

Analysis on the Development and Bottlenecks of China's Cross - Border E – Commerce

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Abstract

The Internet came to China in 1994, and in the past about 20 years, it has penetrated the country's industry and commercial sectors. Fundamental changes brought by the Internet have been incorporated in the operations of traditional industry markets. In recent years, China's cross-border e-commerce has demonstrated an explosive growth momentum with the open strategy of "Going global strategy and bringing-in", which has become a new engine of China's economic development. However, there are still some bottlenecks in the development of China's cross border e-commerce. The major one is the mismatch between the traditional business supervision measures and the continuous innovative business models. The paper reviews the status of China's cross-border e-commerce; summarize the policy environment of cross-board e-commerce cooperation in China; analysis the bottlenecks and key problems in the development of ross-board e-commerce and proposes the policy recommendations for the bottleneck problems.

Keywords: Cross-border e-commerce; Policy environment; B2C; Traditional supervision measures; Innovative business models.

JEL Classification: F18, M16, M38

1. The Status of China's Cross-Border E-Commerce

Cross-border e-commerce usually refers to transactions, payment and logistics in different countries through e-commerce. China's cross-border e-commerce has been gradually emerging since 2008 and is breaking the traditional international entity trade(Yuxiang Pan,2017).

According to the latest data from China's Cross-Border E-commerce Research Center in April 2017, cross-border e-commerce import and export growth was 38.7% compared to the same period in 2016, which reached 6.6 trillion yuan. The average annual growth rate was 33.1% in the latest five years (Figure 1). The data from the National Bureau of Statistics and the China Electronic Commerce Research Center shows that the proportion of the amount of cross-border e-commerce transactions to the amount of China's total import and export trade increased year by year since 2010. A growth rate of more than 20% was maintained for six consecutive years (Figure 2). As a proportion of cross-border e-commerce in China, exports are much larger than imports (exports represent 83.10% of total cross-border e-commerce transactions in 2015), highlighting the global market's capacity for Chinese goods and confirming the role of cross-border e-commerce in driving exports.

For the main target countries and goods category of China's cross-border e-commerce, according to the *China Export Cross-Border E-Commerce Development Report (2015-2016)* published by China's E-commerce Research Center, the main target countries for China's e-commerce in 2015 are the United States (16.5%), the European Union (15.8%), ASEAN countries (11.4%) and Japan (6.6%). The total export trade volume of BRICS is 7.8%, of which Russia (4.2%), Brazil (2.2%) and India (1.4%) are the most active markets, while China's cross-border trade with South Africa has yet

to make an impact.

According to the ECI index compiled by the Ali Research Institute, the top five G20 countries, in terms of cross-border e-commerce with China are the United States, the UK, Australia, France and Italy. The ECI indexes of BRICS countries Russia, India, Brazil and South Africa are in the lower and intermediate levels. It is significant that the export index was larger than the import index, which means China’s trade with the BRICS countries is mainly exports. (Table 1)

