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Research on Business Management information System under the background of Big data technology

Haoran Fan

Harbin University of Commerce

18434366365@163.com

Abstract. In the rapid development of social economy and science and technology, the integration of network technology and various industries is becoming more and more close, which is both an opportunity and a challenge for the construction and innovation of business administration. Since big data itself has the characteristics of high speed, diversity and large quantity, it can effectively solve the problems encountered in business management, scientifically grasp the opportunities brought by big data for business management informatization, summarize and analyze the basic laws and main trends of market development, and then monitor abnormal conditions in data mining. On the basis of understanding the status quo of big data technology and business management innovation and development, this paper mainly studies the basic structure and application measures of business management information system in the new era according to the advantages of big data technology, so as to create a positive market environment.

Keywords: Big data; Business administration; Information system; 5G network; Warehouse modeling.

1. Introducion

Since big data contains rich data types and wide source channels, it is difficult to realize effective analysis with general calculation methods, so special technical methods should be used in the operation process. From the perspective of business administration, big data in the field of business administration is characterized by multiple types and structures. Relevant departments need to complete two types of data processing. One refers to the standardized data of relevant structures in the industrial and commercial administration system, and the other refers to the big data under the market background, such as social media, e-commerce platforms, theme websites, etc. These data information structures are diverse and of complex types. In order to explore valuable content in comprehensive analysis, traditional working thinking must be changed, and only in this way can more perfect data results be obtained. After learning about the construction and application of the current big data technology information system, we can know that there are many problems, which are reflected in the following points: On the one hand, the problem of information leakage exists in the business management information system. This is because with the continuous development of network technology, although the network platform provides convenient conditions for data collection and management construction, it also increases the probability of data information being infringed by the outside world, which is easy to leak or steal industrial and commercial information in the increasingly competitive market environment. On the other hand, there are problems in the storage of industrial and commercial information. This is because there are technical defects and system loopholes in some business management during the storage of information, and they do not check the system data information comprehensively according to the requirements of the work, which has a serious impact on the development of business management.[1-3]

From the long-term perspective of business management information, big data plays an important role in it, which is reflected in the following points: First, to assist managers to make correct decisions. In the work of business administration, the application of big data technology means, can integrate all data filtering processing, mining the potential value characteristics and application rules, scientific grasp the correlation between the main body and market development rules, so that business management personnel with scientific means to make accurate judgments. Business management information needs to use information equipment to widely collect data

information, grasp market players and development trends in systematic processing, quickly discover illegal commercial phenomena, fully implement effective industrial and commercial administration supervision, scientific protection of social and economic power benefits, in order to cultivate more high-quality market players; Secondly, to guide the development of information management of industrial and commercial market supervision. The main work of the industry and commerce administration departments is to supervise the development of the market and the behavior of the market entities, comprehensively maintain the order of market operation, and protect the legitimate rights and interests of the market entities. With the help of big data technology, market data and industrial and commercial information of relevant departments can be collected and recorded, such as grasping trading trends and logistics information on electronic platforms, collecting information data and advertising content of electronic websites, mining and analyzing relevant content with the help of big data and technical software, and then discovering abnormal conditions and dynamic changes in time, and investigating and dealing with illegal enterprise behaviors as soon as possible. Crack down on online pyramid selling and false advertising, and finally create a safe and stable market environment; Finally, comprehensively forecast the market development crisis. At present, the information data contained in the industry and Commerce Department is relatively complex, but the content that can be collected is limited. The staff can integrate and analyze the industry and commerce information with the help of big data, and study the market risks according to the market rules in scientific statistics and in-depth analysis, so as to propose effective preventive measures as soon as possible. At the same time, in the process of filtering and analyzing industrial and commercial big data, the construction of the industrial and commercial index of the development of market players, the prediction and evaluation of the trend of market change and macro development can comprehensively improve the macro-control ability of the administrative departments of industry and commerce.[4-6]

Therefore, on the basis of understanding the background of big data technology, this paper mainly studies the composition of business management information system, and then from the perspective of long-term development of market economy construction, deeply discusses the construction methods and application ways of business management information system under the background of big data technology in the future.

