

# Security Risk of Network Accounting Information System and Its Precaution

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**Abstract.** Network accounting information system refers to a new generation of accounting information system based on the Internet technology, all functional departments, headquarters and branches, partners, social management departments and all other social organizations or individuals will be closely connected through the Internet. Activities such as collection, transmission, storage, processing, retrieval, output, and reporting of accounting information can be carried out on a global scale. The network accounting information system has resource sharing, real-time information, electronic storage medium, and cost saving and so on. With the continuous development of information technology, the process of information in our country constantly deepens, and all walks of life are increasing their attention and application to information systems. However, compared with the traditional model, the accounting information system of enterprises under the network environment faces a more complex and changing environment and higher requirements. Based on this, this paper studies the risks and solutions in the internal control of accounting information system under the network environment.

**Keywords:** accounting information; network environment; information system.

## 1. Introduction

In recent years, China's information process continues to deepen, the promotion and application of information network technology is also accelerating. Under the network environment, Enterprises are facing more severe challenges; meanwhile, they are faced with a broader development space. How to find out the problems or hidden dangers in the accounting information system in time, and take targeted preventive measures to ensure the stable operation of the enterprise accounting information system, which has become an important content in the internal control of enterprises.

## 2. Overview of Accounting Information System

### 2.1 Concept of Accounting Information System

Accounting information system is usually composed of some personnel members in an organization, according to the prescribed system, sort out relevant data, and then submit relevant data, accounting information and other data to the system inside and outside the organization. The main function of the accounting information system is to show the financial details, production results, economic transformation of the whole enterprise or various departments, and meet the information needs of the management personnel or relevant departments. Accounting information system has the following characteristics: one is comprehensive, namely it can display comprehensive information of various departments of the enterprise; the second is complexity, namely the internal structure of the system is complex; the third is accuracy, because the basic requirements of accounting information system for information data are accurate and practical.; the fourth is the large amount of information, because the information processing capability of the information system is strong, so the amount of information needed to be collected, stored, and organized is also relatively large.

### 2.2 Advantages and Disadvantages of Accounting Information System

Accounting information systems can help enterprises use information resources more efficiently and normatively. Through the management of financial information, enterprises can reduce the operating costs of enterprises, discover financial risks of enterprises, and take reasonable and effective measures to make enterprises maintain strong market competitiveness. Accounting information system promotes the open modern accounting information system with high integration of computer

technology and accounting, however, it should not be overlooked that accounting information systems also have some shortcomings, such as defects in accounting time period assumptions, defects in measurement assumptions, in addition, accounting confirmation is subjective, system processing information is too stylized, and in the face of special circumstances, it is difficult to make flexible response processing.

### **2.3 Development Course of Accounting Information System**

The accounting information system originally appeared in the 1950s, it was only used for the processing of electronic data, however, due to the immature level of technology, not only can data not be applied independently, but information processing can only be performed under specific procedures. By the end of the 1970s, the technological level had improved, accounting information entered into the era of computerization, and the manual accounting model gradually turned into computer operation processing. With the rapid development of Internet technology, the accounting information system has gradually formed, the instant, network and integration of information processing are realized, and provide a good environment for the operation of accounting information systems, however, the accounting information system at this time still has certain limitations. Subsequently, on the basis of information technology upgrade, enterprises use ERP to systematically manage accounting information and build a scientific and efficient information management platform.