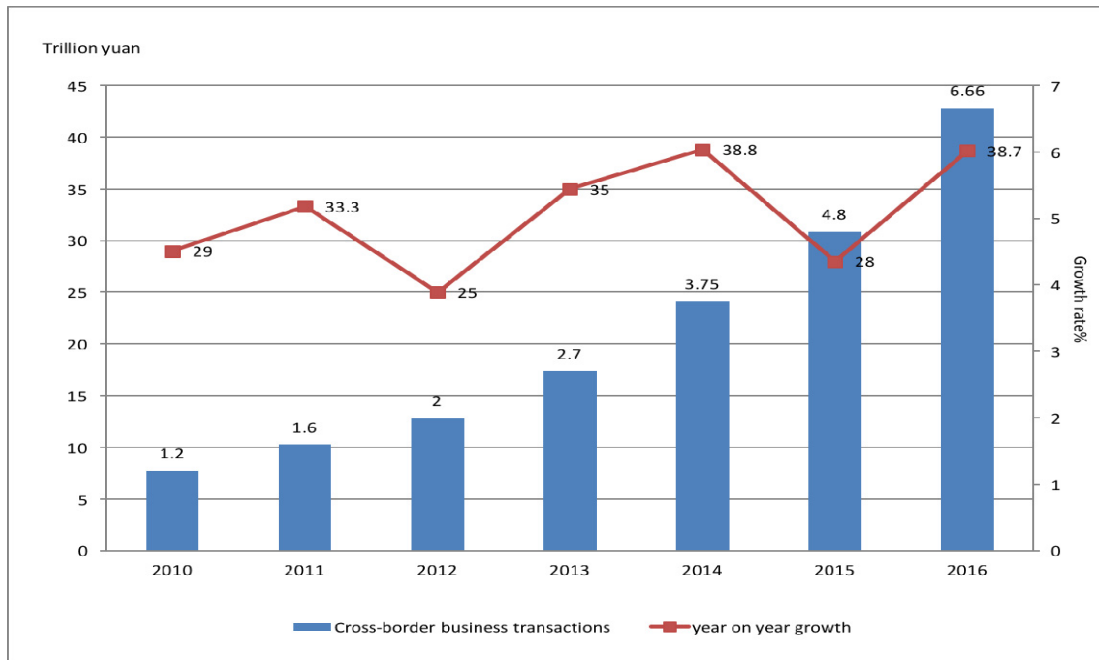


Figure 1. China’s Cross-Border E-Commerce Transaction Size from 2010 to 2016

Source: Ali Research Institute, China E-Commerce Research Center. The data of 2016 is calculated by the growth rate of 38.7% provided by the China E-Commerce Center.

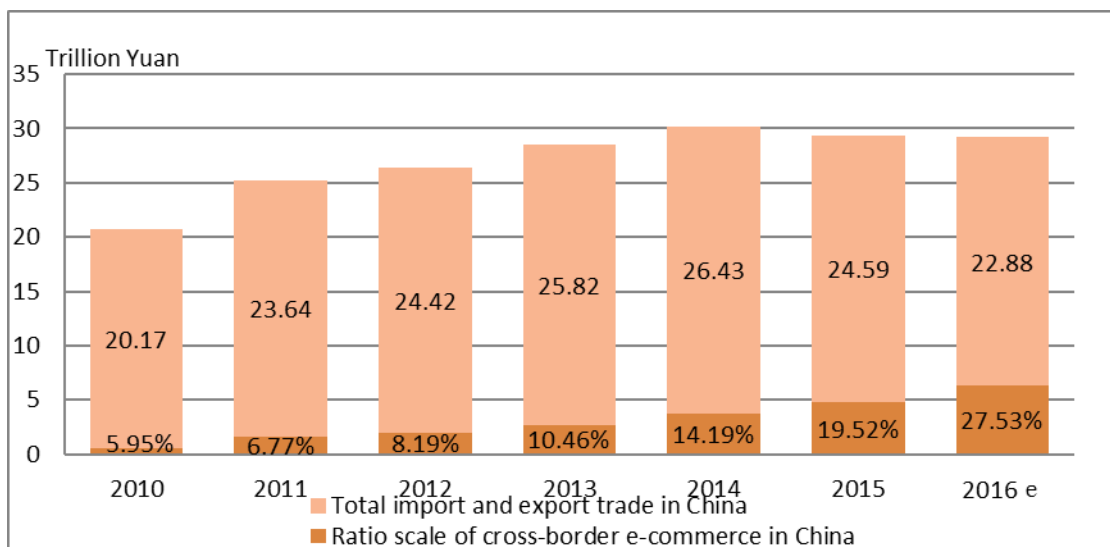


Figure 2. China's Cross-Border E-Commerce Transaction Scale from 2010 to 2015

Source: National Bureau of Statistics, Ali Research Institute, China E-Commerce Research Center; the import and export trade amount has not been published yet and the value is forecasted by iResearch.

Table 1. Connectivity Index List of China and G20 Other Countries Cross-Border E-Commerce

G20 country	ECI Import Index	ECI Export Index	Connectivity Index of cross-border e-commerce
the USA	45	37	82
the UK	35	30	65
Austria	30	25	55
France	32	22	54
Italy	27	18	45
Japan	39	5	44
Canada	7	35	42
German	23	16	39
Korea	25	7	32
Russia	1	31	32
India	1	30	31
Turkey	1	28	29
Brazil	1	22	23
South Africa	1	22	23
Mexico	0	13	13
Indonesia	1	12	13
Argentina	0	11	11
Saudi Arabia	0	3	3

Source: China’s cross-border e-commerce report in 2016⁰, published by Ali Research Institute.

