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Research on enterprise accounting system based on business flow

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ABSTRACT

The research method of enterprise accounting system is a system that starting from the overall and then conducting the research of “synthesize-analyze-again synthesize”. Based on this understanding, this paper firstly defined the connotation of enterprise accounting system, then analyzed business flow and combined business flow and enterprise accounting. The conceptual model of enterprise accounting system was constructed based on business flow. The reengineering of accounting enterprise process is the result of market competition and process-oriented flat organizational structure also emerged. This paper broke through the financial accounting principles which was mainly aimed at generating financial statement, and established the traditional thinking of enterprise accounting system. This paper also proposed to establish accounting information system as the primary goal of meeting management demand, thus to enhance the correlation between accounting information and management decision.

KEYWORDS

Business flow; Enterprise accounting system; Reconstruction.



INTRODUCTION

How to apply computer technology to improve or reconstruct accounting system has become one of the hottest topics in accounting field for decades^[1]. However, current accounting system cannot reflect information on the enterprise value creation process. With the further development of information technology, enterprise activity and management mode must conduct revolutionary transformation. The improvement and reengineering on business flow is firstly conducted, and then the revolution of organizational structure is triggered. As the essential information process and main performance measurement system of any organization, the revolution of accounting must be adapt to the information demand of business flow reengineering and the new organizational structure. Through researches, Li Aijun^[2] found that an increasing number of enterprises began to realize the significance of business flow reengineering, and they also began to bring information security problems process reengineering into enterprise strategy decision. Based on the summary of the connotation and important factors of business analysis, Xu Hong, et al^[3] reviewed the implementation framework and phase of business flow reengineering, which had provided scientific theoretical foundation and management reference for our national enterprises in business flow reengineering.

Accounting system is not only a technology system that provides information to support the existing organizational structure, but also the reflection the formal and informal structure of rights in organization. As management accounting innovation system that facing value creation process, ABC/ABM and balanced score card are complementary with the improvement and reengineering of business flow. Therefore, in order to break through the application effect of information system that was depended by original management system, then effective redesign must be conducted on information system that was depended by management accounting. This paper attempted to establish enterprises accounting system with meeting management requirement as primary goal, and analyzed the new requirements of organizational reform to accounting system caused by current business flow. This paper also proposed the accounting system based on the activity combined with the REA model, and established enterprise integrated system that centers on balanced score card and orients to process management.

THEORY OF ENTERPRISE ACCOUNTING BUSINESS FLOW REENGINEERING AND MANAGEMENT ACCOUNTING SYSTEM

Today, with the increasing strong trend of global economic integration, many things are constantly changing, like customer demand, product life cycle, technological updating rate, etc. Enterprises are in the new market pattern and management environment which is mainly characterized by customer, competition and change. Stern reality warns enterprise that in order to survive and develop, they must to have a comprehensive renovation. Therefore, business flow reengineering has received high praise as new business management revolution.

Theoretical framework of enterprise accounting business flow

The social system theory and interaction theory can provide potential reasonable explanation for social phenomena, social order, social opinion, etc. They will not deviate to any theory in the process of studying accounting business flow reengineering by social system theory and interaction theory. The conceptual framework of accounting process reengineering was put forward based on social system theory and interaction theory^[4](as shown in Figure 1).

(1) Accounting information system is the collection of relation and behavior between participants. Accounting information system aims to provide useful accounting information for accounting information users. In the reengineering of accounting system, not only the demand of internal activity decision maker needs to be focused on, but the demand of external information user for accounting information also need to be took into account. Due to the existence of power differences, its

impact should be considered in the process of accounting business flow reengineering, thus to collect accounting data to finance department.