### **2.4 The Necessity of Establishing Accounting Information System**

In short, there are four reasons for enterprise to establish accounting information system. The first is to adapt to the trend of information technology development, nowadays, the information technology rapidly develops, and the operation and development of all walks of life are inextricably linked with information technology, and constantly carry out information construction. Therefore, the original artificial system has been difficult to adapt to the development pace of enterprise information, if enterprises cannot establish an information system with the times, it will inevitably be eliminated by increasingly fierce market competition. The second is the inevitable choice for the reform of the enterprise management system, under the network environment, the traditional enterprise management model is no longer applicable, and enterprise should transform their previous production-oriented development goals into development goals with customers and markets as core. Neither the manager nor the grassroots personnel are responsible for the leadership, but for the customer and the market. It can be seen that the traditional model of the accounting system model is no longer effective, and enterprises must accelerate the establishment of accounting information systems. The third is the establishment of accounting information system is the inevitable choice for enterprises to maintain market competitiveness. Enterprise financial information can promote enterprise to enhance market competitiveness, while market competitiveness determines the economic benefits of enterprise. Accounting information systems can help enterprise to make information resources more efficient and standardized. The fourth is to help deepen the construction of information technology in our country, at present; most enterprises in China have not yet established a sound accounting information system, the work efficiency of enterprise accounting is low, and it is difficult to meet the work requirements under the network environment, it is imperative for enterprises to speed up the process of accounting information.

## **3. Security Problems of Accounting Information System under Network Environment**

### **3.1 Security Problem at the Technical Level**

There are many security risks in the operation of accounting information systems, these security problems usually manifest in three aspects. The first is that when accounting information is input into the computer system process, it is easy for unauthorized persons to enter the accounting information system, illegally operate the information, and change or delete accounting information, Compared

with the traditional mode of manual accounting mode, It is even less likely to leave traces of modifications by illegal operators and increase the security risks of accounting information systems. The second is that the security and stability of information data is difficult to guarantee, in the current enterprise management system in our country, there are few talents master information system operation and financial accounting skills. The third is the archiving of system information; the accounting information is stored in the hard disk of the computer system, U disk and other software, which makes it vulnerable to be disturbed by the surrounding environment. All in all, there are still many problems and hidden dangers in the internal accounting information system of enterprises.

### **3.2 Security Problem of Internal Control**

At present, some enterprises lack certain cognition and understanding on strengthening the internal control of accounting information system, and their understanding of accounting information systems is not comprehensive enough. There is insufficient attention within the enterprise for the internal control of accounting information systems. In the absence of a good operating environment, the accounting information system operation lacks effective supervision and management, and the stability of system operation is lack of control. In some enterprises, although the leaders and managers repeatedly emphasized the problem of strengthening the prevention ability of accounting information systems, they did not adopt effective supervision and management methods in practice, and the internal control of accounting information systems could not be implemented. Some enterprise managers regard the internal control of the accounting information system as a means of management and control, and lack comprehensive and systematic research on the specific implementation of the internal control of the information system. If the enterprise does not take effective preventive measures in time, it is likely to hinder the operation and development of the enterprise.

### **3.3 Quality Problem of Accounting Personnel**

With the continuous growth of China's economy and the continuous innovation of science and technology, people's thinking patterns are becoming more diversified, and enterprise financial management is facing more severe challenges. However, in the current internal operation and development of enterprises, the quality of financial accounting personnel of some enterprises needs to be improved. First of all, the supervision and management of accounting personnel is not strict, or the reward and punishment incentive mechanism is imperfect, which leads to the lack of sense of responsibility of some accounting information system personnel, no clear sense of responsibility, and negatively neglect the accounting work within their own scope of work, the attitude of the authenticity and reliability of information data is not rigorous, in order to cope with the superior inspection, the ambiguous accounting data is filled in the accounting statements, some personnel members even rely on experience or speculate accounting data on the premise of missing data in the usual work, this leads to the fact that the information authenticity and reliability of the accounting information system cannot be reflected. There are also some accounting personnel who have low professional quality in information management for computer technology and insufficient information management level, which leads to low efficiency of accounting information system, and delay the normal progress of financial accounting work.

## **4. Precaution of Security Risk of Accounting Information System under the Network Environment**

### **4.1 Improve the Network Security Protection System**

Analysis of the problems in the enterprise accounting information system shows that enterprises adopt the internal security measures of accounting information systems, usually follow the following principles. The first is to implement an independent management system, namely all personnel outside the internal control department are prohibited from participating in the internal control of the accounting information system in the name of individuals, avoid the interference of other departments,

and ensure the authority and impartiality of accounting information system management. The second is to establish a clear prohibition principle, namely prohibit any unauthorized personnel from accessing the accounting information system, deleting or changing the information data, if employees are found to operate the accounting information system in violation of regulations, they must be punished in strict accordance with relevant regulations. The third is to control the operating environment of the information system to avoid financial problems caused by the external environment. The fourth is to improve the efficiency of the information system operation, optimize the design and development process of the information system, improve the system security configuration, and thus ensure the information security of information system. The fifth is to establish a sound information management file system and further improve the standardization, efficiency and security of information operation in the form of file management.