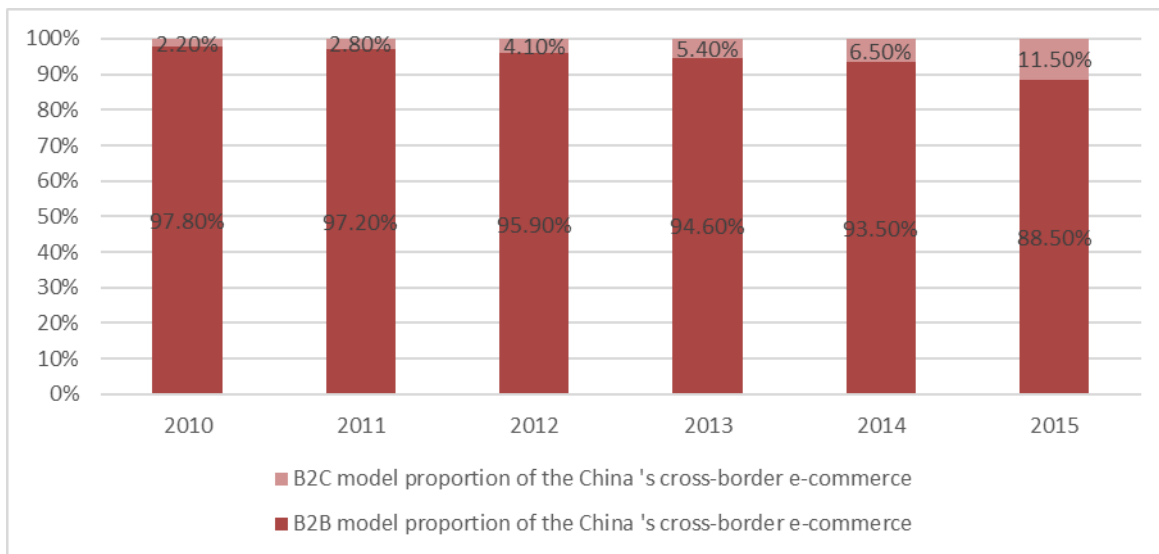


Figure 3. China’s Cross-Border E-Commerce Transaction Model Turnover Chart

Source: Ali Research Institute, China E-Commerce Research Center

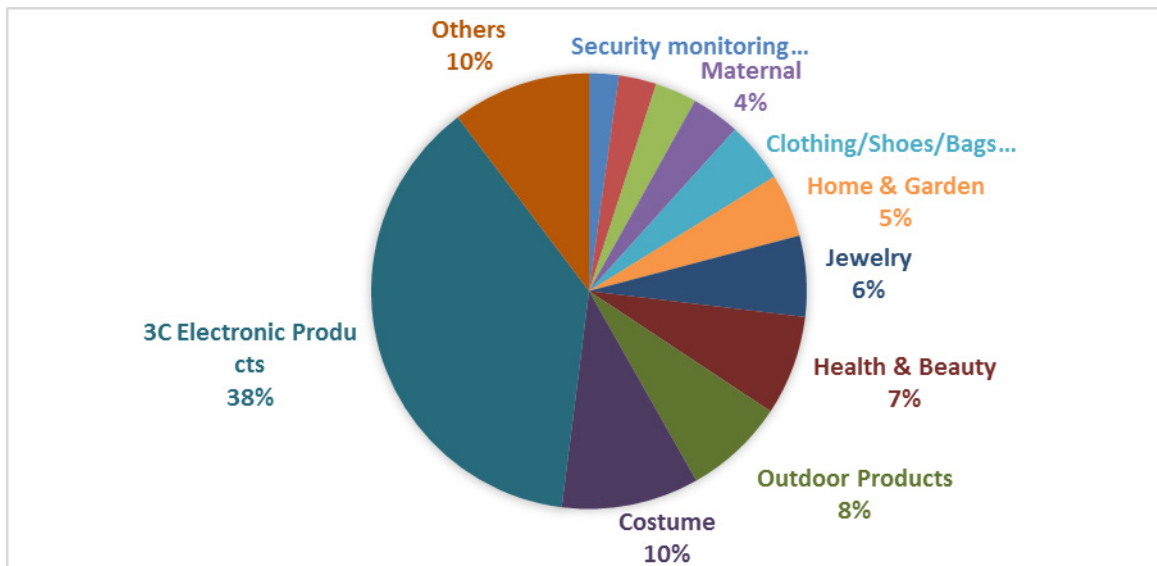


Figure 4. Sellers Category Statistics of China's Export Cross-Border E-Commerce

Source: Ali Research Institute, China Electronic Commerce Research Center

For the main business model of China's cross-border e-commerce, in 2015, B2B accounted for 88.5% of transactions in China's cross-border e-commerce. With low transaction costs and strong consumer demand, the B2C model has great potential for the future. According to research conducted for this study, compared with the B2B model, the main bottlenecks of the B2C model are the lacks of logistics infrastructure and the after sale services. Further, contradictions and frictions in customs clearance, inspection and quarantine explain the small proportion of current B2C in cross-border business (Figure 3). Export statistics of China's cross-border e-commerce show that 38% of products exported through e-commerce are computers, communications and consumer electronics products (3C electronic products), followed by clothing apparel and outdoor supplies. (Figure 4)

2. China's Policy Environment of Cross-board E-commerce Cooperation

The formation and development of cross-border e-commerce has greatly subverted the traditional business model in many countries, especially the impact of B2C on trading rules and regulations(Wailian Wang, 2013). Currently, there are two different international policy trends on cross-border e-commerce. One is to regard cross border e-commerce as a trend of international trade development in the future. Governments support it by simplifying customs clearance procedures and increasing tax exemption quotas. To some extent, it is form of trade liberalization. The other trend is protectionist. These governments treat cross-border e-commerce as illegal international trading, because of the existence of tax evasion, fake goods, and other issues (Bingyong Tang, 2017).

In China, the government has taken a positive approach to encourage the development of cross-border e-commerce and actively explore new regulations by establishing demonstration areas(Yuxin Mao, 2016). On 16 June 2015, the general office of the State Council issued *Guidance on Promoting the Healthy and Rapid Development of Cross-border E-commerce*, which is a guide for promoting the development of cross-border e-commerce.

