



INTRODUCTION OF BLOCKCHAIN TECHNOLOGY IN THE PROCESS OF CORPORATE FINANCIAL MANAGEMENT AND ITS PROS AND CONS

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ABSTRACT

This article analyzes the advantages and disadvantages of introducing blockchain technology in corporate financial management, and in the timeline of transactions among public, consortiums' and private blockchain participants.

KEYWORDS: *Corporate Financial Management, Public, Consortium, and Private Blockchain, Bitcoin, Ethereum, B2B (business-to-business) format, Hyperledger, and R3CEV Consortium technologies, ecosystems, transaction costs, smart contracts, cryptographic tools*

INTRODUCTION

Blockchain technology is one of the best technologies for effective corporate financial management. In recent years, the concept of the "digital economy" has become increasingly popular in the scientific and practical activities of several countries. It reflects the transition in the digitalization of business processes in implementing digital technologies in the activities of industrial enterprises, services, financial institutions, and government agencies.

Blockchain technologies (distributed data register technologies), "artificial intelligence", access to supercomputers, and cryptocurrency activities are one area in the development of the digital economy in many countries around the world. Blockchain technologies are gradually being introduced not only in many sectors of the economy but also in the system of public administration and other public relations.

"Block chain" is a distributed, decentralized, public ledger. When we say the words "block" and "chain" in this context, we are actually talking about digital information (the "block") stored in a public database (the "chain"). "Blocks" on the blockchain are made up of digital pieces of information. But this chain is not simple, it has a fixed sequence.

Blocks are information about transactions and transactions within the system, which are represented in cryptographic form. From the beginning and until now, the blockchain is the basis of Bitcoin cryptocurrency. It interconnects all blocks to the chain.

Using this technology, it is possible to identify the data of each person entering a contractual relationship with the company, to have all the information about the partner and to minimize the

potential financial risks. The ability to guarantee the confidentiality of databases relevant to the business of the enterprise can be characterized by the ease of bookkeeping for internal and external audits, the ability to control all transactions, the continuous optimization of transaction costs, and the launch of the smart contracts system. By launching smart contracts, the enterprise will control each contract individually. The ability to monitor economic, social and budget efficiency for each type of contract, identify contracts and counterparties that have a positive and negative impact on the economic potential of the enterprise, analyze the timely implementation and implementation of each contract, within the context of counter-parties, reducing the risk of bankruptcy of the enterprise, diversifying or hedging the identified financial and economic risks.

THE SCIENTIFIC ESSENCE OF RESEARCH

The establishment of corporate financial management and effective use of new information technologies, where digitalization systems and methods, the introduction of new information systems based on digital modeling of the process of corporate governance principles, the use of automated information systems to assess the effectiveness of their supervision, the conditions for the development of the digital economy issues, such as V Is reflected in O. Hudzynskiy's research.

Don & Alex TapScott, in his work The Blockchain Revolution, described the blockchain as a digitally distributed magazine of economic transactions. It is a programmed system for keeping many financial

transactions and transactions with economic profitability. In his works, William Mougayar outlines the impact of blockchain technology on the activities of business entities through specific case studies and discusses the challenges that exist today in implementing this technology and how to address them.

Also, we have implemented several blockchain analytics based on Greenwich Associates data on introducing blockchain technology in corporate financial management.

In the present study, the importance of blockchain technology in the activities of business entities, taking into account the best practices of foreign

countries to further develop the digital economy, while ignoring the above research, is of scientific importance.

ANALYSIS AND RESULTS

Before introducing blockchain technology in the process of corporate financial management it is advisable to analyze the mechanism of its actual functioning. They require blockchain technology firms in the conditions necessary for the implementation of all aspects of technology and the study of specific aspects of the procedure. Blockchain technology, which can apply to enterprise management, can be conditionally divided into the mass, consortium and private. (Figure 1).

