

Security of Accounting Information Based on Computer Network Technology

Sun Fei^{1,*}, Li Haoyang², Chen Wenjing^{1,2}

¹Hubei University of Technology, Wuhan, China

²Chengdu University of Technology, Chengdu, China

*Corresponding Author

Keywords: Computer Network, Accounting Information, Security, Information Encryption

Abstract: the Popularization of the Internet Provides a Broad Space for the Development of Computer Network Technology. the Security of Financial Management and Accounting Information is Also Threatened, and the Network Account is Also Emerging. Based on the Analysis of the New Situation of Accounting Information Security in the Current Computer Network Environment, This Paper Discusses the Main Security Risks of Network Accounting Business. At the Same Time, Combined with the Actual Situation of Network Accounting, Promote Accounting Information Security Technology and Management. Strategy, I Hope to Play a Reference Role in Improving the Security of Accounting Information in the Network Environment.

1. Introduction

At Present, the Matching Security Management System of Accounting Information Management System Has Not Been Established, Which Has Certain Impact on the Security of Accounting Information and is Easy to Cause Information Leakage and Other Problems[1]. in This Paper, We Analyze the Main Security Problems of Accounting Information Management under the Computer Network Technology Environment, and Put Forward the Countermeasures to Play an Important Role in Ensuring the Security of Accounting Information and the Legitimate Interests of Enterprises.

2. The Security Risk of Accounting Information under the Environment of Computer Network

2.1 Risk of Information Theft

In the process of network accounting, the data and information processed mainly use the network as the communication path. Therefore, in this process, the reason of information network technology is deleted, maliciously modified or hard to be cut off[2]. In the whole process of information transmission, including information security communication, information encryption, identity authentication and other topics. Therefore, in today's information age, accounting information to some extent has become one of the important capital of enterprises, directly affecting the success of the development of market enterprises. Therefore, the management of financial accounting information is an important part of the daily operation and management of enterprises. However, the current use of information technology is one of the main risks faced by the current enterprise accounting information system. Information technology is a means to illegally steal the internal financial accounting information of enterprises and obtain improper interests. From the point of view of specific performance, mainly in the process of accounting information transmission, data encryption technology should be employed, no clear data should be sent directly, or the intruder is the gateway or router using the relevant data for monitoring. Through these means, the information is illegally tampered and destroyed, which brings benefits to the competitors and directly affects the survival and development of enterprises.

2.2 Network Application Risk

With the rapid development of computer network technology, computer network has become the

basic method of information exchange among production departments, individuals and the outside world[3]. At the same time, in the process of using the information network for accounting processing, it has become one of the important issues of accounting information security.

Table 1 Selection of Financial Indicators for Industrial Integration Theorem

Restriction Conditions of Industrial Integration Theorem	Corresponding selected financial indicators
sales revenue	Main Business Income-Return of Sales-Sales Loan Discount and Discount
Variable cost	Operating Cost+Business Tax and Additional+Sales Cost+Management Cost+Financial Cost

LAN and WAN risks. It is a local area network or a wide area network. The important feature of its existence is that the network is a relatively open environment. In theory, any information in the environment can be accessed and received[4]. For example, a network service provider or other third party can obtain internal information of a company at a network node. LAN refers to the network established in the unit, and relevant personnel in the unit can access and obtain information. At this time, internal units and external third parties may pose a threat to the network used for accounting information processing.

Ecommerce accounting treatment risk. Now, e-commerce brings not only new opportunities, but also risks to the financial management of enterprises. Whether the company is a buyer or both parties to the transaction have corresponding security risks. These risks include the threat of potential competitors, trade secret disclosure, system threat and false order risk[5]. In addition, in the process of e-commerce, hackers' attacks, security media monitoring and customer fraud are also easy to become multi-level performance problems of enterprise financial processing risks. At this time, enterprises usually do not have an effective risk monitoring system, the application strategy of network information technology and the ability to adapt to the network information technology environment are also slow. It makes enterprises in a relatively passive position for a long time and can not implement effective e-commerce.

3. The Main Strategies of Accounting Information Security under the Network Environment

3.1 Strengthen the Internal Control of Accounting Information System for Enterprises

Generally speaking, commercial information security management system can meet the needs of general enterprises to a certain extent. However, for the accounting information system of enterprises, it is difficult to fully guarantee the security of accounting data and information by adopting common countermeasures. Especially in the initial stage of the development and application of accounting information system, the accounting information system should be considered as the repair process of the enterprise, and the corresponding accounting management function should be incorporated into the whole system[6]. At the same time, in the process of maintaining the accounting system, the response characteristics of the network accounting information system personal recruitment management system, the enterprise management system based on the enterprise billing processing system need to be updated in a timely manner. Generally speaking, the long-term effective maintenance of accounting information security, in order to effectively solve the simple overlap of several management countermeasures, but not rely on the reality of the enterprise, comprehensive consideration of the threat of information security, it is necessary to analyze. In addition, in order to ensure the security of network accounting information, please adopt an organized internal control and management strategy.