The guidance document notes that China has developed a large cross-border e-commerce sector in recent years. It laid the general principle of e-commerce development that "makes cross-border e-commerce be normalized in developing and develop in the normalizing. Cross-border e-commerce in China encourages domestic enterprises to develop foreign trade, and cultivates large enterprises or platforms in cross-border e-commerce. In particular, the guidance document encourages domestic enterprises to cooperate with foreign e-commerce enterprises to achieve win-win outcomes. As for barriers to cross-border e-commerce development, the guidance calls for an appropriate policy and supervision system(Wang Baoyi,2017):. The main task for government is to create an environment conducive to e-commerce's healthy and rapid development

In terms of specific supportive measures, the guidance document lists five aspects——customs clearance, inspection and quarantine, tax policy, payment and settlement, financial support.

- (1) Optimize customs supervision measures. To further improve cross-border e-commerce goods management model, optimize customs clearance processes in cross-border e-commerce;
- (2) Improve inspection and quarantine regulatory measures. Import and export commodities shall be applied to centralized declaration, inspection as well as centralized release in cross border e-commerce. Record management system will be implemented to supervise business entities and goods in cross border e-commerce.
- (3) Clarify import and export tax policies. The government will continue to implement the current cross-border e-commerce retail export tax policy and formulate appropriate retail import tax policies based on the principles of “stimulating domestic consumption, competing fairly, promoting development and strengthening the administration of import tax”.
- (4) Perfect the management of e-commerce payment and settlement. The Central Bank and State Administration of Foreign Exchange will promote the trail of foreign exchange settlements and payment services for financial institutions, and encourage domestic banks and payment institutions to conduct their cross-border payment business within the law.
- (5) Provide financial support. Relevant sectors shall provide necessary financial support to cross-border e-commerce enterprises who are exploiting overseas markets, and provide suitable credit insurance services as well as effective financing and insurance support to cross-border e-commerce enterprises.

The guidance document requires that each level of governments works out a plan for cross-border e-commerce in detail and fulfills their responsibility of guidance and supervision. The governments should establish efficient, convenient and unified public service platforms and build traceable, comparable data, which are not only in accordance with the law, but also simplify the business procedure for enterprises. Government shall strengthen support to key enterprises, and actively coordinate relevant departments to solve problems encountered in implementation.