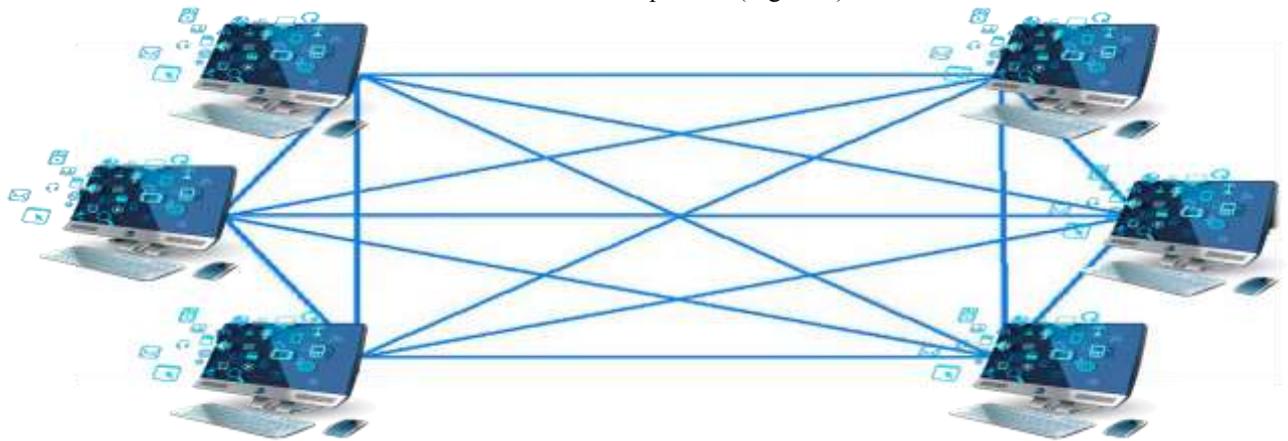


Figure 1. The technology of mass blockchain in corporate financial management.

Titles the picture looks clear, each of the counterparties involved in the process will verify its transaction, participate directly in the operations, and monitor these transactions. For example, a transaction involving 100 people in a blockchain chain is available for 99 participants, even when their computers are off and open for viewing. Each link in the Blockchain chain has its closure, and all of the participants' transactional data are located in that link. From this, we can conclude that

blockchain is a system in which they interconnect all elements.

The use of consortium blockchain is widely used in corporate financial management. The consortium blockchain technology application process at all contractors participating in the special powers selected can be determined in advance of their rights and obligations. This process is structurally characterized by the ability to select specific nodes. (Figure 2).

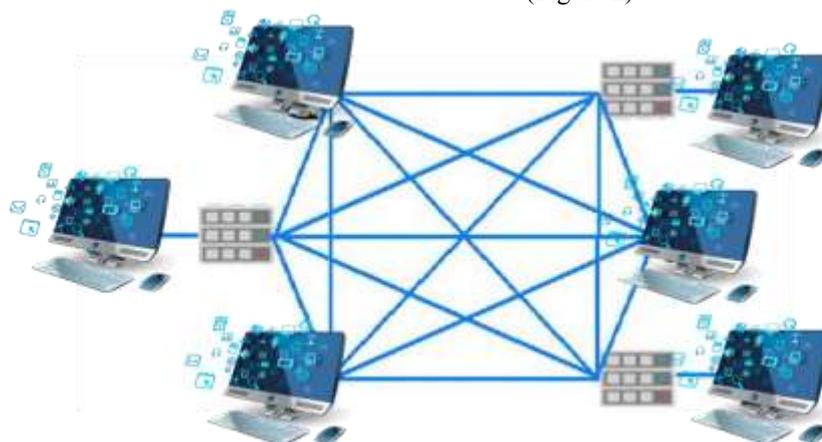


Figure 2. The technology of consortium blockchain operation in corporate financial management.



