

# Research on the Construction of Global International Trade Center Based on Blockchain Technology

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**Keywords:** Blockchain technology, Global international trade center, Advantages, Problems, Paths.

**Abstract:** The accelerating process of economic globalization has a profound influence on the urban pattern of the world, urban internationalization has become a major trend of urban development, and the Global International Trade Center is an important springboard to realize the internationalization of a city. At present, the construction of the global international trade center is still facing some urgent problems. In view of this, based on blockchain technology, based on the elaboration of the advantages of blockchain technology, this paper comprehensively analyzes some of the problems faced by the construction of the Global International Trade Center, and puts forward a series of countermeasures such as using blockchain technology to reduce operating costs, improve the efficiency of information processing, and trace information to the source. In order to provide some reference and reference for the construction of the Global International Trade Center.

## 1. Research background

### 1.1 Literature review

Maang and other scholars have defined the concept of blockchain, introduced the type, characteristics, system basic processes, system framework and other content, and expounded the application of blockchain in the financial and non-financial fields (Ma et al, 2017). Li Guolin and Wang Yunfeng analyzed the necessity and reality of building an international trade center in Guangzhou, pointed out the gap and constraints in building an international trade center in Guangzhou, and put forward some countermeasures to speed up the construction of the Guangzhou International Trade Center (Li and Wang, 2016). Liang Rijie introduced the background and related topics of blockchain and presented the opportunities and challenges facing blockchain (Liang, 2018). Tu Hong and Liu Cheng analyze the characteristics and application evolution of blockchain technology, and systematically study the application of blockchain technology in the field of international trade and international finance (Tu and Liu, 2018). Li Haibo pointed out a series of problems existing in cross-border e-commerce, discussed the feasibility of blockchain technology in cross-border e-commerce, and put forward the relevant countermeasures of blockchain to solve cross-border e-commerce problems (Li, 2018). Li Qiming and Zhang Qian systematically analyze the existing problems of international trade and the advantages of blockchain-based international trade business model, and point out the implementation bottlenecks of blockchain-based international trade business from the aspects of technical capability, supporting implementation, national policy and social awareness (Li and Zhang, 2019). Zhang Yuhuai and Yu Feng pointed out the current problems in the exchange of international trade and financial information, and expounded the use of blockchain and smart contracts to improve the existing trade process (Zhang and Yu, 2018). Jiang Lili believes that blockchain has the characteristics of de-centralization, self-trust and non-tamperability of information, and in view of the credit problems existing in international trade, comprehensively studied the use of blockchain to crack the international trade credit problem (Jiang, 2017).

### 1.2 Purpose of research

At present, the world has set off a wave of innovation on blockchain technology. Blockchain, as another high-tech technology after artificial intelligence, big data and cloud computing, will drive a

new round of industrial change and technological innovation around the world. In the process of building the Global International Trade Center, we still face a series of problems, blockchain-based smart contracts, blockchain has the advantages of decentralization and transparency, consensus mechanism and anonymity, tamper-proof and traceability, which will effectively promote the development of international trade and the construction of the Global International Trade Center. Based on the advantages of blockchain technology, this paper studies the problems faced by the construction of the Global International Trade Center and the solutions, and tries to provide reference and reference for the construction of the Global International Trade Center.

## **2. Benefits of blockchain technology**

In the course of global trade development, information exchange is often carried out through closed peer-to-peer systems, which also creates the problem of misalignment of transactions and the lack of uniform standard procedures and documentation. Blockchain technology can not only reduce transaction costs, but also further simplify the transaction process of cumbersome procedures. Blockchain technology has the function of reducing trade cost and review cost, and improving the transparency and accuracy of transactions. Compared with traditional technology, blockchain has the following advantages. First, simplify the cumbersome process of trading. Blockchain technology can omit repetitive paper data and manual work, reduce the cost of work and time, and guarantee the credibility of data sources. Second, improve security. Blockchain technology can solve the problem of data tracking and information security, because the relevant data is difficult to tamper with easily, corrupt institutional systems are difficult to collude with each other and falsify data. Third, the data is fully recorded. All transaction information and transfer processes of the blockchain are recorded in distributed ledgers for storage, ensuring the integrity of data records, thus providing customs officers with more convenient and reliable operational data. Fourth, the mesh direct collaboration mechanism, more transparent. Unlike traditional methods, blockchain technology takes a peer-to-peer approach to connecting relevant parties and jointly maintaining the system, with clear responsibilities and no transfer of power to third parties, which facilitates better synergy between the parties. Blockchain will become a new collaborative model of high efficiency and low cost, resulting in new collaboration mechanisms at lower cost and wider scope.

## **3. Problems in the construction of the global international trade center**

### **3.1 A lot of formal documents are involved, and the running cost is high**

There are many legal provisions and rules and regulations involved in the construction of the Global International Easy Center, resulting in many paper documents, such as port documents, sales contracts, transport documents and export documents. These documents need to go through many parties, including payment and transportation, and the entire operation takes a long time. The standardization of paper documents has been slow due to the different languages, organizations and laws involved in many countries. In international trade, when a trader orders a warehouse, the transportation path of the paper formal documents also starts simultaneously. Dozens of different transfer documents need to be completed and approved before the goods leave or enter the port. Single international trade transport often involves dozens of documents, and a large number of documents to a large number of customs, banks and agents and other institutions.

