Practical Application of Big Data Statistical Analysis Method for Enterprise Economic Management in Digital Era

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Abstract

INTRODUCTION: Today's world has entered the digital era, and big data is flooding people's lives, with more industry development and big data between the deep connections. Digital technology, as a representative of advanced technology globally, influences the global economic pattern. In the digital era and the background of rapid economic growth, there is a deeper integration between economics and management. Financial management work occupies an essential position in the development of enterprises and has an irreplaceable role in improving the economic efficiency of enterprises.

OBJECTIVES: Relying on digital technology under the extensive data statistical analysis method combines the advantages of big data technology and statistics. Its application for enterprise economic management can explore the law of enterprise management and operation to promote the improvement of management efficiency and the healthy development of enterprises.

METHODS: In the context of the digital era, the six representative methods of extensive data statistical analysis methods are introduced, and then their practical application in enterprise economic management is studied, respectively, from five aspects to discuss the application of extensive data statistical analysis methods for enterprise financial management.

RESULTS: Big data statistical analysis can provide information support for improving the level of enterprise economic management, promote the benign development of enterprises, and enhance the competitiveness of enterprises in the market.

CONCLUSION: To strengthen the application of extensive data statistical analysis methods in enterprise economic management, its insights and measures that can provide valuable reference and help for the healthy development of enterprises.

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1 Introduction

Today's world has entered the digital era; big data is flooding people's lives, and more and more industries are developing a profound connection with big data. Digital technology, as a representative of advanced technology worldwide, affects the global economic landscape. The stable and healthy development of the company depends on the new strategic opportunities of digital technology and the impact of the digital age. Digital technology profoundly influences the world technology, people's lifestyles, and the transformation of the world economy, and also drives the implementation of digital strategies adapted to current trends. First, the emergence of digital

technologies provides a reliable repository for developing digital innovations, communications, computers, and other areas [1]. Secondly, digitalization has fundamentally changed human productive activities and created an unprecedented way of life: digital existence. The spread of digital technology applications has enabled various social tasks to be carried out with a high level of efficiency, dominating the productive lives of people. In addition, the arrival of the digital era has led to the transformation of the corporate economy. To gain an advantage in the fierce market competition, enterprises must seek an advanced and efficient analysis method to promote the change of the enterprise economic management model. The extensive data statistical analysis method based on digitalization has an excellent application prospect in enterprise financial management. In recent years, the scale of China's big data industry has achieved rapid growth.

Big data has a considerable market scale in China and a particular market scale worldwide.

Economic management is crucial to improving the economic efficiency of a company and is the key to its healthy development and survival. Financial management goals are usually aligned with the company's development goals, i.e., the company's development goals are aligned with the company's development goals. In this regard, there is a need to strengthen the economic governance of the company, providing guidance and services regarding the company's strategy and direction of development by developing appropriate policy guidance and data analysis [2]. The economic authority can monitor the company's behavior in advance to promptly investigate financial issues related to operations, prevent and resolve financial risks, and ensure that the company's management clearly understands the direction of investments, the amount of financing, the efficiency of the company and cost accounting, prevent major failures in corporate management and promote the sustainable economic development of the company. Financial management is a challenging task, and it is difficult to ensure the proper operation of economic management by human resources alone. Therefore, this paper introduces statistical analysis methods to analyze the practical application of enterprise management. This paper explores the impact of extensive data statistical analysis methods on the economic management of enterprises and thus provides a reference for the financial management of enterprises.

2 Research Background

The emergence of the digital era is, first of all, inseparable from the application of digital. The application of digital has given rise to the creation and development of the digital age. Digitization is using computers to transform the information that appears in social life into a form expressed in numbers, reflecting the process of processing social information by digital technology. The application of digital technology penetrates various fields, and mass