In recent years, the government has integrated cross-border e-commerce procedures of customs clearance, inspection and quarantine, settlement of exchange, tax payment and other key procedures, greatly simplifying the clearance process and increasing customs clearance efficiency. A *single window service system* is proposed by the government for efficient management. In July 2017, China's General Administration of Customs added the customs supervision code *1210*, and launched a new cross-border e-commerce model —bonded cross-border e-commerce trade. The new regulatory model promotes safety and hygiene in cross-border e-commerce. It also shortens the freight transportation time. At the same time, the government intends to establish a list of cross-border e-commerce goods and risk monitoring systems to improve quarantine supervision. The government established a credit classification management system of cross-border e-commerce to prevent infectious diseases and invasive alien species. Another important work was support for a trial of cross border e-commerce integrated test areas to explore new regulatory systems and apply new policies.

On 15 January 2016, The State Council issued the document “Agreement on the Establishment of a Comprehensive Test Area for Cross-border E-commerce in Tianjin and Twelve Other Cities” The twelve cities have already announced their implementation plans and main objectives (Table 2)

Table 2. Cross-border E-Commerce Integrated Test Area in China

Region	Extent	Main objectives
Hangzhou	International	Form a set of management system and rules to global cross-border e-commerce development gradually.
		Provide general experiences to promote the national cross-border e-commerce. Set it as an important window of opening up and the carrier of economic transformation.
Shanghai	International	Enhance the competitiveness and voice of China in foreign trade.
		Make the first pilot on technical standards, business processes, regulatory models and information technology of cross-border e-commerce.
		Guide the cross-border e-commerce to scale, standardization and clustering. Create a fair and transparent business environment for all types of companies. Explore the international standards and rules for the development of cross-border e-commerce.

Suzhou	National	Innovate the business model of "Internet + China made 2025 + independent brand international". Expand the developing space of traditional foreign trade and manufacturing enterprises through the "Internet +". Enhance the capacity and level of cross-border e-commerce services;
Ningbo	National	Form an environment of convenient facility, efficient supervision as well as normal rules gradually. Promote quality trade priority and build an upgraded version of Ningbo open economy
Guangzhou	National	Build the promotion system of cross-border e-commerce in Chinese characteristics and Guangzhou elements. Establish a new foreign trade system consists of cross-border e-commerce applications, cross-border B2B innovation services as well as cross - border network retail integration.
Chengdu	National	Promote foreign trade growth mode from the "domestic capacity-driven" to "outside demand-driven", from "outside demand-driven" to "China's manufacturing transformation and upgrading". Promote the structural reform of the supply side, and cultivate new impetus to foreign trade. Highlight the safety of brand and quality.
Hefei	region	Efforts to crack the development of cross-border e-commerce problems. Strive to cultivate a new engine of foreign trade transformation and upgrading, a new high economic development Establish a management system and rules to cross-border e-commerce gradually.
Tianjin	region	Form an environment of convenient facility, efficient supervision as well as normal rules gradually. Build the highlands of China's e-commerce innovation and development Form a cross-border e-commerce industry chain and the ecological chain.
Chongqing	region	Form a management system and rules adapted to cross-border e-commerce. Provide the replicable and generalizable experience for other country's inland areas Form a complete cross-border e-commerce industry chain and ecological circle, to create new trade service chain.
Zhengzhou	region	Improve the rules of cross-border e-commerce, enrich the development model in Chinese features. Stimulate public entrepreneurship, innovation and vitality; cultivate new advantages of foreign trade competition.
Shenzhen	region	Promote the development of e-commerce by building platforms to form a new mechanism to coordinate basic services and high level service. Create a new situation in international cooperation in e-commerce to serve the strategy of "The Belt and Road".
Dalian	region	Make the first pilot on regulatory models, technical standards business processes, and information technology of cross-border e-commerce. Explore replication and promotion experiences to achieve a breakthrough of cross-border e-commerce in Dalian.
Qingdao	region	Build the industrial chain and ecological circle of cross-border e-commerce in Qingdao. Promote new formats, foreign trade as well as industry development. Establish the cross-border e-commerce trading system and operational mechanism at the global level.

