

Discussion on the Challenges and Innovative Thinking of Financial Management under the Background of Big Data

Wang Qian

Zibo Vocational Institute
Shandong Zibo 255314 China

Abstract—With the continuous development of the Internet, big data has become a new type of technology applied into all aspects of society. Corporate financial management is the foundation for the operation and development of an enterprise, and it is also a guarantee for the enterprise to maximize its interests. Related management personnel of enterprises should seize the opportunities brought by the era of big data and introduce big data into financial management, so as to greatly improve the efficiency of financial management and gradually strengthen the competitive advantage of their own enterprise. By briefly describing the definition and characteristics of big data, this paper analyzed the problems in the traditional corporate financial management mode as well as advantages and risks brought by big data to the financial management of enterprises, and then the author put forward the specific innovative methods of financial management under the background of big data.

Keywords—Internet; big data; financial management

I. INTRODUCTION

With the continuous development of Internet technology in China, various new technologies such as cloud computing, Internet of Things, big data and mobile devices have been widely used, leading to a fact that production and business models become virtualized and intelligentized. In particular, the use of big data technology has brought about different impacts on all aspects of the whole society. The rational use of big data by enterprises can effectively enhance their economic benefits and thus help them occupy superior competitive advantages in the market. To this end, relevant departments in China strongly advocate the use of big data in the enterprise development and management. In particular, the financial management of enterprises should introduce big data technology, which will enable them to obtain more valuable data and access newer technologies. Introducing big data into the corporate financial management mode has promoted the innovation and reform of the traditional financial management mode. In order to enable financial management to bring greater economic benefits to the enterprises under the guidance of big data, enterprise managers should have a thorough understanding of big data.

II. DEFINITION OF BIG DATA

The concept “big data” was first proposed in the late 1990s, but people at that time did not understand this concept very

well; and over time, it has been gradually defined clearly [1]. The so-called big data refers to the processing, management and processing of a large amount of information by using the technology of acquiring information in a certain period of time. It is collection of data and materials with a large number of data and complex structure. It can be seen that some traditional techniques are not suitable for acquiring or processing big data and people must use information processing technology which is more advanced in the analysis and processing of big data. With the continuous development of Internet technology, people use electronic devices increasing frequently, and big data is generated based on the traces of people using these devices. In this sense, the continuous development of Internet technology provides a good living environment for big data. With the continuous development of China's economy, enterprises have applied the advantages of big data to their management and constantly develop new information processing software for analyzing and processing big data, with the purpose to enhance their own competitiveness [2].

III. CHARACTERISTICS OF BIG DATA

Although the definition of big data cannot be easily understood by people, its characteristics are widely recognized. Firstly, it has a large amount of data. Big data, as its name implies, has huge data resources, and the processed data is generally above TB, even reaching PB and EB. According to the statistics, the data generated in the world in 2012 was 2.7-3.5ZB. In other words, the number of data formed in the past 20,000 years can be formed in only two days nowadays. The scale of big data will continue to expand with the continuous development of Internet technology. Secondly, it has many information sources. The types of big data are complex and diverse and thus its sources are also diversified. In addition to the database, big data is also from information collected through the social networking platform, online interaction, sensing devices and other related tools. Moreover, the type of data is no longer the pure digital-type information, but also covers various pictures, audio materials, videos, data charts and the like. Thirdly, it can quickly respond to market changes. Big data is no longer stored and processed by traditional data methods. When dealing with big data, it is needed to quickly analyze information to respond to the rapidly changing market in a timely manner. This indicates that the time spent in processing big data cannot be too long. Fourthly, its value is

not high enough. Big data has huge capacity, but it is because of the huge amount of information that may result in a small amount of effective information. It may also be because the collection of data is not timely, resulting in the fact that the collected data is one-sided and cannot guarantee its correctness. In response to this phenomenon, it is feasible to increase the proportion of effective information by collecting more data, which can also make the collected information more comprehensive and more realistic [3].

