



# The Status Quo and Problem Analysis of the Application of Intelligent Enterprise Management Accounting in the Big Data Era

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**Abstract:** Management accounting plays a pivotal role in the operation of an enterprise. By means of management accounting, an enterprise could make reasonable accounting of enterprise costs, optimize resource allocation within enterprises and reduce the waste of resources. Therefore, management accounting is the major resource of the information that helps with decision-making of business managers. In recent years, the big data technology and intelligent technology has been continuously improved, so the traditional management accounting model is facing great challenges. Therefore, the application of intelligent management accounting into the in-depth analysis of big data within all enterprises will cast positive influence on long-term development of the enterprises. This article aims to analyze the current status of the application of intelligent management accounting into enterprise in the present big data environment. In accordance with the application of intelligent management accounting in enterprise budget management, cost management, performance management, and others, the problems with the current application of intelligent management accounting will be summarized. Then, some effective solutions to solve those problems will be provided, expecting to provide crucial enlightenment on the application of intelligent management accounting to promote the development of Chinese enterprises in the era of big data.

**Key words:** Big Data; Intelligent; Management Accounting

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## 1. Introduction

The era of big data has brought new opportunities and challenges to Chinese enterprises. As the continuous improvement of the information technology, the number of Chinese companies keeps increasing continuously, so the competition among enterprises in the entire market is becoming fiercer and fiercer. In the face of increasing pressure in the fierce competition, the most important thing for an enterprise is to optimize its own management mechanism. Management accounting is an important part of modern enterprise management, and it plays an irreplaceable role in the improvement of the economic efficiency of the enterprise and the sustainable and stable development of the enterprise. Therefore, it is necessary to deepen the understanding of the application of intelligent enterprise management accounting in the era of big data<sup>[1]</sup>. In that case, the efficiency of corporate management accounting can be improved to ensure the rapid and stable development of the company.

## 2. The essence and function of management accounting

From an academic point of view, management accounting should belong to the field of management research. It is necessary for an enterprise to apply management accounting because such accounting helps improve our internal

management, so as to increase the overall operating income and market competitiveness of the enterprise. So far, the effect of enterprise management accounting can be directly reflected by the operating income of the enterprise. Therefore, enterprise management accounting needs to take the responsibilities in the application process. From the perspective of its functions, the management accounting application is so significant because it enables accounting to carry out more functions than the traditional accounting. In addition to the traditional calculating, the management accounting staffs should take on the responsibilities for analyzing and interpreting the elements contained in corporate accounting information, so as to provide guidance on the operation and management of the enterprise. Management accounting plays an important role in modern enterprise management system.

### **3. Application of management accounting intelligence in enterprise management**

#### **3.1 Enterprise budget management**

The embodiment of the intelligent application of management accounting in enterprise budget management is to complete budget management work via intelligent approaches, by which budget reports can be generated efficiently and conveniently, so as to provide strong support for enterprises in cost control, R&D and production, and capital flow management. The intelligent budget management is unique because functionalized means can, to some extent, imitate the human brain to filter and analyze information. Intelligent budget management can greatly improve the speed and accuracy of information analysis, so as to make timely and accurate budget decisions that are compatible with the current operating conditions of the enterprise. Recently, enterprise budget management software, such as the ERP system with the budget management function, has been widely applied in many companies, which has gradually raised the level of intelligent development of corporate budget management. But in view of the current state of development, the level of intelligent budget management of Chinese enterprises is still relatively low. In the future, budget management will be combined with artificial intelligence technology to construct a more scientific and complete intelligent budget management.

#### **3.2 Enterprise cost management**

Enterprise cost management is extremely important for the whole management accounting. The core of cost management is “throttling”, which means to save the cost of enterprise production and to minimize the resources, and to create more benefits for the company under the condition of fine product quality[2]. When allocating costs through common management accounting, the preferred accounting treatment method is normally the cost-driven cost-based activity-based costing method, whose accuracy is higher than that of traditional accounting treatment methods. On the basis of cost drivers, accountants must correctly identify cost drivers before employing this method. That will make it necessary to apply big data technology to analyze the composition of product costs. At the same time, intelligent cost management can improve the accuracy of information in the best way. The employment of the intelligent analysis method allow for the integration of the original data information, so as to effectively reduce the cost of the enterprise, and to promote the healthy development of enterprises.

