Research on collaborative innovation of big data technology and enterprise strategic management

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Abstract: In the new era environment, China has gradually entered the era of big data, all kinds of technologies have been developed to a greater extent, enterprises should comply with the development of The Times, the use of current technology to effectively manage the business management activities of enterprises, and promote the development of enterprise strategy. Big data technology belongs to modern technology, enterprises should attach importance to the application of big data technology, apply it to enterprise strategic management work, establish a scientific and reasonable strategic management mechanism, to realize the effective management of overall strategy, business strategy and other work, promote enterprise healthy development. Based on this, this paper analyzes the collaborative innovation strategy of big data technology and enterprise strategic management for reference.

Key words: Big data technology; Enterprise; Strategic management; Collaborative innovation; A new era

Introduction: Since the 21st century, information technology has developed rapidly, and big data technology has become increasingly mature. Big data technology refers to the decision-making mode of communicating with each other on the Internet based on massive data and using data to analyze and forecast, which can update the data processing mode of enterprises. Through the application of big data technology, enterprises can timely reverse the drawbacks in the traditional development model and promote the further improvement of work quality. Big data is a subversive revolution for the strategic management of enterprises in time, which can change the traditional analysis and decision-making methods and promote the good development of enterprises.

I. The conceptual characteristics of big data technology

Big data refers to massive data, and big data technology refers to the process of collecting, storing and processing massive data. In the new era environment, all walks of life produce massive information data and these data often exist in different forms. An effective and reasonable analysis of the data can formed through the application of big data technology. Therefore, the massive and disorganized data high-speed screening of useful data, overall analysis and processing of information data can be realized. In the process of generation and application, big data no longer relies on manpower, and can automatically upload data to the network platform. Big data has obvious characteristics, mainly reflected in the following aspects: First, the diversity of characteristics. The relevant data collected by enterprises often shows the characteristics of diversity, and the data information covers not only different age groups, but also various industries. With the development of science and technology, big data has a relatively wide range of data collection, and its coverage is constantly expanding. It is no longer limited to a specific region, but can form the acquisition of data in various fields around the world, which promotes the diversity of data and forms a wide range of data sources. Second, the high speed characteristics. With the support of Internet technology, data is being generated every minute and every second in various fields, which reflects the high-speed characteristics of big data. From the perspective of age, young people engage in entertainment and social communication through Internet platforms, while elderly people engage in shopping activities and consulting activities through Internet platforms. Groups of different ages generate a variety of data information on Internet platforms. With the help of modern technology, relevant data information is reasonably collected and transmitted to enterprises, prompting managers to extract valuable information and help enterprises make scientific decisions, so as to promote the good development of enterprises. Third, the characteristics of value. Big data technology can provide valuable information from massive data to help enterprises and users quickly achieve expected goals and tasks. The big data required by enterprises in the development process involves a wide range, including product qualification rate, procurement data, market demand information, etc. Such data is of great value to the strategic management of enterprises, can help enterprises make management plans and provide effective references to ensure that the enterprise management system can be in line with the actual development direction.

II. The application value of big data technology in enterprise strategic management

The application of big data technology to enterprise strategic management is not only limited to the field of information, it is breaking through the inherent boundaries of the industry, and has a profound impact on the macro development trend and the direction of industrial development. Enterprise strategic management refers to the management activities that enterprises make relevant decisions on enterprise operation and development from the overall macro perspective, which is the core content of enterprise development and operation management. The introduction of big data technology is of great value to enterprise development, and can help enterprises accurately analyze their own situation and external situation, and make more scientific and reasonable decisions on their own development. Big data technology is of great value to enterprise strategic management. This paper mainly analyzes the overall strategy, business strategy and functional strategy of the enterprise from three aspects, mainly reflected in the following aspects:

First, the application value of big data technology in overall strategy. Overall strategy refers to the strategic method of formulating reasonable development goals and business strategies based on the overall development of the enterprise, combining the internal and external

development of the enterprise, focusing on the adjustment of the interest relationship between various functional departments and units of the enterprise, so as to enable all departments to give full play to their potential and jointly promote the development of the enterprise. The application of big data technology to the overall strategy process of an enterprise can improve the scientific and sensitivity of the overall strategic decision of an enterprise and the competitiveness of the enterprise. Among them, the scientificity is reflected in the analysis of massive data resources in the market. Big data technology can collect and analyze the overall data of the market, and guide the decision-making of enterprises from multiple levels. The sensitivity is reflected in the enterprise's keen perception of the market environment, for example, by providing the analysis of the whole process data of the enterprise's specific product research and development and sales, to help the enterprise understand the market environment, provide the basis for the enterprise to make product decisions, and promote the enterprise to obtain good economic benefits. Enhancing the overall strategic competitiveness of enterprises is reflected in helping enterprises to examine their internal advantages and disadvantages, understand the data information of their competitors and potential rivals, provide more comprehensive and scientific data reference for the overall strategic management of enterprises, and promote the good development of enterprises.

