

# Research on Construction of Enterprise Management Informatization under the Background of Big Data

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**Abstract:** With the continuous development of emerging electronic information technology represented by big data in modern society, new challenges have been put forward to the operation of enterprises. As the characteristics of the current social information explosion are becoming more and more obvious, a large number of data showing geometric growth make enterprises need to carry out information reform in the process of daily production, operation and management activities in order to adapt to the requirements of the environment. In the face of massive data, the complexity of enterprise information management is gradually increasing. Only by constantly changing the enterprise management informatization strategy, can enterprises better adapt to the development of the times, improve competitiveness and ensure long-term development.

## 1. Introduction

With the rapid development of modern information technology, the concepts of big data and cloud computing rise, and strategic data management has become an important part of enterprises. For large enterprises, data capability will affect their market competitiveness. Big data plays a very important role in the era of enterprise informatization and management. The full use of big data can improve the data cleaning and processing capacity of enterprises, realize the “value-added” of data, and provide a strategic direction for the improvement and adjustment of enterprises. Traditional enterprise management mainly relies on manual supervision and manual process. When the scale of the enterprise is expanded to a certain extent, the business data is expanded, and the traditional management method can not meet the requirements of modernization. The use of big data technology can reorganize the management mode, internal control system and management content, and improve the information data processing capacity and management efficiency. In the process of enterprise management informatization construction, there are some problems, such as relatively backward enterprise management equipment and management system, shortage of modern science and technology application talents, and insufficient professional level of enterprise finance, which greatly restrict the construction of enterprise management informatization. Enterprises should adapt to the background of the big data era and ensure the smooth construction of management informatization.

## 2. The Concept of Enterprise Management Informatization

Enterprise management informatization is to digitize the production and operation, inventory management, financial management, customer management, personnel management and other work of the enterprise, process various work with the help of advanced Internet technology, and integrate them into information resources that are more easily accepted by the enterprise. Through these information resources, enterprises obtain various policies and development trends in the industry, form analysis reports and provide them to enterprise managers, and then adjust and optimize their own business structure, so that enterprises can timely meet the requirements of customers, adapt to the changes of the times, and maximize economic and social benefits.

The management information system of an enterprise has been developed since the 1970s. The early working mode is to provide enterprise managers with relevant information about the internal and external environment of the enterprise through oral or written means, which is conducive to the

correct decision-making of enterprise managers. It can be seen that computers were not very necessary in the early enterprise management information system. However, with the popularization of computers and the development of electronic information technology, the management of enterprise information through various technical means has greatly improved the decision-making accuracy of enterprise managers, which is conducive to enterprises to better provide services to customers.

The growth of big data has brought opportunities to the development of enterprises, but the management of growing data has also posed challenges to enterprises. Appropriate tools can not only facilitate the enterprise to manage big data, but also facilitate the efficient decision-making with big data, such as JaspersoftBI suite, as shown in Figure 1. Jaspersoft package is an open source software that generates reports through database columns. Many enterprises use Jaspersoft software to convert SQL tables into PDF, which greatly improves the work and decision-making efficiency of enterprises.

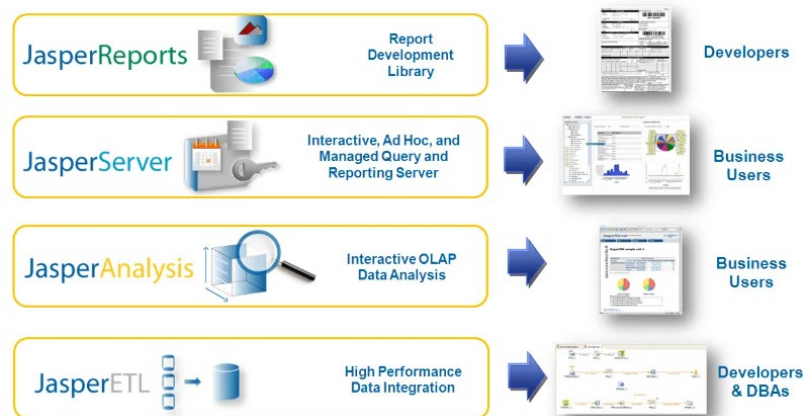


Figure 1 JaspersoftBI tool.

### 3. The Important Role of Big Data in Enterprise Management Informatization

#### 3.1. The Role of Big Data in Enterprise Management Decisions

In the traditional enterprise management mode, major decisions of enterprises are often made by shareholders and senior executives through discussion and joint analysis. This decision-making mode is greatly influenced by the subjective factors of managers. At the same time, the decision-making process is inefficient and requires a lot of time to repeatedly discuss the resolution. The application of big data technology is more objective, accurate and efficient. The enterprise only needs to obtain the corresponding data from the enterprise information management platform, make technical analysis on these data to get the results, and take the data results as an important reference for decision-making. Using big data to make enterprise management decisions can not only predict the risk problems that may be encountered in the process of enterprise development in advance, but also accurately judge the development trend of the external market, providing a powerful reference for the later strategic deployment of the enterprise. The application of big data has greatly improved the market competitiveness of enterprises, effectively reduced the risk problems that may be encountered in the process of enterprise development, and the management of enterprises will be more scientific and efficient.