Usually, this blockchain is widely used in business operations within the B2B (business-to-business) format. Figure 1 shows that the consortium's blockchain data may be open or closed, indicating that it can participate directly in corporate governance operations using mass blockchain technology and to monitor these transactions from scratch. The species is also partially decentralized. Hyper ledger and R3CEV Consortium

technologies, which are widely used today, are a good example of this type of blockchain.

Blokcheyn's private tour of the technology involved in the blockchain, they respect the boundaries set by the chance of nodes is limited, and each node within the competence of this blockchain to take part in a. (Figure 3).

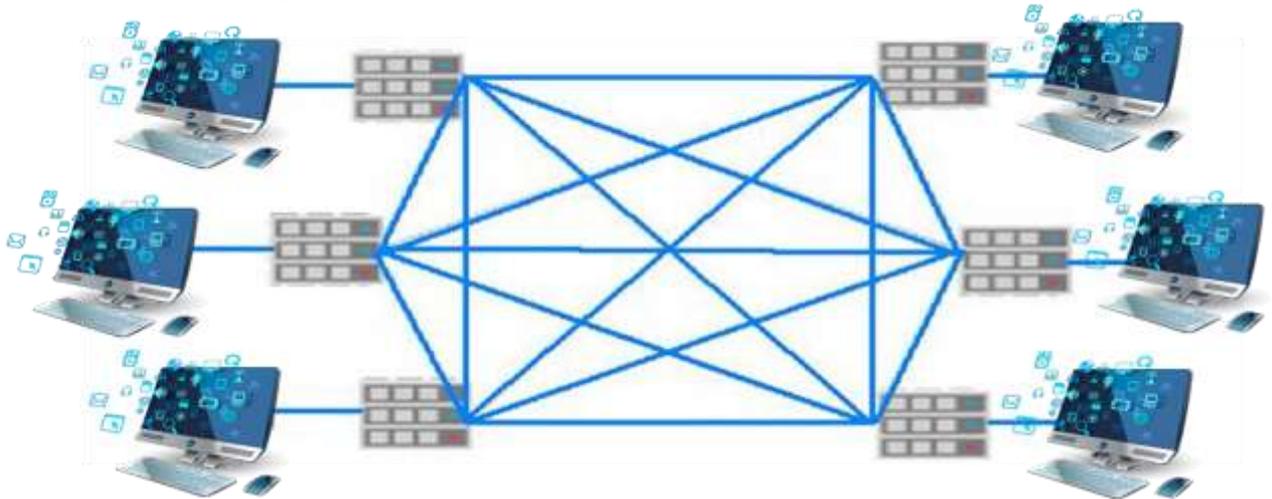


Figure 3. The technology of private blockchain operation in corporate financial management.

The scheme in Figure 3 differs from the mass and consortium blockchain technology. This is because blockchains in this category define strict limits on access to data. It will carry out operations within the designated authority and provide oversight.

By analyzing the benefits of blockchain technology it is possible to test the potential of these technologies in today's practice. The benefits of using blockchain technology in corporate financial management are:

Allocate. Blockchain technology involved in each of the b varnish value-chain to the database directly from the central administrative control could block transport system n is an opportunity for some centralized application logic, instead of being able to blockchain operations of its validity and limitations of the having evidence of authority to exercise. Because of the synchronous operation of the blockchain nodes, a consensus mechanism can be used and transactions can be independently verified and processed.

But why is it useful to isolate blockchains? Because the database is visible, even in bits and bytes. If the contents of the database, such as banks and government's reliable organization, even if the third party T Arafat managed from a comp -sets system memory and disk remains, this system may interfere with any person having the right to access to information. Thus, third-party organizations, especially those managing important databases, need to hire a

large number of people and work out many processes to keep that database intact. All this is time-consuming and time-consuming.

Strong users not only manage all their data and transactions but also analyze the database they collect regularly.