2. Methods

2.1 Management information system

In the study of the basic concept of management information system, researchers put forward that modern information technology should be used to develop and construct the information resources needed by various industries, and finally realize the process of modern management. In the later study, many scholars believe that management informatization is a dynamic process and mainly has the characteristics of sustainable development. Research on the content analysis of the management information system shown in Figure 1 below shows that in recent years Chinese scholars have studied and mastered the structure of the business management information system more and more, the overall research work is divided into three stages:[7-9]

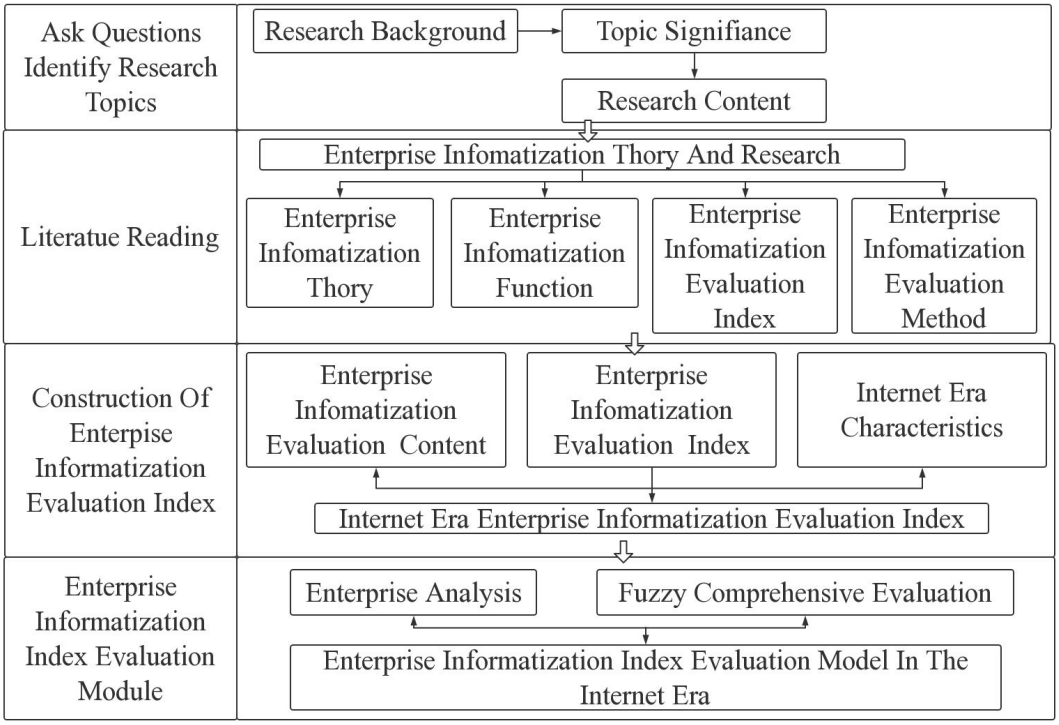

Figure 1 Main contents of MIS

First of all, basic informatization refers to the use of information technology in the design process and production process to achieve information processing; Secondly, data level refers to the close information interaction between software platforms. Finally, the higher level of information management refers to the application of information systems in decision-making aid.