IV. PROBLEMS IN THE TRADITIONAL FINANCIAL MANAGEMENT MODE

A. *Backward concept of financial management*

At present, most of Chinese enterprises are relatively backward in the concept of financial management. Most enterprises only attach importance to its economic benefits and performance. They pay little attention to their financial management while put all their energy into the production and operation; however, this corporate financial management mode has been unable to meet the needs of the times with the changes of the society [4]. For example, the internal financial department has a very low position in most enterprises, and it is very commonly that the management department can command it directly. Such a finance department cannot accurately divide the internal financial management work, nor can it provide useful data analysis for the enterprise. As a result, it cannot play its own role in the process of enterprise operation and development, leading to that the enterprise is unable to timely respond in the changeable market. Some enterprises do not understand the informationization of financial affairs. The traditional corporate financial management department only collects, counts, calculates and summarizes various receipts. Enterprises have not applied Internet technology into financial management, and also have not transformed available data into information resources that are beneficial to themselves. Such a corporate financial management mode cannot bring beneficial effects to enterprises, and also prevent their healthy development.

B. *Inefficient financial management*

At present, the efficiency of financial management is extremely low in Chinese enterprises. Some enterprises have not carried out in-depth development and utilization of information processing software for their financial management, and the software used to process information at present has not been updated and innovated accordingly. With the continuous development of the Internet era, enterprises have begun to lay stress on the use of information technology. For example, some enterprises have built communication platforms to enable free exchanges among various departments of the enterprise. However, due to the large number of complex financial management modules, some enterprises have not developed and utilized financial management software, which makes the efficiency of their financial management always at a low level. At present, the financial management department of most enterprises does not have a platform for resource sharing; in addition, it lacks communication with other departments of the enterprise, so that the financial management cannot

effectively guide the enterprise with the information of other departments.

C. *Lack of relevant financial management talents*

In the era of big data, enterprises propose increasingly high requirements for the financial management department. The current staff of the corporate finance department must not only have professional financial knowledge, but also have a wealth of relevant working experience as well as good skill of using Internet information technology. In order to keep up with the pace of the times, enterprises are paying more and more attention to the introduction and cultivation of such high-quality talents. However, the number of financial management talents with high comprehensive quality is still relatively small in the market. Moreover, the quality of existing financial management personnel is not high and thus it is impossible to smoothly analyze and use big data with relevant technology in the operation process of the enterprise, which makes enterprises have huge problems in financial management.

V. ADVANTAGES OF BIG DATA FOR FINANCIAL MANAGEMENT

A. *Increasing efficiency of financial management*

Traditional financial management is carried out by manual accounting. This management method is extremely time-consuming and energy-intensive and the accuracy of the data recorded is not high, which leads to a large investment in financial management and negative effects on the efficiency of financial management work [5]. People can analyze and integrate data according to data resources in the era of big data. In the process of processing data, some advanced technologies can be utilized to accurately process information, which not only can reduce the input cost of financial management, but also greatly improve the efficiency of financial management.

B. *Improving the capacity of financial management of analyzing and budgeting*

Financial budget is very important in the actual operation of an enterprise. It refers to that the financial management department estimates the finance of the enterprise based on various information of the enterprise, and it can prepare the relevant funds in advance for the future development of the enterprise. However, at present, corporate financial management does not have reliable technology to support the budget of finance, and the budget can only be subjectively budgeted based on some existing data. However, the data is not highly accurate, which leads to serious problems in the corporate financial management in budget. In the era of big data, the financial management department of an enterprise can accurately grasp various kinds of information of the enterprise with relevant information processing technologies, and on this basis, financial budget results more accurate can be obtained by analyzing and processing related information.

VI. THE RISKS OF BIG DATA TO FINANCIAL MANAGEMENT

A. *The concept of financial management has changed*

The main tasks of traditional financial management are to organize, calculate and account for receipts, and it is a department relatively independent. However, the arrival of the era of big data has made the work of the financial management department infiltrated into all departments of the enterprise. The financial management department can collect, organize and analyze relevant information from various departments, providing effective decision-making for each department; moreover, the use of big data can effectively predict the risks of enterprises [6]. It can be seen that the work content of corporate financial management has undergone tremendous changes, and the concept of financial management has also undergone corresponding changes.

