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Ecological Integration of Cross-Border E-Commerce and Logistics in Southeast Asia From the Perspective of Blockchain

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ABSTRACT
With the implementation of China's "One Belt, One Road" strategy, cross-border e-commerce in Southeast Asia has developed rapidly. It is estimated that by 2025, e-commerce transactions in Southeast Asia will account for more than 40% of the total value of the Internet economy in the region. However, due to differences in infrastructure and market structure, the overall development of cross-border logistics in Southeast Asia is lagging and unbalanced, and does not match the fast-growing e-commerce. Therefore, building a harmonious and symbiotic integration of e-commerce and logistics has become a promotion of cross-border trade in Southeast Asia. Starting from the perspective of ecological value chain, this article analyzes the ecological environment and ecological elements of the development of cross-border e-commerce and cross-border logistics in Southeast Asia, and introduces blockchain technology to solve the integration bottleneck, in order to better promote the smooth development of cross-border trade in Southeast Asia.

Keywords: *Ecological integration, Cross-border e-commerce, Cross-border logistics, Blockchain.*

1. INTRODUCTION

In recent years, with the emergence of the “One Belt and One Road” policy and the continuous improvement of Internet technology, cross-border e-commerce has entered a stage of rapid development, of which the Southeast Asian market is the most representative. Southeast Asia is an important region along the “One Belt and One Road”. According to the One Belt and One Road "big data and trade cooperation Report 2018, it is announced that in 2017 years, the Asia Oceania region is the first big trade cooperation with china “along the way“ in the region, imports and exports totaled *8178. 6* billion US dollars, accounting for *56.8%* of the total import and export volume of “ Belt and Road ” countries [1]. Among them, the top five export markets of China to Asia and Oceania are South Korea, Vietnam, Singapore, Malaysia and Thailand, and Southeast Asian countries account for four. From the perspective of the “ Belt and Road ” initiative, the top *10* trading partners in 2017 were South Korea, Vietnam, Malaysia, India, Russia, Thailand, Singapore, Indonesia, the Philippines and Saudi Arabia. Southeast Asian countries accounted for 6 position, these countries total exports into China accounted for *68.9%* of the national total. Statistics show that the total GDP of Southeast Asian countries is currently one-fourth of China, the population (*560* million people) and per capita consumption level are one-half of China's, and the average economic growth rate exceeds *6.5%*. From the perspective of economic aggregates, the aggregates of Southeast Asian countries are the fourth largest economy in the world after Japan. Google and Temasek jointly released a research report that also shows that with the popularization of the Internet and smart phones, the Southeast Asian Internet economy will exceed *US$ 240* billion by 2025 [2]. Among them, the volume of transactions in the e-commerce sector is expected to increase more than threefold to more than *US$ 100* billion, far exceeding the growth rate of physical retail.

However, the cross-border logistics capabilities that support the Southeast Asian cross-border e-commerce market are not satisfactory. According to statistics from the World Bank, the logistics performance of Southeast Asia has been lower than the world average from 2007 to 2016. As of 2016, the logistics performance of Southeast Asian countries was *2.83*, which is *0.05* worse than the global LPI average of *2.88*. These data show that, the overall cross-border logistics capacity of

Southeast Asia is poor, and its logistics operation capabilities cannot provide comprehensive and high-quality services for large-scale cross-border e-commerce [3]. In addition, the logistics performance level of various countries in Southeast Asia is also uneven, and the gap is wide. The 2018 global logistics performance level statistics of the World Bank show that Singapore has a higher level of logistics performance, ranking 7th in the world, while Thailand, Vietnam, Malaysia and Indonesia and other countries, ranking first *30-50* between cross-border logistics system, exporting and importing countries large different in the level of logistics equally affects the long period of cross-border logistics, cargo dock, and many other domestic circulation, this causes inconvenience.

According to the above information, the current development of cross-border logistics in Southeast Asia can no longer meet the rapid development needs of cross-border e-commerce. Therefore, it is necessary to introduce new theories and new technologies to guide the ecological integration of the two, so as to better achieve symbiotic and coordinated development.

