

Research on Security Risk Precautionary Strategies of Accounting Informatization

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Abstract: Accounting informationization can improve the level of accounting work and ensure the scientific nature of every decision. In the development of accounting informationization has also appeared a series of security risks, affecting its further application, sometimes will cause significant losses. This paper focuses on the risk types of development technology, data processing, hacker attack and information system, and follows the prevention principles of authenticity, integrity, economy, system and dynamics. Specific prevention strategies are proposed: Paying attention to the network information security of accounting information, improving the comprehensive quality of accounting information personnel, improving data security awareness and data protection technology, building an accounting information security risk control center, strengthening the maintenance of accounting information system software.

1. Introduction

Accounting informationization is the integration of modern information technology and accounting processing methods to improve accounting theory, change accounting methods, form an accounting information system that meets the needs of enterprises, improve business processing efficiency, facilitate information transmission, and accelerate information acquisition, processing and feedback speed. Everyone can provide accounting information and participate in the information processing process to monitor the validity and integrity of the information. Accounting informationization not only changes the form of accounting information processing, but also the way of information transmission and sharing. It also changes the internal control mode of enterprises and affects the changes of auditing methods. Therefore, accounting informationization brings the common development and improvement of accounting theory and accounting technology. Compared with traditional accounting, accounting informatization has incomparable advantages: Reduce the financial staff's labor intensity, improve the efficiency of accounting work; A large amount of accounting work is automatically completed by computers, which improves the quality of accounting work; Promote the standardization of accounting work and improve the quality of accountants; Enhance the ability to manage information and meet the requirements of modern management; The management of accounting will be changed from the original after-the-fact management to the control of the matter, and the forecasting function will be provided to help improve the management level. Accounting informationization also has a series of security risks in its development, which has affected the further application of accounting informationization and sometimes caused major losses. This paper proposes a security risk prevention strategy, promotes the widespread application of accounting information, and promotes the healthy development of enterprises.

2. Characteristics of Risk

A risk is an event or situation with uncertainty that, once it occurs, will have a positive or negative impact on the target. A full understanding of the characteristics of risk is a prerequisite for

risk management and control. Risks have the following characteristics: Universality, risks are widespread, ubiquitous, and they are always there; Objectivity, risks exist objectively, and are not transferred by human will; Humanity, any risk is different from other risks, and no two risks are completely consistent; Randomness, the occurrence of risk is an accidental event, and the time, place, form and content of the occurrence cannot be accurately predicted; Relativity, the same risk for different organizations, projects and individuals, the degree of risk, disposal process, processing results and affordability are different; Complexity, accounting informationization involves many risk factors and risk events, and the relationship is complex and mutually influential, which brings great complexity to risk management; Dynamic, the same risk factor, will show different states under different time and space conditions. In other words, the risk itself will change with changes in conditions such as time and space; Awareness, although the risk has a strong randomness, its inherent objective law determines a certain degree of predictability, controllability and recognizability.

3. Security Risk Types of Accounting Informatization

There are serious security risks in accounting informationization, which are summarized into the following categories:

(1) The risk of developing technology. Accounting information system development is based on the principles and methods of software engineering, comprehensively using computer technology, network communication technology, database technology and multimedia technology, so the system is bound to be restricted by these technologies. If these technologies have problems, or developers do not have a deep understanding of these technologies, do not follow the unified specifications and technical standards, will cause a lot of technical risks, serious time may be the entire system failure or data information loss, to the enterprise caused a huge loss.

(2) The risk of data processing. It mainly relies on magnetic media to store data. Compared with paper materials, it is more convenient, occupying less space and storing data with large amount of information, which brings a lot of convenience to financial work. However, there are risks in data processing. Magnetic storage media may be damaged, when serious data cannot be recovered; The source data of accounting information cannot be traced back, and it is difficult to find the original data when errors and errors occur; The external magnetic field and so on will produce the disturbance to the magnetic field medium, causes the magnetic field medium internal data to produce the disorder.

(3) The risk of hacking. Hacker attacks can be classified as non-destructive attacks and destructive attacks. Non-destructive attacks are generally designed to disrupt system operation and do not steal system data. Denial of service attacks or information bombs are usually used; The purpose of destructive attack is to invade accounting information system, steal system confidential information and destroy system data. The virus in network environment exists widely, can change the procedure of accounting information system, if do not do a good job of prevention, it is easy to cause very big harm.

