

Research on the Application of Big Data in Risk Management of Enterprise Accounting Informatization

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Abstract: Enterprise accounting informatization is a part of enterprise informatization. Accounting informatization is a product of the combination of traditional accounting theory, modern information technology, network technology, etc. It is an inevitable trend in the development of modern accounting. A large amount of network information technology has been popularized and applied, and the focus of internal control in enterprises has become on people and their processed businesses, human-machine interaction processing processes, computer system business processing processes, and the transmission of information from different systems. Enable enterprises to publish relevant information through network virtualization. Accounting informatization has the irreplaceable advantage of manual accounting processing, which is conducive to enhancing the competitiveness of enterprises, improving accounting management decision-making ability and management level, and providing real-time and sufficient information for efficient operation of enterprise management. Accountants are the direct executors of accounting work, so it is necessary to strengthen the professional ethics education of accountants, strengthen legal awareness, and cultivate the spirit of loving their posts and being dedicated in their work, so as to prevent the occurrence of accounting risks. This article aims to reasonably avoid and reduce the risks existing in the accounting information system under the background of big data, and propose corresponding countermeasures to ensure the authenticity and reliability of enterprise information data, so as to ensure the sustainable development of the enterprise economy.

1. Introduction

With the development of economy and the intensification of competition, in the global networked environment, accounting management software companies at home and abroad have also launched Accounting information system based on the Internet, that is, modern Accounting information system. Enterprise accounting informatization is a part of enterprise informatization. Accounting informatization is a product of the combination of traditional accounting theory, modern information technology, network technology, and other technologies, and is an inevitable trend in the development of modern accounting[1]. Accounting requires accountants to have solid professional knowledge, be familiar with relevant laws and regulations, and the most important

thing is to have noble professional ethics. Under the background of unpredictable social situation, various interests will tempt accountants, thus affecting the judgment of professional ethics. Because in the information-based accounting information system, accounting data are stored in different subsystems, once problems occur, a large number of accounting data will be irretrievable[2]. It can be seen that enterprise accounting informatization is the use of computer, network, and communication technology to obtain, process, transmit, and retrieve accounting information, providing comprehensive and timely information for enterprises and external users[3-4]. However, we believe that big data is a data set with more knowledge and information value than massive data, and it requires advanced non structured data processing technology to refine the information wealth of deep knowledge[5]. Social supervision is recognized by law with its unique neutrality and impartiality, and has a strong authority. Therefore, establishing a strict accounting punishment mechanism, adopting measures such as news exposure and re determining credit ratings, increasing the cost and risk of illegal and irregular behavior by enterprise accounting personnel, increasing punishment for illegal and irregular enterprises, and exerting the deterrent power of accounting punishment mechanism can curb accounting information distortion and effectively reduce accounting risks. Accounting information should be based on the standardization of Accounting information system to build an accounting information platform for different departments to share resources[6].

2. Main Risks of Accounting Information Networking

2.1 Information Security Risks Caused by System Software

The performance of financial software will directly affect the efficiency and accuracy of financial information processing, and determine whether accounting data can be processed timely, legally and correctly. In this context, once the performance and quality of financial software have problems, when the accounting information is networked, if the data is illegally stolen, it will just lead to the leakage of important information, which will cause adverse effects and even serious economic losses to enterprises. Specifically, the security risks faced by the accounting system are mainly reflected in the fact that the application software system itself only pays attention to the development of application functions in the process of system design and development, and ignores or even ignores security issues[7]. Information technology has the characteristics of real-time, rapidity, digitalization, sharing, and value. It requires enterprises to be able to quickly obtain information from outside and inside the enterprise, and analyze whether the information brings opportunities or threats to the enterprise according to its own advantages and disadvantages, so as to output useful reports for decision-making in time. Operators can modify the system software by illegally changing the program to tamper with the program files and modifying the running path of the computer, thus undermining the security of the software system[8]. Hacking attacks, hackers can illegally invade the network, while tampering with applications or stealing confidential data.

2.2 Information Security Risks Caused by Hardware Systems

The reliable and stable operation of the computerized Accounting information system must depend on the normal operation of the computer. Once the computer hardware system, computer machine and its auxiliary equipment are damaged or malfunction occurs, it will lead to the error or interruption of the computerized Accounting information system in processing information. After the networking of accounting information, centralized servers carry all the information and data. If the server encounters problems, it is a paralysis of the entire network, and some hardware damage caused by factors is irreparable[9]. The enterprise Accounting information system can also unify the

integration of accounting data through network financial reporting, so that the enterprise Accounting information system can collect and use the corresponding accounting data format. By improving the accounting regulatory system and regulating the behavior of accounting professionals, accounting risks can be minimized. In the construction of enterprise accounting informatization, internal control is an organic whole, influenced by various interest groups of the enterprise, integrating the fundamental needs of various interest groups, and combining the actual production and operation of the enterprise, with the ultimate goal of enterprise production and operation. Human unintentional behavior, caused by incorrect operation of the system by system operators, causes damage to the hard drive, resulting in the complete loss of data; The disasters caused by force majeure cause damage to the entire system, inevitably leading to the loss of data[10].