2. ANALYSIS OF THE ECOLOGICAL VALUE CHAIN OF CROSS-BORDER E-COMMERCE IN SOUTHEAST ASIA

Liu Zhijian, Hu Ganglan, who proposed the concept of e-commerce ecosystem, on this basis, Zhang Xiaheng, who combines a multi-depth analysis of the results and then proposed the concept of cross-border e-commerce ecosystem [4-6]. Through these study, we can draw the relevant cross-border e-commerce activities of individuals, organizations, species of cross-border e-commerce business ecosystem, which are applied to cross-border e-commerce platform in order to achieve competition, cooperation and communication, further contributed to the complementary advantages and mutual resources, in the process, e-commerce ecosystem presents a multi- element, multi-angle, multi-level characteristics, which stems from the species, the dynamic movement between species and the environment, which are related to logistics, information and energy, including flow, sharing and circulation.

The ecological environment is the key to the survival and interaction of cross-border e-commerce in Southeast Asia. Core species, key species, supporting species and the external social environment can have a significant impact on cross-border e-commerce. Correspondingly, it can be concluded that the ecological value chain of cross-border e-commerce in Southeast Asia consists of four parts: core species value, key species value, supporting species value, and social value. As shown in Figure 1, due to their interaction and mutual influence characteristics, they jointly determine the development of cross-border e-commerce in Southeast Asia.

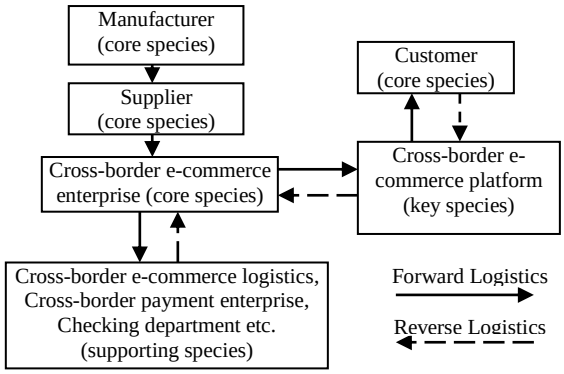


Figure 1 Cross-border e-commerce ecological value chain

The core species plays a leading role in the entire cross-border e-commerce ecosystem such as cross-border e-commerce platform. It can not only provide a platform for commodity trading, but also provide a place for trading entities to conduct commodity transactions. The merchant platform also has a key role, which is to act as a regulator of commodity transactions and strictly control the entire transaction process. In addition, it also assumes the role of integrating resources and communicating information. At present, there are more than ten major cross-border e-commerce platforms in Southeast Asia, and the top three influential cross-border e-commerce platforms are Lazada, Shopee, and Tokopedia. Lazada and Tokopedia are e-commerce platforms invested by Alibaba. In addition, among the top 11 cross-border e-commerce platforms in Southeast Asia in 2019, 6 platforms are invested and operated by China. The strong driving force of cross-border e-commerce platforms in Southeast Asia and more mature e-commerce operation strategies are also reflected in this come out. In recent years, the development prospects of e-commerce platforms in Southeast Asia have been promising. As of 2017, the total e-commerce transactions in Southeast Asia were close to 11 billion U. S. dollars, and it was as high as 23 billion U. S. dollars in 2018. It can be inferred that the total e-commerce transactions in Southeast Asia will be 2025. Will exceed the 100 billion US dollar mark. As a core species of cross-border e-commerce platform, it provides unique advantages for other species.

The key species refers to sellers, buyers, suppliers, manufacturers, etc. This species are key factors to supporting Southeast Asia's huge cross-border e-commerce system. World Bank statistics show that the results, up to 2018, in South-East Asia there is about 6. 55 billion in total population, the number of Internet users up to *2.6* million people, the total population of 40%, and is expected to maintain a monthly 380 million Internet users incrementally, according to the statistics which show that the global average use the network is *4.4* hours one day, as a key species in the value of Southeast Asia, an important part of the Filipino people spend more than 6 hours on the network one day [7-8].

Moreover, as the number of netizens in Southeast Asia continues to increase, buyers and potential buyers will increase, and the value of key species will also increase, ultimately driving the overall level of the Southeast Asian cross-border e-commerce ecosystem. In addition, the operation of the Southeast Asian cross-border e-commerce ecosystem is also closely related to the seller's service attitude and the product quality of manufacturers and suppliers. High-quality service attitude and product quality will provide consumers with a good user experience, and can even make up for the negative impact caused by the long cross-border logistics cycle.