(4) The risk of information system. Accounting informatization uses a highly integrated and networked distributed system architecture that improves the efficiency of processing data, transmitting feedback, and assisting decision making. However, if the system's hardware, software, or network fails, the data is easily lost and can cause system downtime. The characteristics of information system's distributed, open and remote processing make it significantly less controllable. Once a problem occurs, it will be affected to a large extent, and the recovery system will cost a lot.

4. Security Risk Precautionary Principles of Accounting Informatization

The security risk prevention of accounting informationization needs to follow the following principles:

(1) Authenticity. Authenticity marks that the economic activities reflected in the accounting information are consistent with the objective economic activities of the accounting subject,

including the objective content that does not depend on the human consciousness, and the principle of difference from the false. The data transmission and storage of accounting information rely on traditional paper documents, information technology and network sharing to speed up the transmission speed of accounting information. The storage of information also relies on cloud backup and other forms. The network has security risks, so the authenticity of the information must be guaranteed.

(2) Integrity. With the continuous improvement of the level of accounting management, enterprise management and stakeholders have gradually increased the importance of accounting information. In the process of using accounting information, we must pay attention to the systemic, coherent and integrity of information, and ensure the integrity of accounting information, so as to help the management and stakeholders, have a comprehensive understanding of the company's overall operation, financial situation, capital trends and corporate benefits, helping companies make scientific and correct decisions.

(3) Economy. Economic focus is on the level and extent of cost savings and the rationality of resource use in the process of resource input and use. Therefore, when conducting risk management, costs and benefits must be considered. In order to prevent the occurrence of risks, the organization may take some measures and pay a certain cost. Before taking any risk management measures, it is necessary to analyze the economic feasibility, because any economic behavior will generate opportunity costs, and only acceptable if the benefits are greater than the cost.

(4) Systemic. When the system wants to make management objective, it must seek the whole optimization, and the elements in the system must obey the whole. Think of various risk factors and events of accounting informationization as a system, as a whole, and use systemic perspectives to guide risk management activities, and integrate the risks belonging to each subsystem into a whole, better Allocate existing resources, and use limited resources to get the most effective use, and grasp the context of risk control at the macro level.

(5) Dynamics. Risk control is not a one-time process, but a process of continuous improvement and renewal. Old risks are controlled and new risks may occur. When taking control measures for various risk sources and risk events of accounting informationization, we must take a dynamic and development perspective. A risk is contained, but does not occur under existing conditions. Once the condition changes, it may be regenerated. It is necessary to study various risk sources and risk events in the process of accounting informatization from a dynamic perspective and carry out forward-looking management.

5. Security Risk Precautionary Strategies of Accounting Informatization

Following the principles of accounting informatization security risk prevention and based on the relevant knowledge of network information security and accounting informatization, the following security risk prevention strategies for accounting informatization are proposed:

(1) Pay attention to the network information security of accounting information. Network information technology is a double-edged sword, which brings convenience and efficiency to the society, but also brings many security risks. First, strengthen the hardware construction, physical protection of servers and hosts that store important data, equipped with regulated power supply and emergency power supply to solve the problem of power failure or voltage instability, regularly clean the main hardware equipment, and the computer of the accounting system is dedicated to someone. The second is to install a firewall. A relatively isolated protection barrier between the internal network and the external network allows only information to flow from the intranet to the outside world, prohibits external users from entering the local network, and records and detects various operations in real time to ensure the security of the computer network and the integrity of accounting information and information. The third is to prevent network virus infection. Install anti-virus software, update the virus database in a timely manner, conduct regular comprehensive scanning, supervise and manage the accounting information system, do not open e-mails of unknown origin, do not click fraudulent advertisements, and select reliable websites when downloading.

(2) Improve the comprehensive quality of accounting information personnel. Accounting work is done by accounting personnel. Therefore, accounting personnel are an important factor in accounting security risks, and the overall quality of accounting informationization personnel must be continuously improved. First of all, accountants need to enhance the concept of innovation, understand the theoretical methods of auditing, accounting and financial management, have certain practical skills and theories, can expand and analyze the data information output by the system, and assist leadership decision-making. Secondly, improve the skills of financial professionals to handle business with computer skills, so that they can master simple software design, network technology and database technology, as well as skilled computer operation ability, can solve the general technical problems in the system operation process. Finally, strengthen the moral cultivation of accountants, require accountants to abide by the moral bottom line, develop good work habits, consciously form norms to ethical standards, constrain their own behavior, abide by accounting laws and regulations, establish good professional ethics, and show good professional behavior.