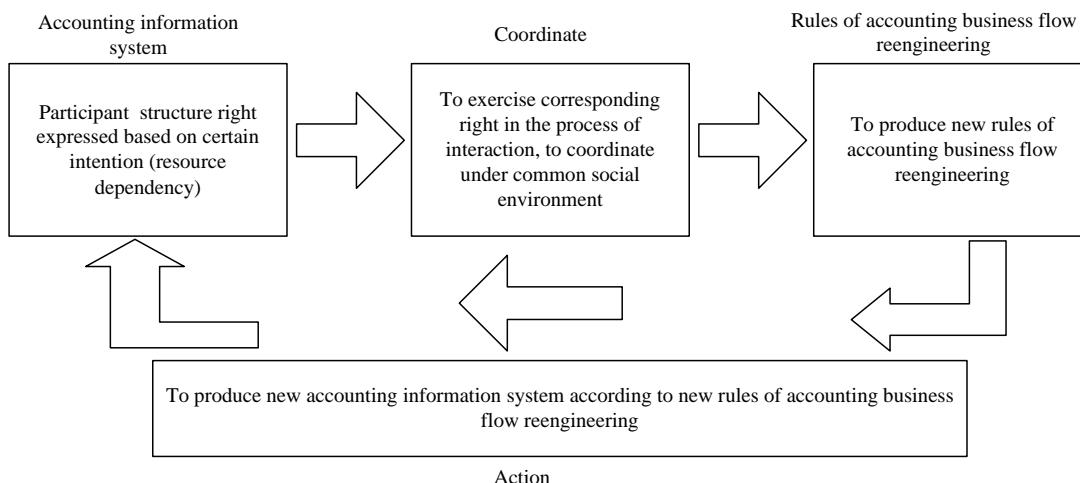


Figure 1 : Theoretical framework of accounting business flow based on social system theory and interaction theory

(2) Accounting information construction is the carrier of "mixed interest" in each part. In the process of accounting business flow reengineering, coordination and interaction is the interaction conducted by two interactive entities for one goal. It mainly shows in the conflict coordination among functional departments that exist in the process of accounting business flow reengineering, the control of the required cost and then the re-optimization and transformation of current accounting business flow. Its rule is to guide the participant of accounting information system to provide useful decision information. Cost is a constraint of business flow reengineering, which determines the success or failure of accounting business flow reengineering.

Connotation of business flow structure and business flow reengineering

(1) According to the purpose of this research, the structure of enterprise business flow was divided into seven categories^[5], as shown in TABLE 1.

TABLE 1: Business flow classification

Dimensionality	Type	Typical example
Subject	Cross-organization process	Order goods from supplier
	Cross-functional or department process	Develop a new product
	Across-personnel process	Approve a payment for goods
Subject matter	Material process	Manufacture a product
	Information process	Draft a file
Activity	Activity process	Receive customer order
	Management process	Compile a budget

Three dimensions in TABLE 1 divided business flow into seven types. These dimensions include subject, subject matter and activity. The first dimension indicated processes of different ranges. Close limit process is likely to happen in one activity unit or functional office, while wide range process is likely to cross several activity departments or functional offices. The second dimension "subject matter" refers to the object of the process, including material process and information process. The third dimension "work" has both start and end, and can be recognized clearly by input and output^[6] and it is the core concept. An organization (enterprise) is the collection of a series of activities or processes that correlated^[7-9].

(2) Connotation of business flow reengineering (BPR)

The connotation of business flow reengineering mainly includes two aspects. On the one hand, BPR is a strategic transformation project, that is to say, business flow is the strategic need based on enterprise long-term sustainable development. The realization of process is guided by ideal pattern under clear strategy. The strategic of SPR determines the depth and breadth of its influence on enterprise organization, of which, the process of enterprise strategic thinking^[10] is shown in Figure 2:

