

# Analysis on the Intelligent Development of Financial Management Under the Background of Big Data

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## ABSTRACT

Today's increasingly mature and progressive information technology has greatly changed the way people live and work. Big data technology has also brought new development opportunities to traditional financial management. Currently, intelligent financial management has become the main development trend of financial management. With the support of information technology and big data technology, advanced system software can simulate human thinking and consciousness, and finally replace the manual completion of simple and regular It can effectively reduce the workload of financial personnel and at the same time reduce the financial risks caused by manual errors from the source, so that the efficiency of financial management is further improved. The growing maturity of big data technology has also brought a certain impact on the management mode and management concept of traditional financial work, requiring financial personnel to be able to actively change their thinking in the process of work and actively respond to the new requirements and challenges brought by the development of financial intelligence. In view of this, this paper conducts an in-depth analysis of the intelligent development of financial management under the background of big data technology and proposes effective countermeasures.

**Key words:** Big data technology, Financial management, Intelligent development, Countermeasures

## INTRODUCTION

In the context of big data, the financial data of enterprises are growing rapidly in a geometric form, and the traditional financial management model based on human resources has had difficulty meeting the surging demand of contemporary financial management work, which is also limited to a certain extent. The financial management work is carried out in an orderly manner. With the continuous progress of the times, the development of financial intelligence has become increasingly clear, which has provided technical conditions for the transformation of financial management. So-called intelligent financial management improves the processing efficiency and accuracy of financial data with the support of computer technology and big data technology and provides more accurate data analysis for enterprise decision-making. Intelligent financial management has subverted the traditional financial management model to a large extent and put forward higher requirements for the comprehensive quality of financial management personnel. Under the background of big data, strengthening the research on countermeasures for the development of financial intelligence is of great practical significance for the development of enterprises and the progress of society.

## AN OVERVIEW OF BIG DATA TECHNOLOGY

Big data technology uses a variety of channels to obtain a large amount of data information, which is all-encompassing, showing strong dispersion and complexity characteristics, and requires software to complete the selection and invocation of data information. Big data technology has greatly improved the shared value of data and can help financial managers dig deep into the hidden value behind financial data information. Currently, in the context of the rapid development of information technology, all industries in society recognize the use value of information and use big data technology to accurately analyze and judge user needs to provide users with more satisfactory services and products.

## ANALYSIS OF THE PROBLEMS EXISTING IN THE CURRENT FINANCIAL MANAGEMENT WORK

### (1) Financial data analysis methods vary in caliber and lack a unified standard

Currently, in the context of the rapid development of big data technology, the financial data information of many enterprises is blowing out geometrically. It will

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also be limited by the amount of financial data obtained and how it is processed, which ultimately affects the accuracy and forward-looking of decision-making. On the other hand, there is a lack of effective connection between enterprises and the upstream and downstream supply chains and the data platforms between the government and banks, and the sources of data and the caliber of analysis are different, which will also seriously affect the reliability and accuracy of data information, resulting in data. The efficiency and quality of use are low. For example, some small and medium-sized enterprises lack a complete technical concept when building a big data analysis platform, and the design of the data analysis platform is not perfect, which may lead to the lack of integrity and accuracy of the acquired data, making it difficult to grasp comprehensive data information, and external there are many loopholes in the data connection of the unit.

### **(2) Lack of unstructured data processing technology**

Big data can be classified into structured and unstructured data, with various data types<sup>1</sup>. Usually, structured data cover the production process and transaction process of the enterprise in detail and can fully reflect all the information of production and operation activities. Therefore, when conducting data analysis, the focus of financial personnel is mostly on structured data, but nonstructured data also play an important role in financial decision-making and must be highly valued by financial staff. Currently, with the support of big data technology, most enterprises can complete the scientific processing of data and thus produce structured data computing technology. However, the mining and use of unstructured data by most enterprises has not achieved the expected goals, and there is still much room for improvement. Decision-making provides more targeted suggestions, which also reduces the processing efficiency and processing quality of financial data to a certain extent<sup>2</sup>.

### **(3) Lack of professional big data analysis financial personnel**

In the practical application of big data technology in financial work, financial personnel must not only efficiently complete the collection, processing and analysis of data resources and eliminate useless data but also dig deep into the huge value contained in financial data and strictly control the quality check of data information. However, the current situation is that, from the research and development of financial data

systems to the application of end users, the professional road of financial big data still lacks a large number of compound professionals, especially those who are proficient in financial management and statistical analysis. The lack of talent means big data technology cannot provide more in-depth and diversified help for the needs of financial management, which to a certain extent has an adverse impact on the intelligent development of financial management.

