

A Study of the Internal Controls of Accounting Information Systems in the Network Environment

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Abstract — In a network environment, an internal accounting information system helps to strengthen its capabilities, diversify its means of control, deal with more stringent requirements, and expand its scope. An accounting information system should also be subject to further development and changes to give enterprises great benefits, and its internal control should expose new problems and challenges. In this paper, we investigate through analysis of the lower levels of the network of environmental accounting information system to explore i) accounting control, ii) its mode of basic internal control of accounting information systems, iii) real-time control research network environment, iv) the accounting process reengineering processes to construct theoretical models of accounting controls, and v) how it can more effectively play the role of real-time control to provide theoretical support.

Keyword -- *Internal Control; Accounting Information System; Network Environment*

I. INTRODUCTION

With modern computer and information technology being widely used in accounting, the experience of developing network based accounting from manual to computerized has also resulted in changes in accounting data processing. In recent years, some of the world's largest financial scandals came from emerging companies deceiving investors and the public, and forcing the business community to strengthen accounting oversight and internal control. Specially, the rapid development and wide application of network technology has changed the business environment for the survival and management concepts to broaden the scope and content of business management. All of this will certainly affect and change the specific content and performance characteristics of internal control and lead to internal corporate accounting information system to control content, methods, tools and other changes, and force the scientific community to continue to study internal controls [1-2]. Changes in the internal control of traditional accounting information systems cannot meet the requirements of the network environment, there is an urgent need to establish a sound internal control under network environment accounting information systems to meet the special requirements of the new environment.

Along with the in-depth application of information technology in accounting information system, the enterprise survival environment has changed, the traditional accounting environment such as accounting, such as tools, business process, great changes have taken place, also rely on the traditional accounting control has been difficult to cope with the enterprise in the face of market risk, accounting control to risk control development, design to form a new accounting information system under the network environment accounting internal control system; At the same time, the department also needs to be further coordination

between the internal control requirements, in order to the internal control self-assessment and the information exchange and communication platform [3]. This article is under the background of the study of the accounting information system under the network environment of internal control mechanisms. Taking control of the organization as a whole within the US COSO framework theory, analysis of the characteristics and the elements of the internal accounting information system under network environment control problems, investigate the accounting information system under network environment internal control framework. Through the elaboration of internal accounting information system under network environment control theory, and certainly within the control of the internal control of accounting information system application value; analyzes the problems existing internal control system in the network environment may encounter, and then put forward the solutions under the network environment information system of internal accounting controls of the above problems.

II. ACCOUNTING INFORMATION SYSTEM AND INTERNAL CONTROL

Accounting information system is built on the theoretical basis of accounting practices and accounting on the use of modern information technology theory and practice of interdisciplinary, accounting information systems as an important component of the department of information systems. Accounting information system is a computer-application platform, the whole concept of system analysis, design and build up to the financial control of the accounting business for automatic processing, providing financial information to information users, and be able to assist financial analysis and forecasting, and related management decisions to provide useful and timely information on modern systems [4-6]. Accounting information system goal

is to provide services for business decision-making and management of enterprises and institutions, for the government's social economy, market regulation and macro-control decision-making, as well as provide relevant information services for those who need additional information. As technology advances, IT industry with each passing day, gradually moving towards intelligent business management and accounting software products and services are increasingly sophisticated, large-scale accounting software widely used in Layer C/S, the customer three C/S, B/S's and server architecture, the front can be realized using a web browser, back-end systems to increase network servers composite structure [7]. Expand the scope of network accounting management of enterprises, strengthen the communication of information between the enterprise, the network filter improves the quality of information, reduced operational time information input and output. Greatly reduce operating costs and achieve internal and external information resources sharing [8-9].

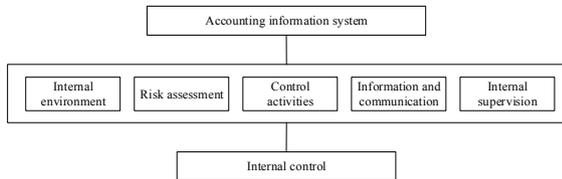


Figure 1. Relationship between accounting information systems and internal controls.

The rapid development of information technology, drastically changing business environment, impact on the traditional model of corporate governance, accounting information system has been widely applied in all walks of life, the study of accounting information system and internal control relationship imminent. Accounting information systems environment is more complex with respect to the traditional accounting information system environment, which urgently requires companies to establish internal management with suitable internal control system. Internal control and effective integration of external control, in order to ensure the safety and reliability of the entire accounting system information. Accounting Information Systems and internal control interaction between: the impact of changes in accounting information system of the enterprise internal control, internal control, in turn, affect the process of enterprise information systems. Internal control of accounting information systems functioning and achieve the objective to provide a guarantee, accounting information system itself operating conditions provided for the implementation of internal control and information objects [10-11]. Accounting information systems and internal controls under the influence of information technology is the interdependence and mutual influence, the relationship between accounting information systems and internal controls shown in Figure 1.

Accounting information system itself has become a very complex system, which needs to improve the control procedures in its internal settings corresponding control guidelines and control standards. Therefore, the accounting

information system itself embedded internal control system. Object of this study is based on internal accounting information system network environment control.

III. ACCOUNTING INFORMATION SYSTEM INTERNAL CONTROL HIERARCHY IN NETWORK ENVIRONMENT

Good internal control system should have a self-organizing, self-regulating function. Internal accounting information system under network environment control to go deep into the technical level on a computer network, control methods and modern information technology closely, high degree of integration [12-13]. Control the timing of the pre-stressed control, from system design and development phase begins to exercise control, process control throughout the entire network accounting information system design, development, application, routine maintenance and so on. Network Accounting Information System working environment has undergone a qualitative change in the internal control system needs to plan and design. Specifically, network internal accounting information system control environment should be structured, from the inside to the outside, there are multiple levels of nested system. Internal control at all levels of the relationship shown in Figure 2.