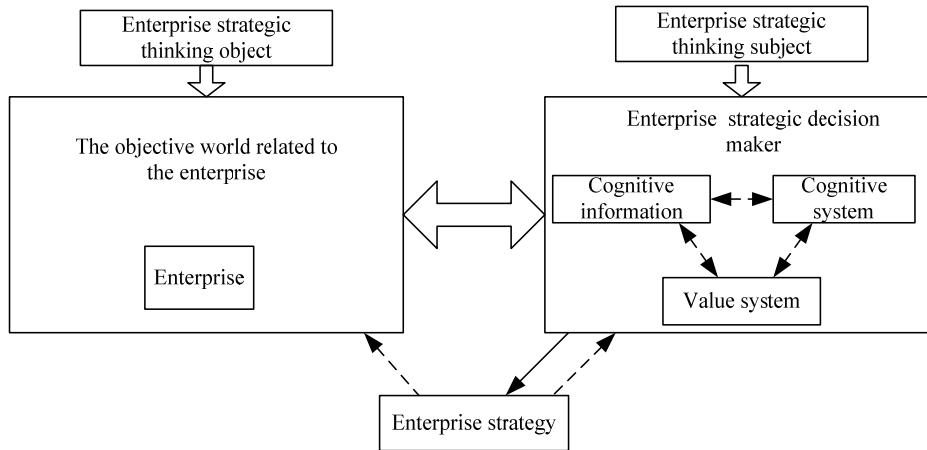


Figure 2 : Enterprise strategic thinking process

On the other hand, the basic aim of BPR is to establish business flow that satisfied customers. That is to say, to translate the attention of value chain into the management of activity chain and the activity of enterprise activity. According to the principle “All work must satisfy customer demand as the core”, the task and activity of customer is directly satisfied rather than through a hierarchical organization.

THEORETICAL BASIS AND INTEGRATED MODEL OF ACCOUNTING SYSTEM RECONSTRUCTION

Theoretical basis and target of accounting system reconstruction

With the proposal of REA accounting^[11], accounting information system has incorporated the idea of process reengineering into the process of personal development, thus to meet the demand of increasingly expanded management information. The accounting information system will be constantly updated and perfected. It mainly includes activity-based costing^[12], balanced score card theory^[13] and REA model and balanced score card.

Accounting is an information system and its system should be reconstructed according to the law of development of information system, and the most important thing is “based on user’s information demand”. On the one hand, it stresses to break the traditional accounting system framework and to reconstruct accounting system based on the new decision information requirement of organization. On the other hand, it indicates that the reconstruction of accounting system needs to determine its input content and processing method from the new output requirement of accounting system. When the customer oriented business flow is reengineered, a new method of management accounting appears in the center of process, such as balanced score card, ABC/ABM, ABB, etc. For activity and process are the common concerned center by ABC/ABM, ABB and balanced score card and activity is the common factor of cost accounting, performance measurement and investment management, accounting system will be constructed based on activity. Activity input and output will be collected directly according to activity as well as the efficiency and quality data, so that the information that is needed by ABC/ABM will be timely provided. On this basis, integrated management system that centers on balanced scorecard and adapts to new organizational structure is expected to establish.

Integrated model of management accounting system

Accounting system includes financial accounting system and management accounting system. As further exploitation and extension of the financial accounting data management accounting system stresses the “isogeny, distributary” of management accounting and financial accounting. Under new information environment, integration is not merely the integration between financial accounting and management accounting system, for accounting is no longer the only information systems of organization. At the present stage, meeting the demand of management information should be regarded as the primary goal of the accounting system, and integrated system that can truly reflect the demand of enterprise internal and external information is needed to design. Integration includes data and functionality. This paper mainly analyzed the integration based on activity-based budgeting (ABB).

ABB is a kind of management process based on activity level, which aims to achieve continuous improvement of cost and performance. Starting from the strategy and customer need and through forecasting production and promotion of products in plan period or demand for labor service, then the corresponding activity demand is forecast. The quality demand of resource is forecasted based on it, and compare with current enterprise resource supply, thus resource configuration is more credible and object^[5]. Its basic model is shown in Figure 3, and the numbers in figure present the order of budget process.