The enterprise, organization or institution that must be relied on in the process of cross-border e-commerce transactions is the supporting species. It focuses on core species and key species to maintain the normal operation of the cross-border e-commerce ecosystem, which can specifically include cross-border payment companies, Cross-border logistics enterprises, relevant government departments, information technology institutions, communication service agencies, customs departments, commodity inspection departments, industry associations, etc.

From the perspective of the relationship between these four, key species is the premise and foundation, and is the pursuit and goal of cross-border e-commerce; supporting species plays a decisive role in the healthy and stable development of cross-border e- commerce ; core species is realize the conditions for the other three; the social of cross-border e-commerce plays a protective role.

3. ANALYSIS OF THE ECOLOGICAL VALUE CHAIN OF CROSS-BORDER LOGISTICS IN SOUTHEAST ASIAN

Cross-border logistics constitute to an important part of cross-border e-commerce ecosystem, this species act as core support around the cross-border electronic business platform, which are essential elements in cross-border supplier business operation and cross-border circulation of commodities, and the two complement rely on each other. Therefore, cross-border e-commerce needs cross-border logistics as a support. Similarly, cross-border logistics companies also need cross-border e-commerce to provide them with more development opportunities. The benefits, logistics cooperation level and future development trends of cross-border logistics are mainly affected by the following two aspects: (1) affected by cross-border e-commerce and international trade; (2) affected by politics, economy, society, technology, etc.

Fig. 2 is the cross-border logistics ecological value chain, which comprehensively analyzes the cross-border logistics ecological value chain in Southeast Asia from the horizontal and vertical.

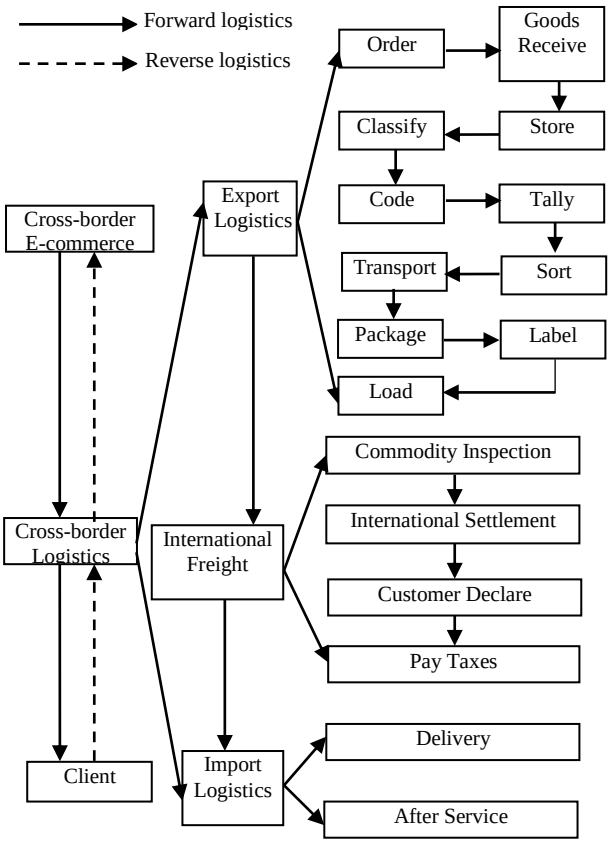


Figure 2 Cross-border logistics ecological value chain

From a horizontal perspective, cross-border logistics consists of three parts: exporting country logistics, international freight forwarding, and importing country logistics. In addition, cross-border e-commerce companies, international trading companies and other partners can also generate benefits for cross-border logistics companies. Therefore, the cross-border logistics ecological value chain at the horizontal level is composed of the logistics value of the exporting country, the international freight value and the logistics value of the importing country. At present, the logistics level of Southeast Asian countries is uneven, that is, the logistics level of Singapore and the logistics level of other countries in Southeast Asia are very different, and the land sector in Southeast Asia is broken, resulting in high cost of logistics express delivery, slow logistics timeliness, and high loss rate [8]. In addition, the exporting country logistics - - International freight forwarding, international freight - - the transfer of the country's imports of logistics, there are still poor communication, which stems from historical legacy in Southeast Asia, and many of its ethnic, language complexity, lack of national unified communication language.