3.2 Optimize the Performance of Network Software and Hardware and Improve the External Control Ability of Accounting Information System

As the basis of e-commerce, network accounting is an important part of e-commerce, and plays a corresponding management and control role for e-commerce activities. In the network accounting information system, it is necessary to ensure the safety and smoothness of enterprise financial accounting, the timely sharing of information, the processing of charging data, the reasonable

selection of basic conditions, software and hardware, and a relatively complete information management system. Each enterprise transmits a certain amount of information, so it needs to occupy the corresponding communication line load[7]. In order to ensure the safety of information transmission, it is necessary to select high-performance repeaters and routers, and select high-quality servers and workstations in case of use. On the basis of ensuring the normal operation of financial accounting information system, effectively support the confidentiality of information. At the same time, a complete system security technology processing specification, it is necessary to develop a regular vulnerability scanning method to repair the financial accounting information system in time, and the corresponding software, is the information intruder in order to avoid leaving the hall within the time update is confirmed.

3.3 Reasonable Use of Information Encryption Technology

By using encryption technology, we can effectively control the files, data and related objects in the financial process to ensure its overall security performance. Network information encryption technology includes: link encryption technology; end-to-end encryption technology; three node encryption technology among them, link encryption technology can effectively ensure the link information security of network nodes[8]; end-to-end encryption process can ensure the data security of overseas users and destination users; node encryption can effectively ensure the link security between source nodes and destination nodes Full scale. In essence, encryption technology hides the real data information. Only those who support decryption technology can get the real content and data meaning. In the process of establishing enterprise financial accounting information system, it is necessary to adopt reasonable information encryption technology to ensure the security of enterprise accounting information.

4. Measures to Improve the Insufficient Disclosure of Accounting Information in the Network Environment

4.1 To Improve the Content of Accounting Information Disclosure in the Network Environment, We Need to Constantly Improve Accounting

The content of information disclosure can improve the quality of accounting information disclosure. Therefore, enterprises can improve the importance of accounting information disclosure, combine financial information with non-financial information, improve the inclusiveness and reliability of information disclosure, and constantly improve the content of accounting information disclosure [9]. Environmental information, business behavior information, social responsibility information and sustainable development information are regarded as one of the important contents of enterprise accounting information disclosure, and will continue to improve the quality of enterprise accounting information disclosure.

Table 2 Information Island Of Accounting Information System

Isolated island situation	Concrete performance	Impact
Within the head office	Information is not circulated among the internal storage department, production department, sales department and accounting department of the company	The financial data and business data cannot be shared, and the information of the warehousing department cannot be transferred to the sales department, which results in the sales department unable to know the order details in time, unable to understand the product price changes, and the warehousing export is difficult to grasp the sales situation, which makes it impossible to determine the reasonable inventory
Between head office and branches	Information of company a and its subsidiaries is not circulating	Company a is unable to supervise and control the funds of its subsidiaries the circulation
Between systems	Accounting system and other systems Lack of effective connection Each system operates independently	Data exchange, information sharing and control management cannot be carried out respectively

4.2 Perfect the Legislation Work and Strengthen the System of Accounting Information Disclosure under the Network Environment

In the network environment, in order to further improve the system of accounting information disclosure and improve the quality of information disclosure, we must play a legal role, give full play to the dominant position of the law, and have a legal basis. In the aspect of enterprise accounting information disclosure, we should strengthen government guidance and play an appropriate role in supervision. Therefore, in the network environment, the accounting information disclosure of enterprises is prone to various problems. It is necessary to restrict the relevant laws and regulations related to the improvement of the current market environment. From the perspective of the development of the network, it is necessary to regulate various problems. It can really play the role of enterprise financial accounting information disclosure law, regulate the process of enterprise information disclosure, so as to ensure that the company's accounting information disclosure is true and comprehensive.