### **3.2 The business process is more complicated and the operation efficiency is low**

Compared with traditional domestic trade, the subjects involved in international trade include not only the parties to the transaction, but also the subjects such as customs, regulatory agencies and auditing departments. For example, in the letter of credit business, a large amount of information and documents need to be transferred by exporters, importers, issuing banks and carriers. If the relevant documents appear incorrect or inconsistent, it is likely to be shipped. It is difficult to export smoothly, goods are confiscated by customs and defaulted on payment. Due to the large differences

in exchange control policies between countries, the distance between the parties to the transaction and the long delay in collection and delivery, it is difficult to meet the demand for timely arrival of cross-border payment methods. In addition, due to the frequent changes in international exchange rates and the longer international trade cycle and other factors, to a certain extent, increased the international exchange rate fluctuations to enterprises, the foreign exchange of the payer of foreign exchange risk. It can be seen that the cumbersome business process affects and restricts the operational efficiency of the international trade business and the construction and development of the international trade center.

### **3.3 Falsifying trade information, there is a risk of fraud**

In the process of construction and development of the global international trade center, there is a problem of forging trade information. A large amount of information and documents in international trade are stored in different participants. To a certain extent, there is a risk of fraudulent use of information asymmetry to forge official seals and documents. For example, in recent years, Ugandan businessmen have used the name of well-known foreign companies to register an intermediary company in Uganda, and use information materials and popularity to falsify official seals and documents, and sign false contracts, causing Chinese export enterprises to be defrauded and goods stranded in ports. As a result, high port charges have been incurred, causing significant losses to Chinese exporters. In addition, these unscrupulous traders will also use the letter of credit fraud, mainly in the following fraudulent manner: the applicant for the certificate is deceived by altering or forging a letter of credit; using the name of the virtual issuing bank, forging a letter of credit, and then benefiting People commit fraud and so on.

### **3.4 Product anti-counterfeiting effect is not good**

The supply chain involves all aspects from the production to distribution of goods, and the scope is very wide. Consumers lack a reliable way to ensure the quality and authenticity of goods. Therefore, in the process of the construction and development of the global international trade center, the problem of the proliferation of counterfeit market is still faced. These fake and inferior products not only harm the interests of consumers, but also damage the good development environment of international trade, and sometimes even lead to international disputes. Although there have been some solutions, but generally through the third-party platform of logistics information sharing. It mainly relies on the third-party intermediary platform's endorsement, this solution cannot really avoid the third-party intermediary platform and other enterprises jointly tamper with and falsify data risk. In addition, if the central information sharing platform failure, will affect consumers to carry out information inquiries, cannot guarantee the accuracy of anti-counterfeiting traceability information.

## **4. An analysis of the path of the construction of a global international trade center based on blockchain technology**

### **4.1 Reduce operating costs with smart contracts using blockchain technology**

Building a global international trade center to process a large number of documents based on blockchain technology, saving operating costs. One of the changes that blockchain technology can bring to the construction of an international trade center is smart contracts. Smart contracts can modularize and digitally store all business documents and trade contracts, and trigger transaction execution once the trading conditions are met. Blockchain technology can not only greatly reduce the cost of document issuance, circulation and storage, but also avoid the occurrence of damage or loss of related files, and gradually realize the paperless operation in the process of trade information circulation.

### **4.2 Take advantage of the decentralized and transparent nature of blockchain technology to improve the efficiency of information processing**

The construction of the Global International Trade Center will streamline the trade operation

process through blockchain technology and continuously improve the efficiency of information processing. Decentralization is arguably one of the most important features of blockchain technology, and decentralization is also the core value of blockchain technology. In the blockchain, there are no central data platforms or intermediaries such as exchanges, and all parties are able to use the P2P network to trade and communicate. Blockchain technology is transparent, the transactions and documents stored in the blockchain and other information can be shared with the parties to the transaction, blockchain technology can simplify the international transaction information and business documents and other processes in different agencies. Therefore, the transparency and decentralization of blockchain technology can realize the flattening of the traditional international trade operation process, further streamline the operation process, improve the efficiency of information processing, reduce the settlement time of cross-border trade payments, and effectively avoid the risks caused by international exchange rate fluctuations when cross-border trade payments are made.

#### **4.3 Use the consensus mechanism and anonymity of blockchain technology to ensure true and reliable information**

The construction of the Global International Trade Center should make full use of the consensus mechanism of blockchain technology to effectively curb all kinds of fraud. The implementation of all aspects of international trade needs the consensus confirmation of the participants in the transaction, so as to curb the international trade process illegal businessmen to sign false contracts and forge disparation signed official seals and other fraud. All regions should make full use of the consensus mechanism of blockchain technology, and the bank, customs and other institutions should carry out identification and qualification of trade participants before carrying out business links, so as to ensure the credit level of the participants. In addition, blockchain technology is anonymous, which refers to the storage of only the addresses of trade participants in the blockchain, and the addresses of trade participants are made up of several undeclassified codes. In the absence of authorization, it is not possible to identify all participants in the trade, thereby ensuring the neutrality of the parties involved in business confirmation.

#### **4.4 Using the anti-tampering and traceability of blockchain technology to trace the source of information**

The construction of the Global International Trade Center should combat counterfeit and inferior products through blockchain technology and safeguard the rights and interests of consumers, so as to create a good environment for the continuous development of international trade. In the blockchain, the information is stored in the block, the information in the block is mainly in accordance with the order of time to bridge, if the modification of the information in any block will result in subsequent block data changes. In a blockchain where data information is highly consistent, it is easy to monitor participants who tamper with data. Data information stored in the blockchain cannot be deleted, and valid data modification is an append operation after the original information, and all information can be queried in the blockchain based on the hash value of the information. In addition, blockchain technology can be used to monitor all aspects of goods from shipment to transport, as well as to achieve the monitoring of goods from the factory to the sale of all links, thereby reducing the risk of adulteration of goods.

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