

Application of Management Accounting Information Technology under the Background of Big Data

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Abstract: At present, China is in the age of Internet, which is often referred to as the era of big data. The era of big data provides a good foundation for the development of accounting industry, but it also brings many new problems to this industry. Therefore, enterprises should make rational use of big data and apply the analysis method of big data to accounting management, so that accounting management can better serve the related management of enterprises in the changing times. Enterprises should strengthen the construction of accounting management information application framework, and constantly promote the development and application of management accounting in the context of the big data era. By analyzing the impact of the big data era on management accounting, the specific challenges faced by management accounting in the big data era and the basic framework of the application of management accounting information in the big data era, this paper explores the related application of management accounting information in the big data era.

1. Introduction

Nowadays people are in the Internet era, so where does the word "big data" come from? In fact, big data evolved from the use of mobile Internet, Internet of Things and cloud computing. At present, "big data" has been integrated into all aspects of people's lives, such as health care, education, business and so on. At present, using big data to dig valuable information has become the best means of enterprise management. In enterprises, the arrival of big data can not only provide enterprises with abundant information resources, but also accurately predict the direction of enterprise development and enhance their own competitive advantages. But at the same time, the arrival of big data has brought new problems to enterprises, such as huge data, storage of enterprise information, and huge amount of information is not conducive to the analysis of information. Therefore, in the era of big data, management accounting needs timely reform and update. Therefore, the relevant personnel should have a deep understanding of the application of management accounting information, and do a good job of related management accounting work.

2. Specific challenges of management accounting in the age of big data

2.1 The storage space of information is too small

The first prerequisite for management accounting to play a greater role in the big data environment is to collect a large amount of information. In order to enable enterprises to develop better, the information collected by management accountants must ensure its comprehensiveness and accuracy. The amount of such information collected makes it very large. In the era of big data, all data updates are very fast. According to relevant data statistics, Baidu Media and new data exceed 10TB, while the system media processing and analysis of information are more than 1PB [1]. In the face of such a huge amount of data, the amount of information stored by some enterprises in China generally does not exceed the level of TB. In the era of big data, the related systems used by management accounting for information storage need to be updated at a higher level to meet the current needs of enterprise development.

2.2 Information security is not guaranteed

Big data is based on the Internet. There is no thorough solution to the problem of information security on the Internet. In the era of big data, the security of information collected by management accounting cannot be guaranteed. Most of the information collected by management accounting will involve trade secrets. How to ensure that this information is not leaked is the key to the survival and development of enterprises. For example, the original corporate image of some enterprises is very good, but if the corresponding platform account is stolen by others and then released on the platform some information that damages the corporate image, it will seriously affect the survival and development of enterprises in the future. In addition, the information collected by management accounting may contain some core technologies of enterprises. Once this technical information is leaked, the enterprises themselves will have no competitiveness in the market.

2.3 Insufficient ability to analyze and process information

At present, enterprises collect a lot of information through management accounting and transfer it to the managers of enterprises. However, for this huge information, many enterprise related personnel say that they cannot analyze, process and utilize this huge information well, so that the big data does not play its own role in enterprises. What is the reason for this? Traditional methods of processing information have been completely unable to adapt to the current era of large data, and in the era of large data, data is too large, coupled with less unstructured information, data processing cannot be effectively used [3]. In the big data environment, the update speed of data is very fast, which makes people begin to pay more and more attention to the timeliness of data. But when enterprises collect structured information, they need a certain time to convert it into structured information, which seriously weakens the timeliness of information and leads to some important information not being collected.

3. The impact of big data era on management accounting

The so-called big data refers to a kind of information resources which can be recycled, huge in quantity, rich in types and faster in processing. Therefore, from the definition of big data, we can see that big data has its own characteristics: large quantity, diversification, efficiency and high value, etc. [4]. The arrival of big data has thoroughly changed the era of people's lives, and has begun to use big data in various fields of society. Such a new era has also promoted the continuous change of management accounting, which has brought about a series of changes in management accounting.

3.1 Big data technology has changed the way and content of search

As an important premise of management accounting, a large amount of data makes the information sources collected by management accounting very single in the past. Most of the information comes from related activities within the relevant enterprises, and the information collected is often structured. After the arrival of the era of big data, all kinds of information resources can be shared through the Internet, which makes the information sources collected by management accounting more abundant. The information collected by management accounting can not only be obtained from the relevant enterprises, but also from some business activities outside the enterprise, using some platforms such as Weixin and Weibo. Baidu and so on, and the information gathered by the organization is not only structured, but also semi-structured and unstructured, and according to the relevant data, the proportion of structured information collected in management accounting is less than 10 [5]. From the content of search, the content of management accounting information collection is not only limited to text content, but also includes a variety of rich information content, such as audio, video, image and so on.

