

Research on Optimization of Enterprise Innovation Management Mode in Big Data Era

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Abstract: With the deepening of economic globalization, the era of information and data has come, big data has brought huge impact to traditional enterprise management, and enterprise innovation management mode has become an inevitable trend. How to innovate the enterprise management model in the era of big data to meet the new model in line with its development plan is worth exploring. Based on the connotation and basic characteristics of big data, this paper deeply analyzes the challenges faced by enterprises under the background of big data, explores the innovation of enterprise management model thinking, and proposes innovative ideas. After comparing traditional and big data management models, the identification of innovation and the implementation of specific programs, and pointed out that the government should actively play a regulatory role, build an enterprise information network, and build a team of data information management talents, hope that promote the sustainable development of enterprises.

1. Introduction

Information brings great convenience to enterprises. How to accurately grasp the opportunities brought by the era of big data is not only reflected in the search for various types of information through Internet technology, but also needs to organically integrate and discuss such information, and conduct in-depth research on it. And create new value. The traditional enterprise management model deviates from the trend of the times, and it is bound to gradually withdraw from the historical stage. The key to ensuring the leading position in the fierce competition is to flexibly use the advantages of big data and obtain more efficient Value information that is conducive to the development of the enterprise, and promotes the increase of corporate profits.

2. Overview of big data

For the definition of the meaning of big data, many scholars have not yet formed a unified opinion. Some experts believe that big data refers to a massive database that cannot provide basic guidance for enterprise decision-making and planning in a short period of time through mainstream information search software. Foreign scholars believe that big data is a combination of data that traditional data cannot integrate, screen, and analyze in a reasonable time. In short, big data is the result of huge information integration, which the traditional Internet industry cannot identify and handle. Although the meaning of big data has not yet reached a unified view in the academic community and the real industry, there is a general consensus on its characteristics. As shown in Figure 1, it mainly includes four aspects: huge prosperity, complexity, speed and usefulness.

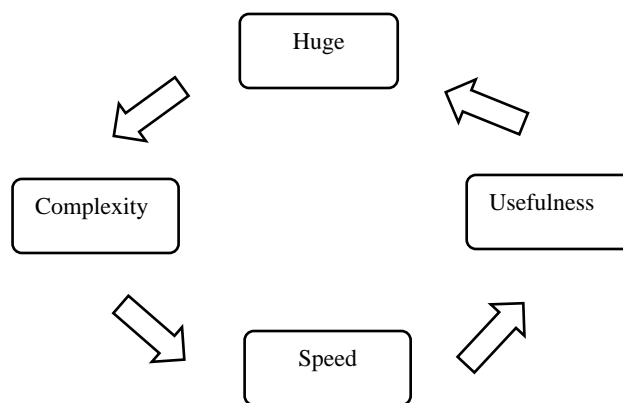


Figure 1 Characteristics of big data

2.1 Huge

The hugeness refers to the huge amount of data, and the data level has grown from TB to EB. Currently, the global data volume has reached 1.2ZB. Data is constantly being generated and integrated with various methods. The scale of the database is expanding and the order of magnitude is increasing, forming a huge collection of data.

2.2 Complexity

In terms of the data itself, its structure, characteristics, sources, and roles are different. From the perspective of data structure, the transition from simplification to multilevel, deeper field, includes this structured data and unstructured data. Fee structured data mainly includes text, images, videos, and so on. At present, Chinese e-commerce and network have made rapid progress, and the growth of unstructured data is also very alarming.

2.3 Speed

The advent of the era of big data is accompanied by the high-speed operation and circulation of data. Through the Internet, relevant information can be found in real time and quickly, and the information value with high utilization value can be integrated and analyzed.

2.4 Usefulness

The large and dense database reflects the value characteristics of data, but the value and value of different object information are different ^[1]. Many of the vast amounts of information are useless information that can be used and can create valuable information, that is, useful information.

3. Challenges faced by enterprises in the era of big data

The challenges faced by enterprises in the era of big data are mainly reflected in the following four points (as shown in Figure 2): First, in the big data environment, traditional information systems are difficult to standardize, so enterprises need to deal with them. Optimize, strengthen the integration and analysis of big data, and rationally process it to improve the effectiveness of data utilization^[2]. In short, how to obtain effective big data has become a big problem for enterprise application big data. Secondly, the enterprise's extension of the traditional management model has not been consistent with the current big data market environment. The application of big data is inseparable from the high-quality data technology talents and the innovative management talent team. Under the traditional management mode, it is obvious that the actual demand has a large deviation. Managers are unable to make scientific decisions in a big data environment, which is extremely detrimental to business development. Once again, the era of big data has become an information society. Enterprises need to quickly process complex data and make timely analysis to grasp market changes and business operations, and then appropriately adjust the business methods

to promote more profit. . In this way, enterprises need to quickly update data and analyze in real time in the shortest time, which has become a major problem in the implementation of enterprise management in its big data environment. Finally, based on the huge amount of big data, including internal information, supplier information, customer information, etc., if such information is accidentally leaked through the network channel, it will cause immeasurable losses to the enterprise, therefore, big data Security has also become a major challenge for companies.