From a vertical perspective, cross-border e-commerce includes many operations in the cross-border logistics process, such as order receiving, receiving, warehousing, classification, coding, sorting,

transporting, packaging, labeling, loading and unloading, and commodity inspection, international settlement, customs declaration, taxation, distribution, after-sales service, returned goods flow, etc [9]. The entire process involves multiple countries and regions and multiple international logistics companies, and the specific value of the cross-border logistics ecological value chain is also reflected in the entire logistics process.

4. ANALYSIS OF BLOCK CHAIN INTEGRATION PATH FROM ECOLOGICAL PERSPECTIVE

4.1. Block Chain Technical Overview

Blockchain is a new application mode in computer technology, which mainly includes the distributed form of data storage, point-to-point transmission, consensus mechanism and encryption algorithm [10]. In essence, it is a distributed database, and because of its based bit credits identification techniques, it is produced by a series of data blocks associated with the encryption method, where in a bit of each currency batch random network transaction information is contained in each data block, their use can be divided into two, one is to confirm the validity of the information (to prevent forgery), and the other is to generate the next block.

The main features of blockchain are:

(1) Decentralization. Blockchain technology is not limited by space and does not rely on any third-party management organization. It can use distributed accounting and storage to exchange point-to-point data, and each node jointly maintains the entire blockchain system [11].

(2) Openness. Although the blockchain system is open, the private information of all parties in the system will be highly encrypted. In addition, as long as the public interface is used, everyone can query the blockchain data and develop related applications, because the data of the blockchain is open to the public, and the entire system information is highly transparent [12].

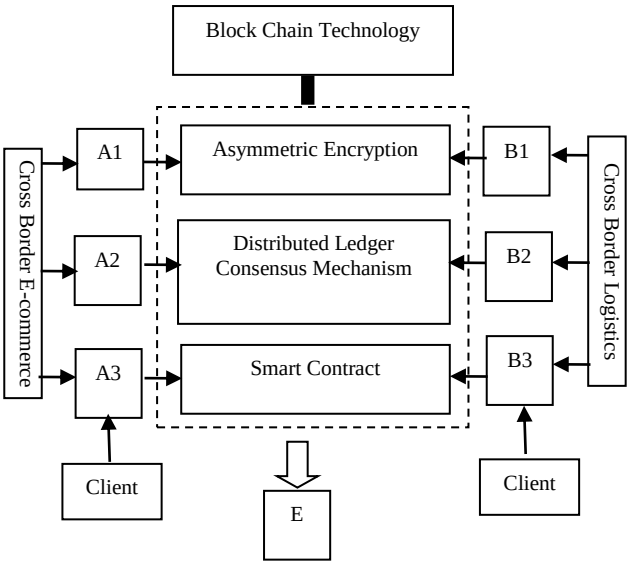
(3) Independence. According to the norms and agreements agreed upon after negotiation, the entire blockchain system does not depend on any third party, which ensures that all nodes in the system can automatically verify and exchange data under high security protection, without any human intervention [13].

(4) Security. In the operation of the blockchain system, as long as the information is verified and added, it cannot be modified. Only in a very small number of cases where 51% of all data nodes are mastered and can be checked in the blockchain system. The second modification prevents subjective and artificial data changes and reflects the extremely high security of the blockchain [14].

(5) Anonymity. Data interaction in the blockchain does not require trust, and neither party to the transaction need to disclose their identities. This is due to the fact that the exchanges between nodes follow a fixed algorithm.