4.3 Improve and Strengthen the Technology of Accounting Information Disclosure and Improve the Security of Information

At present, in the network environment, accounting information disclosure faces major security problems. Therefore, it is necessary to strengthen and improve the relevant technology, and continuously improve the security of accounting information disclosure from the technical security level. On the other hand, it is necessary to strengthen the management of data security in order to improve the security of accounting information[10]. On the other hand, it is necessary to strengthen the network information security testing activities, find software vulnerabilities as much as possible, improve the ability of software error correction, and improve the security of software applications. In addition, from the perspective of actual needs, it is necessary to upgrade the software related to accounting information disclosure to continuously meet the needs of enterprises and society in accounting information. Only by strengthening and improving the security of accounting information disclosure, can we continuously improve the quality of information disclosure and provide scientific decision-making standards for enterprises and accounting information users.

4.4 Strengthen the Supervision of Internal Staff

In the network environment, it is necessary to continuously improve the accounting information disclosure system and improve the effectiveness of information disclosure. In addition, it is necessary to play the role of rules and regulations to improve the management of internal staff. On the other hand, we should strengthen all kinds of training, constantly improve the level of professionals and professional ethics of financial talents, improve the sense of responsibility of financial directors, and promote the standardization of accounting business. On the other hand, we need to improve the internal management situation, strictly manage the output of accounting information, and improve the reliability of accounting information. In the network environment, in order to improve the standardization of accounting information disclosure, it is necessary to formulate relevant rules of accounting information disclosure that meet the business operation conditions and relevant laws and regulations. In addition, in the application of related information systems, it is necessary to improve the system functions of users and their rights restrictions. According to the principle of improper separation of location, employees can adhere to their own location and assume responsibility. The work of giving full play to the role of information system. In the network environment, enterprises can continuously improve monitoring and management, improve internal management system, and continuously improve the quality of information disclosure.

5. Conclusion

The network environment will change the environment of enterprise information disclosure. With the efficiency of enterprise information disclosure, it also brings problems such as security

issues and content disclosure issues. We should pay attention to the relevant issues, the importance of accounting information disclosure, the improvement of law, the strengthening of supervision and the improvement of information disclosure content. Continuously improve the quality of accounting information disclosure and enhance the authenticity and comprehensiveness of information disclosure. To provide a more scientific basis for the users of accounting information.

References

- [1] Susilowati E, Utomo S D, Setiawanta Y. (2017). Blue Ocean Strategy: An Investigation of the Effect of Business Strategy, Information Accounting Management System, Mental Model Implementation on Managerial Performance, vol. 23, no. 8, pp. 7239-7242.
- [2] LIU Yi, BAI Xuefeng, YANG Yubin. (2017). Privacy protection strategy in content-centric networking based on multi-layer encryption mechanism. *Computer Engineering and Applications*.
- [3] Mirghani Nimir Ahmed. (2018). Outsourcing relationship management: accounting in the decision mix. *Journal of Business Strategy*, vol. 39, no. 5.
- [4] Lijia Xie, Yao Zhang, Zhiming Zheng,. (2017). TRIP: A Tussle-Resistant Internet Pricing Mechanism. *IEEE Communications Letters*, vol. 21, no. 2, pp. 270-273.
- [5] Postorino MC, Prosperi M, Focà E,. (2017). Role of systemic inflammation scores for prediction of clinical outcomes in patients treated with atazanavir not boosted by ritonavir in the Italian MASTER cohort. *BMC infectious diseases*, vol. 17, no. 1, pp. 212.
- [6] Sheila Isanaka, Dale A Barnhart, Christine M McDonald,. (2019). Cost-effectiveness of community-based screening and treatment of moderate acute malnutrition in Mali. *British Medical Journal Global Health*, vol. 4, no. 2, pp. e001227.
- [7] Ali Momeni, Kasra Rouhi, Hamid Rajabalipanah,. (2018). An Information Theory-Inspired Strategy for Design of Re-programmable Encrypted Graphene-based Coding Metasurfaces at Terahertz Frequencies. *Scientific Reports*, vol. 8, no. 1.
- [8] Stephen P. Baginski, Saverio Bozzolan, Antonio Marra,. (2018). Strategy, Valuation, and Forecast Accuracy: Evidence from Italian Strategic Plan Disclosures. *European Accounting Review*, 2 vol. 26, no. 2.
- [9] Stanislav Kreuzer. (2017). Explaining organizational susceptibility to coercive pressure: results from a field experiment on e-invoicing IOIS adoption. *Information Systems and e-Business Management*, vol. 15.
- [10] Thang Manh Hoang, Hoang Xuan Thanh. (2017). Cryptanalysis and security improvement for a symmetric color image encryption algorithm. *Optik - International Journal for Light and Electron Optics*, vol. 155.