media and communication are two of the most typical areas that reflect the digital era. Thus, digitalization is digital informatization with openness, sharing, and compatibility [3]. The overall size of China's digital economy continues to climb, as shown in Figure 1.
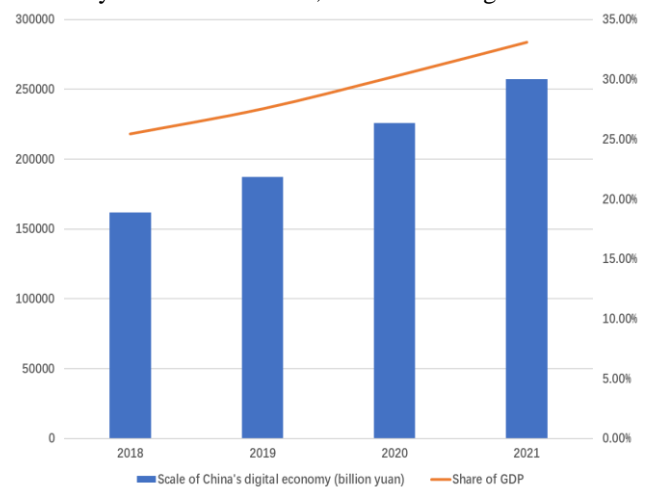

Figure 1 Overall size of the digital economy in China

The precise definition of the digital era is the era in which various information in the field of human life is processed and processed through digital technology, using multiple electronic devices as carriers to express and disseminate knowledge through this form of digital [4]. In the long history, human society has developed through three eras. Technology has been the catalyst for the formation of these eras, and the creation and emergence of new technologies have started the process of the eras. Following the steam and electrical eras, the emergence of computer network technology has enabled the volume, speed, and mode of information dissemination and its application to grow tremendously. Information formed a new economic scale and had a significant impact on society. The development of various social industries became increasingly inseparable from the application of knowledge, and humanity entered the Information Age from then on. Unlike the formation of the information age, the digital age is not marked by the appearance of innovative technology; digital technology was formed at the same time as computer network technology and was created before the information age, while the maximum application of digital technology occurred after the formation of a specific scale in the information age [5]. Digital technology has the advantages of strong anti-interference ability, high accuracy, rich information resources, confidentiality, security, and other applications, as shown in Figure 2.
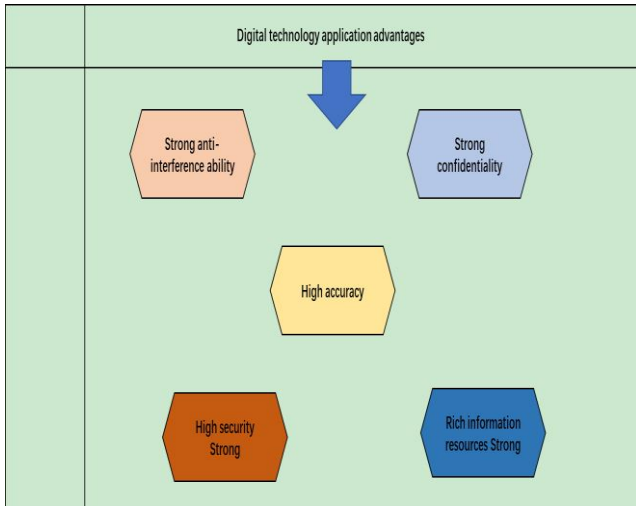
Figure 2 Advantages of digital technology applications

The process of application of digital technology as a driving force arising from the digital era is reflected in the continuous construction of virtual environments for human life. As the antithesis of the natural environment, the virtual environment complements and completes the natural environment, thus making human capabilities expand and extend in the virtual environment and stimulating the human desire to seek knowledge [6]. Moreover, through the combination of virtual environments and natural environments, human beings can obtain a new living environment. The new environment created by the combination of the virtual and the real reflects the characteristics of the digital era, and this characteristic is an entirely new one, reflecting the unique advantages of the digital age. The features of the digital era that are different from previous generations are reflected in four aspects: possibility, entertainment, diversity, and participation [7]. As shown in Figure 3.
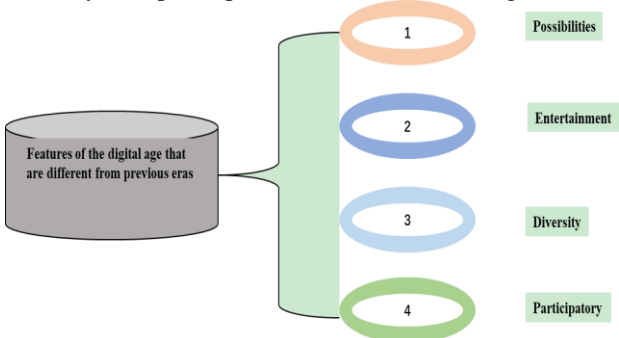

