

Study on Risks and Precautions of Enterprise Accounting Informatization in the Context of Big Data

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Abstract: This thesis probes into the risks and precautions of enterprise accounting informatization under the background of big data. As an important means of modern enterprise financial management, accounting informatization has a range of development advantages, simultaneously, also bringing numerous potential risks. Firstly it elaborates the concept and development advantages of the importance and value of accounting informatization to enterprise financial management, then carries on the selective analysis to the targeted risk problems of software systems in terms of security risks, data security and information leakage, human operation errors, and puts forward the corresponding prevention strategies. In aspects of systems, personnel and information systems, enterprises need to perfect relevant rules and regulations, reinforce employees' security consciousness and professional level, and improve the system defense system to prevent potential risks, and ensure the safe, stable and efficient operation of accounting information systems.

Keywords: Big Data; Accounting Informatization; Risks; Precautions

Published: Sept 11, 2024

1. Introduction

With the elapse of time, the Internet has been integrated into every aspect of our lives, whether it is an individual's mobile phone information, or a country's diplomatic communication, which needs to rely on a variety of network transmission and processing technologies. The vigorous rise of the Internet has not only spawned many innovative technologies in the field of computer science, but also driven people's deep mining and application of huge amounts of data, which has led to an explosive growth in the scale of computer data, leading us into a new era of big data. This change not only profoundly reshaped the way of life of human society, but also opened up a new path for strategic decision-making and operation management of enterprises. In this context, the information environment faced by enterprises has undergone fundamental changes, and enterprises must re-examine their accounting systems and processes, and explore ways to deeply integrate with big data technology. Accounting informatization, as a concrete manifestation of the needs of enterprises in the era of big data, comes into being and confronts with unprecedented precious opportunities and severe challenges.

2 Influences of Big Data on Enterprise Accounting Informatization

2.1 Big Data and Accounting Informatization

Big data refers to massive sets of information that cannot be effectively captured, organized, and processed by traditional

software tools within a given time span. These data sets show the characteristics of large scale in the acquisition, storage and analysis management, which can realize the high-speed analysis and flow of data, and cover a wide range of data types. In today's rapidly evolving era, big data, with its rapid computing power, accurate accounting characteristics and diversified analysis advantages, has injected strong impetus to the vigorous development of all walks of life.

Accounting informatization refers to the process of collecting, processing, storing and applying enterprise financial data by means of information technology, including the use of computer networks, modern communications, databases and other tools, and automating the processing, analysis and reporting of enterprise accounting information^[1]. Different from accounting computerization, which aims to reduce the repetitive labor of manual operation system, accounting informatization aims to reconstruct traditional accounting mode with modern information technology to form a modern accounting information system, realize the informationization of accounting, accounting management and accounting decision support, and give full play to the core role of accounting work in enterprise management and decision making.

2.2 Influences of Big Data Platform on Enterprise Accounting Informatization

2.2.1 Provide more comprehensive and accurate data for accounting informatization

Under the background of the information age, accounting practice turns to the use of automatic system for data processing, which has gone beyond the limitation of complicated manual operation. The accounting information system can instantly capture and integrate a large amount of financial data, classify and file them and optimize the data information content, so as to ensure that managers can have immediate insight into the latest data such as the business status and business changes of enterprises, and thus significantly improve the comprehensiveness and accuracy of decision-making^[2]. The system not only implements real-time monitoring and detection of data accuracy, but also uses preset logic algorithm to automatically complete data verification, and takes advantage of high automation and digitalization to identify and correct errors in time, effectively reducing the probability of human errors. Compared with the traditional manual bookkeeping operation, which usually involves the management of a large number of paper documents and documents, the accounting information system innovates this process through the centralized storage and management of data, so as to realize the integration of information resources.

2.2.2 Reduce costs of enterprise accounting informatization and promote personnel transformation

The accounting information system can effectively reduce the repetitive labor links through the implementation of automatic operation process, and then reduce the enterprise's expenditure on human resources. In contrast, manual accounting data entry and processing in the past are extremely dependent on intensive manpower allocation, while the advantage of accounting information technology is that it can automatically complete many complex and repetitive accounting tasks, release human resources, and enable them to devote themselves to higher-value work activities, and this change significantly reduces the time investment cost in accounting information projects. It embodies the double optimization of efficiency and cost control.