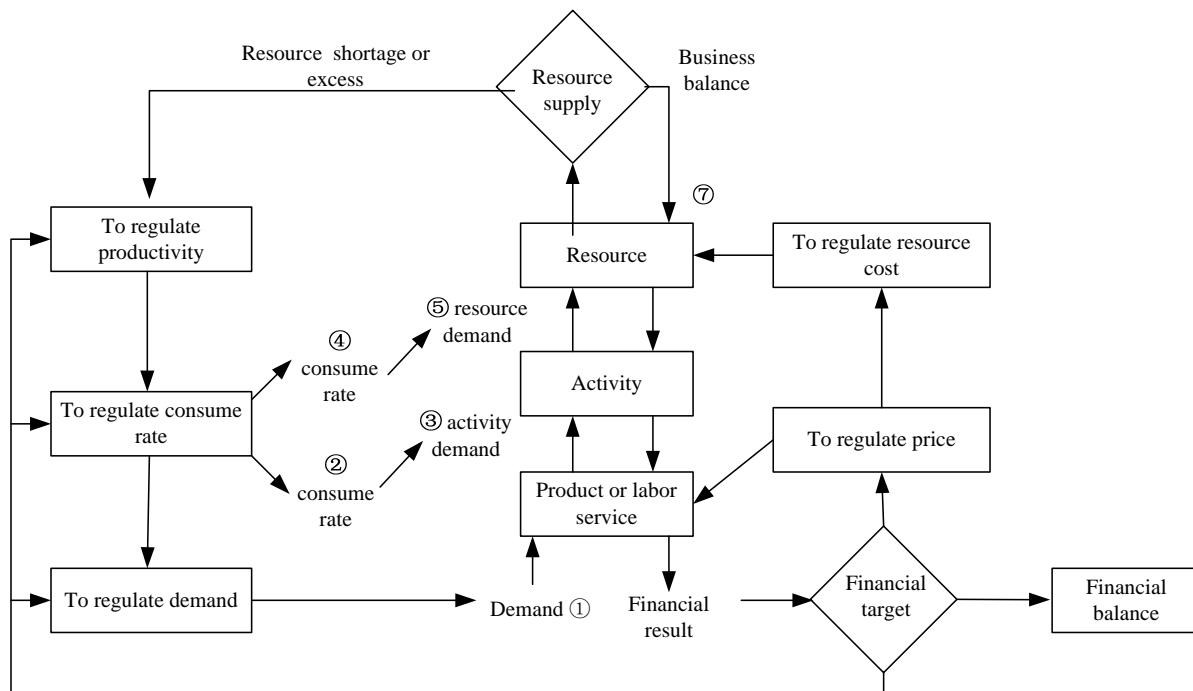


Figure 3 : Basic model of activity budgeting

FRAMEWORK OF ENTERPRISE INTEGRATED SYSTEM BASED ON ACTIVITY- BASED ACCOUNTING

Accounting model based on activity

(1) Significance of establishing accounting system based on activity

Firstly, activity both connects with process and leads to strategy. It reflects the nature of the third time organizational innovation: creation value. The new concept of enterprise considered that enterprise is the aggregation of “a series of activities” which is designed to meet customer needs. It has formed an activity chain that proceeds from one point to another and from the inside out. Enterprise information system structure is mainly made up of resource input and output data from the reflection of value-added process or activity chain. Secondly, activity is the common factors of three subsystems of cost

accounting, performance measurement and investment management, which has provided a logical frame for the integration of the three subsystems. The core of activity accounting is activity-based costing (ABC). Its guiding ideology is “Product consumes activity, activity consumes resources”, which has revealed the direct reason that produce cost and opened new idea for cost management. Thus activity management is formed. Compared with traditional accounting, activity- based accounting highlights waste and opportunities, provides the basis for process improvement and traces the forming process of value.

Another important significance is that it's intercommunity with balanced score card. The company BSC is the information about the company value creation ability, and the value creation ability depends on the outstanding process of company. BSC provides the measurement of the cost, time and quality of the main activity in these processes. For example, in financial level and the key performance indicator (KPI) of profit ability, balanced score card can accurately show where, which product and which client the company profit from.