Figure 3 Characteristics of the digital era that are different from previous eras

Possibility refers to transforming the impossible in the real world into the possible in the virtual environment through digital technology. Constrained by objective factors, certain people's ideas are unbelievable in the real world but can be realized and applied in the virtual environment. The entertainment nature is the application of digital technology, which makes uploading information materials in various industries and fields entertaining and gives everyone a novel way to explore society. Digital technology in the virtual environment makes human

social interaction full of entertainment, and this entertainment will have a significant impact on the real world. In contrast, online social media is widespread [8]. Diversity is firstly reflected in the variety of identities. Everyone can experience the different identities constructed by the virtual environment, promote the diversity of their daily identities, and try more possibilities to perceive the world. Secondly, it is reflected in the variety of social interaction objects. In the virtual space, people will have more opportunities to interact and try to communicate with strangers in the real world, and this kind of communication can protect their privacy from being violated. Participatory refers to the fact that people's social interactions are more frequent in the virtual environment, and facilitating social interactions allows everyone to participate in social interactions [9].

As an essential activity for the regular operation of an enterprise, the degree of effective economic management determines the efficiency of the enterprise operation and is also related to the prospect of enterprise development [10]. The number of SMEs in China is vast in scale, and in recent years, there has been a trend of continuous growth, the specific values of which are shown in Figure 4.
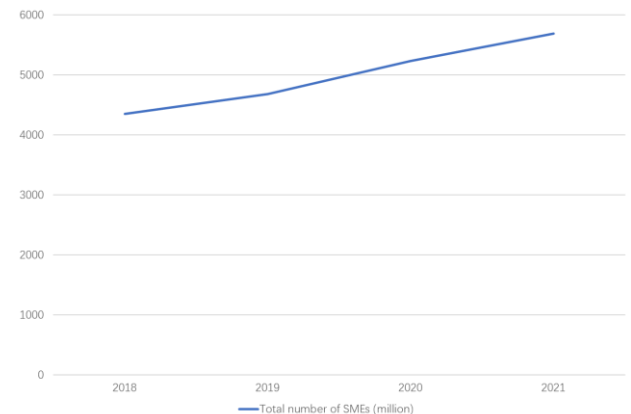
Figure 4 The scale of the number of SMEs in China in recent years

In the daily economic management activities of enterprises, the adjustment of product business and enterprise development planning cannot be done without the guidance of relevant policies, which need to be combined with appropriate procedures to develop an economic management system in line with the development of their enterprises. Usually, the development and operation of economic management activities are inseparable from the coordination and cooperation among various enterprise departments and will consume specific human, material, and financial resources. Extensive data statistical analysis methods arise based on the digital era, which can extract data on business management, contribute helpful information data to the board of directors through such an expression form as numbers, promote sound corporate decision-making, facilitate communication between various departments, and realize the improvement of economic management and operational efficiency of enterprises [11].

With the acceleration of economic globalization, domestic enterprises are facing competitive pressure not only from domestic enterprises but also from foreign enterprises. Under such unfavorable conditions, enterprises should use large-scale statistical analysis methods based on market information extraction and processing according to the characteristics of their business plans to evaluate market changes and ultimately support enterprise economic management decisions [12]. Large-scale statistical analysis methods generally rely on several vehicles, such as statistical analysis of significant data statistical analysis software, company business data, and business information, which can provide a comprehensive analysis of the company's business situation and predict the development of the industry. It ensures a reasonable and perfect organizational structure for the company, establishes a healthy system, and drives economic growth.