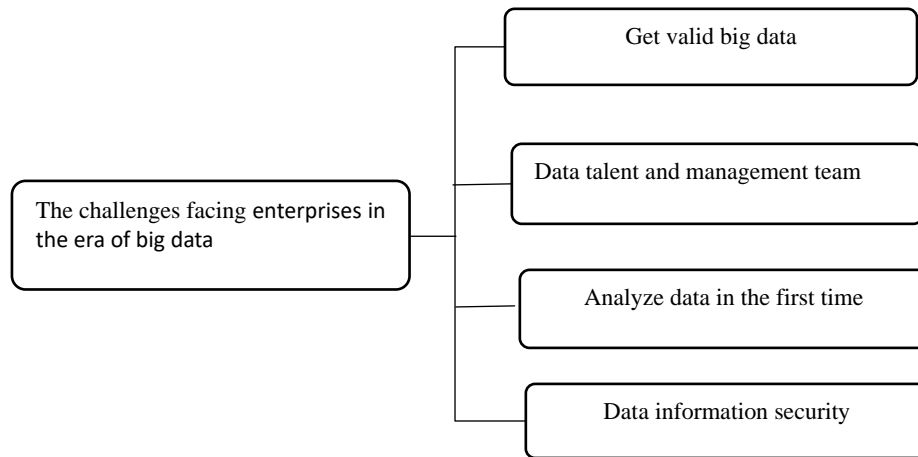


Figure 2 Challenges faced by companies in the era of big data

4. Big data environment requires enterprise management innovation thinking

As a key part of business development, good management plays an important role in this process, and data support has positive implications for business management. In the context of big data, the perception of Internet information technology and big data needs to be changed. In the past, the consciousness field has been difficult to keep up with the pace of the data age. The change of thinking systems and methods has made the traditional management model far from meeting the times. demand. To be competitive in the era of big data, you must use big data flexibly to carry out traditional consciousness, innovation and creation. This article will explain how to adapt to the requirements of the times in the following three aspects of innovation (as shown in Figure 3):

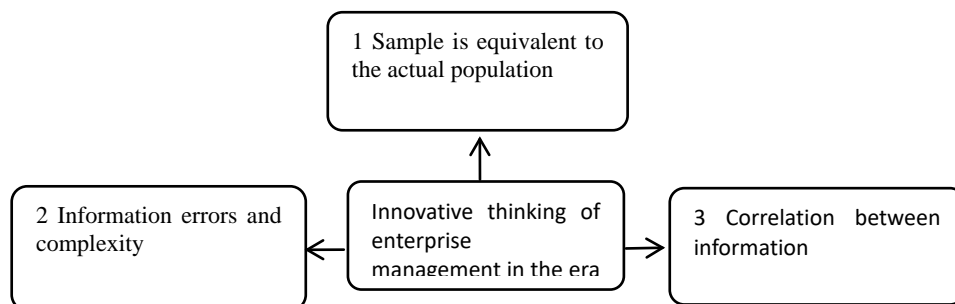


Figure 3 Enterprise management innovation thinking in the era of big data

4.1 The sample is equivalent to the actual population

Most companies are limited by science and technology, and they do not form a huge database that can be used by enterprises at any time. Therefore, sampling surveys are usually used to obtain data. The data collected by the sample survey method is to use the small data displayed by the analysis sample to obtain the overall big data. However, the random sampling survey method itself has many defects. For example, the number of samples cannot be guaranteed to be reflected in the characteristics of the overall information, and random sampling is difficult to actually operate.

Despite this, due to the relevance and ease of operation of the data, the data is obtained efficiently. The acquisition of big data utilizes the collection and integration of the entire data surface to reflect the actual characteristics of the entire database.

4.2 Errors and Complexity of Information

Because of the huge and complex database, the accuracy and accuracy of the data cannot be fully guaranteed. In the small data environment, enterprises strive to ensure the authenticity and reliability of data, and fully guarantee the resource consumption and efficiency of data utilization. However, in the context of big data, the deviation of small-scale data is a normal phenomenon and does not affect the key points of the expressed data center point. Considering another aspect, the database allows a small number of errors to exist, which increases the breadth and depth of the database. Although the wrong data is full of them, we can also obtain the available information from the comparison, analysis and collation of the data ^[3]. According to the statistics of relevant institutions, 85% of the data is cumbersome and non-standardized. The key to how to deal with such a complex data structure is to first accept the chaotic data pattern and slowly cultivate useful information from the wrong and complex data. If you simply remove the errors and inaccurate data in the database, there will be a lot of financial and material resources left in the remaining useful information.

4.3 Correlation between information

In the traditional small data environment, in order to collect information that is beneficial to itself, enterprises generally focus on analyzing and integrating the causal relationship between data, not just relevance. However, in the era of big data, the core of processing data is data. The correlation between the researches, the small data is asked why the data is like this, and in the era of big data, what is the data. Under the system of big data, in the vast database, the data is sorted, processed, analyzed and compared. It is not necessary to specifically investigate the inherent logical connection, but only concerned with the relationship between information and a certain phenomenon. The exploration allows us to trace the source of confidence and then make relevant predictions and risk analysis to make the right business decisions. This way of understanding is an important shift in the data age, making it easier and more efficient to collect and use available information.

