their original work tasks and turn to work in the strategic field of higher end corporate finance. This requires financial managers to deepen the integration of industry and finance, and dig deeper value of data; To improve their own learning ability, to build cross-domain composite knowledge system; Improve communication and coordination ability. I believe that in the era of artificial intelligence, the company's financial management and financial personnel will get better development.

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