3 Research methods and materials
3.1 Big Data Statistical Analysis Method

The extensive data statistical analysis method is based on data, extracting and analyzing massive data, and applying the analysis results to solve the problem. Comprehensive data analysis emerged with the advent of the significant data era and is an inevitable product of the development of the data era to a particular stage [13]. Six main statistical analysis methods of big data are commonly used, as shown in Figure 5.
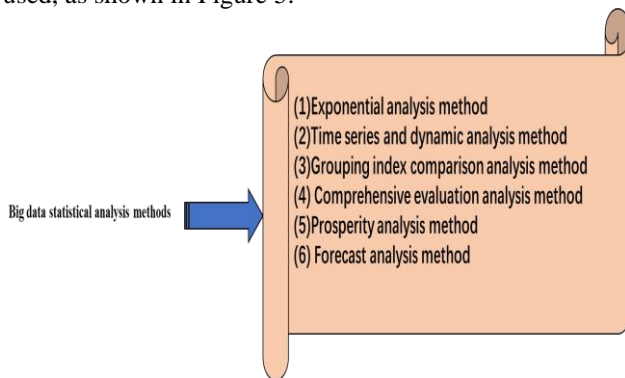

Figure 5 Big data statistical analysis methods

(1) Exponential analysis method
The index is a relative concept that occupies an essential position in mathematics and can reflect socio-economic phenomena. Indexes can be divided into two aspects: generalized and narrow. A broad index is a relative number created by comparing two infinite quantities; in a little sense, an index is a close number formed by a wide range of changes in a series of elements in different situations. The index can reflect the quantitative changes and directions of complex socio-economic phenomena and the factors associated with these economic phenomena and adequately reflect these factors' degree of change and influence [14]. The index analysis is a method of factor analysis based on quantitative relations in the system of indicators, reflecting the effectiveness of two types of changes with other factors remaining unchanged.

To solve the problem of index analysis, it is first necessary to extract the attributes of the object of study and divide the thing into multiple factors. The degree of their influence on the overall picture is measured by analyzing the common characteristics of various factors. The index analysis method can be divided into the analysis of aspects of change of the general index and the process of consideration of elements of change of the average index [15]. The equation (1) can express indicators' calculation methods.

$$\overline{k_{xf}} = \frac{\overline{x_1}}{\overline{x_0}} = \frac{x_1 f_1}{f_1} \div \frac{x_0 f_0}{f_0} \qquad (1)$$

In equation (1), x1 represents the average indicator of the reporting period group, x0 represents the average indicator of the -base period group, f1 represents the overall number of units of the -reporting period and f0 represents the overall number of units.

(2) Time series and dynamic analysis method
A time series is a set of values, which are the product of time evolution, arranged in chronological order, also known as dynamic series. Time series can respond more accurately to socio-economic phenomena and analyze their factors and development. Time series analysis can inform business development dynamics, predict a company's future trends, and guide business decisions. Time series contain several types: absolute time series, relative time series, and mean time series. The dynamic analysis method complements the time series. As a less common analysis method in statistical analysis, the dynamic analysis method requires more demanding period indicator values, which usually need multiple period indicator values. If only a one-period indicator value exists, it is not easy to accurately judge the research object. After adequate preparation of the time series, it is possible to use the dynamic analysis method to analyze and forecast the level and speed of economic development and find out its development law [16].

(3) Comparative analysis method of grouping indicators
Since the units that make up the total often have a variety of possibilities, when statistical analysis of the data is conducted, there are many different factors among the teams as a whole, and to make the statistical analysis method have the maximum effect, it is necessary to have a specific knowledge and understanding of the quantitative characteristics and quantitative relationships of the total, and at the same time, to conduct a deep statistical analysis of the internal level of the whole [17]. In this case, the form of grouping indicators can be used. Based on not violating statistical analysis requirements, the totality under study is divided into several parts according to the rules of one or more indicators. The results are processed, observed, and analyzed to expose the inner laws and connections of economic operation and finally provide decision support for the financial management of enterprises. The critical point of the grouping index comparison analysis method is whether reasonable grouping indexes can be selected and whether the boundaries of each group can be delineated.

