SEARCH OF ACCOUNTING REAL-TIME CONTROL BASED USING INFORMATION TECHNOLOGY

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Abstract

Accounting control has been the focus and hotspot among the scholars of accounting throughout the history and development of accounting. From the end of the 20th century onwards computers, also known as Information Technology (IT), has been widely used throughout the accounting world. As its core it is bringing information management of accounting control to a higher stage of development. Overall, the main objective of this paper is to elaborate the present situation of global IT and how this new technology has changed accounting perspective in real time.

Keyword: IT, Control of accounting, Real-time control of accounting
Introduction:

As the rapid development of IT, great changes have taken place in the global economy. IT, which uses the internet as a means of network economy, is increasingly changing humans’ modes of production and management. An enormous number of enterprises have applied IT to the management of enterprises, such as constructing the management system of Enterprise Resource Planning (ERP) for as a resource, transforming enterprises from traditional to modern information management. These changes introduce a new requirement for accounting control.

Value Chain Management theory was put forward by Mr. Michael Porter in 1985 in his best selling book; Competitive Advantage: Creating and Sustaining Superior Performance, which attaches great importance to the cooperation between enterprises as well as emphasizes the optimization of core business process and the reduction of management cost. This increasingly requires enterprises to strengthen the function of real-time accounting control. Meanwhile, Michael Hammer (1990), Hollander, A, S (1999), and others not only paid close attention to the influence of IT on accounting, they also examine issues regarding accounting real-time control under the condition of the IT environment and the value chain management. With the rise and development of the concept in terms of real-time accounting control, the further development of accounting control has promoted in aspects of theory and practice. In conclusion, admittedly an increasing number of people are researching real-time accounting control and they have achieved excellent results. However, it is rare that people studying in this area have related research on the basis of IT. Hence, this paper, in order to make it be a tool in improving management efficiency and increasing enterprises’ value, will discuss the framework of real-time accounting control systems from the perspective of IT.

(1) REAL-TIME ACCOUNTING CONTROL AND ACCOUNTING CONTROL

With the development of IT, the accounting management has transformed from traditional management to information management. In this case, significant changes have taken place in terms of the background of accounting control and factors.

Generally, the sense of control means that the implementers constrain and regulate the activities of the controlled objects, making their behaviors in accordance with goals implementers set. The sense of Accounting control is that the implementers, in order to maximize benefits and ensure the safety and integrity of assets, formulate and implement a series of control methods, measures and procedures for carrying out related laws and regulations. It mainly controls business transactions such as monetary funds, the cost and raise funds and so forth. The target of making a series of regulations regarding accounting controls is to improve the efficiency of business activities. Accounting control focus on planning and adjusting the direction of capital workings of accounting entity as well as its quantity, time and the results.

The real-time accounting control formed and developed under the guidance of global information strategy should revitalize China through the implementation science and technology. Real-time accounting control is a new concept of corporate control reflecting information age characteristics. Not only is it an expansion of connotation and denotation regarding accounting control, it is also a development in the innovation of traditional view of control. Real-time accounting control is that financial accountant’s network environment and it uses three
quantities: time; money and entity. These are used to contrast and analyze the real-time process of enterprises’ business activities, and to improve the efficiency of enterprise benefits through guiding, regulating, constraining and promoting enterprises’ management. By real-time accounting control, not only can companies get information in terms of enterprise operation and management from financial statements, they can also get it from public databases or specialized databases of accounting management, which enables enterprises to get a real-time callout of relevant data and information. Thus, enterprise managers are able to know instant information of business activities instead of waiting until the final analysis. This avoids the low efficiency of operation and management resulting from hysteresis of traditional accounting control.

Real-time accounting control, as an extension and innovation of accounting control is very different from traditional methods. This can be demonstrated by the following aspects:

1.1 Ways of Control

The real-time accounting control emphasizes the real-time control, while accounting control focus on timely control. The meaning of Real-time control is that controlling items during business activities, exactly, do control during specific business.