B. *Huge data is not conducive to financial management processing information*

In the context of big data, the financial management department of an enterprise collects a lot of data while the data is changing at any time, which brings great difficulties to the financial management department in collecting, processing and analyzing the data. The financial management department not only needs to grasp the information of the accounting department, but also comprehensively collects, analyzes and processes the information of other departments of the enterprise, and thereby its tasks increase [7]. With the advent of the era of big data, in order to effectively improve the efficiency of the financial management department, the work division of the internal staff of this department has become more and more clear, so that its management level on finance is becoming better and better.

VII. INNOVATIVE APPROACHES TO FINANCIAL MANAGEMENT UNDER THE BACKGROUND OF BIG DATA

A. *Constantly innovating in the mode of financial management*

There is a huge amount of data in the era of big data, with extremely fast update speed and highly integrated contents. To grasp the opportunities brought by the big data era, the financial management department of enterprises should continuously innovate in the mode of financial management [8]. Enterprises should actively guide the personnel of their financial management departments to apply big data in their work and promote the innovation and improvement of financial management, so that they can enable the efficiency of financial management work effectively when facing a large amount of financial data. For example, it is feasible for an enterprise to make use of the information provided by big data to provide a favorable guiding role in its operation, which can continuously optimize its internal system, minimize its input cost and enable its employees to clearly define the work content, and thereby the enterprise can obtain long-term development. The enterprise must improve and innovate in the financial management mode on the basis of the existing financial management work. At the same time, it is necessary to enhance the construction of digital information system, so that

enterprises can fully and timely use big data through various kinds of software, thereby continuously improving their core competitiveness.

B. *Strengthening information construction for financial management*

Due to the advent of the information age, the information collected by corporate financial management is very large. In order to effectively implement the functions of the financial management department, enterprises must strengthen the informationization of financial management. In other words, an enterprise should establish a resource sharing platform and a communication platform for financial management, so that the internal information and external information of the enterprise can be combined with each other and enable the financial management department of the enterprise to respond to changes in the external situation in a timely manner.

C. *Improving the quality of talents of big data financial management*

Employees engaged in corporate finance management need to transform traditional financial management concepts in the era of big data. When managing the finance of their enterprise, they must consider the innovation of financial management from the perspective of the business, so that financial management can be completed more efficiently. At the same time, they must have a global concept and should closely link financial management with the development of the enterprise, so as to improve the financial management level of the enterprise from many aspects. Therefore, enterprise financial managers need to have various capabilities under the background of big data, such as the organizing ability, planning ability, ability of information-based system, analytical ability, insight, and so on. That an enterprise promotes the quality of talents of its financial management in big data era can fundamentally innovate in its financial management.

VIII. CONCLUSION

In summary, in the context of the big data era, enterprises must strengthen their emphasis on the corporate financial management department in the process of development and operation. At the same time, the management department must keep pace with the times and introduce big data into its work to enable the enterprises to occupy greater market competitiveness in the market.

REFERENCES

- [1] He Xuemei. Research on Financial Management Transformation of Enterprise Groups in the Era of Big Data [J]. *Legal & Economy*, 2014, (5).
- [2] Jia Haibo. Analysis of Enterprise Financial Management in the Era of Big Data [J]. *Finance and Accounting*, 2014, (9).
- [3] Liu Zhihui, Zhang Quanling. Research Review of Big Data Technology [J]. *Journal of Wuhan University*, 2014, (1).
- [4] Tang Guliang, Zhang Shouwen. Big Data: Challenges and Changes of Corporate Financial Management [J]. *Financial Research*, 2015, (1).

- [5] Tang Hongming. New Trends in Financial Management of Enterprise Groups under the Background of Big Data [J]. Management Observer, 2014, (4).
- [6] Xie Huobao, Zhang Qian. Construction of Corporate ERP System and the Integration of Accounting Information System in the Era of Big Data—Taking Suning Cloud Business as an Example[J]. Finance and Accounting, 2014, (2).
- [7] Xu Jihua, Feng Qina, Chen Zhenru. Wisdom Government: The Coming of the Age of Big Data Governing the Country [M]. Beijing: CITIC Press Group, 2014.
- [8] Yang Fang. On the Financial Management Transformation Induced by Big Data [J]. China Management Informationization, 2015, (18).