(4) Comprehensive evaluation and analysis method

There are many uncertainties and a high degree of complexity in the law of change of social and economic phenomena. Therefore, the comprehensive influence of various factors should be considered when analyzing social and economic phenomena. Each element of economic phenomena has a different direction and scope. In evaluating macroeconomic operations, people must consider production, distribution, exchange, and consumption. When assessing the economic efficiency of an enterprise, it is necessary to conduct a multifaceted analysis of the rational allocation and use of human, material, and financial resources, as well as the state of marketing. Making a correct evaluation and judgment with a single indicator is often difficult. Comprehensive assessment and analysis include the following steps: Firstly, a complete and systematic evaluation system is selected, which is the premise and basis for a correct and reasonable evaluation. Secondly, collect data. There are specific differences in index indicators under different measurement units, and it is necessary to unify the unit of measure for these indicator values and use the same operation as correlation, standardization, and functionalization processing without affecting the final results. Then, different weights are given according to the state and value of each index. Finally, the final performance evaluation is provided by summarizing and synthesizing these indicators [18].

(5) Boom analysis method

Economic fluctuation is one of the laws of financial operation and is a monetary phenomenon in any country. Appropriate economic changes are regular, and the state and enterprises should consider avoiding large economic fluctuations to ensure stable economic development. As an essential method for predicting economic phenomena and providing a basis for decision-making in business management, the prosperity analysis method is a comprehensive evaluation and analysis method that can provide some reference for the government and economic experts to make macroeconomic control decisions. The boom analysis method under macro economy first appeared in the 1980s, a monitoring index system established by relevant government departments to strengthen macroeconomic regulation and control. After several years of development and improvement, the sentiment analysis method has a complete calculation system, which can play a role in warning and regulating the operation of the macroeconomy and provide a decision-making basis for formulating macro-control measures by relevant departments. Enterprise sentiment analysis is usually used in the economic management activities of small and medium-sized enterprises, and by using the sampling method and issuing questionnaires to obtain the responses of enterprise managers to relevant issues, company managers can easily predict and assess the situation. Market environment survey analysis can be divided into predicting macroeconomic fluctuations and evaluating company performance [19].

(6) Predictive analysis method

Decision-making in macroeconomics and microeconomics requires an understanding and grasp of the actual economic situation and, more importantly, an accurate prediction of future operations. Predictive analysis is predicting future market trends based on past data. Statistical forecasting belongs to quantitative forecasting, and data analysis is the most crucial method. Forecasting of economic indicators of a company based on data analysis and qualitative analysis; statistical forecasting can be found on exponential time series and time dependence. The method is a part of time series analysis. Statistical forecasting can also be based on the degree of interaction between predictors, which belongs to mathematical regression analysis.

3.2 The value of using extensive data statistical analysis methods for enterprise economic management
3.2.1 Improving the level of economic management of enterprises

Through extensive data statistical analysis methods, enterprises can develop scientific, economic management methods based on the validity conveyed by data information, promote the improvement of the enterprise's financial management level, and make the enterprise develop toward a high-quality level. In the course of the intense evolution of the world economic landscape, there is fierce competition in both the domestic and international markets. The company faces internal and external pressure, challenges, and many development opportunities. As the lifeline of the company, the level of economic development and the pursuit of economic benefits enable the company to continuously adapt to changes, break the shackles of the old management model, and establish a new management model to adjust to the effective operation of the economy in the new era. A scientific approach to economic development strategies must be adopted to make the new management model effective. Extensive data statistical analysis methods can provide a scientific and reasonable index system for enterprise decision-making, reliable support for enterprise governance strategies, and promote enterprise governance to a new level.

3.2.2 Improving the market competitiveness of enterprises

In the new era, economic development has moved to a new stage, social productivity has steadily improved, and market conditions have significantly changed. Companies' daily operations and management have fundamentally changed due to fierce competition. Market relations play an increasingly important role in the company's business management, and the links between them are getting closer and closer. People need a comprehensive and clear understanding of the external market to achieve the

company's strategic growth and expansion goals. Large-scale statistical analysis technology can be used for information retrieval and data conversion. It can collect and organize foreign market data and eventually select such valuable information from more extensive data to improve enterprises' economic management, promote their healthy development, and enhance their overall competitiveness to have a solid foundation for industrial competition.

