The Future Trend of Management Accounting in The Era of Big Data and Artificial Intelligence

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Abstract

With the development of the Internet and other technology, big data and artificial intelligence have developed rapidly. Big data, which includes comprehensive information with a large amount of data, fast flow speed, and diverse data types, has a great impact on production and people's life. Artificial intelligence, which is the extension of computer technology in the field of intelligence, has transformed the way we use information, with faster speed and greater accuracy in processing. Their impacts are so significant that we should not ignore. How it will change the development of management accounting? Will it change how people who work on accounting? After doing many researches, we find that Big data and artificial intelligence not only change the content of the management accounting subject, expand the scope of management accounting, but also promote the progress of thinking mode.

Keywords

Big Data; Artificial Intelligence; Management Accounting.

1. Changes in the content of management accounting

In the field of management accounting, the biggest impact of big data and artificial intelligence is content. They affect the work content and subject knowledge of management accounting. The combination of big data and artificial intelligence can help companies record and process analytical data rapidly, which can replace part of the management accounting work. Meanwhile, faced with this change, the content of management accounting will have different things and a new direction of development.

1.1 In the work, management accounting will be more engaged in management rather than accounting

With the cooperation of big data and artificial intelligence, the quality of information collection and processing will be greatly improved. In daily work, machines can do statistic analysis and processing in management accounting. However, the management function in management accounting is difficult to be replaced. Management accounting will be more involved in management. This is because the management process requires a balance of irrational factors, which the computer cannot achieve.

1.2 Management accounting will be more focused on the innovation of analytical methods

Big data and artificial intelligence can solve the data collection and process it in a fixed way, which people give them. But, how to deal with a large amount of data in an appropriate way? How to express different external environments in machine language? Those are problems what the machine cannot handle at this stage, the way to solve them is the true value of management accounting. Therefore, the management accounting research will focus more on how to deal with a large amount of data.

2.   Changes in the field of management accounting

Big data and artificial intelligence broaden the knowledge involved in management accounting. The combination of big data and artificial intelligence with management accounting requires further expansion of the knowledge system of management accounting. This integration increases the content and research direction required by management accounting.

2.1 Expansion of the management accounting knowledge system

With the development of big data and artificial intelligence, management accounting not only needs the ability of traditional cost management, budget management, fund management, but also the ability to collect, process, analyze and judge data suitable for the development of the times. It is necessary to manage the data and have certain skills to adapt to the coordination of human and big data, artificial intelligence and other intelligent computer processing methods to make better decisions.

2.2 Expansion of management accounting research direction

The research direction of management accounting has expanded from the previous small sample research to the large sample data research with low error rate, which means that the accuracy of the data is higher and the effect of the data is more obvious. The research of management accounting will depend on the financial data to consider the influence of more factors. More research will be modeled and developed in different directions.

3.   Changes in management accounting thinking

With the continuous development of The Times, big data and artificial intelligence have influenced the thinking mode of management accounting. They add many new factor to the measurement, such as the value of data, the validity of information, and so on. This development is both a challenge and an opportunity for management accounting.

3.1 It requires management accounting to establish data value thinking

Data has its own value, which can be used as a basis for decision making. Especially in the rapid development of artificial intelligence and big data, data can help enterprises to conduct accurate management. Therefore, enterprise managers, especially management accounting, need to establish data value thinking. When a merger or acquisition of an enterprise occurs, management accounting should correctly assess the value of the data. At the same time, in the management process, we should also pay attention to the legitimate use of data and protect users' rights.

The value thinking of data also makes people think more. As people think more and more about the value of data, people pay more attention to the legal protection of data. How to use data legitimately? How to balance the personal privacy of data against the interests of companies? These will be the things businesses will be looking for.

3.2 Management accounting pays more attention to the relationship between data

Management accounting will pay more attention to the relationship between data rather than the data itself, in order to explore the value of more data. Management accounting needs to find more ways to process data. At the same time, management accounting will pay more attention to the role of data in decision-making. Management accounting will look for data that is useful for corporate financing, marketing, and human resources.

3.3 Management accounting will rely more on empirical analysis

Artificial intelligence and big data help people complete lots of calculations in a short time, and the company's decision-making can be more dependent on empirical research. It has reduced the time and labor costs of empirical research on data, and the daily decision-making of companies can also be based on data analysis. Therefore, the development of big data and artificial intelligence may push the owners of companies to require the decision of company personnel to have a reasonable basis. This partly alleviates the principal-agent problem.

3.4 Management accounting will pay attention to innovative thinking

Big data and artificial intelligence can mimic human thinking, but cannot be innovative. As a result, the division of management accounting and computing will become more pronounced. People who engage in management accounting will be more likely to be required to think creatively, while computers will be more responsible for data analysis in management accounting. The division of labor between humans and machines is even more pronounced.

4. Conclusion

The development of data and artificial intelligence has promoted social development, greatly improved social productivity, and also had a significant impact on social division of labor. For management accounting, which focuses on data collection, analysis, processing and decision-making based on this, big data and artificial intelligence bring structural impetus. From the perspective of content, they promote the expansion of management function and innovation direction of management accounting. From the perspective of knowledge involved, they promote the structural changes of management accounting knowledge system and research direction. From the perspective of thinking, they promote the development of management accounting data value thinking and data relation thinking, promote the data guidance in the process of management accounting decision-making, and pay attention to the innovative thinking of management accounting.