The Possibility and Regulation Path of Block Chain + Cross-Border E-Commerce

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Abstract: The scale of cross-border e-commerce and online shopping is continuously expanding, and the e-commerce of our country has also entered the stage of vigorous development. With the innovation of trade mode and science and technology mode, our country's electronic commerce is gradually developing to the key transition stage. In this development process, cross-border e-commerce trade also appeared a series of problems. Using blockchain technology to conduct cross-border e-commerce transactions can effectively solve the trust mechanism problems in e-commerce trade.

1. Introduction

Block chain refers to a system of recording transaction information reconciliation involving many participants, which uses distributed storage technology to form linked structure data according to the principle of first-place connection and time order. The block chain system with cryptography technology has good security performance and ensures that it will not be tampered with in the process of point-to-point information data transmission. Every piece of information is a block, and the information contained represents an information activity. The "chain" in the block chain represents the information block connection rule, and the block chain is the information database composed of many information chains. Using blockchain technology for cross-border e-commerce trade can reduce transaction costs, enhance business mutual trust and improve trading opportunities. Under the mode of cross-border e-commerce transaction, the main body of the transaction belongs to different customs, and after completing the transaction and making payment and settlement, the cross-border logistics is used to realize the circulation of commodity transactions. From the trend of trade development in the whole world, international cross-border trade has now become an important driving force for the development of the world economy. Cross-border e-commerce has broken through the obstacles between countries, realized international trade without borders, and realized multi-dimensional and three-dimensional multilateral trade.

2. Block Chain Technology

2.1. Technical Characteristics of Block Chain

Using distributed computing and storing data, it is a decentralized system that can realize shared books and orderly encryption. The distributed records in the blockchain have traceability and non-tampering, which is helpful to construct the e-commerce platform and have great value for the management of the product supply chain. Among them, it is very important that many nodes in the supply chain can use the blockchain to construct the trust mechanism of the stable point, and the centralized platform based on the trust mechanism can reduce the litigation and disputes that may arise from commercial trade. At present, all internet transactions are based on a central transaction, and e-commerce has a very wide and large-scale internet that business, in which almost all the major domestic e-commerce giants participate, but also promote the development of internet-based e-commerce trade. Cross-border e-commerce trading center platform, vulnerable to network attacks

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in different regions, data processing speed is also very slow, cross-border payments also need to pay commission. Using blockchain technology to conduct cross-border e-commerce trade, all records and authorizations of transactions will keep bills, and users of the system will reach a trust consensus, no need to use intermediaries, all transactions can be implemented point-to-point.

Figure 1 Block chain technology

2.2. Feasibility of Application of Blockchain Technology in Cross-Border Trade

In essence, supply chain and blockchain technology have a lot of consistency in the operator, there are many nodes in these chains, these nodes interact and transmit each other in a valuable way, all the transmission behavior is conditional on mutual trust. By applying the blockchain technology, the trust mechanism of the system can be constructed by using the non-tampering property of the blockchain. In blockchain technology, TOKEN is a key element, which is distributed and decentralized, and is essential to realize the trust mechanism of blockchain. In the process of cross-border e-commerce trade, whether it is the marketing of suppliers or the shopping behavior of users, it can make use of the pass card to realize the deduction or preferential treatment, and the pass card can flow in the user center to realize the marketing efficiency.

3. Application of Blockchain Technology in Cross-Border E-Commerce

3.1. Payment System

Block chain technology can solve the problem of remittance payment in traditional cross-border e-commerce. In traditional wire transfer, although the payment system is gradually improved, it can also quickly reach the recipient's account, but the intermediary's participation will pay a considerable fee. These charges generally include two parts, one for handling fees and the other for telecommunications, which makes it difficult to predict the amount of deduction in the payback. If blockchain technology is applied to the payback of cross-border trade, then third-party financial institutions can be eliminated, allowing users to complete cross-border transactions through faster efficiency and lower costs, and realize the payment of cross-border funds. The transfer based on blockchain technology is equivalent to the local transfer, which can save time, money, openness, transparency and so on, which greatly improves the efficiency of the transfer and reduces the risk of the transfer of funds.