4 Results and Discussion
4.1 The practical application of extensive data statistical analysis method to enterprise economic management

The practical application of extensive data statistical analysis methods to enterprise economic management is mainly reflected in five aspects, as shown in Figure 6.
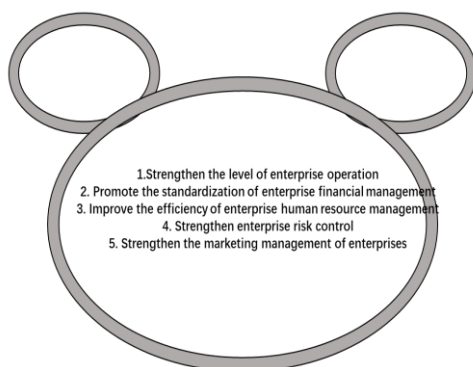

Figure 6 Practical application of extensive data statistical analysis methods to enterprise economic management

4.1.1 Strengthening the level of enterprise operation

Extensive data statistical analysis methods can be linked to the development rules of the company, thus improving the predictability of management decisions on the hidden risks of the company and enabling the company to manage and adjust the risks promptly. The benefits of big data processing technology allow decision makers to make scientific risk planning based on the analysis results, avoid or reduce credit risks from financial crises to a certain extent, reduce waste of resources, and improve employees' alertness. Due to the different responsibilities of different departments in the company, there often needs to be more precise reports and interruptions in employee communication, significantly reducing the company's efficiency. The efficiency of overall corporate governance is adversely affected if the information needed for decision-making is delivered slowly. The application of large-scale statistical analysis can provide a scientific evaluation of the company's economic development decisions, an accurate assessment of their rationality, and

the ability to produce more realistic and reliable data information.

4.1.2 Promote the standardization of enterprise financial management work

The financial management activities of the enterprise bear the importance of the security of enterprise funds and are the link that must be strictly controlled in all enterprise activities. The financial management department is critical among the functional departments of the enterprise, and the department assumes the vital function of whether the enterprise funds are used scientifically and reasonably and has an essential position in improving the economic efficiency of the enterprise. The financial management work puts high requirements on the professional quality, professional skills, and level of the staff on the job. If the team is sloppy, there will be loopholes in the financial management, and the losses eventually caused are incalculable. The application of extensive data statistical analysis methods to financial management work can extract and analyze a vast amount of financial data and provide accurate and reliable financial data information for the staff when they make relevant financial analysis reports, which will eventually decide on enterprise investment more scientific and reasonable. Financial management work is complex, and the need to organize the data and information is cumbersome. Facing the work pressure and the characteristics of purely manual operation determines the need for higher efficiency of financial management work, which will not only affect the accuracy of financial data but also make the enterprise management decision lag, reducing the effectiveness of enterprise decision-making. Extensive data statistical analysis methods can extract accurate and reliable financial data information from a vast amount of data, and financial management will be more standardized and procedural to ensure the safety of financial operations, solve problems in financial work early, and improve the overall management level of the company.

4.1.3 Improve the efficiency of enterprise human resource management

The management of human resources as an intangible asset is critical. Career development is a prerequisite for human resource development. The ability to select a group of high-quality talents with good knowledge and allocate the work of employees scientifically and reasonably is of great significance to improve the efficiency of the company's operation and promote the sustainable development of the enterprise. Therefore, the human resource management department has responsibilities that other departments do not have, and the ability of the human resource management department will determine the reasonable degree of talent use of the

entire enterprise. Suppose an enterprise needs to be more efficient, given the unique perspective of HRM. In that case, HRM will hinder the efficiency of HRM and ultimately hurt the utilization of human resources in the enterprise. Extensive data statistical analysis methods can scientifically process and analyze the company's data, combine the unique characteristics of cadre management, improve the efficiency of cadre management, enhance the company's understanding of the direction of development, reasonably plan the work of cadres, and achieve better use for people. In addition, dynamic analysis and considerable data statistical analysis can accurately assess and predict the mobility of human resources and ensure the sustainability of work and work plans.