4.2. Analysis of Ecological Integration Path

In recent years, due to good development prospects of cross-border e-commerce and cross-border logistics, the issue of the synergy and integration of the two has gradually received more and more attention, and many experts and scholars have also turned their attention to related research. After consulting many documents, it can be found that most studies are based on theory to demonstrate the feasibility of integration, but there are few studies on the ecological integration of cross-border e-commerce and cross-border logistics based on professional technology. With the continuous development of information technology, the blockchain technology born out of Bitcoin has gradually matured. In recent years, there are many studies based on the perspective of the blockchain, such as Li Haibo (2018), Chen Sicong (2019), Sun Baoquan (2019) and others, after studying the blockchain, they also discussed the countermeasures to solve the problem of cross-border e-commerce in China from their unique perspective [15-17]. They proved the relevant application of blockchain through the research results. Technology has a certain theoretical feasibility for solving the current cross-border e-commerce problems; Li Tingting and Zhong Yan, on the basis of their predecessors, conducted a preliminary study on the application of blockchain technology in the e-commerce logistics industry [18]. The research clearly pointed out in the written literature that the application of blockchain technology can play a certain role in the e-commerce logistics industry. After consulting and analyzing many related documents, the ecological integration of cross-border e-commerce and cross-border logistics is studied and discussed from the application of blockchain technology through this article. The cross-border e-commerce platform plays the role of a core species in the cross-border e-commerce ecosystem. It combines blockchain technology and cross-border e-commerce platform at the same time, aiming to build a blockchain-based cross-border e-commerce platform. In this way, the ecological integration of cross-border e-commerce and cross-border logistics is realized, and the ecological integration of various species in the cross-border e-commerce ecosystem is promoted. The schematic diagram of ecological integration based on blockchain technology is shown in Figure 3.



A1: Misjudgment of cross-border logistics species operation ability, network distribution and logistics performance level in different regions

A2: worried about the information security of their own enterprises, and worry that sharing enterprise information with cross-border logistics species will cause enterprise information leakage

A3: When users ask for return / exchange due to different situations, they often need the customer service of cross-border e-commerce enterprises to query the relevant return / exchange regulations, which takes up manpower

B1: Do not understand the cross-border e-commerce species, hot-selling commodity varieties, audience distribution and potential users in various regions

B2: Worried about the information security of their own enterprises, and worry that sharing enterprise information with cross-border logistics species will cause enterprise information leakage

B3: When customers need to return / exchange goods, they need to contact the logistics company by themselves, which wastes time and reduces user experience

E: Cross border e-commerce and cross-border logistics species selectively share enterprise information on the cross-border e-commerce platform based on blockchain technology, and establish mutual trust mechanism. On this basis, ecological integration can be achieved, and the capacity gap between the two sides will gradually narrow, and the ability of cross-border logistics will gradually meet the requirements of cross-border e-commerce

Figure 3 Schematic diagram of cross-border e-commerce ecosystem integration based on blockchain technology

(1) Use the asymmetric encryption technology of blockchain to promote the openness and transparency of cross-border e-commerce platform information and establish mutual trust in interests. In the traditional cross-border e-commerce ecosystem, cross-border logistics and cross-border e-commerce companies do not share information, which can easily lead to misjudgments by both parties on their actual logistics capabilities and order details, that is, cross-border e-commerce companies cannot in time understand the actual logistics level and cargo transportation capacity of cross-border logistics companies, as well as the lack of understanding of the actual logistics performance capabilities of various countries and regions, the actual delivery market of goods may exceed the estimated value of e-commerce companies, thus reducing customers' Satisfaction in the business system; cross-border logistics companies do not know much about the types of hot-selling products, sales regions, and target groups in the cross-border e-commerce industry, which can easily lead to blindness when cross-border logistics companies build overseas warehouses. It is difficult to take measures according to local conditions, which leads to uneven logistics capacity in various regions, and the actual logistics capacity does not match the required logistics capacity, resulting in waste of funds. In addition, there is no sales information in the e-commerce industry. Enterprises cannot carry out early distribution of goods, resulting in a long logistics cycle.

In addition, the cross-border logistics process involves multiple countries and regions. Because of multiple cross-border logistics companies, it is difficult to effectively integrate the logistics information of goods. Consumers' demand for real-time information on goods cannot be met. The returns rate of cross-border e-commerce will also increase as a result. With the help of the blockchain cross-border e-commerce platform to integrate all logistics information, the open and transparent platform information of the blockchain can be received by any species in the ecosystem. So consumers can check by block chain logistics information to real-time cargo, to a certain extent, consumers can reduce returns due to problems with logistics, and has a time stamp function of block chain logistics information can be updated in real time commodity.