Reference: "China's cross-border e-commerce development report", 2016

3. Bottlenecks and Key Problems in the Development of China's Cross-Border E-Commerce

Increasing global Internet penetration and the rapid development of e-commerce in neighborliness countries are key factors in the rapid development of China's cross-border e-commerce in recent years. The Chinese government is attempting to address cross-border e-commerce problems through new laws and regulations. However, there are still some problems in the development of China's cross border e-commerce. The major one is the mismatch between the traditional business supervision measures and the continuous innovative business models.

Cross-border e-commerce involves five stages including product announcement, warehousing logistics, customs clearance, payment, and after-sales service. In general, China's cross-border e-commerce problems relate to slow customs clearance, confused tax rebate scheme, high risk foreign exchange payments, expensive and inefficient international logistics, unclear government supervision, as well as poor after-sales service. The reasons behind these problems are attributed to the following key issues.

(1) Differences in cross-border product inspection standards

The main problem for border clearance inefficiency is that China's commodity inspection standards are inconsistent with foreign quality and safety standards. The basic key standards of domestic and foreign goods are not marked clearly, which brings great difficulty to customs clearance and immunization test. At the same time, because of the lack of basic data, there is no specific scheme for the tax and refund of the custom clearance products. That makes these products cannot be cleared by customs. At present, the custom and quality inspection department can hardly test small and individual products since unpacking and testing small and individual packages one by one costs a lot. Therefore, only the basic quarantine inspection is available, which brings hidden trouble for the quality of cross-border e-commerce products.

(2) Traditional "whole in and out" customs clearance mode cannot meet the "one by one in and out" of B2C

In the traditional B2B trade mode, the single insurance policy is huge and only one kind of commodity is traded. It is efficient since customs clearance products are in bulk. However, for the cross-border e-commerce B2C model, the individual demand of buyers is strong, single orders are small and the cross-border trade is especially fragmented. If the "one by one in and out" model is taken as the major model for customs clearance, batch checks are not possible. This greatly increases the number of customs clearance inspections and work. Therefore, the "one by one in and out" model cannot meet the rapidly rising demand of clearance.

(3) The quality of cross-border trade service platform is uncertain

China's e-commerce SME trade occurs mainly through foreign trade integrated service platforms. However, the ambiguous definition and responsibility of these platforms has become a key issue restricting the development of China's cross-border e-business. At present, the Chinese government regards trade integrated service platforms as import and export entities, but the platforms are not manufacturers. These platforms essentially provide cross-border electric business services to SMEs. Therefore, it is not appropriate to classify them as import and export entities. In the current regulatory system, if an enterprise has product quality problems or evades tax during the cross-border transactions, the government will punish the platform and rather than the enterprise. The current regulatory system is hence biased against the platform.

(4) The management and function of cross-border payment agencies is not clear

Payment agencies manage cross-border foreign exchange payments. These payment agencies mainly provide monetary payment and clearance services for e-commerce entities. Different from other financial institutions, they are a type of paying and clearing organization. However, the management and orientation of such nonfinancial payment agencies are not clear. Cross-border electronic payment itself involves large payment and foreign exchange risks. Especially, at present, RMB cannot fully be regarded as a cross-border settlement currency, which increases the payment cost. Therefore, the regulation and function of payment agencies is not clear, which is a serious cross-border e-commerce risk

(5) The cross-border disputes lack procedural regulation

Cross-border e-commerce has not set up a set of rules to regulate disputes. In 2009, the United Nations Trade Commission proposed procedures for cross-border electricity trade disputes, but countries have competing claims. Therefore, so far, the cross-border e-commerce trade lacks after-sales service and a means of reporting transaction disputes. For example, consumers find it difficult to return goods. Even if the return is successful, the goods undergo customs inspection, which increases costs and reduces efficiency.

(6) Economic statistics conflict with the new industry model

At present, China's cross-border e-commerce is complicating export statistics. For instance, a platform that is headquartered in Shenzhen will record exports in Shenzhen City. However, the enterprises that produce the exported goods are not in Shenzhen. The current economic data statistics cannot keep up with the development of new formats.

(7) Untimely consultation and implementation of policies and regulations from different departments

Although the Chinese government has introduced a number of policies and regulations related to e-commerce, the decrees from different departments lack systematic coordination and linkages. The cross-border e-commerce involves several government departments, such as the National Development and Reform Commission, the Ministry of Commerce, the Ministry of Industry and Commerce, the State Administration for Industry and Commerce, the General Administration of Customs and the Customs and Excise Department. It is difficult to harmonize the policies and regulations of cross-border e-commerce.

