Application of Block Chain to Russian Cross-border Payment Financial Platform

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ABSTRACT

At present, the rapid development of the Russian e-commerce market and our policy support for cross-border e-commerce have made cross-border electronic commerce a new model for China-Russian economic and trade cooperation, which has greatly promoted the rapid growth of China-Russian trade. However, there are some shortcomings in the payment of cross-border e-commerce to Russia, such as long time consuming, high handling fee, long intermediate link, and so on. Therefore, how to reduce the settlement risk and reduce transaction cost in cross-border payment has become an urgent problem. The application of regional chain technology to cross-border payment will help solve this problem.¹

KEYWORDS

Cross-border payment; settlement risk; Regional chain Technology

INTRODUCTION

Under the strategic plan of "Internet accelerated speed" and the initiative of "Belt and Road", cross-border e-commerce between China and Russia has developed rapidly. According to statistics, the volume of cross-border e-commerce between China and Russia was about $2.3 billion in 2016, accounting for 54 percent of total cross-border e-commerce trade in Russia. In the first half of 2017, China and Russia crossed the border. The total volume of cross-border e-commerce trade is about $1.6 billion, an increase of 26.6 compared with last year. From the above data, it can be

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seen that in the field of cross-border e-commerce, China has obviously become an important partner of Russia. Therefore, it focuses on the current situation and future development trend of cross-border e-commerce between China and Russia. It is of great significance to find out the motivation that hinders its development and to work out corresponding solutions to promote the development of cross-border e-commerce between China and Russia.

**AN ANALYSIS OF THE CURRENT SITUATION OF CROSS-BORDER PAYMENT TO RUSSIA**

In recent years, China's cross-border e-commerce payment with Russia has usually been done in partnership with third-party payment platforms, the main platforms of which are Ali Express, eBay and Amazon. However, when using third parties to make cross-border payments, there are usually some embezzlement disputes, and there are relatively high handling fees, and there are too many requirements in the process of setting up offshore payment accounts. At the same time, because of the geographical location of the trading counterparts involved in cross-border e-commerce, the longer the interval between shipment and receipt, coupled with the fact that countries have different tightening policies on foreign exchange controls, the current cross-border means of payment are generally unable to meet the need for timely arrival and exchange rate fluctuations. To a certain extent, it increases the foreign exchange risk and exchange rate fluctuation risk of the recipient.

**INTRODUCTION OF REGIONAL CHAIN TECHNOLOGY**

The principle of block chain technology is to use cryptographic algorithm to calculate and record the interactive data formed on many nodes in the block chain system, and generate the secret key of the block to verify and link the next block. All participating nodes in the system jointly guarantee the authenticity of the record.

**Decentration**

Decentralization is the choice of centers through nodes and the freedom to define centers. In a decentralized system, everyone is a node, each node has the possibility of becoming a periodic center, but not the possibility of a mandatory control center.

**Detrust**

By using the regional chain technology rules to increase the credit, each transaction can be repelled by other nodes as long as the malicious cheating
behavior exists, so the trust relationship between point-to-point can be established without relying on the central authority.

Traceability

There is a hash pointer to the last block on each block, by which the transaction is created according to the chronological order of the transaction, and the data structure becomes the block chain. Any block on the block chain records all the information of the previous block, so that each transaction can be traced back.

CONSTRUCTION OF CROSS-BORDER PAYMENT PLATFORM BASED ON REGIONAL CHAIN TECHNOLOGY

By using block chain technology, we can distribute the information recorded in any circulation link to the corresponding block, customers can view the transaction progress and purchase information anytime and anywhere, once the goods are delivered to the destination, they can trigger the intelligent contract to enable the system to complete the whole delivery process automatically, and solve the problems existing in the traditional payment method. Such as: longer time-consuming, higher handling fees, intermediate links, and so on.

At present, most of the cross-border e-commerce in payment links are completed by a third-party intermediary, but its security and credibility is tested. Using the technique of multi-signature of regional chain, the control of funds is controlled by the seller, buyer and notary. If there is no trust dispute between buyer and seller, they can trade freely without notaries’ participation. And then create a more fair payment platform.

At the same time, the traditional block chain system is highly open, everyone can find relevant data on the block chain and related applications. this helps to ensure the authenticity and integrity of transactions, it also increases the area chain workload proof operation and further increases its cost. Therefore, this paper innovate the traditional block chain model and participates in it by setting up management. In this way, a safe and healthy new model can be set up, which can greatly reduce the operation period, realize the effective expansion of the system.

CHALLENGES TO REGIONAL CHAIN TECHNOLOGY

Although block chain technology has many advantages in cross-border e-commerce payment, it also faces challenges in terms of technology, talent and law.

First, Block chain technology helps users to trace and share information better, but it brings new challenges to the security of data information, such as the storage of private keys, the setting of permissions to different nodes, and the resistance of payment systems.
Second, there is a need for complex talents. In the Internet era, the change of the technological environment may affect the frontier technology and innovation of the regional chain. Therefore, complex talents are urgently needed to improve the practicability and maneuverability of cross-border ecommerce.

Third, we need to pay more attention to the formulation of some relevant laws so that they can effectively solve the shortcomings of the existing payment mode and provide a relatively loose legal environment for the application of blockchain technology in cross-border e-commerce.

CONCLUSIONS

At present, China has gradually expanded the center of development of e-commerce from domestic to global, and formed an integrated cross-border e-commerce. This paper makes full use of the decentralization of block chain, traceability, intelligent contract and other technical advantages, which provides a new way of thinking for cross-border e-commerce in the payment process of payment risks and user information security and many other aspects. Make cross-border payment more secure, convenient and reliable. At the same time, I hope this paper can provide a reference for the study of the new model of cross-border payment.

REFERENCES