3.2 Big data technology has changed the way data are stored

In the era of big data, the update speed of information is very fast, so the amount of information generated is also very huge. According to the relevant reliable data, Baidu stores more than 1 PB of information data every day. Google company needs to process and analyze more than 24 PB of

information every day. But at present, the storage of relevant data in Chinese enterprises cannot exceed the storage capacity of TB. And most of them can only store structured information, which cannot meet the needs of management accounting to collect various types of information in the era of big data. In order to make management accounting more adaptable to the era of big data, relevant professional and technical personnel use computer clusters and distributed storage to build related large databases, not only can they meet the needs of management accounting to collect various types of information. In addition, the information collected by management accounting can be accurately classified in various ways, such as production database, sales database, purchasing database, customer database and so on. It effectively improves the processing and analysis of data and is conducive to management accounting. Fine management [6].

3.3 Big data technology has changed the way of data processing

After collecting the relevant data, the most important thing is to analyze and process these data. In the face of such huge data, the method of data analysis and processing also poses new challenges. In the past, the common method of data analysis and processing in the traditional management boot-up is sampling survey, but such a method has contingency and limitations, in the face of the arrival of large data has been completely unable to survive in the market. Therefore, at present, the processing of large data relies on cloud computing. Data on cloud computing platform can not only be analyzed and processed, but also meet the transmission and sharing of information. In addition, it can also realize the transformation between different formats of data. This processing method is not only fast, but also accurate.

3.4 Big data technology improves the requirement for managers in Enterprises

In the past, most of the enterprises in our country have the same requirements for management accounting professionals: they have financial accounting, management accounting and other related management professional capabilities, but after the arrival of the era of big data, they put forward higher requirements for the comprehensive quality of the relevant personnel of management accounting. In order to be able to quickly grasp and use big data, management accounting professionals are required. Staff not only need to have financial management, accounting management and other relevant professional knowledge, but also need to have a certain level of computer, the ability to use the corresponding system, and be able to skillfully analyze and process large data [7]. At present, some enterprises in our country need to closely link some business activities with financial activities in the era of big data, which requires managerial accountants to have the ability to communicate with people and the spirit of teamwork. In the era of big data, enterprises can obtain professional personnel of management accounting through two ways, one is to recruit in society, the other is to carry out relevant training within enterprises, and constantly train excellent management accountants with professional knowledge.

4. The Basic Framework of the Application of Management Accounting Information under the Background of Big Data

At present, the framework of management boot-up information application under the background of big data in China is generally divided into five layers: information base layer, information input layer, information collection layer, information processing layer and information application layer. Under the background of big data, the application of management accounting information needs the help of internet, related hosts, systems, servers, various intelligent terminals and so on. Through the production and flow of information, the application of management accounting information can be realized [8].

5. Relevant application of management accounting information in the era of big data

5.1 The application of big data technology in procurement.

The business process of purchasing activities generally includes: processing business, capital

flow, production of purchasing information and information flow of interests. Under the background of big data, management accounting information can effectively integrate business information with financial information in the process of purchasing, so that enterprises can provide effective information basis for control, management and decision-making of purchasing activities.

5.2 The application of big data technology in production activities.

Enterprises are involved in the flow of funds and production of information in their production activities. Under the background of large data, the framework of management accounting information can be applied to the production activities of enterprises. It can effectively integrate the business and finance of enterprises, make the business flow, capital flow, information flow and interest-related flow of enterprises highly unified, and can effectively serve enterprises. Managers can provide more comprehensive and accurate information to realize real-time monitoring of enterprise production activities.

5.3 The application of big data technology in sales activities.

At present, sales links in enterprises generally include: making sales plans, making sales orders, signing sales contracts, commodity delivery, payment on delivery, after-sales service. In the process of writing a set of processes, the relevant logistics and capital flow need to respond accurately with the help of large data. The application of management accounting information in large data to sales activities can provide accurate transaction information for sellers and customers in time. At the same time, the sellers can also grasp the relevant information of customers, which is conducive to the future development of sellers.

6. Conclusion

The arrival of the era of big data has thoroughly affected all aspects of people's lives. For the business sector, the arrival of big data brings great opportunities, but also poses many challenges. Especially for the management accounting industry, this is the key for enterprises to adapt to the new environment under the background of big data. The arrival of big data has brought tremendous changes to management accounting in information collection, processing, analysis, storage and other aspects. At the same time, in the market for the position of management accounting personnel are also increasingly demanding. In order to ensure the effective management of enterprises, as management accounting personnel should fully display the effectiveness of big data, using Internet technology. It is convenient to use the shared information to construct the information framework of management accounting which is in line with the development of enterprises by means of big data, and to apply the framework of management accounting information to the production, sales, procurement and other aspects of enterprises, so as to continuously promote the development of enterprises.

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