In addition, cross-border e-commerce as a new model should also pay attention to emerging issues. For example, the conflict in the definition of intellectual property rights of current cross-border products. Consumers who purchase goods from overseas have acquired trademark rights, but the mark may not be authorized in the consumer's country, therefore the business platform and merchants may not have the right to sell goods. Another issue is that China's Internet Security Law prescribes that the personal information collected in the territory and other important information should be stored domestically. But in order to protect the efficiency of information interaction between cross-border electricity business buyers and sellers, the Internet security law allows personal data to be transmitted abroad if it passes a security assessment.

4. Policy Suggestions on the Development of Cross-Border E-Commerce

To further develop cross-border e-commerce, the government should focus on solving bottlenecks in cross-border e-commerce and expanding the market space of cross-border e-commerce. The study proposes the following policy recommendations.

(1) The products involved in cross-border e-commerce should be classified as private goods. It is necessary for rules and regulations to adapt to the new business model

The primary problem for government is how to affirm the quality of goods in cross-border e-commerce. As mentioned above, traditional "whole in and out" customs clearance mode cannot meet the "one by one in and out" of B2C. It is because of the government regards the goods in B2C as general trade goods in B2B, which leads that cross-border e-commerce suffers from slow customs clearance. The government could classify goods in B2C as private goods or low-priced goods, in order to speed up customs clearance. The government should adapt and amend related rules and regulations proactively and use an intermediate policy and temporary rules to bridge the shift from the old to the new business models.

(2) Focus on the supervision of payment institutions and establish an integrity system of e-commerce

In cross-border e-commerce, it is vital for the government to identify its role and policy intervention points, and clarify the division of market and government. The Government should focus on strengthening the supervision of payment agencies like Alipay, ensuring the safety and compliance of the third party payment system, and establishing an export credit system. It is the duty of the government to be the e-commerce law enforcement officer and punish commercial fraud, fake and shoddy products, infringement of intellectual property rights and other illegal acts. In addition, the individual small packages cannot be inspected one by one due to its decentralization. Hence, it is necessary to increase supervision and definite the responsibility of SMEs for fakes, which is a great way to insure the quality of products

(3) Distinguish between the property of cross-border e-commerce platform and encourage large service platforms

In terms of trade regulations, the government classes cross border e-commerce service platforms as general export companies. This means that cross border e-commerce service platforms undertake the liability of products. The government should distinguish the legal orientation of service platforms as soon as possible, reclassifying them general service industries and adjusting the corresponding regulation. Further, the fragmentation of cross-border e-commerce has increased the difficulty of government regulation. The government can encourage large e-commerce service platforms in which the e-commerce company could be easily supervised.

(4) Take advantage development finance institutions to establish e-commerce infrastructure funds and risk control funds

International cooperation in cross-border e-commerce should take advantage of development finance institutions (DFIs) such as the World Bank, the New Development Bank (NDB) and the Asian Infrastructure Investment Bank (AIIB). The Chinese government should take the initiative in cooperating with DFIs. They can assist SMEs through increased access to finance and establish cross-border e-commerce infrastructure based on international standards. For example, the AIIB and the NDB provide financial support to SMEs directly and promote e-commerce infrastructure through project procurement.

DFIs also control financial risk of cross-border e-commerce. For instance, the NDB has long been committed to build a financial safety net in the BRICS to avoid the impact of currency instability. There are risks of exchange rates and third-party payment in cross-border e-commerce. The lengthy and complex capital trading chains also harm funds operations. Therefore, the government could establish an international cross-border e-commerce risk control fund under the auspices of DFIs and set up cross-border funds contingency plans to prevent capital loopholes and financial risks in cross-border transactions.

(5) Promote "database" and "single window"

The establishment of an integrated "international e-commerce database" is an important measure to support SMEs in cross-border e-commerce. Based on the database, the information on products, markets, business, standards, as well as legal rule would be shared, helping SMEs to engage in cross-border trade efficiently. At the same time, to ensure accurate and effective data collection, cross-border e-commerce should regard the country as a unit, unified centralized trade port data and put in place "single windows" to collect data on a country's cross-border e-commerce. A unified single window that collects cross-border e-commerce data should be established accordingly to ensure data accuracy and timeliness.

