

Research on the Application of Blockchain Technology in the Development of E-commerce in the “Belt and Road” Region

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Abstract: The proposal of “One Belt One Road” has promoted economic trade and cooperation in the surrounding areas, and has greatly promoted economic development. In this process, the development of e-commerce has played an irreplaceable role. In the process of e-commerce development, the use of blockchain technology can better promote the development of e-commerce and enable e-commerce to serve the areas along the “Belt and Road”. Development needs. Blockchain technology faces both new development opportunities and challenges in the development of e-commerce in the “Belt and Road” region. Therefore, only by analyzing these opportunities and challenges, can blockchain technology be better applied to the development of e-commerce in the “Belt and Road” region.

Keywords: Blockchain technology; “One Belt One Road”; E-commerce development; Application research

Introduction

Regarding the blockchain technology, a unified concept and recognized definition have not yet been formed. In a narrow sense, a blockchain is a chained data structure that uses data as blocks for storage and then links in chronological order.

Compared with other technologies, blockchain technology has obvious characteristics. First of all, this characteristic is reflected in the decentralization of blockchain technology. The blockchain adopts peer-to-peer network protocol networking, which is a decentralized method. Complete data generation and verification through the system architecture, and perform data transmission and maintenance. This method does not require a central organization to directly use pure digital methods to establish trust relationships. Secondly, the blockchain technology has the characteristics of traceability. Every data information in the blockchain technology has a time stamp, and the data is written and recorded in a distributed manner, which makes every data have a time node.

1. The application challenges of blockchain technology in the development of e-commerce in the “Belt and Road” region

1.1 The uneven development of cross-border e-commerce

In the development process of the “Belt and Road”, various countries are linked together, which greatly realizes the sharing of economic resources and promotes the economic development of the regions along the route. In this process, with the help of e-commerce development, all-weather economic transactions have been realized, meeting the needs of consumers in various countries and different enterprises. But in fact, due to the different development conditions of various countries, e-commerce has also formed a clear contrast in the application process. Some more developed countries are relatively mature in e-commerce models, and the application of various technologies is also relatively mature. The blockchain technology has a bright future in the development of e-commerce. On the contrary, the development of e-commerce in some underdeveloped countries is still in its infancy, and there are many problems in the process of applying blockchain technology.

1.2 The slow development of cross-border e-commerce logistics

In the development of e-commerce, a perfect logistics system is the basic guarantee for the development of e-commerce. However, the development of e-commerce logistics is not only inseparable from the structure of the e-commerce system, but also inseparable from the construction of regional and inter-regional infrastructure. In the process of practical application, due to the imperfect construction of e-commerce companies and logistics industry, whether in terms of freight transportation cost or logistics speed, the development of various countries and regions on the “Belt and Road” is still different, which further affects the development of e-commerce, and the impact of e-commerce development will also lead to challenges in the application of blockchain technology, and there are many drawbacks in the application process.

2. Innovative application of blockchain technology in the development of e-commerce in the “Belt and Road” region

2.1 Payment system

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In the development of e-commerce, the construction of the payment system is an important content. During the development of the “Belt and Road” cross-regional e-commerce, due to the different payment systems and currencies used by various countries, payment is subject to greater restrictions in the traditional business and trade process. In the process of e-commerce development, traditional e-commerce transactions also mainly rely on third-party institutions. This also has many problems such as longer payment time, higher management costs leading to increased costs, and exchange rate changes. The use of blockchain technology to create a new payment system can avoid these problems.

2.2 Credit mechanism

The development of e-commerce is always inseparable, and both parties of trade conduct information registration to build a credit system on this basis. The traditional e-commerce development process still relies on third-party platforms to build a credit system, which, to a certain extent, has many problems such as high supervision costs, asymmetric information, and concentrated risks. The use of blockchain technology enables countries and enterprises participating in e-commerce in the “Belt and Road” area to use blockchain technology to enable the system to record and audit data by itself, which can reduce Upload and report the supervision costs of third-party agencies.

2.3 Supply chain management

In the traditional e-commerce development process, the security, traceability and information transparency of the supply chain are always important issues that need to be resolved and optimized. In the process of regional development along the “Belt and Road”, blockchain technology can be flexibly used to solve these problems according to the needs of e-commerce development. First, the application of blockchain technology in the e-commerce mode can ensure that the required information is spread among various blockchain nodes through the distributed consensus algorithm mechanism during the application process, which is conducive to the coordination of supply chain platforms. Cooperate. Since the data in the blockchain is open and transparent, the openness and security of the data can be greatly guaranteed. Secondly, the application of blockchain technology can add time stamps to all types of information, and time stamp technology can trace all types of information, which is conducive to complete recording of all information in the supply chain and various data generated in each link Information can be queried and verified for the first time. Finally, because blockchain technology can use asymmetric encryption technology to encrypt all kinds of information, it greatly guarantees the accuracy and security of information on the supply chain.

3. The strategy and path of blockchain technology in the development of e-commerce in the “Belt and Road” region

3.1 Strengthen policy guarantee

The development of e-commerce in the “Belt and Road” region involves trade between various countries and various enterprises. These trades include not only countries and countries, but also enterprises and countries, and even between individuals and enterprises. In view of the current situation of commercial trade development, in the application of blockchain technology in the development of e-commerce in the “Belt and Road” region, it is necessary to formulate policy guarantees to avoid trade frictions due to the different national conditions of various countries through the role of policies. According to the needs of e-commerce development, combined with the application characteristics and application advantages of blockchain technology, formulate targeted safeguard measures, implement policy support and policy supervision. Only in this way can e-commerce develop in the right direction and the sound development of e-commerce can be achieved. Better application of blockchain technology.

3.2 Establish a cross-border e-commerce platform with regional characteristics

Many industries and products are involved along the “Belt and Road”. In the course of trade and development, corresponding cross-border e-commerce platforms have been established according to the characteristics of each region, so that the development of e-commerce can adapt to the development needs of each region. Therefore, in the process of applying blockchain technology, it is necessary to apply blockchain technology to strengthen the cooperation between e-commerce and various enterprises, and to establish a distinctive e-commerce platform, so as to better promote e-commerce trade development of.

4. Conclusion:

In summary, blockchain technology has broad prospects for the application and development of e-commerce in the “Belt and Road” region. In the application process, it is necessary to carry out innovative applications based on the advantages and characteristics of blockchain technology and the needs of each link in the development of e-commerce, so as to maximize the value of blockchain technology. It is also necessary to formulate targeted development strategies based on the current development of e-commerce in order to promote the development of e-commerce with blockchain technology.

References:

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- [1] Sun Kaijie. The application of blockchain technology in the development of e-commerce[J]. Computer Products and Circulation, 2018(11):69.
 - [2] Sun Yu. Thoughts on the development of cross-border e-commerce in the “Belt and Road” economic zone[J]. Chizi, 2018(02):107.

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