#### **3.3 Enterprise performance management**

Another powerful tool of management accounting is performance evaluation management, which can help business operators determine development strategies and budgets through the current performance of the company. The balanced scorecard is frequently used in corporate performance evaluation because it can provide crucial clues to guide the company’s long-term development. The operation of the balanced scorecard requires not only corporate financial data like financial dimensions and non-financial data like customer satisfaction, and corporate internal process dimensions and employee growth dimensions are also provided in such scorecards. By means of this method, corporate

performance management can be evaluated more comprehensively. In the application of intelligent performance management, the obstacle of processing non-financial data that can not be quantified and compared is removed after the big data technology is applied. Besides, the intelligent and qualified analysis approach is applied to evaluate different parts of the balanced scorecard. Big data technology in performance management can also be combined with other performance management tools such as DuPont analysis, so as to carry out informatization and intelligent processing of the performance management data of the enterprise, which will greatly improve the level of corporate performance management.

### **3.4 Management accounting**

Although the early information analysis technology was already advanced enough, data cannot be processed in a human way of thinking. Therefore, it will lead to mechanized processing of data and even frequent errors. Recent years, the development of big data and artificial intelligence technology has changed the development direction of information analysis technology, which shows more tendency for imitating human thinking. By combining big data and artificial intelligence technology, humans are able to solve the problems in the early management accounting work one by one. Through the application of intelligent management of budget, cost, and performance, the efficiency of management accounting can be fundamentally improved, so the defects with the traditional accounting in predicting key performance indicators and financial statements, which will further promote the development of corporate management accounting.

## **4. The problems of intelligent management accounting in the era of big data**

### **4.1 Oversimplified understanding of intelligent management accounting**

It takes longer time and higher cost for humans to develop, create, promote and apply new technologies. Even in the application of certain new technologies, humans can't ensure their complete control in such technologies. In the face of the big data era, big data technologies are widely used in all walks of life. However, the lack of awareness of big data technology makes it difficult to develop and to make full use of big data technology. In specific fields of corporate management accounting, even people with professional skills and knowledge can not ensure accurate perception of all big data technology. The slow construction of awareness about big data technology is the most common problems with the current application of big data technology. The problems caused by such limited awareness will seriously hinder the future development of management accounting.

### **4.2 Incomplete equipment in intelligent system facilities**

The establishment of a complete enterprise management accounting system needs to be based on information hardware equipment, so that it is possible to reach the goal of the intelligentization of accounting work. But as far as the current situation is concerned, many companies failed to establish informational hardware facilities due to insufficient capital investment. Even if there is corresponding hardware facilities prepared, there is not much accounting software available for enterprises to choose. This greatly limits the development of intelligent application of corporate management accounting, so the enterprise cannot establish a perfect enterprise accounting information system. The current investment in intelligent analysis software by enterprises is limited by the above objective factors. As a result, the data obtained by the company from forecasting or decision-making projects is not accurate enough. Therefore, companies cannot complete data analysis through strict and accurate nonlinear analysis or informational models and formulas.

### **4.3 Unsound internal management mechanism of the enterprise**

Currently, the intelligent construction cycle of management accounting is still at the initial stage of its

development. This new working mode with high automation and intelligence has not been applied into the accounting of many companies. Hence, the intelligent application of management accounting has not help with the construction of effective control and management mechanism in the enterprise, especially in the process of building related internal control systems. In the process of intelligent application of management accounting, all attention is paid to the prominent role of management accounting, intelligence in corporate budget and cost management, as well as the further construction of related institutional systems. However, the functions of management accounting intelligence in data analysis and performance management have been ignored, which eventually lead to the lack of effective institutional norms for related work.

Moreover, the financial management system is not constructed in accordance with objective situation, so it fails to provide guidance for the financial management in the future. In the operation and management of some companies, insufficient attention is paid to the finance department, so that the staff distribution in the finance department is unreasonable.

