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Research on the Issues and Effects of Big Data on Business Economic Management

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ABSTRACT

With the advent of the big data era, the application of big data has become more and more common and mature, gradually changing social production and lifestyle, and also has a certain impact on business and economic management. With the support of big data technology, enterprises can comprehensively analyze and process relevant data and extract valuable data from massive amounts of data, thereby providing a scientific reference for economic management and improving the effectiveness and science of business decision-making. At this stage, although enterprises also realize the importance of big data, there are many problems in the specific application process, and the role of big data in business and economic management has not been achieved to perform effectively. Therefore, enterprises must conduct in-depth research on big data, fully understand the problems of integrating big data into business economic management, and put forward targeted suggestions on this basis to ensure the efficient use of big data. This article discusses big data's issues and roles in business economic management.

INTRODUCTION

In the context of the development of global economic integration, the market development gap between countries has narrowed, and economic and trade exchanges between countries have become increasingly closer, prompting continuous innovation in commercial foreign trade models and market operation (Zhang Dong, 2021). In order to reasonably respond to this economic development situation, domestic enterprises must keep pace with the times and accelerate the investment and application of big data technology, so as to effectively promote the rapid development of their own enterprises. By integrating big data technology, it helps enterprises break through the obstacles of traditional business economic management, thereby laying a good big data integration environment for them to achieve sustainable and stable development of the business economy.

LITERATURE REVIEW

The Connotation and Application Characteristics of Big Data

The Connotation of Big Data

The so-called big data does not have a clear definition in the field of academic scientific research. Relevant researchers say that big data is a diversified data asset that can adapt to the growth of massive information through a new processing model and has stronger insight, decision-making and process; McKinsey The institute pointed out that big data is a large-scale data collection that far exceeds the capabilities of traditional databases in terms of data acquisition, storage, management, analysis and application. Its data scale is huge, data flows rapidly, data types are diverse, and data density is extremely high. low characteristics (Zhao Yuhui, 2017)

Table 1: Application characteristics of big data

Data scale is larger	Big data involves a large amount of information data, which is one of the basic characteristics of big data technology. The reason why the scale of big data information data is huge is first of all because in the context of the information age, people are inseparable from the demand for network services in their work, life and study. It has become a normal phenomenon to seek effective information through the network. In the early days when network technology was underdeveloped, only a few high-end companies were able to use computers and networks to obtain information data and publish information data through the network. But things are not what they used to be. Nowadays, mobile networks and mobile smart devices are becoming more and more high-tech. Internet users are almost universal across the country. The convenience for people to receive and publish information and data has been greatly improved, which has also expanded the scope of big data. scale. Secondly, my country's network technology is now very developed. The 5G network enables people to obtain information and data in more diverse and convenient ways. Information data is no longer simple text content, but also includes different carriers such as pictures, audio and video, etc. This is also very important. The amount of data information has been increased to a great extent, and the scale of information data involved in big data technology has naturally become huge.
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Data value density is low	In the early days when network technology was underdeveloped, the collection and transmission of information data would be subject to the limitations of the technology itself. People had to compress the data before it could be used conveniently, which made the information data not have complete application value (Border Defense, 2021). But after integrating big data technology, all information data can be saved. People can not only directly use the original data, but also conduct comprehensive and detailed analysis of these data. But at the same time, due to the huge amount of original information data, people will also find a large amount of data that has no practical application value during use, which makes the value density of information data under big data technology invisible.
Data processing speeds up	With the continuous improvement of network technology, there is almost no difficulty in the generation, collection and dissemination of information data. This has led to a rapid and substantial growth trend in information data, which in turn has forced the processing speed of information data to keep up with the times. Advance (Wang Yibo, 2020). Because only by accelerating data processing capabilities can we achieve timely and reasonable utilization of data. Even if a lot of data processing is one second slower, it may lose its utilization value. Therefore, in this situation, big data technology has to deal with data processing. The capabilities are becoming stronger and stronger, and the data processing speed is getting faster and faster.
There are more and more types of data	At first, information data did not need to be re-screened due to its small content during processing, and some overall structured data were also very easy to process (Wang Haoru, 2020). However, nowadays, there is not only a huge amount of information data, but also a large amount of unstructured data, such as pictures and image data, which makes the standardization and batch processing of data unrealistic and promotes big data technology.

Problems in Integrating Big Data into Business and Economic Management

Business economic management is an important management activity of an enterprise and is closely related to the survival and development of the enterprise. Effective business economic management can help enterprises obtain good economic benefits. On the contrary, it will increase corporate risks and expose enterprises to the risk of bankruptcy and closure. In business economic management, enterprises need to comprehensively consider various factors, including

internal factors and external factors. Only by scientifically assessing their own operating conditions and grasping market information can enterprises make scientific business decisions. The emergence of big data has provided great convenience for business and economic management work.

However, during the specific application process, enterprises mainly face database credibility issues, database security issues, network performance issues, system framework defects, correlation security issues and talent vacancies. The detailed proportion is shown in Figure 1.