According to the problem analysis of enterprise accounting information system, enterprises should strengthen the supervision of accounting information systems from the following five aspects. The first is to establish a clear prohibition principle that prohibits any unauthorized personnel from accessing accounting information systems, deleting or changing information data. The second is the process of information file entry operation, namely the personnel of the information file must strictly abide by the system process to complete the data entry process, use the original data as the main basis of information, and ensure that the information data is complete, accurate and reliable. The third is to ensure the quality of the information data, if the data information needs to be modified under certain circumstances; the data must be manipulated if the authorization permits. The fourth is to ensure the confidentiality of data information. The operators of accounting information systems must abide by the professional qualities of the posts, provide information to relevant departments according to the regulations of the enterprise, and must not disclose or spread the information privately. The fifth is that the information system personnel must maintain the integrity of the work during the operation of the information system, and must not interrupt the operation of the information system at will. In addition, the accounting information system management personnel should regularly check the system to eliminate the hidden dangers of computer viruses in the system and take measures to deal with computer viruses, it is also necessary to update the system regularly to improve the system's own security and prevention capabilities, and install software patches to improve software functionality.

#### **4.2 Improve Internal Control of System**

In order to cope with the problems that may occur in the network environment of the enterprise accounting information system, and prevent or promptly respond in advance, relevant personnel should conduct internal control over the enterprise information system. First of all, improve the management system, including the division of duties of accounting personnel, clarify the authority and responsibility of each personnel member, effectively distinguish the employees of different system positions, do not interfere with each other, and ensure the independence of various management tasks. In addition, it is necessary to strengthen the internal audit of the system, regularly review the work of the accounting personnel, and take precautionary measures to deal with risks. The use of information technology can realize the direct processing of enterprise accounting information, which is an important part of the internal management of the enterprise, the effective control of the accounting information system helps the enterprise to find out the problems or hidden dangers within the enterprise as soon as possible, and provide a standardized practice basis for the accounting behavior of enterprises. It is also necessary to enhance the quality of internal accounting information, ensure the authenticity and accuracy of accounting information, and provide guarantee for the sustained and stable development of enterprises.

#### **4.3 Strengthen Training of Financial Personnel**

The enterprise financial personnel are the main body of the enterprise to carry out internal control of the accounting information system and implement the preventive measures of the enterprise accounting information system, the accounting auditing ability, information system processing capability and post responsibility of the enterprise financial personnel are crucial to strengthen the

management of the enterprise accounting information system. Strengthening the sense of responsibility of financial personnel can effectively reduce the financial problems of some financial personnel such as unauthorized use of power and misappropriation of public funds. In addition, enterprises can implement incentive and punishment systems for financial personnel, which can effectively enhance the enthusiasm of financial personnel. Of course, improving the accounting information system capability of financial personnel is the most important task, this requires enterprises to conduct education and training for enterprise financial personnel regularly, and invite professionals or scholars in related fields to conduct on-the-spot lectures for financial personnel, enterprise financial personnel can summarize the problems encountered or discovered in daily work and ask experts to provide targeted guidance.

## **5. Conclusion**

The enterprise accounting information system can not only promote the development of the enterprise, but also bring more hidden dangers and problems to the enterprise. Therefore, how to implement effective internal control for enterprise accounting information system has become an unavoidable problem for all enterprises. Only by continuously enhancing the internal control awareness of accounting information systems, and improving relevant rules and regulations, and strengthening the supervision and management of accounting information systems, can enterprises achieve sustained and stable development of the enterprise economy and contribute to the country's economic development.

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