2.3 Information Security Risks Caused by Work Environment and Viruses

In the context of enterprise informatization, all data of the enterprise will be centrally stored in the form of electronic data in the database system, and the business activities of the enterprise will also be based on this. However, in the process of accounting informatization, due to the fact that the financial software development of enterprises may not have undergone rigorous and reliable testing, hidden problems in data structure and program structure may be triggered in the later system operation or various frauds are prone to occur. The computerized Accounting information system has high requirements for the working environment, so it is necessary to regularly check whether the computer's waterproof, fireproof, shockproof, anti-theft and cleaning measures are in place, so as to ensure that the computerized Accounting information system can have a safe working environment.

3. Application of Big Data in Risk Management of Enterprise Accounting Informatization

3.1 Improve the Accounting Supervision Mechanism

In the era of big data, the accounting information data interaction mode is flexible according to the reporting mode, which allows the reporting unit to communicate with the information users in a two-way, direct and rapid way to jointly complete real-time reports, and can better meet the diverse information needs of users than the traditional reporting mode. The log program generates reports on a regular basis, and by analyzing the reports, it can find abnormal situations at any time. It can be seen that enterprise accounting informatization is the use of computer, network, and communication technology to obtain, process, transmit, and retrieve accounting information, providing comprehensive and timely information for enterprises and external users. Improve the management's understanding of accounting informatization, strengthen the quality education for senior managers of enterprises, and make them become advocates of accounting informatization. In this regard, this paper has improved the accounting supervision mechanism, which can be implemented mainly from the following four aspects, as shown in Figure 1.

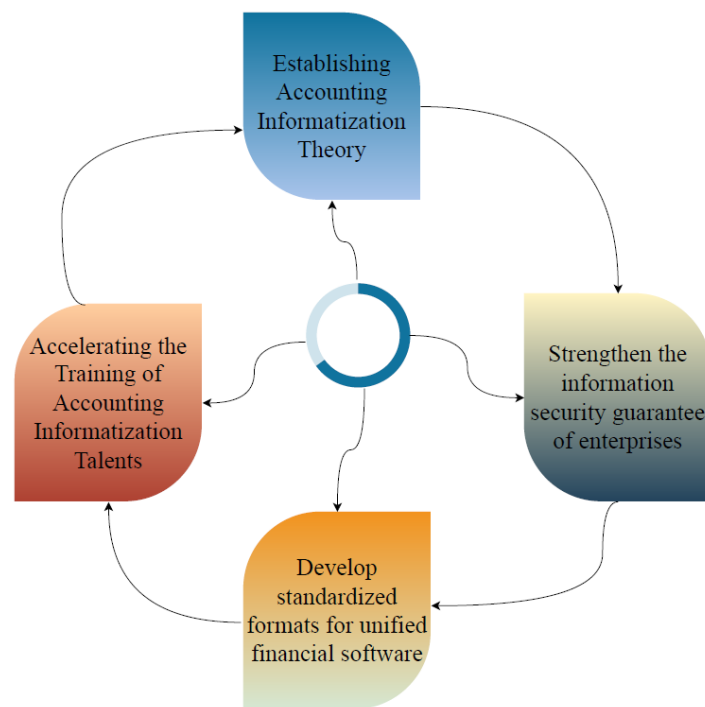


Fig.1 Countermeasures for Improving Accounting Supervision Mechanism

Social supervision is recognized by law with its unique neutrality and impartiality, and has a strong authority. Therefore, establishing a strict accounting punishment mechanism, adopting measures such as news exposure and re determining credit ratings, increasing the cost and risk of illegal and irregular behavior by enterprise accounting personnel, increasing punishment for illegal and irregular enterprises, and exerting the deterrent power of accounting punishment mechanism can curb accounting information distortion and effectively reduce accounting risks.

3.2 Strengthen the Education of Accounting Professional Ethics

Accounting requires accountants to have solid professional knowledge, be familiar with relevant laws and regulations, and the most important thing is to have noble professional ethics. Under the background of unpredictable social situation, various interests will tempt accountants, thus affecting the judgment of professional ethics. Because in the information-based accounting information system, accounting data are stored in different subsystems, once problems occur, a large number of accounting data will be irretrievable. In order to prevent this phenomenon, we should make a variety of backups of accounting data in time, so as to recover these accounting data quickly after the system has problems. We should use more graphics and audio-visual methods to properly express the connotation of enterprise accounting information data, and present enterprise accounting information data visually through pictures, words, sounds, images and other forms to enhance users' acceptance and understanding of enterprise accounting information data resources. Accountants are the direct executors of accounting work, so it is necessary to strengthen the professional ethics education of accountants, strengthen legal awareness, and cultivate the spirit of loving their posts and being dedicated in their work, so as to prevent the occurrence of accounting risks.