HIGH-QUALITY DATA

When using Blockchain technology, a large database of corporate financial management will cover all aspects of management. Based on this database, complete, consistent, concise and accurate analytical data will be available. It is also possible to make high-quality scientific and practical predictions based on the data collected, to identify problem situations and to develop measures to eliminate them in a short time.

Ensuring sustainability. Because of the decentralized network system, the blockchain has no centralized failures and can withstand malicious attacks, and the storage of the database is endless. This will allow you to create a database of reliable data on each financial transaction made during corporate financial management.

The integrity of the process will allow users to trust that it transmits the protocols under the protocol, without precisely eliminating the need for a third party. This is a guarantee of the integrity of the data and processes that apply to corporate financial planning.

Transparency and invariability mean all parties that create transparency can see that changes in the



collective blockchain, and that all transactions that are made remain unchanged, the ability to modify or delete them. This can help ensure the full transparency of the corporate financial management process.

By integrating all operations into a single ledger by simplifying a transparent system, helps to simplify the financial management process and improve efficiency, preventing duplicate transactions from being displayed. Rapid transactions may take several days for interbank transactions, especially over time, to make payments and final settlement. All blockchain-related transactions allow the transaction time to be reduced to minutes, minimizing the impact of time and space factors on performing financial transactions.

Continuous optimization of transaction costs. Third-party blockchain can significantly reduce transaction costs by controlling and periodically optimizing transaction fees by eliminating additional costs for intermediary and asset replacement. One of the main achievements of blockchain technology is the continuous optimization of the total cost of ownership of enterprises.

Record Exchange Management Blockchain technology enables various parties (such as clients, trustees, and regulators) to get their copy of the recording system together.

The ability to perform all financial transactions quickly, accurately and completely is also a breakthrough in blockchain technology and allows you to make various calculations.

USING SMART CONTRACTS, BLOCKCHAIN TECHNOLOGY OFFERS MANY OPPORTUNITIES

In particular, as a result of intelligent contracting arrangements with counterparties, the entity can use the enterprise to verify the performance of its counterparties and to resolve any associated problems. For example, corporate financial management can make financial transactions such as accounts receivable and payable more effective.

They can also use blockchain technology can also as a new trading platform, trade transactions to reduce costs, increase sales, optimize the costs of signing trade agreements I tested to reduce capacity.

The operation of blockchain technology during corporate financial planning can serve as a key to achieving economic efficiency. Implementing transactions directly between the two parties without

the presence of a third party will enable automatic and smarter management of smart contracts and commercial transactions, ensuring that they are implemented quickly and easily. Therefore, this directly regulates each process and minimizes the impact of the time factor.

Ability to audit. Blockchain technology allows you to fully process the process, to produce various analytical reports on each transaction details, to investigate them, to identify hidden risks, and to develop measures to address them. This allows assets to authenticate each data and is important in making corporate financial planning decisions. It will be possible to monitor performance through monitoring the financial performance at each stage of the sales chain, allowing for full implementation of the monitoring process.

Because of implementing Blockchain technology, the principle of transparency is fully developed, and the database of each stage of corporate financial planning is transparent for each participant and allows for individual control. Timely access to databases in business processes can provide solutions to many of the most challenging situations.

Security. The security of this technology is the continuous logging of each financial transaction using blockchain technology in corporate finance management, and the creation of sophisticated cryptographic records across the network, and the use of complex mathematical algorithms to validate the data.

The existence of constant communication. Blockchain technology is another advantage of this opportunity to feedback. This technology is due to be followed during the entire life of the assets, the assets between producers and consumers short-term assets is easy to monitor and increase the efficiency of the decision-making process can be recognized.

Blockchain technology allows you to use special digital currencies to make special trading deals between businesses. Figure 4 presents an analysis of the performance indicators of blockchain technology used in the corporate financial management of a foreign enterprise, resulting in a 73% reduction in operating costs of the enterprise, 69% of time spent on calculations, and 57% of the risk.