Accounting informatization is not only a technological innovation, but also catalyzes the evolution of the role of accounting practitioners, making them transition from basic data processing functions to higher-level financial management analysis and strategy support roles, and with the cross-integration of accounting and computer science and other fields, broadening the career development path of accounting personnel, promoting the cultivation of high-quality interdisciplinary talents with cross-field knowledge.

2.2.3 Enhance fairness and transparency of the industry

In the context of today's big data environment, cloud accounting information services can seamlessly connect with customers with the support of the Internet platform. With the help of digital accounting information management system, enterprises can provide strong support for the formulation of more targeted competitive strategies, collect and dissect market information more efficiently, and understand the dynamics of competitors. This process promotes the balanced distribution of information, helps to break the phenomenon of unfair competition caused by information asymmetry, and promotes the improvement of market justice. Under such environmental conditions, all transaction records are kept publicly and immutable, which means that anyone can view and verify the authenticity of transactions at any time, the transparency and reliability of data are strengthened, and the public supervision of enterprises is also significantly enhanced. In this way, enterprises are more inclined to follow rules and regulations and laws and regulations, which in turn promotes the overall improvement of the ethical standards of the industry.

3. Risks of Enterprise Accounting Informatization in Context of Big Data

3.1 Prominent Security Risks in Software Systems

Some enterprises are not fully aware of information management, and the introduction of technology and equipment lags behind due to too little capital investment, resulting in a mismatch between accounting information construction and enterprise management. Accounting information, originally intended to improve the efficiency of internal financial management of enterprises, has become a stumbling block to the flow of accounting information and other resources, making it impossible for financial information to accurately connect with business information. It is not conducive to the effective supervision of funds and product inventory, etc., resulting in greater security risks ^[3]. At the same time, information system is the core of accounting informatization, for enterprises, the operation and maintenance risks of information system can not be ignored. Although the accounting informatization system can break through the limitations of time and space, accounting personnel will be unable to get rid of the work of the system if they rely on it. Once problems such as hardware failure, software crash or power supply interruption occur during the operation of the information system, the business of enterprises may be interrupted, which will seriously affect the processing and reporting of accounting information. In the era of the growing development of big data, the upgrading and change of information systems are the norm, however, improper change management and project management may lead to risks such as unstable system operations, incompatibility and data loss.

3.2 Data Security and Information Leakage

Accounting informatization involves a large number of sensitive data, including financial statements, customer information, etc. If the information system is not properly protected and prevented, it will face data security risks, such as hacker attacks, improper operations of internal personnel, etc., may lead to data theft, tampering or disclosure. However, in the era of big data, due to the openness of the Internet, insecure factors such as information attacks are also increasing. After a lot of data is destroyed, imperfect data backup and recovery mechanisms may lead to data loss or timely recovery, affecting the sustainable operation ability of enterprises. Moreover, in the construction of the accounting information system, enterprises inevitably need to introduce new technologies and equipment as well as external personnel for work connection and guidance. If the confidentiality management of personnel is not well done, data leakage may occur, leading to certain security risks ^[4].

3.3 Human Operational Errors

The skill level and professional quality of employees directly affect the improvement of the level of accounting informatization

in enterprises. Lacking of skills and literacy, practitioners may not be able to operate the accounting information system effectively, thus affecting the accuracy and integrity of data. Employees unfamiliar with system functions and operation processes may misoperate, access or modify sensitive data without authorization, increase the risk of data error or loss, and further escalate data security risks ^[5]. In addition, when the accounting information system lacks effective data storage and management strategies, it may produce a large number of duplicate data, resulting in excessive storage burden, and then affect the efficiency and effectiveness of the system. At the same time, the circulation of data transmission and sharing among various departments is hindered, computer resources are occupied in large quantities, and the system load increases. As a result, the data related to finance and operation is difficult to be accessed immediately, and it is easy to form information islands, thus affecting the accuracy and timeliness of decision-making.