Problem proportion

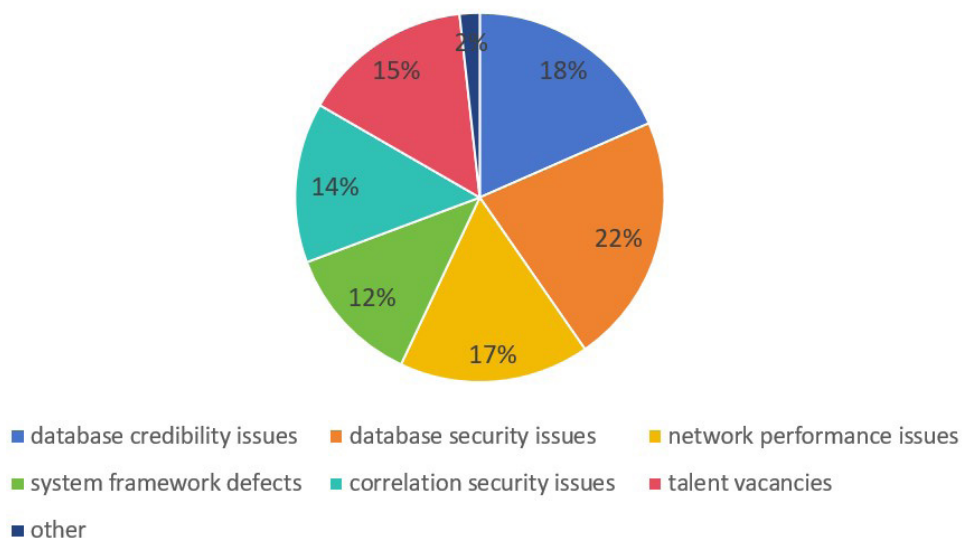


Figure 1: Analysis of the proportion of problems in integrating data into business economic management

Database Credibility Issue

The emergence of big data has changed the way of business and economic management, greatly facilitated business and economic management, and helped enterprises make scientific business decisions. But big data is based on the Internet. When companies apply big data, they need to consider the issue of data credibility. In an open Internet environment, people can become disseminators of information. This high degree of freedom also makes all kinds of data become popular, including some unrealistic data content (Zhang Xigang, 2022). For enterprises, not only internal data must be effectively processed in business economic management, but external data must also be effectively analyzed. However, if the data used by enterprises is unreal, it will affect the scientific nature of economic decision-making. For example, when conducting market analysis, if the data collected by the company is distorted, the company will not be able to accurately grasp the market and produce products according to market demand. Once the products produced by the company do not match the market demand, it will face losses, and serious consequences will occur. will face bankruptcy.

Database Security Issues

In the process of continuous popularization of informatization construction, big data has played a vital guiding role in the commercial and economic management behaviors of enterprises. Therefore, more and more enterprises have begun to develop big data systems to enhance their corporate competitiveness (Yang Yantao, 2022). However, while big data brings data support and convenient services to enterprises, it also brings a lot of data security issues. On the one hand, as the enterprise data system is connected to the network, the enterprise's internal data and user data will become important targets for malicious attacks and theft by criminals. This may not only cause the enterprise's own business losses, but also cause the loss of user information. Large-scale leaks have become a key issue affecting social security and business stability. On the other hand, big data can support enterprises to make more scientific choices in business management, decision-making and other behaviors. This also makes enterprises continue to rely on big data, which may infringe and abuse customer information, thus posing a threat to user security. It will also have an impact.

MATERIALS AND METHODS

The Main Role of Big Data Integrated into Business and Economic Management

In business and economic management, integrating big data can make decisions more reasonable, increase the economic value chain, broaden business and economic channels, and improve the management level of users.

Improve the Rationality of Business Decisions

For modern enterprises, in the process of operation and management, the extensive application of big data technology should be strengthened, and big data should

be used to provide corresponding reference basis for enterprise decision-making. In the current era, corporate managers need to collect information data from various departments, and at the same time make effective decisions through scientific and reasonable data to effectively ensure the feasibility, rationality and scientificity of the decision-making. Only in this way can the economic benefits and market competitiveness of the enterprise be improved and the healthy, stable and sustainable development of the enterprise be achieved.

Increase Business Economic Value Chain

In the process of modern enterprise operation and development, the use of big data can not only prompt enterprises to assess the situation in light of market changes, but also promote the improvement of economic benefits of enterprises and further enhance the market competitiveness of enterprises. Through big data analysis, enterprises can also obtain users' suggestions and opinions, and continuously improve their services based on user needs, further enhance the business value chain, and bring greater economic benefits to enterprises. In addition, after currently analyzing and researching user information, enterprises can fully understand the user's intrinsic needs through user information, formulate relevant operating strategies, and gain user trust and recognition. At the same time, it can improve the economic benefits of enterprises, enable them to occupy more market shares in the fierce competition in the market environment, and improve their market competitiveness.