4.1.4 Strengthen enterprise risk control

There are specific economic laws in the daily business activities of enterprises, and the occurrence of various enterprises' businesses follows the inherent financial rules. Moreover, under the constraints of the role of economic laws, the business management of enterprises will stay within the inherent track. Extensive data statistical analysis methods can be applied to enterprises' business models, revealing the defects in business processes and proposing feasible solutions and preventive measures for complex problems to make the business model perfect. Various decisions about the enterprise are more scientific and reasonable, reducing the pressure from internal and external risks of the enterprise and ensuring sustainable business operation. When enterprises encounter financial difficulties in their operations, they can use significant data statistical analysis methods to make all-round judgments and analyses of their financial situation quickly, accurately identify the problems that exist, reduce the financial risks of enterprises, ensure financial security, and provide scientific and reliable raw data for enterprise decision-making. Market changes are unpredictable and turbulent, making potential risks challenging to find. The extensive data statistical analysis method can analyze the potential risks in the market in the massive data, so applying this method to risk control is very effective, which is of great significance to the healthy development of enterprises.

4.1.5 Strengthen the marketing management of enterprises

As an essential link in the market circulation of enterprise products, marketing is the link between producers and consumers. The success of the marketing link determines the popularity of the enterprise's products in the market and whether the enterprise can make profits. Therefore, it seems necessary to strengthen the advantages of the enterprise's marketing aspect to enhance its economic efficiency. Statistical analysis methods of big data and its unique benefits in enterprise marketing management have

sound application effects. First, big data statistical analysis methods can be used to evaluate the current situation of enterprise product marketing. Based on data identification, a sizeable statistical data analysis system is established, which can comprehensively track the sales status of enterprise products. Secondly, people can use statistical methods of extensive data analysis to determine customer satisfaction, market demand, and the market position of products. Based on the research results, the company can adjust the development strategy, improve the goods that consumers are dissatisfied with, clarify the market positioning, meet the diversified needs of consumers, seize the opportunity of market opening, and expand the sales channels of products. Upgrade and reform the product operation, highlight the product consumption hotspots, and finally complete the realization of the business objectives.

4.2 Initiatives to strengthen the application of extensive data statistical analysis methods in enterprise economic management
4.2.1 Promote the change of enterprise management thinking

Promoting the shift in enterprise management thinking is the basis for strengthening the application of the enterprise management field. Under the wave of the data era, data resources are essential in society, and big data has robust application prospects in various management work of organizations. As an enterprise manager, he should have explicit knowledge and understanding of the importance of big data, give up old-fashioned thinking, and strengthen the sense of innovation to establish a new enterprise management thinking. Only the management thinking based on data and information era has a strong application prospect and vitality. To maximize the value of significant data statistical analysis methods, change the thinking of enterprise management, strengthen the training of employees' ability to apply data, and strengthen the propaganda and cultivation for the functions and advantages of extensive data statistical analysis methods to provide new enterprise management thinking for the smooth operation of enterprises.

4.2.2 Improve the implementation of extensive data statistical analysis methods

Enterprise managers should pay full attention to significant data statistical analysis methods and improve their application in corporate governance so that comprehensive data statistical analysis becomes a standard method for making and implementing corporate governance decisions. At the same time, a complete data system should be designed for the company's specific situation to establish a comprehensive management

system to realize the maximum benefit of large-scale data statistical analysis for the company and further study the rules of operation and management. While conducting scientific research and judgment on the data, the whole industry market contributes to the effective decision-making program.

4.2.3 Improve the statistical management mode of data

In enterprises' daily business management activities, a large amount of data will be generated, which needs to be collected, organized, and summarized to understand the market situation better. By strengthening statistical work, people can provide feedback on the problems that arise in the operation of economic management companies, understand the causes of these problems, and develop operational measures and plans to assist in effective management implementation. As a company manager, people should pay due attention to possible issues in corporate governance, analyze and discuss them based on management data, seek a reliable and effective risk warning system, and establish a sound statistical data management model that is compatible with the daily operation and management of the company.

