

The Influence of Business Analytics on Modern Management Accounting Informatization Decision under the Background of Big Data

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Abstract: Modern enterprise management accounting should not only manage the historical financial data of the enterprise, but also organize and analyze the economic activity data of the enterprise, and make financial decisions according to the data analysis results. Enterprises should introduce financial information system and data analysis tools to store and process the financial data of enterprises, predict the development of enterprises according to the data processing results, and formulate and optimize the financial work plan of enterprises according to the actual development of enterprises, so as to promote the development of enterprises and improve the core competitiveness of enterprises. This paper focuses on the impact of business analytics on modern management accounting information decision making under the background of big data. Firstly, it analyses the background of the development of big data and the role of modern management accounting. Secondly, it analyses the factors that business analysis effectively applies to the decision-making of modern management accounting information, then it analyses the application of business analysis in the decision-making of modern management accounting information. And finally, it describes the positive impact of business analysis on the decision-making of management accounting information, and it draws the conclusion that business analysis has a facilitating effect on the development of the enterprise.

1. Introduction

Science and technology inject impetus into the development of social enterprises, and management accounting plays an important role in the development of enterprises. Observing the role positioning of management accounting from the perspective of enterprise informatization development, management accounting has transformed from an analyst of historical financial data to a controller of financial data and a forecaster of enterprise development. When making decisions through financial data analysis, modern enterprise management should not only analyze the historical financial data of the enterprise, but also analyze the relevant social data to ensure the correctness and effectiveness of the analysis results of the financial data of the enterprise, so as to promote the development of the

enterprise.

2. Background of big data development

The rapid development of big data technology is affected by many aspects, including scientific and technological progress, business needs, explosive growth of data, policy promotion, etc. The following is mainly around the above four points for a summary analysis. ① Scientific and technological progress is the core driving force for the development of big data. The development of computer technology has improved the efficiency of data processing and achieved the goal of scientific and effective processing of massive data. The emergence of cloud computing, distributed storage, data mining, machine learning and other digital technologies has provided powerful data support and help for big data storage, processing and analysis. The explosive growth of data is an important background for the development of big data. With the development and application of Internet technology and mobile terminal equipment, data has experienced explosive growth, and this explosive data growth is reflected in both the number, diversity and density of data. It is difficult for traditional data processing technology to keep up with social development and changes, and it is necessary to scientifically analyze explosive data with the help of big data technology. ③ Policy promotion is also an important factor in the development of big data. With the development of social informatization, the government vigorously promotes the development of big data, which is the development demand of The Times, and then promotes the development of big data. These include financial support, technical support, communication infrastructure, promoting data opening and sharing policies, and promoting the development and application of big data.

3. Role positioning of modern management accounting

With the rapid development of market economy and information technology, management accounting, as an important support force for strategic decision-making of enterprises, is constantly changing its role in the process of financial management. The changes and differences between traditional management accounting and modern management accounting profoundly reflect the changing process of management accounting from traditional simple recording to complex financial data analysis, and from the perspective of enterprise content to the global perspective^[1]. In order to deeply understand the difference between traditional management accounting and modern management accounting, we should first start from the positioning of traditional and modern management accounting, and then we can deeply analyze the differences and differences between the two. ① Role positioning of traditional management accounting. In the process of financial management, traditional management accounting pays attention to the financial cost control and the accuracy of financial reports, and emphasizes the accounting ability and recording ability of management accounting. Through sorting and analyzing the historical data of enterprises, it can provide enterprise managers with financial information such as cost control and profit income. Under normal circumstances, traditional financial management accounting believes that through strict control of financial costs and effective financial management, it can effectively improve the economic benefits and market competitiveness of enterprises. At the same time, traditional management accounting mainly focuses on internal cost control and the accuracy of financial reporting. It emphasizes the function of accounting and recording, and provides cost, income and profit information for enterprise management through the collation and analysis of enterprise historical data, so as to improve the economic efficiency and market competitiveness of enterprises. ② Role positioning of modern management accounting. Compared with traditional management accounting, modern management accounting positioning is more extensive and in-depth, on the basis of close

attention to internal cost control and financial reporting, but also actively participate in enterprise strategic planning, decision analysis and risk management. The emphasis on the forecasting, decision-making and control functions of management accounting can promote the improvement of economic benefits and the sustainable development of enterprises by forecasting the development of future market economy and optimizing the allocation of internal resources of enterprises. With the development of modern management accounting informatization, modern management accounting has gradually changed from a passive post-reaction role to a management accounting with certain financial forecasting ability, focusing on the future development and change trend of enterprises. This study analyses the differences between traditional management accounting and modern management accounting. As shown in Table 1.