2.2 System Structure Flow

Nowadays, big data analysis method is used in the construction of business management information system, and the latest technologies such as Internet, cloud architecture and 5G are integrated and studied, creating a harmonious and orderly business management information operation process. Based on the analysis of the structural flow chart shown in FIG. 2 below, it can be seen that a multi-module data reading mechanism should be created first. On the basis of ensuring scientific information reading, allocation and identification, a balanced and focused connection should be formed between each module, so that the system users can obtain information at any time by using multiple reading paths. At the same time, the blind spot of reading should be studied, and a multi-module data reading mechanism should be constructed in dimension tags. In addition, management information resources of different categories at different times should be read and utilized according to big data analysis technology, so as to ensure that the data of each module can be transmitted to each other, and there is no single transmission way between modules, with extremely strong interactive relationship, so as to facilitate subsequent information management.[10-15]

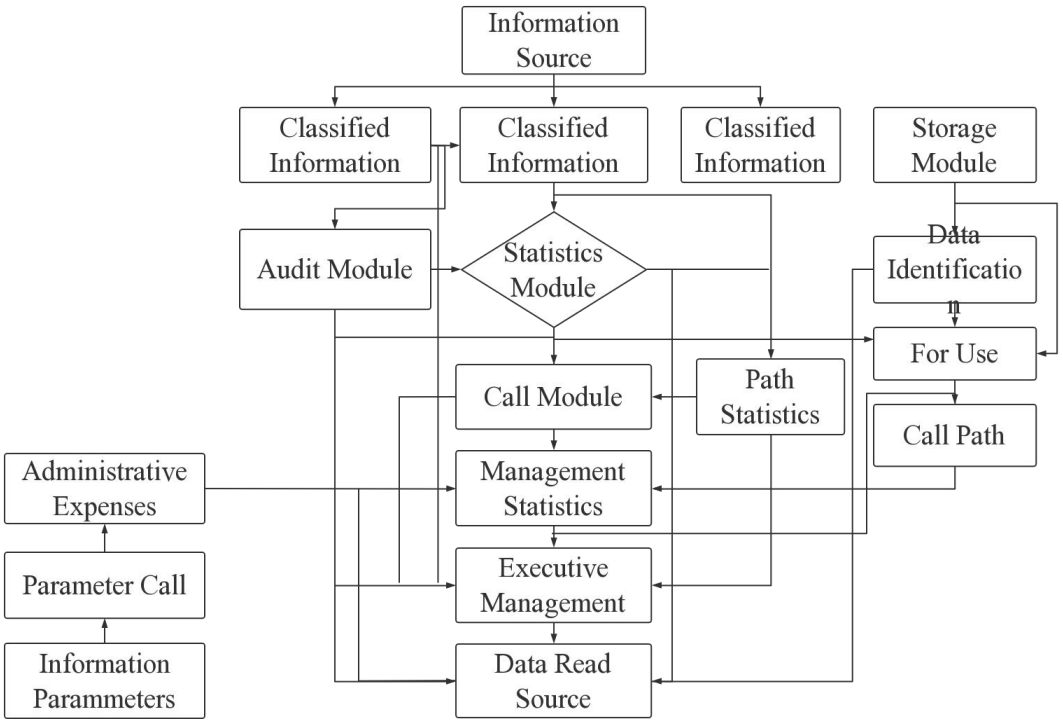

Figure 2 Flowchart of the system structure

Based on the above analysis, we can see that this multi-module operation process can better mobilize data information and access to information path, facilitate subsequent comprehensive distribution and effective management, and comprehensively improve the quality and efficiency of business administration.

2.3 System Implementation

In this research system, the B/S structure can better carry the data extraction process of different paths, effectively combine the information function module and the core data module, and then connect to the server, so that the data of different structures can be connected to each other. According to the structure diagram shown in Figure 3 below, it is mainly divided into three parts: First, the browser. This part refers to the browser used by the user, which can make specific requests to the server, process and display the results returned by the server port, and use the browser interface to display the system logic function. Second, middleware. Because this part mainly exists between the browser and the server, after receiving the request made by the user to the server, and then the server results are provided to the user, the browser and the server side need to carry out interactive information, and this is the task of the middle price; Finally, the server. The main purpose of this section is to provide data services and pass feedback to the mid-tier, which passes directly to the browser port.