Second, the application value of big data technology in business strategy. Business strategy is a strategic method for enterprises to make comprehensive planning and management of specific business fields in combination with their own production and operation fields, so as to promote the good development of enterprises in specific business fields. Through the application of big data technology, enterprise management can master the dynamic situation of enterprise business development, understand the shortcomings in the current business development, formulate scientific and reasonable business strategy, and promote the enterprise to achieve good development in this business field. In the actual application process, enterprises can use big data technology to realize the analysis of enterprise procurement, production and other links of data, tap the potential value of the supply chain, effectively track and test the data of various departments, and promote the improvement of business strategy management effect.

Third, the application value of big data technology in functional strategy. Functional strategy is a strategic method to support the implementation of overall strategy and business strategy in functional activities, including production management, marketing and human resource management, so as to promote the optimization of enterprise resource allocation. For example, if it is applied to the production management work, it can accurately analyze the problems existing in the production management and operation process of the enterprise, obtain relevant data and information, help the enterprise adjust the production management strategy, effectively reduce the manufacturing cost, and bring higher profits to the enterprise.

III. Big data technology and enterprise strategic management synergistic innovation strategy

1. Update the strategic management model of enterprises and reflect the decision-making status of public entities

The development of modern science and technology has led to great changes in the mode of social and economic development. Big data has gradually become an unavailable strategic resource in the process of enterprise operation and development, and occupies an increasingly important position in the development of enterprises and social and economic development, promoting changes in enterprise management concepts, business models and decision-making methods. In the aspect of enterprise strategic decision-making, the traditional decision-making subject is the enterprise management personnel, management personnel combined with their own experience and judgment to formulate the enterprise development strategic plan, this decision-making method has a certain subjectivity and one-sidedness, which is not conducive to the development of enterprise strategic scientific decision-making. Through the application of big data technology, enterprises should turn the main body of strategic decision-making to the public body, and combine the mass data information of the market to achieve scientific decision-making. Therefore, enterprises should pay attention to updating strategic management decisions, strengthen the collection and analysis of data information, so as to make scientific management decisions and enhance the market competitiveness of enterprises. The key point of formulating enterprise strategy is to collect and sort out the data information, make reasonable forecast based on the data information, and formulate the corresponding strategic plan. With the support of big data technology, the main body of enterprise management decision-making is no longer limited to the enterprise management, but can use big data technology to accurately grasp the market demand and development trend, and avoid the one-sidedness and irrationality of traditional decision-making methods. Big data is the embodiment of market-related data, but also the embodiment of the public will and actual demand. The decision based on big data technology is essentially a management decision with the public as the main body, which can help enterprises to obtain competitive advantages. In the current environment, modern technology has realized the effective penetration in people's lives, every citizen can express their will through network channels, provide market demand data, the integration of massive citizen willingness data can reflect the market development trend, and provide an effective basis for enterprises to formulate development strategies. Enterprises should attach importance to the application of big data technology, pay attention to the use of big data technology to analyze market data, build a decision-making mechanism with the public as the decision-making body, analyze market demand and market development trend in combination with public information resources, effectively integrate market demand information into corporate strategic management, and enhance the market competitiveness of enterprises.

2. Break through the constraints of traditional management, and update and optimize all aspects of management work

In order to effectively exert the application value of big data technology in enterprise strategic management, we should pay attention to breaking through the constraints of traditional management, and promote the optimization and update of all links of management work, mainly from the following aspects: First, optimize the procurement logistics link. Procurement logistics is an important basic link of

enterprise production and operation, and the beginning of supply chain. Through the application of big data, the intelligent level of logistics management can be improved in time and the efficiency of logistics management can be effectively improved. In the actual application process, enterprises apply big data technology to obtain logistics related information, in order to build an intelligent logistics management system, realize real-time dynamic tracking of logistics information, and formulate scientific logistics routes combining logistics routes and logistics costs, so as to reduce logistics management costs and improve the quality of logistics management. Second, optimize the marketing link. Marketing is an important link to sell enterprise products and increase enterprise income, which directly affects the development of enterprises and is an important content of enterprise strategic management. The traditional marketing mode is mainly based on sales personnel, the marketing mode is relatively single, and the marketing data obtained is relatively limited, which brings obstacles to the development of marketing strategy and makes the implementation effect of marketing of enterprises unsatisfactory. With the help of big data technology, enterprises can obtain internal sales data and market environment data, etc., through the analysis of various data, obtain a more accurate and scientific market environment report, so as to promote enterprises to develop a more efficient market impact strategy, so that enterprises can keep up with the development of The Times, improve marketing pertinence, and increase corporate income. Third, optimize human resource management. Human resource management is the activity of reasonable allocation and management of personnel and resources, which plays an important role in enterprise operation and management. Enterprises should pay attention to the application of big data technology to comprehensively analyze the situation of human resources, find out the practical difficulties in the management process, promote the effective circulation of internal human resources, and avoid the poor allocation and waste of human resources. Fourth, optimize the financial management work. Enterprise financial management is the integration and management of various economic activities of the enterprise, which can feedback the phased business activities of the enterprise. The traditional financial management method is not comprehensive enough to integrate the data. Enterprises should use big data technology to achieve in-depth analysis of various financial data, give full play to the guiding role of financial management in the development of enterprises, help enterprises improve the efficiency of capital management and optimize the level of capital surplus.