After the transaction information stored on the blockchain which is encrypted by asymmetric encryption technology, it is open and transparent. Cross-border e-commerce and cross-border logistics companies can selectively disclose corporate information, which can not only promote information sharing between both parties, but also ensure data security and corporate privacy.

(2) Use the distributed ledger technology and consensus mechanism of blockchain to realize the accuracy and security of cross-border e-commerce ecosystem information. Multiple nodes are distributed in different places, they work together to complete transaction accounting, and the records of each node are complete, which is a distributed ledger. Information on the block chain after a review will be added in, unless it exceeded 51% of the nodes agree to modify, or any biological species cannot arbitrarily change the time zone information on the block chain, so the information on the block chain is highly secure.

(3) Use the blockchain technology in cross-border e-commerce ecosystem to integrate the business of cross-border logistics enterprise species and improve the responsiveness and transportation efficiency of cross-border logistics. Southeast Asia has its unique situation. For example, the logistics level of various countries is

uneven, and the coverage and characteristic services of each logistics company are different. The logistics company species on the blockchain can be based on their respective radiation ranges, operating types, etc. The different types of logistics companies required at different stages are reasonably matched according to the blockchain smart contract technology to ensure the highest efficiency of the entire logistics chain, saving time and space costs to the greatest extent, and reducing differences as much as possible during the running-in period of cargo docking operation of logistics companies.

(4) Use blockchain smart contract technology to simplify the return process. Under the reliable guarantee that the transaction data cannot be tampered with, it should be automatically changed based on certain specific conditions, such as automatically executing some pre-defined specifications or procedures, and smart contracts are born accordingly. If the smart contract technology is applied to the return section, the system will automatically process the return order according to the pre-set return conditions, which can reduce the trouble for both buyers and sellers to a certain extent. That is, the cross-border e-commerce company will publish the return and exchange terms negotiated with the user in advance on the blockchain-based cross-border e-commerce platform. When the user needs to return or exchange the goods, the platform will automatically review according to the smart contract technology, whether the user's reason for return complies with the return terms, if it complies, the platform will automatically pass the user's return and exchange application and guide the user to follow-up operations; if not, the user's return or exchange request will be rejected. After the platform accepts the user's return and exchange request, it will actively contact the cross-border logistics company for door-to-door pickup and a series of subsequent reverse logistics operations as soon as possible. This technology saves the time cost and energy cost of cross-border e-commerce companies and cross-border logistics companies to a certain extent, and is conducive to improve user experience and creating a good brand image.

5. CONCLUSION

The five elements of core species, supporting species, key species, parasitic species, and the environment together constitute the cross-border e-commerce ecosystem. Among them, cross-border logistics is an important part. Correspondingly, the cross-border logistics ecological value chain is also a cross-border e-commerce ecosystem. A component of the value chain of the business ecosystem, which is affected by the various components in the cross-border e-commerce ecosystem, and also promotes or restricts the development of cross-border e-commerce. Cross-border e-commerce and cross-border logistics are not coordinated in many aspects, which not only has an adverse impact on their own development, but also inhibits the development of the other party. Only by finding a reasonable way to promote the ecological integration of the two can exert their greatest effects. Blockchain technology is well known for its features such as decentralization, time stamping, traceability, and high security. It is also currently used in the cross-border e-commerce industry and has achieved certain results. In solving the problem of the ecological integration of cross-border e-commerce and cross-border logistics in Southeast Asia, blockchain technology can play a positive role to a certain extent. Blockchain technologies such as asymmetric encryption technology, distributed ledgers, smart contracts, and time stamps can promote the lack of mutual trust between cross-border e-commerce and cross-border logistics, the incoordination of cross-border e-commerce and cross-border logistics capabilities, and reverse logistics problems such as the difficulty of realizing and the inability of cross-border logistics network coordination are solved well.

