Influence of Big Data Technology on Management Accounting

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Abstract. The development of Internet technology makes the development of management accounting welcome new opportunities. Analyzing and processing the enterprise accounting data information through artificial intelligence technology and big data technology can help the enterprises to gain insight into the market trend and solve the data problems of the enterprises. The integration of management accounting and big data technology can better promote the long-term development of enterprises. Of course, of course, C\S architecture and B\S architecture play a huge role in this.

Keywords: big data · accounting · economics · management

1   Introduction

Enterprise managers are constantly improving the requirements for accounting information, and the traditional management and accounting model has been affected by big data technology. Because traditional management accounting is difficult for accounting to provide more accurate data information for users of accounting information and scientific prediction of accounting information, the transformation of management accounting is imminent. Through the combination of big data technology and management accounting, it can better analyze the development trend of the market, and provide data reference for enterprises to make perfect development plans [1].

2   Management Accounting Under Big Data Technology

2.1   Structural Patterns are Structured into Non-structural Patterns

At present, users and managers need to process data according to the accounting information of relevant companies. However, in the context of the information age, massive big data is growing, [2] and it is very difficult to conduct the most basic acquisition and processing of data. Therefore, it is necessary to change the mode of enterprise data processing, obtain structured data through the database, enrich the channels of information acquisition, [3] screen high-quality information, replace structured data with unstructured data, and gradually provide a reference for big data processing.

2.2 Data Processing Changes from Centralized Processing to Decentralized Processing

Accounting data processing is mainly based on the host architecture, and in addition, there are C\S architecture and B\S architecture, in the accounting data processing, centralized processing is the most important processing method. For accounting data processing, [4] the index of data volume is very important. Only based on big data technology can we meet the requirements of massive data processing, especially the requirements of "online" and "full quantity" put forward in the background of big data. Traditional computing structure was affected by the outbreak of massive data, [5] and people began to process data figures distributed through Hadoop\Mapreduce computing architecture and Storm computing architecture. Both centralized and distributed processing methods can ensure that the processing needs of accounting data or accounting information can be met to a certain extent, [6] and it can also provide a reference for accounting data analysis.

## 2.3 Data Statistics Change from Traditional Charts to Visual Data Models

Visualization data models can replace traditional graphs to some extent, because the analysis and processing of massive data is a big work. It is difficult for traditional charts to solve these data in a short time [7]. Only by visualizing data models can the data analysis results be more clearly displayed. Traditional charts can only properly show the information of the sample data, but the visual data model can show all the changes of the data one by one while showing the data processing results. This is not only easy for the management staff and staff to understand, [8] but also easy for the accounting information users to grasp. Therefore, big data technology processing means is a common data processing means for enterprises, and the visual data model based on big data technology can also provide greater value for enterprises.

3 The Impact of Big Data on Management Accounting

In the current management practice, big data has become the top priority, because all walks of life began to use big data technology, and big data has become a difficult point for enterprise data to overcome. As a business tool, big data will have a certain impact on management accounting [9]. But at the same time, big data will also bring new challenges to management accounting, which can enable enterprises to predict the development of budget work earlier, and thoroughly control the financial work, and improve the effectiveness of management accounting [10] (Fig. 1).

It is very difficult for companies to seize the market trend, but only by grasping the market trend can we get greater profits, and in order to achieve this purpose, the data needs to be collected and processed. Big data technology has changed the difficult situation of data collection [11]. We can derive the market development trend and the trend of product production, analyze this information, and use this information that we can predict the development of enterprises and improve the competitiveness of enterprises [12].

The performance assessment of enterprises is also based on the data. Whether the rationality of the enterprise data processing mechanism will directly affect the profit of
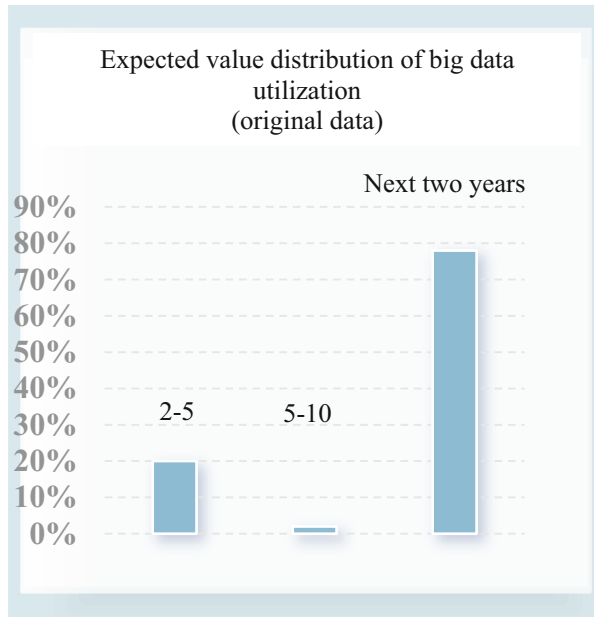
Fig. 1. Distribution diagram of the expected value of the application degree of big data