3. Build a big data security management system and strengthen information security protection

In order to effectively protect all kinds of enterprise data, enterprises should establish scientific and rigorous information security management systems, formulate security management systems, classify different data, and strengthen information and data protection. In this process, enterprises can start from the following aspects: First, develop a big data security management system. With the rapid development of science and technology, enterprises are facing new challenges in data management. In order to effectively manage all kinds of data, enterprises should develop a sound security management system with the help of big data technology, reasonably classify big data types and importance, manage according to different categories, and open different access rights to personnel in different departments and positions. To ensure that the data exposed to employees in different sectors is different, and to ensure the effective protection of core data. In the process of protection, enterprises should pay attention to carrying out relevant training and education activities, effectively improve employees' awareness of information security and problem-solving ability, promote all employees to jointly protect corporate big data, and establish a corporate culture of data protection. Second, take effective measures to protect data information. Enterprise management personnel should fully grasp the user privacy information and enterprise management data, pay attention to take effective measures to protect data information, through the design of information security protection system, prevent external forces to steal data, reasonable planning of different stages of information data, improve the use of management information value. Third, formulate emergency prevention measures for big data. Enterprises should formulate corresponding emergency prevention measures based on the characteristics of big data technology, and promptly deal with data threats according to emergency measures, so as to minimize the degree of data infringement as much as possible and reduce the losses of enterprises.

4. Strengthen the dynamic management of enterprise strategy and improve the strategic framework of big data

With the support of big data technology, enterprises should carry out dynamic management in combination with market development, improve the strategic framework of big data, and promote the innovation of strategic management, which can mainly start from the following aspects: First, strengthen management tracking. Enterprises use big data to make detailed formulation of the strategic content at each stage in time, and establish a special tracking module in the specific implementation process, so as to obtain key data in the implementation process, which can more comprehensively and intuitively understand the implementation progress and implementation results of the work at each stage, accurately grasp the enterprise development plan, and promote the good development of enterprises. Managers can design key nodes and automatic alarms in the system, and the alarms will be issued after reaching the relevant indicators, so that managers can accurately understand the implementation of the project, prevent project risk problems, and promote the project to achieve the expected results. Second, improve the big data strategic architecture. In the process of implementing corporate strategic management, enterprises should strengthen the application of modern technology, pay attention to the use of new media service platforms for strategic analysis and strategic innovation, such as the use of new media such as Tiktok and wechat to obtain big data information, analyze the current market development trend, optimize professional data architecture, and rationally formulate marketing plans to promote the good development of enterprises. Third, cover the production and operation process of the enterprise. The production and operation process of an enterprise includes procurement, production, sales, etc. Dynamic management should be carried out in all aspects of the work, and real feedback information should be obtained in time to understand the shortcomings in the production and operation process. In this process, enterprises should transform the traditional target management mode into process management mode, combine digital management and information technology with the actual operation of enterprises, rely on big data technology to build production monitoring private chain and service

platform public chain, on the one hand, form the monitoring and management of internal production management data. Build a big data system for the whole process from product orders to product quality and safety, realize the digital management of each link, optimize and update the production process, effectively reduce the impact of human factors on the production process, and promote the standardization of the production process. On the other hand, to form a comprehensive capture of consumer market data, the consumer purchase and use of product information and feedback information into the user information cloud system, combined with such data to optimize and adjust the sales link and product link, to provide more consumers with a sense of participation, enhance consumer recognition and loyalty to the enterprise brand, and promote the good development of the enterprise.

Epilogue

To sum up, the application of big data technology in enterprise strategic management is of great significance and value to improving enterprise strategic management ability and promoting enterprise cooperative strategic relationship. Therefore, enterprises should strengthen the exploration and application of big data technology, promote the collaborative innovation of enterprise strategic management based on big data technology, effectively improve the efficiency of products and services, reduce the cost of enterprise operation and management, improve the production control ability of enterprises, effectively avoid market risks, and help enterprises develop well. In the process of social development, market challenges are increasing, and enterprises should reasonably apply big data technology to avoid market operation risks, so as to survive and develop in the highly competitive market.

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