#### 3.2. The Role of Big Data in Enterprise Fine Management

In recent years, more and more enterprises have attached importance to fine management, and how to better promote fine management in the process of enterprise development needs to be realized through big data technology. Taking the financial department of an enterprise as an example, the financial department can use information management means to conduct business approval and reimbursement online, which not only greatly improves the efficiency of financial management, but also greatly avoids possible mistakes in the process of manual review and

reimbursement. The business department can also integrate all the data and information resources of the whole department, discover the potential risks and problems in the process of business development through data changes, so as to better control the market development, timely deal with the problems existing in its own business development, and the business department can flexibly adjust its marketing strategy accordingly. For the customer service department, through the management of customers through the information platform, it can timely understand customer demands, access all customer data, so as to understand what needs to be improved in the process of enterprise development, which is conducive to strengthening the communication between enterprises and customers, improving customer service level, helping enterprises effectively lock in old customers, and actively expanding new customer resources. It can be seen that big data technology has played an important role in the fine management of various departments of the enterprise. With the help of big data technology, enterprise management will be more scientific, standardized and refined, which is an essential and important management mode in the development of modern enterprises.

#### **4. Construction Path of Enterprise Management Informatization under the Background of Big Data**

##### **4.1. Grasping the Technical Characteristics of Big Data and Enhancing the Awareness of Enterprise Management Information**

Today, big data technology shows a trend of rapid development and dissemination. In order to enhance competitiveness and promote long-term development, enterprises should firstly enhance their awareness of information management. Both senior leaders and ordinary employees should be fully aware of the importance of information construction for the development and operation of enterprises. Each employee should strengthen contact and implement the enterprise information construction and management from the aspects of system construction, infrastructure construction and network security construction. Secondly, enterprises pay attention to innovation in the concept of information management, especially in big data technology. Enterprises are required to break through the firm and conservative development ideas in the past, infiltrate the advantages of big data technology in information management, and increase the investment in big data technology resources, especially in human, material and financial resources. In addition, establish and improve the data sharing mechanism to enhance the data processing capacity. Promote the construction and application of the Internet + enterprise management mode, build and improve the sharing and common platform by means of networking, and provide assistance for the improvement of enterprise information management level.

##### **4.2. Optimizing the Enterprise Management Information System in Combination with the Application Characteristics of Big Data**

The information system has the advantages and characteristics of simplicity, practicality and flexibility, which can promote the standardization and standardization of enterprise business processes, and realize visual management and graphical monitoring. In addition, the information system can fully enable enterprise employees to have a clear understanding of their own job responsibilities, solve problems encountered in work in a timely manner, and effectively connect information flow and workflow with various departments. Therefore, the enterprise information management system should be optimized and improved in combination with the advantages and characteristics of big data application. First of all, enterprises should go deep into the market to do a good job of investigation. Before planning the informatization work, they must have a comprehensive grasp and understanding of the information system, and optimize and integrate it according to the actual situation to ensure that the information system has high practicability. Enterprises can not only make use of the internet protocol technology and rely on ERP to carry out coordinated planning, strengthen the contact between financial, human and information resource management departments, but also adjust and optimize according to the use needs of enterprises, so

as to avoid the obstacles and restrictions on the normal use of enterprises due to the limitations of the design of the system itself. Secondly, with regard to the optimization of information system, it is necessary to simplify the working procedures from the perspective of short-term objectives and long-term development planning of the enterprise. In the process of management and application, attention should be paid to data analysis, and a long-term work monitoring system should be established to comprehensively supervise various operation indicators, so as to provide a strong guarantee for the long-term and stable development of the enterprise. In addition, enterprises should strengthen the establishment and improvement of information management coordination mechanism, ensure that all departments communicate and coordinate more smoothly, and make use of the convenient and open advantages of big data technology to promote all departments to participate in enterprise management and lead the development of enterprise management level to a higher level.

#### **4.3. Focusing on Big Data Security and Improving Enterprise Informatization Risk Prevention Ability**

Big data technology plays a supporting role in enterprise information management. However, in the process of application, attention should also be paid to the security risks brought by big data technology to enterprises. If the enterprise ignores the information security, the information data will face the threat of attack, which will lead to security risks in the enterprise financial information security and bring serious economic losses to the enterprise. Therefore, in the big data application environment, enterprises must improve their own security defense capabilities in the process of implementing information management. Strengthen the formulation and improvement of safety management system and operation process, pay attention to the construction of safety prevention system of software and hardware system, and use advanced safety prevention technology to build a practical defense system according to the actual situation and needs of the enterprise. The important system data of the enterprise should be backed up in time, the important network links should be set with double links, and the critical infrastructure should be checked regularly. If security risks are found during the inspection, targeted measures should be put forward to deal with them. In addition, the information technology and security training and assessment were conducted for the employees of the enterprise information department to improve their awareness and ability of information security prevention. Enterprises should also pay attention to setting different permissions and encrypting data, which is of great significance to improve enterprise information management ability and security.

### **5. Conclusion**

The advent of the big data era has led to exponential growth in data types and data volumes in all walks of life, providing important information resources for human beings to understand and transform the world. For enterprises, the establishment of a complete management information system and the full mining of business data resources can effectively improve their ability to obtain external information, optimize the efficiency of internal resource allocation, promote the upgrading of enterprise management mode, realize the integrated management of production and operation, and ensure the information security of enterprise operation.

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