4.2.4 Enhance the professionalism of staff

In the application process of the extensive data statistical analysis method, the manual operation occupies a large part of the work, and the level of application and mastery of the comprehensive data statistical analysis method by the enterprise staff will determine the application effect of the technique. Therefore, in the daily management activities of the enterprise, it is necessary to strengthen the staff's ability to apply extensive data statistical analysis methods, open training courses, and extend the internship period to cultivate a team with good application ability, enhance the staff's professional skills, strengthen their knowledge and understanding of big data, and improve their ability to use big data. In addition to a certain degree of understanding of big data, the knowledge scope of employees should be extended to strengthen their knowledge and experience of mathematics, statistics, computers, and other disciplines to create a team of specialized talents with comprehensive capabilities to guarantee the superiority of the enterprise's human resources.

5 Conclusion

The creation of the digital era is inseparable from the application of numbers in the first place. The application of digital has given rise to the design and development of the digital age. Digitization is using computers to transform the information appearing in social life into a form expressed in numbers, reflecting the process of processing social information by digital technology. The application of digital technology penetrates various fields, and mass media and communication are two of the most typical areas that reflect the digital era. The advent of the digital age has made the use of data a norm. Digital technology, as the driving force of the digital era, is reflected in its application to build virtual environments for human life continuously. As the antithesis of the natural environment, the virtual environment complements and completes the natural environment, thus allowing human capabilities to expand and extend in the virtual environment and stimulating the human desire to seek knowledge. In addition, by combining the virtual and natural environments, human beings can get a new living environment. The new environment created by the combination of virtual and natural reflects the characteristics of the digital era. This brand-new feature reflects the unique advantages of the digital age. Based on the background of the digital age, this paper analyzes and researches the practical application of extensive data statistical analysis methods in the economic management of enterprises to make an all-round analysis of the financial management of enterprises, as well as to forecast the development prospects of the industry in which they are located, to promote the benign development of the economy.

In the introduction of the article, the digital era and digital technology are explained. The advent of the digital age has boosted the economic transformation of enterprises, pioneered the innovation of digital technology, and promoted the change of economic production methods. The popularity of digital technology has made society more efficient and is a manifestation of promoting productivity development. As the lifeblood of enterprise development, economic management work is of great significance to improve the economic efficiency of enterprises. Sound financial management not only needs a solid professional team but also needs the application of advanced technology. Extensive data statistical analysis method relies on the digital era and has excellent application prospects for enterprise economic management. As to which aspects of its economic benefits can be influenced by extensive data statistical analysis methods, it will be the focus of this paper. In the research background section of the article, the meaning and source of digitalization are discussed. Digital technology has a wide range of applications in various fields, with the characteristics of open sharing and compatibility, and the generation of digital technology is closely related to the information age. The digital era has unique features and can create a virtual-real environment to stimulate the human desire for knowledge. Combining big data statistical analysis methods with enterprise economic management can comprehensively analyze enterprise operations.

In the research methods and materials section of the article, firstly, the six standard methods of extensive data statistical analysis methods, namely, index analysis method, time series and dynamic analysis method,

grouping index comparison analysis method, comprehensive evaluation analysis method, boom analysis method, and prediction analysis method are introduced. Then, the application value of significant data statistical analysis methods in enterprise economic management is explained; that is, it can develop scientific financial management methods for enterprises according to the data information. It can also provide information support for improving enterprise economic management level, promote enterprises' benign development, and enhance enterprises' competitiveness in the market. The results and discussion section of the article discusses the practical application of extensive data statistical analysis methods in enterprise economic management. Namely, it can strengthen the level of enterprise operation, promote the standardization of enterprise financial management, improve the efficiency of enterprise human resource management, strengthen the enterprise's risk control ability, and strengthen the enterprise's marketing management, which is also the focus of this article. Finally, four measures are proposed to improve the application of extensive data statistical analysis methods in enterprise economic management: promoting the change of enterprise management thinking, increasing the implementation of big data statistical analysis methods, improving the data statistical management mode, and enhancing the professionalism of staff.

Given the limitation of research time and personal ability, this paper still has some incompleteness. There are still many problems to be further explored and discovered for the practical application of extensive data statistical analysis methods to enterprise economic management in the digital era.

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