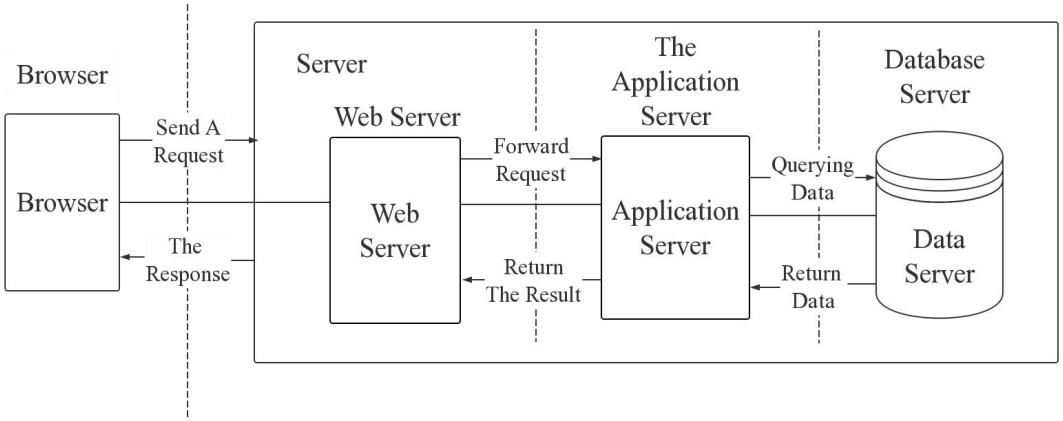

Figure 3 B/S structure diagram

2.4 Network Logic

In the system studied in this paper, the 5G network logic is proposed based on the functional plane framework. After extracting and reassembling the traditional network functions bound with nes, the 5G network logic structure diagram as shown in Figure 4 below is formed:

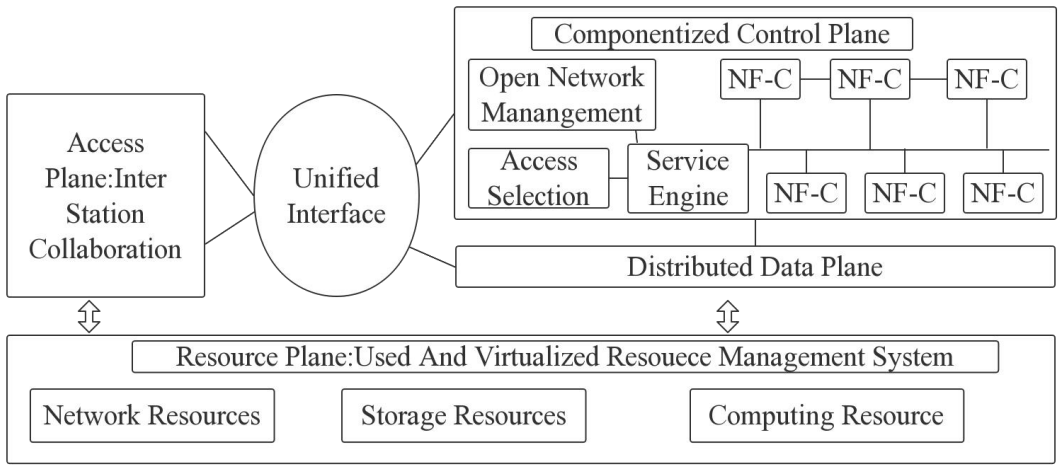

Figure 4 Logical structure diagram of 5G network

Based on the above figure, we can see that the functions of each plane are mainly divided into the following aspects: First, the access plane. This graphic design includes different types of base stations and wireless access devices, which can realize collaborative control through real-time information interaction and resource sharing between stations, and truly meet the technical requirements of different business scenarios. Second, the control plane. After a unified network interface is provided, special network services are customized according to business scenarios, and on this basis, refined network resource management and capability innovation are realized. Finally, the data plane. Under the unified scheduling of the control plane, service data flow is forwarded and edge processing is completed.