5. Enterprise Management Innovation Model in Big Data Environment

5.1 Comparison of traditional and big data management models

The traditional model refers to the analysis of the actual experience of successful enterprises, in-depth exploration of the situation and problems, to consider the problem as a starting point to think about the new mode of enterprise management, pay attention to the establishment of the system and the standardized operating system, to achieve the overall construction and improvement of the enterprise. In the era of big data, the innovation environment for enterprise management is complex and abnormal, and at the same time, the methods and measures for achieving enterprise management innovation become more diverse. The external environment of enterprise management innovation has undergone tremendous changes, and more ideas have been provided for the innovation of enterprise management innovation model. However, this also easily leads to confusion in the choice of direction. It can be seen that with the deepening of economic globalization, the implementation background of enterprise management is changing with each passing day, making enterprise management innovation and development face greater challenges.

5.2 Identification of innovation and implementation of specific programs

When enterprises face new development bottlenecks, the decision-making level of enterprises should thoroughly analyze and explore whether it is necessary to carry out innovation in enterprise management. The innovation of enterprise management is to integrate, analyze, and process relevant data to obtain solutions to problems. Whether enterprise management innovation is needed

can be evaluated on the digital platform by collecting the collected enterprise information. If it is really necessary after evaluation, it is necessary to carry out innovation identification, and identify that enterprises need innovative management models and methods, and use big data to conduct comparative research on problems that require innovation. In the identification of innovation, use the integrity and structural principles of data to find out the logical and theoretical framework behind the data. The immature and complete information is transformed into a specific information model to obtain a new data source^[4]. Use the results of the analysis to make innovation management decisions and develop practical and feasible enterprise management innovation programs.

5.3 The government actively plays a role in macroeconomic regulation and control

In the era of big data, there are many different ways. How to grasp the opportunity of the times, find the entry point of enterprise management innovation, how to obtain economic benefits without harming the interests of others, this series of issues is also a problem that needs to be paid attention to in government regulation and control policies. An irreplaceable role played by management. The government should propose relevant policies to guide the effective implementation of big data, share the benefits of the data age, not favor and maintain a certain enterprise, and never disclose business secrets and personal privacy related to enterprises, and establish information sharing in real time. The platform enables companies to discuss and comment at any time. Due to the diversification of data, some data must contain patents, secrets, and personal privacy and information about life in business. Therefore, how to protect these data is highly valued. Some information is registered in the relevant government departments, and relevant government departments should strictly protect them from external gains and damage official interests^[5].

5.4 Building an enterprise information network

In the traditional enterprise management mode, products are the key part of their management, especially product marketing and cost information, which has become a common concern of business operators. The innovation of the enterprise management model in the era of big data needs to change the traditional management style. Therefore, it pays more attention to the quality of service. This requires enterprises to build an information network system and comprehensively enhance the role of information databases in enterprise management. At the same time, through this approach, diversified information such as suppliers, customers and partners are integrated and managed, and effective communication between business managers and employees is promoted through the enterprise information network, thereby improving the effectiveness of communication between employees. Improve work efficiency and improve interpersonal relationships within the organizational structure.

5.5 Building a team of data information management talents

In the big data environment, enterprise management model innovation faces many challenges. Under this circumstance, enterprises can't do without the professional talents and the high-level managers with strong innovation ability. To improve the effectiveness of data information utilization, excellent information and data management talents are the key. Only in this way can we better develop data information and make the use of data information more effective. Therefore, it is necessary for enterprises to establish a specialized data processing department, build a team of data information management talents, and continuously improve the data application awareness and capabilities of enterprise personnel. In the recruitment stage, it is necessary to pay attention to whether the information technology expertise and practical ability of the applicants match the development of the company and the industry. For the existing data technicians of the enterprise, regular training should be carried out on their professional ability and professional skills to ensure that the information technology of the enterprise is fully connected with the market environment requirements, so as to enhance the competitiveness of the enterprise.

6. Conclusion

Under the tide of economic globalization, the era of big data has come, which has had a huge impact on the traditional business management model. The flexible use of big data is crucial to how companies manage their innovations, and their development is facing tremendous opportunities as well as unprecedented challenges. Through the organic integration, processing and analysis of big data, enterprise management should change its mode, change its thinking, and use the thinking and perspective of big data to carry out the innovation of enterprise management. This paper discusses the meaning of big data, the identification of enterprise management innovation, and the comparison of enterprise management innovation under small data and big data, and also emphasizes the government's regulatory role in enterprise management innovation. Under the active promotion of the government, enterprises must clearly define their own positioning and enterprise management mode in the new competition, and be able to manage the enterprise with the thinking and logic of big data to promote the development of the enterprise. Different enterprises in different regions should combine their own characteristics, integrate data information under the guidance of big data, and formulate the final enterprise management innovation program.

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