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REFERENCES

[1] Central Wide Network. Asial Special Report: "One Belt, One Road" Big Data and Trade Cooperation Report 2018. [EB/OL] (2018-05-07) [2020-02-20]. https: //baijiahao. baidu. com/s?id= 1599771226837013680&wfr=spider&for=pc."in Chinese"

[2] Global Huapin. Development Characteristics of 10 Major Global Markets of Cross BorderE-commerce (3): Southeast Asia and Africa [EB/OL]. (2018-07-20)[2020-02-20]. https: //baijiahao. baidu. com/s?id =1606498528335643272&wfr=spider&for=pc. "in Chinese"

[3] Raphaëlle Ducret. Parcel Deliveries and Urban Logistics: Changes and Challenges in the Courier Express and Parcel Sector in Europe — The French Case[J]. Research in Transportation Business & Management, 2014, 11.

[4] Liu Zhijian. Research on Enterprise Ecological Network Based on Industrial Cluster[J]. Economic and Management Research, 2006 (1): 61-64. "in Chinese"

[5] Hu Ganglan, Lu Xianghua, Huang Lihua. E-commerce Ecosystem and its Evolution Path[J]. Economic Management, 2009 (6): 110-116. "in Chinese"

[6] Zhang Xiaheng. Research on the Construction and Implementation Path of Cross-border E-commerce Logistics Collaboration Model[D]. Xi'an: Chang'an University, 2016: 62. “in Chinese”

[7] Bai Dongrui. Development Trend and Challenge of Cross-border E-commerce Cooperation between China and Southeast Asia[J]. Foreign Trade Practice, 2018 (07): 16-19. “in Chinese”

[8] Xu Huan, Weng Dongdong. Opportunities and Challenges of Chinese Cross-border E-commerce Enterprises in Southeast Asian Market[J]. Labor Security World, 2016 (21): 51-52. “in Chinese”

[9] Pang Yan. Research on International Logistics Mode under Cross-border E-commerce Environment[J]. China Circulation Economy, 2015 (10): 15-20. “in Chinese”

[10] Omi Akter, Arnisha Akther, Md Ashraf Uddin, Md Manowarul Islam. Cloud Forensics: Challenges and Blockchain Based Solutions[J]. International Journal of Modern Education and Computer Science, 2020, 10(8): 1-12, DOI: 10.5815/ijwmt.2020.05.01

[11] Sidra Anwar, Sadia Anayat, Sheeza Butt, Saher Butt, Muhammad Saad. Generation Analysis of Blockchain Technology: Bitcoin and Ethereum[J]. International Journal of Modern Education and Computer Science, 2020, 8(8): 30-39, DOI: 10.5815/ijieeb.2020.04.04

[12] Wang Chao, Bao Xianyu, Xing Jun, Wang Fei. Research on Cross-border E-commerce Trade Chain and Alliance Chain based on Blockchain Technology[J]. Modern Electronic Technology, 2018, 41 (21): 169-172 + 178. “in Chinese”

[13] Yao Zhongjiang, Ge Jingguo. Overview on the Principle and Application of Blockchain[J]. Science and Technology and Application of Information Technology, 2017, 8 (2): 3-17. “in Chinese”

[14] Mousumi Mitra, Aviroop Chowdhury. A Modernized Voting System Using Fuzzy Logic and Blockchain Technology[J]. International Journal of Modern Education and Computer Science, 2020, 6(8): 17-25, DOI: 10.5815/ijmecs.2020.03.03

[15] Li Haibo. Solutions to Cross-Border E-commerce Problems in China from the Perspective of Blockchain[J]. China Circulation Economy, 2018, 32 (11): 41-48. “in Chinese”

[16] Chen Sicong. Discussion on the Development Path of Cross-border E-commerce Logistics in China from the Perspective of Blockchain[J]. Financial Economy, 2019 (16): 119-121. “in Chinese”

[17] Sun Baoquan, Li He. Analysis on the Development Countermeasures of Cross-border E-commerce Logistics based on Blockchain Technology -- Taking the Cross-border E-commerce Comprehensive Experimental Zone in Jinpu New Area of Dalian as an Example[J]. Intelligence, 2019 (04): 226 + 228. “in Chinese”

[18] Li Tingting, Zhong Yan. Application of Blockchain Technology in E-commerce Logistics Industry[J]. Logistics Engineering and Management, 2018, 40 (05): 73-74. “in Chinese”