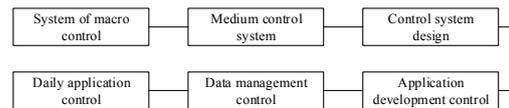


Figure 2. Internal control hierarchy in network environment.

The macro-control system. Responsible for corporate decision-making put forward the target system is running, from a macro perspective proposed internal accounting information system control should complete the work, which is the macro-management of accounting information system.

Concept of control system. Head of corporate accounting information system implementation management accounting information systems in corporate decision-making policies, and accounting information systems run daily overall planning.

Control system design. System development department based on the overall design of the actual situation of enterprise system solutions, detailed design and documentation work to control the application form. That systematic analysis of the formation process of implementing control book.

Program development control. Written specifically for program management and implementation of control applications, which is running a program of initial quality check. State data management control. Data Management department is responsible for corporate data and applications documentation control. Daily application control inside.

IV. EVALUATION RESEARCH OF ACCOUNTING INFORMATION SYSTEM INTERNAL CONTROL BASED ON NETWORK ENVIRONMENT

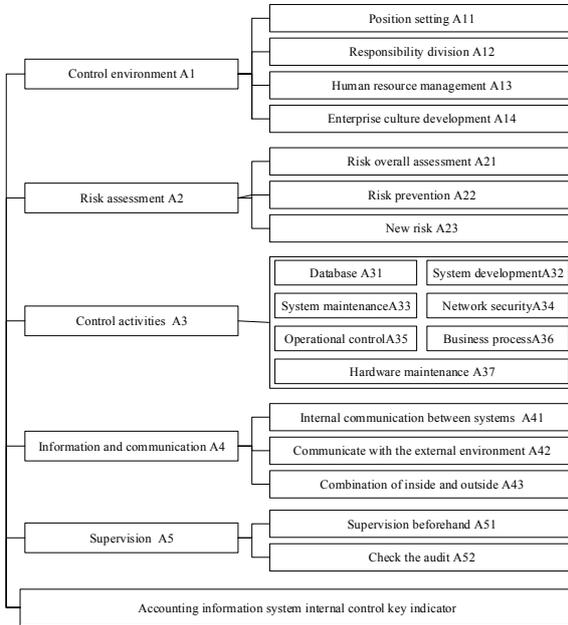


Figure 3. Evaluation indicators of accounting information system internal control based on network environment.

After accounting information system is established, then we identify specific control information system of internal accounting control point five elements, and then to evaluate specific companies. Due to the influence of the five elements of internal control internal accounting information system control the entire range, it is difficult to distinguish clear boundaries, blurred exist, so we use the fuzzy comprehensive evaluation method to evaluate. The following evaluation methods and do some simple introduction, using fuzzy comprehensive evaluation method is mainly because the general evaluation methodology focuses on qualitative evaluation, too subjective, the lack of scientific analysis methods and fuzzy qualitative evaluation into quantitative evaluation, effective avoid this problem. Specific evaluation index as shown in Figure 3. .

Evaluation of Enterprise evaluated before work with relevant departments to communicate, so that the evaluation can get support and cooperate with relevant departments to ensure the smooth development of the evaluation work. When evaluating plans, it will assess the plan circulated department, at the same time, staff supervision departments should make arrangements for evaluation, the results of the survey, assessment document signed by the department heads, in order to ensure a reliable assessment. Finishing good summary evaluation data will be collected to verify the authenticity of the data collected, the information needed to compare the information needed to organize, analyze and evaluate the final evaluation report concluded that the business results of the assessment phase.

V. CONSTRUCTION OF ACCOUNTING INFORMATION SYSTEM INTERNAL CONTROL MODEL

Accounting information system of internal control system consists of six parts: objectives, planning, development control, operational control, risk control, evaluation of control in this paper, first, the five elements of internal control for the basic control elements of the five basic elements as a starting point and then determine the five elements of the control point, then on the basis of the control points, respectively, to determine the control objectives, the specific process shown in Figure 4.

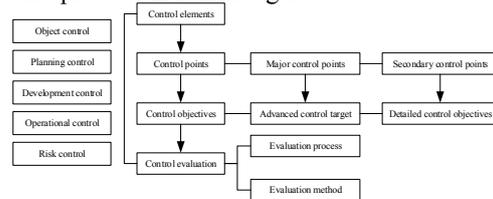


Figure 4. Accounting information system internal control.

Set the control points of the various components, we can combine two-dimensional frame concrete evaluation and analysis of the model. The two enterprise internal control and internal control of accounting information system, is composed of five elements, each element is under the influence of many factors, therefore, it will be to analyze the factors influencing the five lines of the first detailed list, find out the factors influencing the specific, depending on the degree of influence of these factors, given their different proportion, and then according to the influence degree of the five elements of internal control, calculate the internal control level, can clearly know what kind of level in enterprise internal control system is. Finally, according to the layers of analysis and calculation, the result of the layer, find out the shortage and improvement is put forward.

VI. ACCOUNTING INFORMATION SYSTEM FOR CORPORATE INTERNAL CONTROL DESIGN

Enterprise risk mainly from strategic risk, operational risk, financial risk, human resource risk and information distortion risk. Based on internal control perspective, this paper seeks to establish a mechanism of adaptive control within the accounting information system, so that the accounting information systems within the enterprise become interrelated, mutual restraint ties, to achieve full control of the information flow, logistics and performance in order to achieve corporate strategic goals and business objectives. Figure 5 illustrates the relationship between the accounting information system of internal control.

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