Table 1: Differences between traditional management accounting and modern management accounting

	Traditional management accounting	modern management accounting
Differences in perspective	Focus on internal information	Focus on the external environment changes and market trends
Functional differences	Focus on the accounting and recording functions	Emphasis on prediction, decision-making, and control functions
Time difference	Focus on past data and results	Focus on future forecasting and planning
Role difference	Passive characters	Active and active roles

4. Factors for effective application of business analytics in modern management accounting information decision-making under the background of big data

In the context of big data, the factors that successfully apply business analytics to modern management accounting information decision-making are diverse, including the richness of data, the advancement of analysis tools, the clarity of decision requirements, and the guarantee of data quality. Under the joint effect of these influencing factors, we can see the business analysis, its ability to make information decisions for modern management accounting, provide theoretical guidance and practical help, so as to promote the innovation and development of social enterprises.

4.1 Data richness

Business analysis mainly uses mathematical models to scientifically analyze data, which helps enterprise managers make use of data analysis results to develop or improve enterprise business structure or enterprise development planning, so as to promote enterprise development. In the era of explosive growth of data, abundant data provides data basis for the application of business analytics to modern management accounting information decision-making. In the traditional management accounting decision-making process, only the effective data are sorted and analyzed, which is difficult to meet the needs of social development and enterprise development. Big data technology can sort out and analyze a large amount of data to form a comprehensive and multi-dimensional data set, so that the data set has structural characteristics, so that modern management accounting can fully understand the operation of enterprises. At the same time, through in-depth analysis of data, management accounting can find the hidden rules of data and provide support for enterprises to provide more accurate services.

4.2 Advanced analysis tools

With the in-depth development of information technology, advanced data analysis tools are provided for the application of business analysis learning to modern management accounting information decision-making. By using data analysis tools to process and analyze rich data, management accounting can help management accounting analyze data efficiently and accurately. At present, the widely used data analysis tools include data mining, machine learning, artificial intelligence and other tools, which provide decision-making suggestions for management accounting by automatically identifying, processing and analyzing the corresponding conclusive data such as massive data.

4.3 Clarity of decision requirements

In the process of information-based decision-making, only by clarifying the needs and objectives of decision-making can management accounting select appropriate data analysis tools to analyze the data, and then obtain the demand data. To clarify the decision-making needs means that management accounting should have a deep understanding of the development strategy and development goals of enterprises, and then strengthen the clarification of the problems to be solved and the expected effects to be achieved. Management accounting should rigorously conduct scientific analysis of data to ensure the accuracy of the data analysis process and the correctness of the data analysis results, and provide effective data for the development of enterprises.

4.4 Data Quality Assurance

Data quality assurance is the basis for management accounting to use business analysis learning to carry out information decision-making. If management accounting adopts low-quality data in data analysis, it will lead to distortion of data analysis results and affect management accounting decision-making errors, so as to promote the normal development of enterprises. Data quality assurance includes the accuracy, integrity and consistency of data. In order to ensure data quality, enterprises should adopt a series of data protection measures, such as establishing a data governance system, formulating data quality standards, data cleaning and verification. At the same time, the enterprise also carries out quality inspection and evaluation of the data to ensure the accuracy and reliability of the data. Through data quality assurance, management accounting can make use of business analysis knowledge to analyze data in detail, and then obtain accurate and reliable data analysis results, improve the correctness and efficiency of management accounting information decision-making, and lay a foundation for promoting students' sustainable development ^[2].

5. The influence of business analytics on modern management accounting informatization decision-making under the background of big data

5.1 Application of business analysis in modern management accounting information decision-making

5.1.1 Build a sound big data platform

In the process of using business analytics to carry out modern management accounting information decision-making, it is a key process to build a perfect big data platform. The establishment of big data platform can provide rich data resources for management accounting and help management accounting make accurate decisions based on data analysis results. The construction of big data

platform needs to be carried out from the following three aspects: (1) Clear data sources. Clear data sources can ensure the correctness, diversity and richness of data, including not only internal financial data and operational data, but also market finance and corporate development data, as well as industry-related data and customer data.② Enterprises can build database and introduce data analysis technology. Big data platforms need to have strong data storage and data processing capabilities to ensure effective data preservation and accurate analysis. Therefore, when building a big data platform, it is necessary to choose efficient and stable database technology, as well as data analysis tools with powerful data processing capabilities, to ensure that the big data platform can operate efficiently.③ Enterprises should ensure data accuracy. Data is the basis of information decision-making in management accounting and the key to promoting the sustainable development of enterprises. Therefore, in the process of establishing a big data platform, it is necessary to clean, verify and integrate the data to ensure that the data is clean and accurate, and to provide the basis for the subsequent data analysis by business analytics in management accounting.