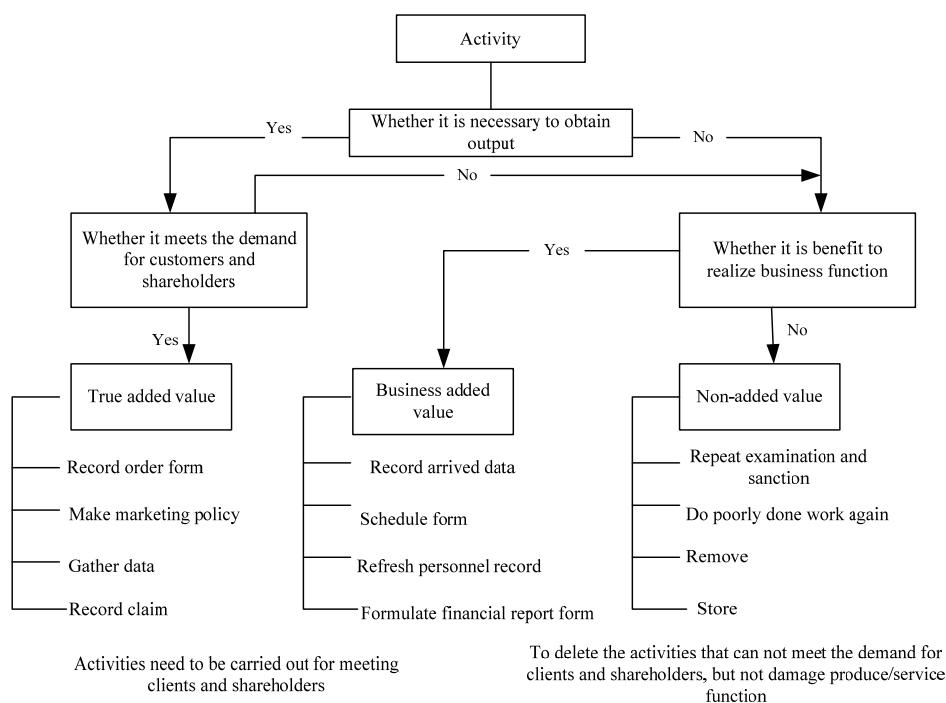


Figure 4: Framework of activity analysis

(2) Activity based accounting model

At present, most of enterprise formal financial systems are established according to financial accounting. It cannot provide enterprise value creation information if based on trade process. However, accounting can achieve the natural integration of financial information and non-financial information based on activity. Differences between the two are that financial accounting is based on trade cycle, while activity based accounting is based on business flow. Traditional accounting can merely reflect the financial of business through double-entry bookkeeping, while activity based accounting is based on duality theory (financial and non-financial activity) which can achieve the integration of management and financial accounting. Activity based accounting also can record all the financial and non-financial data that related to activity, and link activity performance and its driver together. The process of establishing activity accounting model is the process of activity analysis (Figure 4)^[5]. Based on the optimization of business flow, activity accounting provides necessary information for constantly improvement of process. Activity based accounting can be established according to REA model theory^[14]. REA model reflects the flow of resource. If resources and output of activity consumption are

added into the model, the basic model of activity accounting is made. RAA (R-resource, A-activity, A-actor) is used to signify that.

Framework of enterprise integrated system based on activity accounting

Accounting system based on activity can directly record the input, output and efficiency data of activity. In order to easily find effective ways for improving activity and process, financial information and non-financial information are simultaneously recorded in activity database. It is not only easy for users to understand and obtain the needed data, but also can provide reliable basis for balanced scorecard management system.

The framework of enterprise integrated system based on activity accounting is shown in Figure 5. Compared with traditional system, the new system has the following characteristics:

- (1) Support the management system in the core of balanced scorecard

Activity based accounting system includes most of information in balanced scorecard management system, and balanced scorecard is the core of enterprise management system. Traditional organizational management is established around budget and operating plan, which cannot fully interpret the organization's strategic intent. However, the combination of balanced scorecard with related target and indicator, and the application of chain of causality to explain the strategy of the enterprise organization has provided effective path for making up the gap between strategy and budget. The process of enterprise establishes grading balanced card is the process of the combination of balanced scorecard and budget. Next, balanced scorecard is also the official performance report system of enterprise organization. Employee actions are linked to strategic objectives through pay plan, which is helpful for the effective performance of enterprise organizational strategy.

- (2) Support activity budget and process performance evaluation

The accounting system based on activity provides the basis for the establishment and implementation of activity budget. Activity budget can be easily understood by employees and managers at the local level; it can provide tools for balancing productive capacity of enterprise; it can realize better integration with other innovative management accounting tool and performance evaluation systems.