1.2 Goals of Control

Enhancing management efficiency and economical effectiveness are the goals of real-time accounting control, whilst what the accounting control emphasizes is to assure security of assets as well as its integrity, aiming to maximize benefits.

1.3 Environmental control

Real-time accounting control works under an IT ages. On the other hand, accounting control works under a traditionally manual environment.

1.4 Information control

The real-time accounting control takes accounting information and non-accounting information, which are in the form of time, money and accounting of physical quantity, and by exploiting the monetary aggregate quantitative.

1.5 Attribute controls

Accounting control presents static attribute, and it consists of three properties, including dynamic properties, time-space attribute and process attribute. Among them the process attribute, in the circumstance of the IT, control the whole process of enterprise Product development, purchasing, warehousing, production and sales, etc. by exploiting real-time information. It is called matter properties because it controls each part of the entire process of business operation. Besides, Space-time attribute, in the circumstance of IT, means that accountants can obtain the information required by accounting control efficiently and it emphasizes the demands for different space-time conditions in terms of accounting information, which is required by accounting control. Under the background of IT, it is easy for people to collect, transmit and share enterprise’s accounting information, and this allows accounting control to extend to different departments and areas. Dynamic properties gather the information from the process of enterprise operation in a timely manor.
1 THE FRAMEWORK OF REAL-TIME ACCOUNTING CONTROL

Living in an era when computer and Internet technology is widely applied in enterprise management, as for the enterprise accounting control, not only should we establish a correct perspective of real-time accounting control, we should also research the IT environment of real-time control, the accounting process re-engineering and the methods of real-time accounting control, etc. So from an author’s perspective, the framework of real-time accounting control system mainly consists of the following aspects: IT environment, process re-engineering, methods of real-time accounting control and its modes. As shown in figure 1.

![Figure 1 Framework of real-time accounting control system](image)

2.1 The accounting real-time control IT environment

Intra-company network, business database and information system are included in the IT environment of real-time control. Specifically, a network is responsible to transfer and share of Information. Accounting information system (AIS) is a collection of information that can be processed into valuable data to enhance business performance. The IT environment has a leading position in the system of real-time accounting control, and it is also the medium of the other three (3) parts. In China, at present, the structure of most enterprise's accounting information system is still in a condition where departments collect information without timely communication. Data about balance sheet, equity and cash flow statement, which are obtained by accounting information system, are always lagging behind. In this case, enterprises are very slow to acquire information in terms of markets, customers and themselves. Consequently, the accounting control does not meet the requirement of real-time
accounting control. Therefore, when we research on real-time accounting control, it is essential to analyze the IT environment and create a sophisticated IT environment. I think we should take three aspects into consideration when constructing technology environment, namely operating enterprise database, managing information system and building intra-company network. Then it can create the prerequisites for accounting procedures and methods as well as modes of real-time control.

2.2. Accounting process reengineering

Generally, business processes can be roughly classified into three categories namely: business processes; accounting process and management process. These three processes interact with each other. Among them, accounting process places a vital role in that it combines business and management processes organically and its main effect is the support through the collection and analysis of data, which is vitally needed by enterprise. Traditional accounting process collecting information after business operation is completed, ignoring the relevance between accounting information and business activities, which leads to a disconnect between accounting and business processes. Undoubtedly, that limited information cannot meet the requirements of enterprise accounting control for real-time accounting. At the same time, accounting after economic matters contributes to a severe disconnect between accounting and manage processes. Hence, it is important for enterprise to combine these three processes mentioned above when do real-time control, which can guarantee the timeless integration and usefulness of information collected during accounting process. What is more, it is necessary to bond budget and practical business data together and put them into enterprise database, making the process of enterprise to be closely linked.