4. Enterprise Preventive Measures in Context of Big Data

4.1 Formulate Relevant Norms and Standards for Accounting Informatization

Because the construction of accounting informatization in enterprises is still in the early stage of development, and the relevant system construction is not perfect enough, enterprises must improve the relevant rules and regulations to ensure the scientific and healthy development of accounting informatization. On the one hand, enterprises should build a set of risk control mechanism, conduct a comprehensive investigation and analysis of the internal financial situation of enterprises, identify hidden risk factors, and formulate effective risk management strategies and countermeasures accordingly, laying the foundation for the control of accounting informatization risks ^[6]. In addition, the monitoring of system health is indispensable, and the establishment of sound audit procedures can ensure that such anomalies are quickly identified and effectively addressed.

On the other hand, enterprises need to establish a comprehensive information management specification, which needs to cover all key stages of information system management process, deployment, operation and upgrade. Each department should clarify its own responsibilities and tasks, and establish an efficient collaboration mechanism with other departments to properly perform its functions within its purview. At the same time, enterprises should rely on the supervision and evaluation system to implement regular internal audit, risk assessment and performance review, and monitor and evaluate the process management and responsibility attribution of accounting informatization, so as to ensure the smooth advancement and efficient management and control of informatization.

4.2 Enhance Safety Awareness and Professional Level of Accounting Personnel

The first is to promote the improvement of employees' understanding of accounting informatization, which requires enterprises to deepen employees' understanding of the significance of data protection through education and training, and promote their proficiency in the accurate operation and application skills of information systems. In the process of education and training, enterprises should integrate the content of simulation operation and actual case analysis, in order to guide employees to properly handle sensitive information, implement strict password management rules, and be able to identify and avoid possible network security risks for the purpose of explaining the core principles and practical strategies of data protection. Through specific case teaching, employees can be alerted to avoid the occurrence of improper behaviors while ensuring that team members are familiar with and strictly abide by the policies and processes stipulated by the company, so as to build a solid information security and data protection barrier for the enterprise and prevent the occurrence of information leakage.

Second, in order to ensure that the accounting information cloud talent reserve is sufficient, enterprises must strengthen the cultivation and incentive mechanism of talents. Enterprises need to build cooperation Bridges with higher education institutions, research institutes and professional groups to open up channels for talent recruitment. Internship programs, campus recruitment and joint scientific research activities can be implemented to attract potential talents with skills in multiple fields such as accounting, information technology and data processing, inject fresh blood into the company, and incubate future accounting informatization leaders. Enterprises need to pay more attention to the growth path of in-service employees. By offering training courses and career development projects, they can help them adapt to emerging technologies and tools, and adopt diversified incentive strategies such as performance rewards, education subsidies and career promotion, which can effectively stimulate the enthusiasm and creativity of employees in the field of accounting informatization and promote them to make more far-reaching contributions.

4.3 Perfect the Accounting Information System Defense Identity

At present, due to the significant changes in the internal environment and conditions of enterprises caused by accounting informatization, enterprises need to take measures to improve the defense system of accounting information system, improve the security and resistance of the system, and protect the financial data and sensitive information of enterprises from potential threats [7]. Strengthening authentication is the first step to ensuring system security, and businesses can use measures such as multi-factor authentication, password policies, and regular password changes to effectively prevent unauthorized access. When using the accounting information system, the enterprise must strictly manage the browsing rights, implement the principle of least rights to grant appropriate users the appropriate rights, ensure that users can only access the necessary functions and data, and reduce the risk of system attack. Firewall is also an important tool to protect the system from network attacks. Enterprises establish firewall rules to limit the network traffic entering and leaving the system, and protect corporate financial data and commercial important information from hacking and theft through real-time monitoring of data transmission and communication activities, so as to improve network security and create a good environment for accounting informatization construction [8].

5. Conclusion

Accounting informatization is a double-edged sword for enterprises, which has not only great development potential, but also risks and challenges that cannot be underestimated. In order to make full use of the benefits of big data, it is necessary to continuously carry out technological innovation, strengthen the risk awareness training of all employees, and establish a good institutional environment. While enjoying the dividends brought by big data, enterprises must effectively control various risks and make them develop smoothly to create greater value, so as to make accounting informatization develop healthily and promote the development of enterprises to a new level.

Fund Projects: 1. Research on the integration of Enterprise Industry and Finance based on the Financial Sharing Model (2022SJYB1560, Jiangsu University Philosophy and Social Science Project 2022SJYB1560) 2. Research on the transformation of the training Mode of applied undergraduate Accounting Talents in the Digital Age (2022 School Education Reform Project SJY20230119)

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