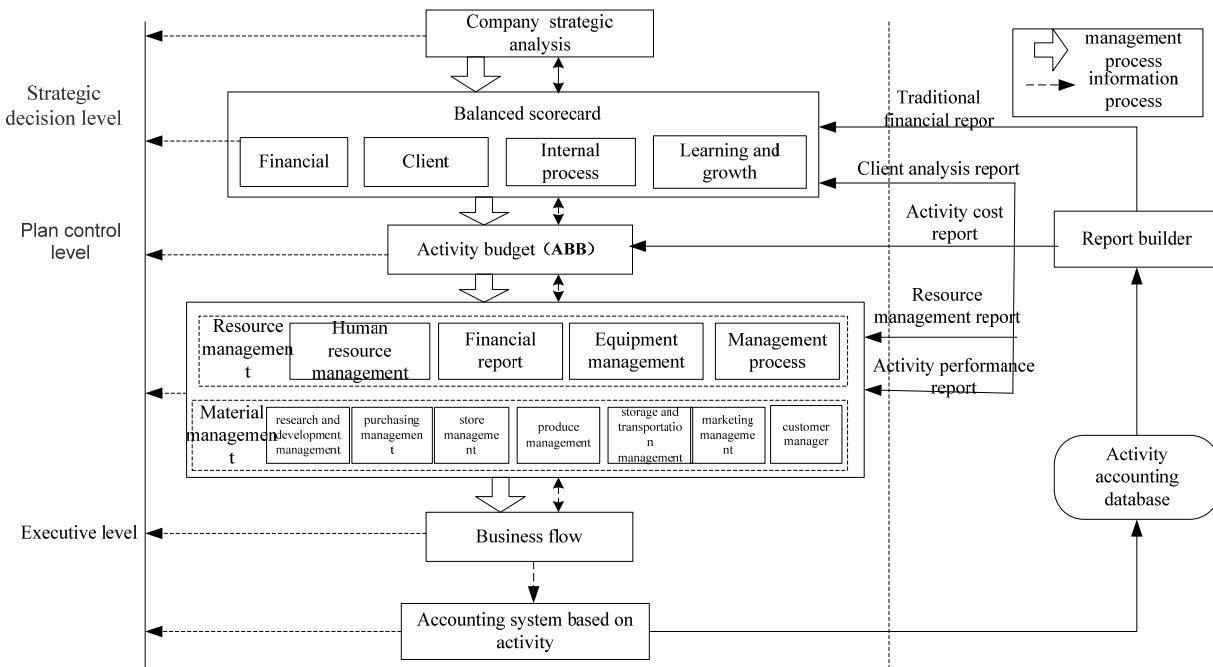


Figure 5 : Enterprise integrated system based on activity accounting

- (3) Enlarge the scope of accounting covers, and reflect the value creation ability of whole enterprise value chain

The accounting system based on activity can expand the cover scope from management process to innovative process and customer service process. Each process can be considered as one activity, and same method is used to record the input and output of innovative process. Non-financial indicator can be used for output. In this way, accounting system can not only support the efficiency of the evaluation on company innovative process by manager, but also reflect the value creation ability of whole enterprise value chain through balanced scorecard and financial indicator.

(4) Support diverse financial report

CONCLUSION

Accounting system is not only a technical system, but also the reflection of formal and informal authority structure in organization. With the intensification of market competition, an increasing number of enterprises are emerging around client-orientated business flow reengineering and process-orientated flat organization structure. ABC/ABM and balanced scorecard are the very management accounting system that adapt to business flow reengineering. In order to radically breakthrough the information system that depended by original management, then it is necessary to conduct effective redesign on the information system that depended by original management. Therefore, this paper designed integrated balanced scorecard system based on the accounting system of activity, thus the integrated management system in the core of balanced scorecard was formed. It can provide information for activity management and support process management. In addition, it can provide most of the information that is needed by balanced score card, which has offered a new scheme for enterprise system.

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