

DOI:10.18686/cle.v2i1.3553

Study on the Impact of Blockchain Technology on Accounting Information and Countermeasures

Fengjie He

Philippine Christian University

Abstract: With the passage of time, the application of blockchain technology is becoming more mature. Blockchain technology is capable of recording and tracking transactions and building trust through sharing. This paper expounds the role of blockchain technology in the development and application of accounting information, analyzes and makes audit and financial statements during the collation, and finally provides the applicant with financial report information and affairs to reflect the company's operating results and enhance the credibility and relevance of financial statements. This paper mainly discusses the content, hoping to promote the healthy development of accounting information.

Keywords: Blockchain technology; Accounting information; Internal control

1. The significance of blockchain technology for accounting information development

1.1 Share accounting data in real time

Based on blockchain technology, transactions can be digitally verified, executed and controlled to perform “smart contracts.” Through an open approach, it is easy to provide the necessary formats and standards to all enterprises that have signed “smart contracts”. After the tax application order is issued by the tax office, the compressed block information will be transmitted to the private link of the tax office. The enterprise can directly obtain the tax information from the public chain through the public key. This kind of instant data sharing can not only save communication costs, but also save resources, and is also a safe and effective way.

1.2 Ensure accounting information security

First, decentralization is one of the characteristics of blockchain. The central server data will be centralized without any risk. Second, in this block, every node is encrypted and can be added to the operation. At the same time, all nodes are backed up. Accounting information will have a copy of the data at each end of the chain, and any change will be changed at the same time in each copy. Therefore, the data at the end of the chain is shared and transparent.

The traditional cooperative operation mode is mainly manual operation. Due to manual input and verification errors, information asymmetry between enterprises and other factors, it will cause adverse effects on accounting information operation. However, since the communication of blockchain data avoids human influence factors, accounting data information is more secure. Therefore, the use of blockchain technology can better ensure the security and integrity of accounting information.

1.3 Improve the efficiency of accounting operations

If the blockchain is applied to an entire economy, the transaction will be automatically completed by all nodes in the blockchain, provided that the node meets the execution conditions of the procedures agreed by the participants in the smart contract. In the past, the processing of accounting information was mainly through manual judgment and manual entry according to original documents. However, transactions at each node can be automatically confirmed by code defined by the blockchain.

Initiate validation, measurement, recording, inspection and release. Immediately after a transaction occurs, such as confirming purchase and sale orders for goods, and completing payment settlements for goods, financial information related to the transaction is generated and distributed to those who need to use the blockchain. This method can not only reduce human error, but also form a series of evidence chains that can prevent fraud and be traced, which greatly improves the working efficiency of accounting business and can save costs.

2. Improvement of accounting information by blockchain technology

2.1 Use blockchain technology to enhance the reliability of accounting information records

Blockchain technology makes the recording of accounting information more fair and transparent. Specifically, this involves recording all transaction data on a blockchain into a single program. The data of nodes in different periods are connected in series and stored in a distributed system. In order to ensure the correctness of accounting information, every item is audited. Blockchain “ledgers” are stored in thousands of fragmented pieces of information, held by a decentralized system, and can be checked and tracked automatically by the Internet. In case of system failure, the backup of each node can be used continuously. In blockchain technology, the authenticity of the data is guaranteed due to its own consensus mechanism. When a node’s data changes, blockchain technology can make accounting information more reliable.

2.2 Use blockchain technology to improve the relevance of accounting information

Blockchain technology allows confidential transmissions to be authorized using private keys. When data is exploited, it can be used to build a trust system that allows data to flow across the network and enable peer-to-peer data exchange. For example, through blockchain, a company’s decision makers can get their own or other companies’ sales data. Because it can be compared, this is a data stage that can help in making decisions.

Of course, the connection between this method and real accounting methods is very complicated. Due to the increasing diversification of economic transactions, there will also be changes in new economic transactions, and at the same time, the relevance of accounting information will be generated, and provide greater autonomy for dealing with new economic transaction patterns, and provide more reliable data for decision makers, so as to better grasp relevant accounting information and promote the rapid development of enterprises.

2.3 Use blockchain technology to effectively supervise and control accounting information

Strengthen internal controls. The security of blockchain technology ensures the integrity and authenticity of accounting data. All changes will be made public to ensure that all economic activity is real and traceable. This feature of blockchain technology can enhance the internal control capabilities of enterprises.

Secondly, the audit process is simplified and the cost is reduced. If you can use blockchain to record all economic behavior in the financial system, then relevant personnel no longer need to use those inefficient ledger, document checks to verify the authenticity of information. This saves time and effort to complete all the actions.

Ultimately, the controls are better. Companies can share full financial information with audit, finance, tax and other agencies. The state auditing department may inspect the business and publish the test results in the whole process. In this way, the scope of the operation can be extended so that everyone can participate in the review process to achieve full control.

3. Conclusion

This decentralization, openness, and data sharing characteristics of blockchain can not only ensure the security and reliability of accounting information, but also ensure its transparency and effectiveness. If you want to build a complete blockchain financial system, the capital, manpower and network required are very large. This requires the development of a relatively complete set of

blockchain technology and application of legal norms, and to adjust it accordingly.

References:

- [1] GE Lina, XU Jingya, Wang Zhe, ZHANG Guifen, Yan Liang, HU Zheng. Research status and challenges of blockchain application in supply chain [J]. Computer Applications.
- [2] Yu Kunpeng, Li Wei, Lei Xin. Research on the integration model of enterprise Blockchain technology adoption behavior in food supply chain [J]. Food industry technology.
- [3] ZHANG Jing, LUO Jinghua. Discussion on the integration of Blockchain technology and digital finance [J]. Journal of Guangdong Vocational and Technical College of Communications,2022(04).
- [4] Wu Yanhua. Enterprise Management Innovation based on blockchain technology [J]. Mall Modernization,2022(24).
- [5] Wang Zhuo, Niu Shihua. Blockchain technology solves the problem of small and micro financing [J]. China Finance,2022(20).
- [6] Fang Jing. Research on accounting based on blockchain technology [J]. Modern Commerce Industry,2023(04).

About the author:

Fengjie He (1990.9—), female, Han nationality, Ph. D. candidate, Philippine Christian University, major: international accounting, research direction: accounting.