2.3 The methods of real-time accounting control

Methods of accounting control are mainly used to reflect its content and realize its goals. Along with the expansion of economic work, enterprise accordingly expands the content and scope of control, which introduce higher requirements for effectiveness. Being limited by economic environment, qualities and abilities of accountants especially with inadequate utilization of IT, there is no innovation in terms of the methods of accounting control. Multifarious enterprise in today’s times shows that the execution of all kinds of business cannot be achieved by traditional methods, its because data of the business’s activities cannot be gathered timely and dynamically without the support of IT. Therefore, we have to make heavy use of IT when research on methods of real-time accounting control, and then study the control ways on a structured basis.

2.4 The mode of real-time accounting control

The advent of IT demands new control methods. Specifically, we need to transform traditional methods into a matter of real-time control. We also need to control supply and value chains instead of controlling just a single factor. The mode of real-time accounting is an application control mode, which is established to meet the needs of enterprise. Control modes vary from enterprise to enterprise. There are two categories about mode of accounting control, namely lateral control and vertical control. The definition of lateral control mode is that implementing a real-time monitoring during the whole processes of business activities, including purchasing, marketing and financing. Based on the business budget, lateral control usually compares the original budget with real-time data and adjusts budget, controls cost and improves operating efficiency. The definition of vertical control mode is that implementing real-time control in terms of internal business activities under the condition of time and space. By connecting enterprise members from different areas together, vertical control is able to comprehend and control the dynamic information of the enterprise. In conclusion, enterprises have to build the mode of real-time
accounting control by the combination of resources owned by themselves such as hardware and software resources.

2 THE INFLUENCE OF IT ON ACCOUNTING REAL-TIME CONTROL

With the rapid development of IT, new changes have taken place in the way of traditional accounting control. The Internet integration of IT allows financial information to be shared on public data platform, which helps enterprises integrate business with accounting and implement real-time monitoring. The impact of IT on real-time accounting control represents in the following aspects:

3.1 Relevant theoretical support

The application of IT in enterprise management, not only can improve the management efficiency, it also places an important role in changing management methods. IT is increasingly changing the living environment, operation management and management mode, etc. This can be demonstrated by the application of some enterprise–management software such as ERP (Customer Relationship Management) and SCM (Supply Chain Management). These changes can not only integrate business cash and information flows as well as logistics effectiveness, they also create chances for implementing real-time accounting control comprehensively. So the application of IT has huge impact on the innovation and development of theory and methods regarding accounting control.

3.2 Technical support on real-time accounting control

In a circumstance of IT, there is a fundamental change in accounting business, including its techniques, organization form and accounts processing, which makes accounting control complex and unprecedented. Since the late 80s, the application of IT is not limited in the areas of traditional accounting; however, it offers a precious opportunity to new accounting systems. Based on the internet, IT has been applied to financial management of enterprises, resulting in a great change in accounting methods, such as the ways of information collection, data storage, accounting and data processing. In that case, not only the management efficiency can be enhanced, but also the implementation of accounting control can be guaranteed technologically.

3.3 The effects on switch of accounting pattern

With the increase of the complexity of management, the enterprise has higher requirements for the accounting control. In order to keep up with the new financial management, it is essential for accounting control to be a real-time and value chain control system. The extensive use of IT has created chances and techniques for changes of accounting control modes, which means enterprises that can build new control modes on the base of traditional modes.

3 CONCLUSION

In a new economic era, IT provides a good communication system as a tool, and it also provides new techniques for supervisory control in accounting areas. This improves the efficiency of internal control. As for firm’s internal management, it requires a real-time accounting control. The increasingly developing IT proved essential support for the real-time accounting control. Specifically, it not only promotes the innovation and development of
accounting theories but also provides a strong technical support, which strengthened the development of information management. This paper through the analysis of the methods, content and mode of real-time accounting control, mainly points out that it is necessary and practical to implement real-time accounting control in an IT environment, and it emphasizes the crucial roles of that IT plays on the innovation and development of theories related to accounting control.

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