2.5 Data warehouse modeling

According to the analysis of the design structure diagram of data warehouse modeling rules shown in Figure 5 below, in the face of complex business administration data information, while following the basic design principles, the development platform constraints unreasonable design content, which can not only truly achieve the development goal of business administration information, but also fully demonstrate the regulatory function of the business administration department.

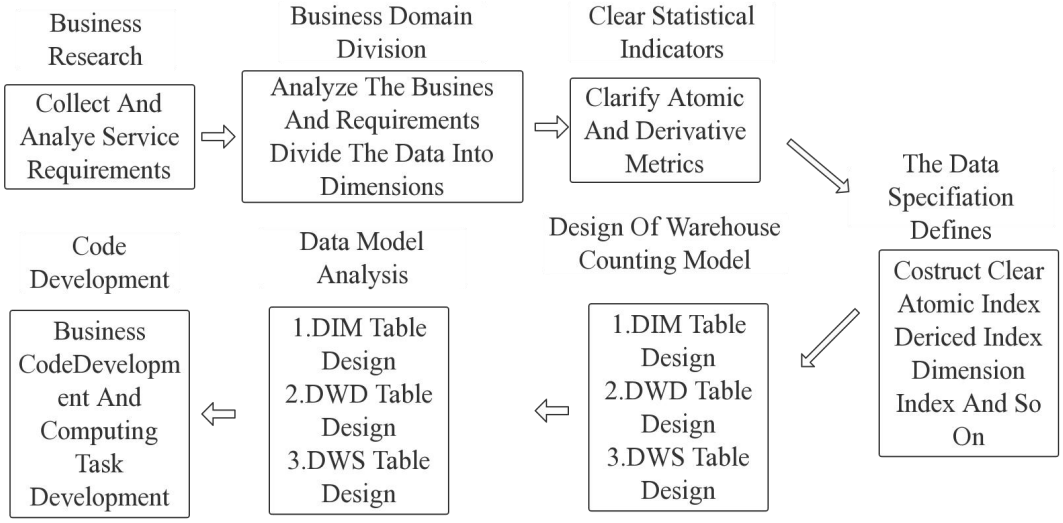

Figure 5 Structure diagram of warehouse modeling rule design

3. Result analysis

Combined with the business administration studied in this paper, the analysis of the characteristics of big data shows that in order to comprehensively promote the business administration information system, the following aspects should be started in the future innovation: On the one hand, the relevant legal provisions should be comprehensively improved, and the international e-commerce regulatory system should be continuously optimized. In the construction and promotion of business management information system, relevant departments should formulate perfect laws and regulations to guide the e-commerce market to develop steadily in the direction of standardization and intelligence. In the rapid development of modern science and technology, the most critical thing for business management information system is to guarantee the one-stop intelligent development. Therefore, government departments should integrate and analyze data information resources on the basis of scientific operation of the existing portal websites, comprehensively improve the level of intelligent public service system, and meet the service needs of social residents as soon as possible. On the other hand, the construction of enterprise credit evaluation platform, a comprehensive grasp of key information technology. Under the background of big data technology innovation, the traditional sense of business administration supervision has been affected to some extent. The development of e-commerce has changed the traditional business development mode. Enterprises in various fields can realize virtualization operation with the help of information technology and software equipment, comprehensively supervise the development platform of e-commerce in the new era, maintain good market operation order, and discover the main enterprises that violate the law as soon as possible.

4. Conclusion

To sum up, the current big data technology in the development of business management information has a unique application value, can scientifically deal with the traditional business management faced with various problems, can actively respond to the current situation of marketing, fully show the unique role of administrative law enforcement system and social supervision system. At the same time, the business management information system based on the background of big data can create a loose and harmonious market access environment for enterprises, and provide a fair and orderly market competition environment for enterprises in various fields. It is convenient for them to dig more valuable content while collecting and sorting data information, and finally master a better level of information management. Guide our business administration toward

intelligent and digital direction to develop steadily. Therefore, in the face of increasingly fierce competition in the market environment, Chinese scholars should continue to explore the structure and application of business management information system under the background of big data technology.

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