Financial data analysis capabilities and utilization levels need to be improved

### **(4) Financial data analysis capabilities and utilization levels need to be improved**

In the daily financial management of many companies, the focus is on financial budgets and final accounts, accounting, and fund management. The analysis and utilization of financial data have not received enough attention, and financial data information cannot be truly applied to the analysis and decision-making of enterprises. In the development trend of intelligent financial management, financial personnel should make full use of the advantages of big data, truly use technology for management, provide enterprises with more complete and accurate financial data, and then continuously improve the ability of financial management to guide enterprise decision making.

## **ANALYSIS OF THE IMPACT OF THE INTELLIGENT DEVELOPMENT OF FINANCIAL MANAGEMENT ON THE TRADITIONAL FINANCIAL MANAGEMENT SYSTEM**

### **(1) Subvert the traditional financial management model**

With the support of big data technology and computer technology, financial management work is more intelligent. The past management mode and management methods cannot meet the growing demand for financial management work, and the financial management mode urgently needs to be transformed. Currently, intelligent technology can optimize almost all financial work processes, and its application range runs through the entire financial management work, ensuring that financial management work is more standardized and intelligent. In the traditional financial management model, financial personnel need to deal with a large number of repetitive tasks, which easily affects the final use value of financial data due to mistakes. However, intelligent financial management can further improve the risk control ability of

financial management and reduce the internal control risk of enterprises. In the context of big data, the traditional financial management model and the intelligent financial management model must be efficiently compatible so that they can complement each other and truly build a new trend of financial management integration and development. However, in view of the current status of the development of financial intelligence, if my country's financial management system wants to truly achieve intelligent and personalized development, it needs to go through the following stages. In the first stage, an intelligent financial accounting system is actively built, making full use of intelligent mobile terminals to complete the collection and accounting of financial data. In the second stage, an intelligent financial sharing system is actively built. On the basis of realizing financial intelligent accounting, it can make full use of computer technology and big data technology to deeply mine the financial data behind it. In the third stage, an intelligent governance financial decision support system is actively built to ensure that the financial management system can achieve the goals of in-depth insight and decision support based on parallel management of business scenario data.

### **(2) Raised barriers to entry for financial staff**

In traditional financial work, financial personnel are usually responsible for the entire process of collecting, sorting and analyzing financial information, but under big data technology, artificial intelligence will replace manual work to complete many repetitive basic financial tasks, and financial personnel are mainly responsible for the final financial analysis and decision making. This will lead to the survival of the fittest in the entire industry, grass-roots financial personnel will gradually lack competitive advantages, and the demand for senior financial management talent, such as certified public accountants and senior accountants, will increase day by day. This requires that basic financial personnel actively transform themselves and continuously improve their professional quality to meet the actual needs of intelligent financial development and to provide more useful help for the business development of enterprises.

### **(3) Changes in the Financial Organization Model**

In the long-term development process of financial management, its financial organization model has changed accordingly with the continuous progress of

financial technology. In the era of intelligent financial management, the financial organization model will have more obvious extension and expansion characteristics, giving the financial organization model more new functions, such as big data analysis and data sharing, and the financial organization will also actively transition from the traditional rigid operation. In the flexible operation stage, business development will provide diversified and personalized financial data<sup>3</sup>. Under the background of big data, the financial organization corresponding to intelligent financial management will also actively develop toward the coordinated development of emerging technologies such as cloud computing, big data technology, blockchain and artificial intelligence, which requires enterprises to build a financial organization system. It is necessary to ensure that the financial management team has higher professional quality and can use advanced science and technology to continuously improve the management and maintenance level of financial data.

## **COUNTERMEASURES FOR THE INTELLIGENT DEVELOPMENT OF FINANCIAL MANAGEMENT UNDER THE BACKGROUND OF BIG DATA**

### **(1) Improve financial risk prevention and control capabilities with the help of blockchain technology**

Listed companies and unlisted public companies are required by regulatory policies and need to regularly disclose financial data such as annual reports. In the trend of intelligent development of financial management, enterprises can make full use of blockchain technology when disclosing financial data to ensure the integrity and immutability of financial data and the security of financial data from the source. At the same time, with the help of blockchain technology, the finance of each supply chain can be effectively linked, which can help financial management staff realize an in-depth analysis of financial data and finally establish a prevention mechanism to strengthen the risk control ability of enterprises. Blockchain technology can use distributed systems and smart contracts to automatically collect and analyze financial information on the entire financial supply chain. Once data abnormalities are found, an alarm will be issued in time, which can greatly improve the prewarning and in-process supervision of financial management. The ability to truly help enterprises prevents and reduces internal control risks.