5.1.2 Optimize the decision-making process and mechanism

When the relevant knowledge of business analytics is used to analyze enterprise data, it is helpful to optimize the decision-making mechanism of management accounting informatization and further improve the decision-making efficiency^[3]. In management accounting, the practice of information decision resolution is carried out, the knowledge of business analysis is fully utilized, and the data-driven decision thinking runs through the information decision process to promote the effective decision making of management accounting. At the same time, enterprises should also establish a decision evaluation mechanism to regularly evaluate and adjust the decision results to ensure the scientific and effective decisions. In addition, with the in-depth development of social enterprises, it is necessary to optimize and update the information-based decision-making process according to the actual development of enterprises, and promote the effective implementation of information-based decision-making by management accounting.

5.1.3 Promoting the upgrading of IT application

The application of business analysis in modern management accounting information decision-making mainly relies on efficient and stable information system to collect, store and process data, and then obtain data analysis results. Therefore, the enterprise carries out information construction in combination with the actual development of the enterprise, and its information system is continuously optimized and upgraded in the application process. In the process of information construction, advanced information technology and system tools need to be introduced to improve the performance of information system and improve the stability of information system.

5.1.4 Strengthen data security and privacy protection

In order to ensure data security, data protection should be carried out when business analysis domain knowledge is used to carry out management accounting information decision-making. Due to the in-depth development and wide application of big data, there are risks of data leakage and privacy infringement in enterprises. Therefore, enterprises should establish a sound data security management system and data analysis specifications, and adopt advanced data security technology to encrypt data at a level, and backup important data to ensure the security and integrity of enterprise data. At the same time, it is necessary to strengthen the security awareness of staff related to management accounting, improve the attention and prevention awareness of relevant staff to data security, ensure that management accounting and relevant staff call data, ensure the security and privacy of enterprise data, and promote the effective protection of enterprise security data.

5.2 The influence of business analysis on modern management accounting information decision-making

5.2.1 Improve decision-making efficiency

When using automated and intelligent data analysis tools and business analysis knowledge to analyze enterprise data, a large number of financial data and economic activity data can be sorted and processed quickly, which greatly shortens the decision-making cycle of management accounting. In the traditional decision-making process, a lot of time, manpower and material resources are needed to collect, organize and analyze the data, and the accuracy of the data analysis results cannot be guaranteed. By using business analysis knowledge and data analysis tools to analyze financial data, management accounting can complete finance-related tasks in a short time and promote management accounting to make decisions faster.

5.2.2 Improve decision-making accuracy

In the traditional data analysis and decision-making process, management accounting can only analyze limited financial data and summarize data analysis results based on practical work experience, which is difficult to ensure the accuracy and timeliness of decision-making. Business analytics focuses on using advanced data models to predict data. Phased learning through data models can ensure accurate analysis of data by mathematical models, which helps management accounting to more accurately predict the future development trend of enterprises and the development situation of the industry. The predictive ability of mathematical models ensures more scientific, rational and information-based decision-making. This greatly improves the accuracy of management accounting decisions.

5.2.3 Strengthen risk management

Through the analysis of historical data, business analytics can explore and analyze the development trend of enterprises and help enterprises to discover potential risks and problems in time. This risk estimation mechanism enables enterprises to do risk prevention and response work in advance in the development of enterprises, so as to reduce the operational risks of enterprises. Business analytics can also analyze and evaluate decision plans, provide decision reference data for decision makers, and help enterprise managers to make scientific and effective decisions.

5.2.4 Improving IT application

Modern management accounting uses the knowledge of business analysis to make information decisions and effectively promote the development of enterprise information. In order to strengthen the financial data analysis of enterprises, enterprises need to establish a big data platform, introduce information system and data analysis technology, so that management accounting can better collect, sort out, analyze and process data. The effective application of these information technologies can not only improve the management accounting data processing ability, but also promote the internal information sharing of enterprises to improve the overall operation efficiency of enterprises. The effective application of business analysis promotes the transformation and development of management accounting informatization, so as to improve the decision-making ability of management accounting informatization.

6. Conclusion

To sum up, in the process of financial data analysis, enterprise management accounting uses relevant knowledge of business analytics. With big data technology as the background, it analyzes financial data by building a sound big data platform, optimizing decision-making process and mechanism, and promoting informatization construction and upgrading, which helps management accounting to make informatization decisions and thus improve decision-making efficiency and accuracy. Enterprise managers should strengthen enterprise risk management, promote the development of enterprise information, and enhance the competitiveness of enterprises.

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