Broaden Business Economic Channels

In the current era, most people's study, work and life cannot exist independently of the Internet. In the past, commercial and economic activities were often located at fixed outlets. Nowadays, they have gradually expanded to many aspects of the network, and the business methods have become more flexible. By using big data technology, commercial economic production channels can be further broadened, which is significantly reflected in the following aspects: First, in the process of commercial economic management, the use of big data technology can promote the effective expansion of enterprise business areas. At the same time, enterprises can also achieve bold innovation. Based on the analysis of current domestic commercial and economic activities, it clearly shows the characteristics of homogeneity and lacks innovation. The use of big data technology can not only further improve the level of commercial and economic information processing and information analysis, but also further broaden the commercial and economic production channels. Secondly, in the current era of big data, user channels can be expanded to a certain extent in the process of business economic management. At the same time, by strengthening big data analysis, a more scientific and reasonable development strategy can be obtained, and the level of enterprise management and management quality can be improved. Prompting enterprises to achieve healthy,

stable and sustainable development.

Improve the Professional Level of Job Seekers

In the process of applying big data, technical personnel with strong implementation capabilities and keen observation skills must be given certain guidance and assistance, and professional information talents must handle big data-related work. Under the current background of the times, enterprises have put forward more stringent requirements for information technology talents, especially the need to recruit experienced, capable, and high-quality compound technical talents. Applicants will also continue to improve their professional and technical levels to meet the relevant requirements put forward by the company and obtain positions.

Promote Enterprises to Improve and Update Products

For current enterprises, they can accurately understand user needs by strengthening the extensive use of big data. By analyzing user review information, they can also discover product problems and make timely improvements. In the process of traditional enterprise management, it mainly relies on the decision-making of leaders. In the context of the big data era, enterprises can obtain public opinions formed by big data through the use of media platforms, prompting enterprises to make scientific market management decisions and update and improve products. , improve the market competitiveness of enterprises and achieve the improvement of economic benefits of enterprises.

RESULTS AND DISCUSSION

Improvement Measures for Integrating Big Data into Business Economic Management

Establish a Big Database and Deepen Big Data Support Functions

The database is the key to supporting the operation of the big data system. Therefore, when enterprises rely on big data to promote business and economic management, they must also establish a complete big database (Chen Jing, 2022). First of all, in order to ensure the effective operation and data mining of big data systems, enterprises must promote the unified connectivity of all departments and connect the work contents of each department together through the information management system to form a whole, which can not only realize internal information Sharing and circulation, and the big data system can monitor and collect information data within or between departments in real time. Secondly, as the scale of the network continues to expand, the amount of network data has been growing exponentially. In order to continuously improve the analysis level of the big data system, it must be ensured that it can collect more data. Therefore, enterprises must establish higher-capacity databases, which can be used to collect and store various data in the business process, market consumer data, enterprise user data, etc., and then through data classification management and

analysis, they can provide enterprises with Preliminary conclusions drawn from data analysis. In addition, enterprises can further develop intelligence data systems and conduct comprehensive analysis based on their own industry scale, development situation, core business, market demand and other information, thereby providing a more comprehensive reference for opinions and deepening the support functions of big data.

Optimize the Top-Level Design of Large Databases and Adhere to the Concept of Safe Development

In business and economic management activities, the application of big data must be based on the top-level design and conceptual understanding of corporate management to ensure the effective application and popularization of big data technology. For modern enterprises, data is the basic carrier for implementing commercial and economic management behaviors. Only by making full use of data as support can enterprises seize the initiative in the market. The application of big data, on the one hand, makes up for the single flaw of modern enterprises in business and economic management, on the other hand, it also effectively improves the quality and efficiency of work, becoming an important basis for business decision-making. However, whether big data can exert its due value and advantages requires enterprises to realize the importance of big data and to rely on big data to carry out system construction and concept optimization. First of all, enterprises should adhere to the concept of big data development, be determined to develop and utilize big data technology, and then build an enterprise development plan guided by big data, thereby establishing the application value of big data in the commercial economic management system. Secondly, enterprises should establish multi-faceted big data construction guarantees. On the one hand, a big data implementation system must be established, requiring all employees and management positions to work according to the needs of the big data system, and to make timely rectifications based on feedback from big data. On the other hand, it is necessary to establish financial guarantee and actively introduce advanced equipment, facilities and instruments to ensure the complete operation of the big data system. Third, enterprises should also clarify and leverage the application value of big data. We should not only focus on collecting data in business operations and commercial economic management behaviors, but also actively connect with the market to understand the market's data feedback, and then rely on big data to guide scientific business and economic management decisions. In addition, enterprises should also implement big data publicity and education activities internally to improve employees' understanding of big data, implement work by management specifications, and promote the application of big data in all aspects.

CONCLUSION

To sum up, with the development of the information age, big data has become an indispensable supporting

technology in modern enterprises' commercial and economic management activities. Because of the various problems currently faced by enterprises in the application of big data, they should effectively strengthen the impact of big data on enterprise development by adhering to the concept of big data development, establishing big databases, promoting business innovation, improving safety management, strengthening talent training and other ways and measures. Promoting roles and auxiliary functions provide the necessary force for the modern transformation of enterprises.

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