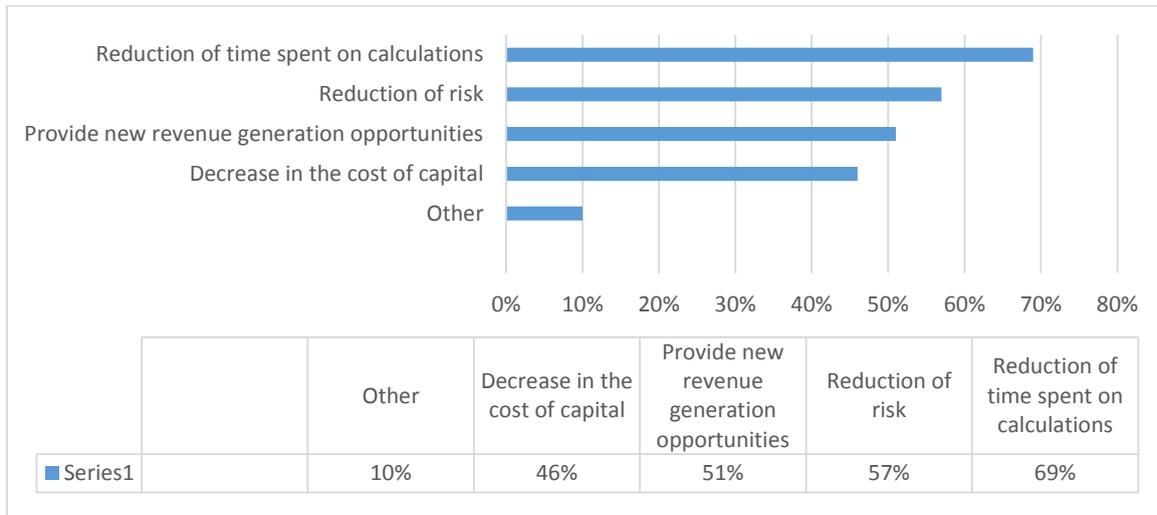


Figure 4. Analysis of performance indicators achieved through the use of blockchain technology in the corporate financial management of a foreign enterprise.

Implementing additional operations will ensure the improvement of the system in the process of corporate financial management.

A regular check of electronic signatures. Each blockchain transaction requires a digital signature using an open cryptographic scheme. This is because transactions are distributed among peers in the peer network, so they cannot prove their source otherwise. Creating and verifying these signatures is computationally complex and unique. In centralized databases, once it establishes a connection, it does not even have to check each request individually.

CONCLUSION

The conclusion that the consensus mechanism through blockchain distributed network nodes to ensure consensus in the database, such as power consumption is required in the menu. The current consensus according to the mechanism of this important communication back and forth or referred to as a special plug it requires a deep treatment method. Centralized databases can deal with conflicting and canceled transactions, but they will process them in one place. When a centralized database processes transactions once or twice in a blockchain, each node must process independently them in the network. The speed of all transactions, the ability to check them regularly, and the limitations of access to data increase the value of blockchain technology. Operation of the Blockchain network will cause 450,000 trillion per second of transaction investigations using large amounts of computer power. While there are solutions that are private or allowed blockchain and strong encryption, it is desirable to recognize that there are also cybersecurity issues that need to be addressed before public data can be transferred to the blockchain solution.

Blockchain programs also require a significant change or complete replacement of existing systems.

It also calls for further improvement of blockchain technology in the following areas:

- ✓ prevent identity theft;
- ✓ enable timely detection of counterfeit senders and recipients;
- ✓ theft of assets and nodes or the termination of another person;
- ✓ targeting bitcoin miners;
- ✓ quickly detect distributed nodes and restrict the access to malicious code in a distributed ledger;
- ✓ limiting the circumference of access and exit nodes;
- ✓ preventing transaction details, identity theft, and many measures are being taken in these areas.

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