3.2. Trade Chain Construction

The biggest obstacle to cross-border e-commerce trade is the credit problem of both parties, so the most important technology is to solve the credit problem of both parties. Using the characteristics of decentralization and consensus mechanism in blockchain technology can effectively solve the trust problem of cross-border e-commerce transactions and thus provide new technical support. In this case, it is necessary to build a public chain of e-commerce trade chain, so as to construct the nodes of import and export enterprises, consumers and traders in cross-border e-commerce. For example, all the trade participants in the B2B, B2C trading mode belong to the specific node of the transaction chain, and each node can find the transaction node with consensus through the transaction chain. These transaction nodes together ensure the effectiveness and

security of the whole transaction, and all the participants will jointly maintain the transaction chain and ensure the healthy development of the whole transaction chain.

Figure 2 Cross-border trade

3.3. Effect Analysis of Trade Chain Construction

The positive and negative list system of cross-border e-commerce can be implanted into the trade chain. Compared with the traditional network trade platform, the blockchain based trade chain has higher regulatory efficiency and lower quarantine risk. In order to avoid non-standard goods entry, we should combine the traditional clear rules of national inspection and customs to name them. All trade chain positive list products based on blockchain technology are credible, so long as the trade chain confirms the credible products then can enjoy various convenient customs clearance policies when entering the territory. For negative list products in the trade chain, entry can be refused from the source, thus reducing quarantine risk. Based on the trade chain of positive and negative product list system, most cross-border e-commerce transactions can be carried out through this trade chain, which can be "poked" in the block chain for regulatory proof, greatly improving the level and efficiency of regulation.

Figure 3 Secure cross-border trade based on blockchain technology

4. Recommendations for Cross-Border E-Commerce Based on Blockchain Technology

4.1. Logistics Proposal

At present, most of the blockchain technologies are in the financial field, but the distributed accounting and traceability in the blockchain core technology can be applied to the logistics field. The cross-border logistics system is composed of multiple multi-party participation with common

interests, which is very consistent with the characteristics of multi-technology node participation in blockchain technology. Because in the whole transaction process, the transaction information of the subject of the transaction will be recorded, which is helpful for logistics transportation, storage, tracking and so on, so it can solve the difficulties of high logistics cost and long transportation time, even if the problem of goods damage appears, it can also use the problem of tracing back to determine the responsibility. According to the time stamp, the transaction information is recorded and combed, so that the appropriate intelligent algorithm can be set to optimize the route of goods transportation. Because of the immutability of transaction information, this makes the whole logistics process open and transparent, is a visual management process. The data generated by this transportation process can also provide available data support for enterprise decision-making.

4.2. Countermeasures on Product Quality

The blockchain technology can record the whole process information of the transaction, so the traceability of the blockchain technology can be used to control the product quality. Based on the blockchain technology, the source information cannot be changed, in the product information can be completely correct, error detection, prevention and other positive links. The more detailed the source information of the product, the easier it is to trace back to the source when problems arise, find the source problem, and fundamentally solve the problem. blockchain technology constructs a database that records the source information of goods, which can ensure the authenticity of all goods sources. The transaction body can record all the data information of the manufacturer and supplier in the database through a real-name registered bookkeeping authority to build a public block chain. the blockchain contains material sources, production information, receipt function transaction list, complaint feedback information base, etc. blockchain logic rules are used to process information in these databases, and information query platforms are used to identify cross-border goods to avoid the safe entry of inferior quality products.

5. Conclusion

The cross-border e-commerce trade chain based on block chain can promote the trust relationship between the two sides of trade, reduce the product entry quality risk of cross-border e-commerce, quarantine risk, improve the quality supervision efficiency of trade products, and simplify the customs clearance process of e-sports goods. It can be predicted that with the development of blockchain technology, cross-border e-commerce trade will be more efficient, fast and credible. However, although blockchain technology has a very broad prospect, the application of blockchain technology in cross-border e-commerce trade is still in an early stage, the development of these technologies must be further improved to truly realize industrialization, the underlying technology also needs to continue to promote improvement, and the government also needs to formulate corresponding policies.

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