#### **4.4 Poor quality of corporate accountants**

With the continuous deepening of enterprise modernization reform, the role of management accounting has been widely accepted by enterprises. Due to the distinctions between management accounting and traditional accounting in their functions, it will lead to the lack of professionalism of existing accounting personnel. As the intelligent management accounting is applied, the operational capabilities of corporate accountants in relevant technical fields need to be improved. Moreover, the intelligent management accounting is put forward recently, so the training and reserve of relevant talent fields are in the ascendant. However, companies with weaker strength in market competition cannot recruit high-quality accounting talents.

### **5. The countermeasures of intelligent management accounting in the era of big data**

#### **5.1 Deepening the understanding of intelligent management accounting**

Companies need to emphasize the application of intelligent management accounting and to formulate corresponding plans for the development of its own management accounting mechanism. The current enterprise management accounting is still unsound. Therefore, enterprises must deepen their understanding of intelligent management accounting and its application so as to make the best of management accounting to obtain guidance about operation management. The management of an enterprise must clearly identify the functions of management accounting. At last, it is necessary to emphasize the important role of management accounting in the enterprise financial management system.

#### **5.2 Complete and intelligent financial management infrastructure**

Enterprises should construct and refine intelligent management accounting infrastructure. Besides, they should maintain relevant equipment and systems. It is also important to achieve informatization development so that enterprises should apply intelligent management accounting to establish and improve the related information system. Hence, enterprises could make full use of big data technology to transform the business information of the enterprise into important instructions to guide management and development strategies in those enterprises. In addition, the management accounting information of the enterprise should also be updated in time to ensure to configure corresponding permissions for different personnel so as to achieve efficient data exchange and sharing.

#### **5.3 Strengthening the enterprise's internal control and standardized management of accounting work**

Enterprises should refine internal management mechanisms, especially the financial management of enterprises. By improving the standard management level of enterprise internal control and accounting work, enterprises can fundamentally promote the modern development of the enterprise. The improvement of the internal management system of the enterprise positively influences the structure of enterprise management accounting because it allows for reasonable division of management accounting while reducing the chaotic division of work among financial management personnel. Besides, enterprises should establish reward and punishment system to increase the work enthusiasm of financial staff.

#### **5.4 Recruiting and training of accounting talents in enterprises**

As the core of enterprise's accounting work, accounting personnel's professionalism deeply influences financial management of the enterprise. In the process of intelligent application of management accounting, enterprises should increase the introduction and training of high-quality accountants. When recruiting accountants, interviewers should conduct an in-depth investigation of the professional knowledge and skills of the recruited personnel, as well as the computer operation ability of the recruited personnel. Only accountants with the abilities above could contribute to the enterprise management accounting intelligent application. Besides, enterprises need to emphasize training for accounting talents, and add intelligent applications into the training courses. Only when the accountants are competent to apply various intelligent management accounting into their daily works, could they make full use of their professional skills to provide assistance for business operation and management.

### **6. Conclusion**

Management accounting is the inevitable trend of enterprise development in the future. The application of big data technology and intelligence will make management accounting even more important. Application of intelligent enterprise management accounting in the era of big data will provide great power for the development of enterprises. Advanced artificial intelligence technology allow for accurate analysis of corporate accounting information and promoting the improvement of accounting work quality. The application of intelligent accounting system allow for the great reduction of the workload of enterprise management accounting, increase of work efficiency and accountants' professionalism. In this article, the status quo of application of intelligent enterprise management accounting in the era of big data was analyzed, and the problems of insufficient understanding are analyzed, including imperfect infrastructure, imperfect internal control mechanism, and poor professionalism of the current enterprise in the intelligent application of management accounting. Moreover, the solutions are provided in this thesis, including acquiring more knowledge about intelligent management accounting, strengthening infrastructure construction and internal control, as well as the recruitment and training of talents. It is expected that this paper should provide some clues about the application of intelligent enterprise management accounting to promote the development of the enterprise in the future.

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