## **(2) Improve the data processing ability of financial personnel**

In the trend of intelligent development of financial management, financial personnel can make full use of artificial intelligence technology to quickly complete data selection among massive data, which effectively improves the quality and efficiency of financial management. Of course, to a certain extent, this puts forward higher requirements on the data processing ability of financial personnel. Although intelligent technology liberates financial personnel from a large amount of complex and tedious work, it requires financial personnel to have more complete data analysis and processing capabilities and can use past experience and professional skills to accurately judge financial data and quickly identify financial data. The financial risks hidden behind the data can improve the enterprise's risk control ability from the source and promote the long-term and healthy development of the enterprise. Therefore, financial staff must have the awareness of lifelong learning and be able to continuously learn new concepts and new models of the financial industry in combination with the progress of the times and the specific needs of the market and actively carry out financial management innovations.

## **(3) Achieving comprehensive financial management**

The main trend of the intelligent development of financial management is to realize the procedure and standardization of financial management, which is both the advantage and disadvantage of intelligent financial management. Because financial management work has great uncertainty and is relatively cumbersome, in practice, financial management work cannot be completely standardized and programmed. Regardless of how powerful artificial intelligence technology is, it cannot fully replace the professional analysis and decision-making ability of financial personnel. In the context of intelligent financial management, financial personnel still play a vital role in financial management. With the support of big data technology and computer technology, financial personnel need to combine the internal and external environment of the unit and their own work experience to intelligently analyze financial data to provide more relevant and accurate financial advice for the management and development of the enterprise. Participate in the internal control and management of the enterprise, build a comprehensive financial management model, rather than let the financial work be separated from the management work, can truly handle the financial work from the perspective of management,

and make suggestions for the operation and development of the enterprise<sup>4</sup>.

## **(4) Actively adapt to changes in the intelligent development of financial work**

Intelligent financial management mainly uses artificial intelligence technology to imitate human intelligence to complete some simple financial tasks, but this imitation does not have autonomous thinking and cannot fully replace financial personnel. In the context of big data, financial intelligence technology and financial personnel belong to a complementary partnership. Financial intelligence technology reshapes the financial model, and the working methods of financial personnel have also changed accordingly. This requires financial managers to have certain data analysis capabilities, make full use of big data technology and computer technology to select the most valuable financial information from cumbersome financial data, achieve scientific control of enterprise costs and budgets through analysis and sorting, provide strategic suggestions for the development and decision-making of enterprises, continuously improve the financial management level of enterprises, and build a solid internal control management system for the survival and development of enterprises with strong financial management capabilities.

## **(5) Strengthen awareness of risk prevention and establish a risk assessment mechanism**

The intelligent development of financial management requires enterprises to improve their awareness of financial risk prevention and to establish a risk assessment mechanism within the enterprise to ensure the standardization and rigor of financial management to the greatest extent. In the face of major economic activities and management based on an effective system, the layer comprehensively analyzes the feasibility of economic activities to make correct economic decisions. On the business level, strengthening the awareness of risk prevention requires enterprises to establish a sound financial budget system and fund management system and review business activities to continuously improve the scientific nature of financial budgets<sup>5</sup>. In addition, the financial management department should establish a risk assessment mechanism to objectively and comprehensively assess the economic activities within the unit. Especially when there are corresponding changes in the external economic environment or management policies, it is necessary to assess the risks of economic activities in a

timely manner and, at the same time, do a good job of analysis and summary and report to the management in a timely manner. At the same time, financial personnel should make full use of professional skills to predict the impact of risks on their units and formulate corresponding control measures in advance so that they can respond quickly before risks come and reduce the impact of risks on the enterprise. Sound financial internal control management is crucial to promoting the healthy development of an enterprise. Therefore, a sound financial internal control management system must be established within the enterprise, following the principles of scientific and normative financial internal control management and giving full play to the supervisory function of the organization<sup>6</sup>.

## CONCLUSION

In summary, in the context of big data, the intelligent development of financial management has become an inevitable trend in the development of financial management. The emergence of financial intelligence technology liberates financial personnel from a large number of simple and complex financial jobs, greatly improving the processing efficiency and quality of basic financial data, but the demand for senior financial management personnel is stronger. Therefore, financial personnel must establish a sense of lifelong learning, apply more advanced financial man-

agement models in practice with the help of emerging technologies such as big data technology and artificial intelligence technology, and continuously improve the financial management ability and management level of enterprises to help enterprises better deal with financial risks arising from market changes.

## COMPETING INTERESTS

The author declares that they have no competing interests.

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