(3) Improve the internal control system of accounting information system. Internal control is the implementation of a series of methods, measures and procedures to improve the quality of accounting information, protect the safety and integrity of assets, and ensure the implementation of relevant laws and regulations. Clear the procedures for handling accounting vouchers, accounting books and financial accounting reports, establish accounting file custody and work handover methods, implement personnel post responsibility system, and give full play to the accounting supervision function. Improve the internal reporting system, comprehensively reflect the economic activities, provide timely important information in business activities, and enhance the timeliness and pertinence of internal management. Strengthen the system construction, enhance the institutional awareness of accountants, and improve the work flow, job setup and personnel division of the accounting system; Through the establishment of mutual audit, mutual supervision and mutual restraint mechanisms, the accounting information is guaranteed to be authentic and reliable, and the possibility of errors and fraud is reduced.

(4) Improve data security awareness and data protection technology. Accounting data is a trade secret of an enterprise. Its security and reliability are very important. Once lost or tampered with, it will cause immeasurable losses. Therefore, improve the data security awareness of all personnel, especially leaders and accountants, and consciously protect the security and effectiveness of accounting data. But the most important thing is to improve data protection technology. Identify and screen possible malicious users through data encryption, encrypt and transmit important data, decrypt and restore them after reaching the destination; Use user authentication to identify and secure access to internal and external accesses of the cluster to block malicious users' malicious access; Back up data to prevent system loss due to operational errors or system failures; Use a trace filter, once the data is found to be out of the allowed range, the data transfer is automatically blocked.

(5) Building an accounting information security risk control center. The Security Control Center provides basic support for accounting computerization and is responsible for receiving and processing system information transmitted by the acquisition component. The control task is divided into subtasks and assigned to each component for completion; At the same time, manage the various components of the system, set the functions and parameters of each component, and play a joint role by scheduling "security assurance platform" and "security control platform". Main tasks of the security guarantee platform: Ensure the operation security, operation security, data security and communication security, ensure the integrity and confidentiality of the transmission, exchange and storage of information in the network, prevent the transmission by interception, eavesdropping, tampering and forging and other attacks. Main tasks of the security monitoring platform: Monitor user operation, program operation, file access and system communication, prevent legitimate users from unauthorized access and illegal use of modified files, prevent accidental leakage of sensitive data.

(6) Strengthening the maintenance of accounting information system software. Software maintenance is the process of modifying software after it is delivered and used to ensure its safe and

stable operation. By modifying software defects, improving software performance, helping them adapt to the new environment, and extending their life cycle. The accounting information system itself is relatively complex, and the accounting rules and enterprise workflow often change, therefore, maintenance is very important. Specifically, there are three types of maintenance: The first is source maintenance, which needs to be modified when a program runs incorrectly or when accounting business rules change; Second, data maintenance, when the system business processing data requirements change, add, delete and modify the data, the establishment of new data files and other things often happen; Third, the environment maintenance, when the hardware product update speed is accelerated, with the corresponding software system to change the environment to adapt to this change.

6. Conclusion

Accounting informationization is the combination of accounting and information technology. It is a new requirement put forward by the information society for financial information management. It is also a necessary measure for accounting compliance with the wave of informationization. As the main channel for information acquisition by leaders in the network environment, it helps to enhance the competitiveness of enterprises, solve the "island" phenomenon of accounting computerization, and improve the ability of accounting management decision-making and management. There are still many risks in the process of accounting informationization. If these risks are ignored or left unchecked, it will cause significant losses. How to effectively identify and control these risks has become a top priority. As an advanced technical means in the field of accounting, accounting computerization can not only generate real accounting information, but also create false accounting information, which brings great security risks. All kinds of security problems arising during the operation of accounting computerization should be taken seriously and carefully analyzed, and correct and effective preventive measures should be taken to conduct strict supervision and control to ensure the minimum security risks and losses of accounting informationization.

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