the enterprise and the enthusiasm of the enterprise employees. With big data technology, [13] enterprises can quickly collect the information needed for performance appraisal, which includes interactive data, perceptual data and transaction data. Based on these data, enterprises can develop more reasonable assessment standards [14].

4   Threats to Management Accounting in the Era of Big Data

4.1   Inadequate Understanding of Big Data

Because big data technology is a new information technology, and because few people have an in-depth understanding of big data, most enterprises also have a shallow understanding of big data technology when using big data technology. At present, [15] although big data technology has brought certain opportunities to management accounting, it also brings certain threats to management accounting. Enterprises must understand enough and understand big data technology, and stabilize the development of enterprises through the application of these big data technology (Fig. 2).

4.2   Lack of Security Guarantee

In the context of the network, big data lacks security, loopholes or Trojan attack, may lead to the loss of information data. The current difficulties facing enterprises are how to improve the security of enterprise accounting information, and how to screen out the virus files. As the benefit of enterprises increases, management accounting information

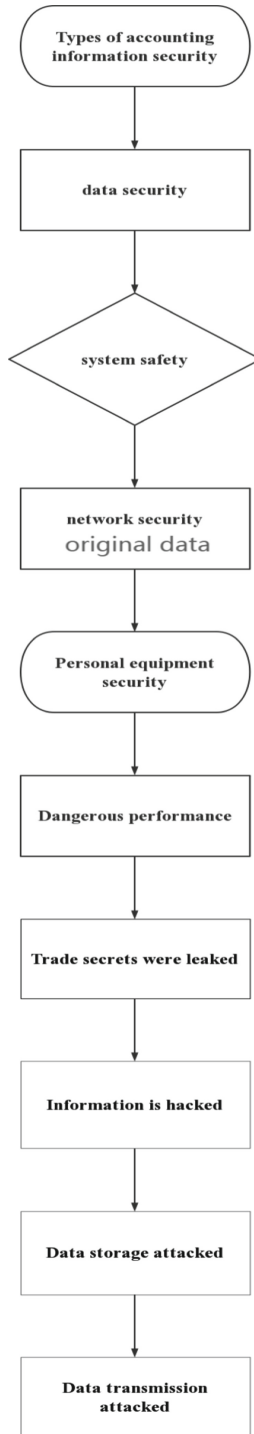**Fig. 2.** Access channel to big data

Fig. 3. Accounting information data type and risk performance under the background of big data

is being more and more threatened. In unstructured accounting information, there may be viruses, and the probability of being attacked by viruses when data transmission is as high as 50% (Fig. 3).

5   Conclusion

The future of big data is bright. All walks of life will combine big data to carry out innovation. Taking management accounting as an example, big data can effectively improve financial returns and reduce financial costs. The significance of studying the application of big data in management accounting lies in helping to help enterprises seize the opportunity of The Times, create enterprise value, and realize the long-term development of enterprises. However, because the application of big data technology in management accounting is not mature enough, so there is not sufficient data to support the framework testing. By studying the impact of large data technology on management accounting, it can be found that the emergence of large data technology has completely changed the mode of management accounting, and this change directly caused the cultivation mode of accounting talents. Of course, big data technology has also made accounting information more complete treatment, and the accounting work efficiency has been greatly improved. Management accounting should collect the enterprise accounting information in the book, and it should also collect the transaction data of the enterprises to analyze and process the transaction data. As for whether big data technology will change the traditional management accounting model is still unknown, but the integration of management accounting and big data technology will improve the effectiveness of management accounting, and also make the users of accounting information better grasp the accounting data of enterprises.

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