(6) Focus on the development of countries along "The Belt and Road"

"The Belt and Road" countries of Central Asia, South Asia, the Middle East, and Europe can benefit from e-commerce. Currently, the majority of countries along "The Belt and Road" lack e-commerce facilities but have huge market space and potential for development. Cross-border e-commerce is not limited by geography. The biggest obstacle to cross-border e-commerce is logistics. Infrastructure along the "The Belt and Road" would address logistics issues, greatly reducing the costs of e-commerce. The Chinese government should cultivate e-commerce partnerships among the counties along "The Belt and Road".

(7) Establish a BRICS E-commerce Alliance to serve as a platform for e-commerce development

The BRICS countries are a significant economic and trade cooperation group, accounting for 26% of the world's territory, 42% of the world's population, and 23% of the world's total economy. In China, the BRICS have the world's largest commodity producing and consumer market, but also the world's most abundant resource countries such as Brazil, Russia, as well as South Africa. India offers a modern service industry for the BRICS' market system. The BRICS countries also have a strong economic growth momentum. The BRICS enjoys a mature partnership. In 2017, the BRICS countries will enter a second decade of cooperation. In September 2017, 9th BRICS National Summit, whose theme is deepening partnership to open up a brighter future, will be held in Xiamen, China. China could play a significant role driving BRICS towards a similar national e-commerce environment and solid trade base. In addition, Russia, India and South Africa are all countries along "The Belt and Road" and have much to benefit from cooperation (Baoyi, W., 2017)

Recently, UNIDO advocated establishing a BRICS E-commerce Alliance, which consists of government departments, enterprises, associations of industry and commerce, universities, research institutions and training centers, as well as development finance institutions. The purpose of Alliance is to promote SMEs e-commerce development and cooperation through information sharing and technology transfer, institutional capacity building, legislation and standardization, facilitating public-private partnership and mobilizing trust fund from public and private sectors. Regional technical support centers as the supportive body of Alliance could provide technical and logistical support and to organize exhibitions, forums, workshops and training courses in cooperation with relevant stakeholders. The Alliance could be used by China to spread its experience of e-commerce development and to assist other countries develop e-commerce trade. The Chinese government should actively participate.

5. Conclusion

The paper reviews the status of China's cross-border e-commerce, summarize the policy environment of cross-board e-commerce cooperation in China, analysis the bottlenecks and key problems in the development of ross-board e-commerce and proposes the policy recommendations for the bottleneck problems, the obtained results are as follows.

(1) In the context of the global financial crisis, China's cross-border e-commerce has become a new engine to stimulate the economy and trade development. However, there are still some problems in the development of China's cross border e-commerce. The major one is the mismatch between the traditional business supervision measures and the continuous innovative business models. In practical terms, there are seven key problems in the development of ross-board e-commerce.

(2) To further solve these bottlenecks, the study proposes the several policy recommendations on product classification, payment institutions supervision, e-commerce infrastructure and risk control, as well as international cooperation.

References

- Ali Research Institute (2016). *The Future of Trade: Cross-border Electric Business to Connect the World*. Ali Cross-border Electric Business Research Center.
- Baoyi, W. (2017). China's e-commerce network retail industry evolution, competitive situation and development trends. *China's circulation economy*, 31(4), 25-34.
- Bingyong, T., & Li, X. (2017). *China's cross-border e-commerce development report 2015-2016*. Chemical Industry Press.
- Lianlian, W., Mingyu, W., & Shuzhen, L. (2013). China's cross-border e-commerce status analysis and recommendations. *E-business Journal*, 9(24), 23-24.
- The People's Republic of China Ministry of Commerce (2015). *China e-commerce report*. China Business Publishing House.
- Yuxiang, P. (2017). China's cross-border e-commerce development status and countermeasures analysis. *Economic Research Guide*, 1(1), 172-174.
- Yuxin, M., & Liang, Z. (2016). *Big Data Age - Business Ethics Frontier Issues*. Northeastern University Press.

Note

Noe 1. E-Commerce Connectivity Index (ECI) between China and Major Economies are designed to reflect the tightness of China and other countries in cross-border e-commerce.