3.3 Accelerate the Construction of Accounting Regulations

Accounting risks exist objectively, and we cannot artificially eliminate them. Through further

research on accounting theory and practical issues, we continuously supplement and improve the accounting regulatory system to better adapt to environmental changes and reduce the degree of accounting uncertainty. The reliable and stable operation of the computerized Accounting information system must depend on the normal operation of the computer. Once the computer hardware system, computer machine and its auxiliary equipment are damaged or malfunction occurs, it will lead to the error or interruption of the computerized Accounting information system in processing information. After the networking of accounting information, centralized servers carry all the information and data. If the server encounters problems, it is a paralysis of the entire network, and some hardware damage caused by factors is irreparable. In the context of the rapid development of information technology, the confidentiality of accounting data is achieved by processing users and accounting data, utilizing a powerful algorithmic encoding technique to transform the data into a password form that can only be read after certain decryption measures, in order to protect the accounting data stored on disk and the information transmitted, preventing intentional or unintentional attackers and unauthorized users from accessing this accounting data. This article analyzes how to fully utilize information technology to ensure the security of accounting data and takes effective measures, as shown in Figure 2.

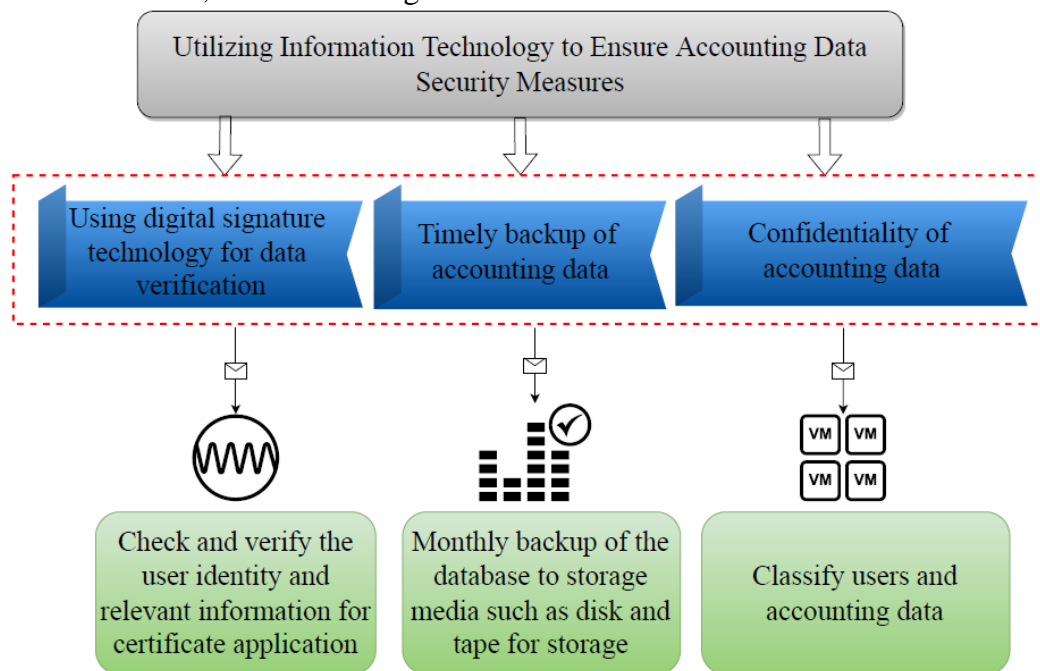


Fig.2 Measures to Ensure Accounting Data Security Using Information Technology

A large amount of network information technology has been popularized and applied, and the focus of internal control in enterprises has become on people and their processed businesses, human-machine interaction processing processes, computer system business processing processes, and the transmission of information from different systems. Enable enterprises to publish relevant information through network virtualization. The enterprise accounting information system can also unify the integration of accounting data through network financial reporting, so that the enterprise accounting information system can collect and use the corresponding accounting data format. By improving the accounting regulatory system and regulating the behavior of accounting professionals, accounting risks can be minimized.

4. Conclusions

The changes brought by big data in modern development to enterprise informatization also include many aspects, such as the cultivation of talents dealing with big data, the support of national laws and policies, and the allocation of market resources. Institutionalized regulations can standardize and guide people's behavior. The improvement of the system needs to be carried out from two aspects. On the one hand, it is necessary to improve the system construction of related information systems within enterprises, which is to ensure that after the information system is built, it can effectively form an institutionalized guarantee for the implementation of the information system. Auditing in the information environment has changed in the construction of enterprise accounting informatization, internal control is an organic whole, influenced by various interest groups of the enterprise, integrating the fundamental needs of various interest groups, and combining the actual production and operation of the enterprise, with the ultimate goal of enterprise production and operation. Human unintentional behavior, caused by incorrect operation of the system by system operators, causes damage to the hard drive, resulting in the complete loss of data; The disasters caused by force majeure cause damage to the entire system, inevitably leading to the loss of data, information-based risk management and experience formation can only be gradually accumulated, not overnight. Business leaders should attach importance to risks, establish scientific information-based risk prevention and control concepts, and establish appropriate organizations. Only by establishing and perfecting various management systems and articles of association, operating and executing strictly and consciously according to the system, and strictly observing the rules and regulations and operating procedures can we reduce the errors in actual work and reduce the security risks faced by the system.

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