



Research on the Influence and Countermeasures of Cross-Border E-Commerce on the Development of Service Trade

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Abstract. With the deep integration of China's foreign trade and Internet technology, cross-border e-commerce, as a new way of foreign trade, has become an important source of power and a new engine for economic growth, which protote the Coordinated development of Shandong Provice. The paper discuss the effect of cross-border e-commerce on service trade in Shandong Province and propose corresponding countermeasures by using literature research method.

Keywords: e-commerce; cross-border e-commerce; service trade; digital economy

1 Introduction

China's development has entered a new normal of economy, and cross-border e-commerce, as a new form of international trade, contributes to the development of China's foreign trade. Shandong Province is a major trade province in China, with abundant trade resources and a broad consumer market. After the “Belt and Road” initiative, promoting coordinated regional development and accelerating opening to the outside world has become a historic opportunity for Shandong Province, and it is imperative to vigorously develop cross-border e-commerce. The development of cross-border e-commerce has not only brought huge impact and challenges to service trade in Shandong Province, but also brought rare opportunities for small and medium-sized enterprises to get out of the predicament, promote industrial upgrading, and restore international competitive advantages under the new economic normal. At present, the cross-border e-commerce in Shandong Province is not yet mature, and it faces a series of difficulties and problems that need to be solved urgently in the development process. In order to realize the transformation and upgrading of service trade in Shandong Province, how to use the advantages of cross-border e-commerce more reasonably and efficiently has become an unavoidable problem.

2 Literature Review

From the perspective of foreign research status, Ma (2021) discussed the unique advantages of Anhui Free Trade Zone in developing cross-border e-commerce, and proposed corresponding solutions to these problems [1]. Ge and Yang (2021) proposed a series of policies and strategies for the transformation and upgrading of China's foreign trade [2]. Choi (2021) used a gravity model to examine the impact of China's cross-border e-commerce on its exports of goods and services to "One Belt, One Road" countries from 2000 to 2018. The study found that China's cross-border e-commerce has a greater impact on service trade. In addition, with the development of CBEC, the impact of distance on trade in services (goods) tends to be low (high), while the impact on trade in services (goods) tends to increase (decrease) year by year [3].

From the perspective of domestic research status, Kong (2021) put forward valuable suggestions and measures for the development of cross-border e-commerce in Yunnan Province through empirical analysis [4]. Li (2021) believed that cross-border e-commerce is a new engine of China's foreign trade, which plays a huge role in the optimization of service trade structure, scale expansion, and efficiency improvement, and helps to comprehensively improve the overall competitiveness of service trade [5]. Qin (2021) analyzed the effect of cross-border e-commerce on improving the competitiveness of China's service trade under the background of trade economic globalization and China's current foreign trade 'new normal' [6]. Mei (2020) used data from countries along the 'Belt and Road' to illustrate the effect of cross-border e-commerce's "cost reduction and efficiency promotion" in foreign trade, and made it clear that the current opportunity for China's cross-border e-commerce development needs to be taken to help the measures for development, which will create a good environment for the development of cross-border e-commerce, thereby promoting the development of China's foreign trade [7].

3 Development of cross-border e-commerce in Shandong Province

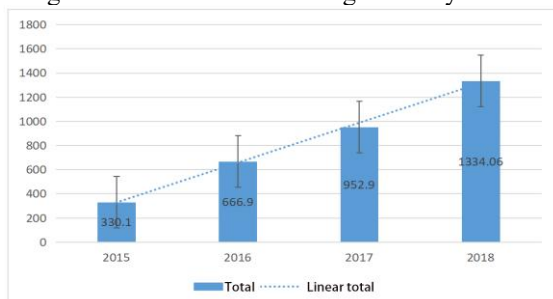
The development of cross-border e-commerce in Shandong Province continued to maintain a good momentum, and its market size reached a new high. In 2020, Shandong Province has a total of 9,777 enterprises engaged in cross-border e-commerce transactions, ranking fourth in all provinces and cities in China. Shandong Province ranks fourth in the national sales of e-commerce enterprises, and its e-commerce enterprise sales amount to 1,381.99 billion yuan, ranking fourth in China; Shandong Province ranks fifth in the national e-commerce enterprise procurement volume, which amount to 762.98 billion yuan, as shown in Fig. 1.

| Region | Number of enterprises engaged in e-commerce transactions (units) | E-commerce sales (100 million yuan) | E-commerce purchases (100 million yuan) |
|--------------------|--|-------------------------------------|---|
| Guangdong Province | 16936 | 30533.8 | 21879.3 |
| Zhejiang Province | 12563 | 12124.5 | 4377.1 |
| Jiangsu Province | 12511 | 13189.1 | 7713 |
| Shandong Province | 9777 | 13819.9 | 7629.8 |
| Beijing Province | 8877 | 25831.8 | 15296.4 |
| Fujian Province | 6403 | 5082.2 | 1767.2 |
| Sichuan Province | 5876 | 5901.6 | 4405 |
| Anhui Province | 5698 | 6281.1 | 2734.4 |
| Shanghai Province | 5434 | 23624.8 | 14097.3 |
| Hunan Province | 4834 | 4185.8 | 2820.2 |

Data Source: Huajing Intelligence: <https://www.huajon.com/>

Fig. 1. The number of e-commerce companies in various provinces and cities across in 2020.

The transaction scale of cross-border e-commerce in Shandong Province has grown significantly and the growth rate has increased significantly. As shown in Fig. 2.



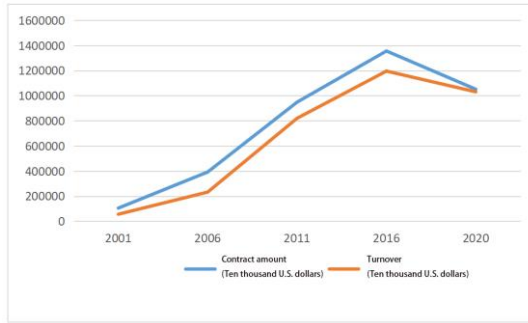
Data Source: Shandong Department of Commerce (unit: 100 million yuan)

Fig. 2. 2015-2018 Scale of cross-border e-commerce import and export transactions in Shandong Province

4 The overall trend of service trade in Shandong Province

The overall trend of service trade in Shandong Province is developing well. Taking foreign contracted projects and labor service cooperation in service trade as an example, the turnover and contract value of foreign contracted projects and labor service cooperation in Shandong Province increased year by year from 2001 to 2020, especially in the past 10 years from 2006 to 2016. The growth trend is particularly rapid. In 2019, although affected by COVID-19, international trade environment has deteriorated, resulting in a decrease in the contract value and turnover of foreign contracted

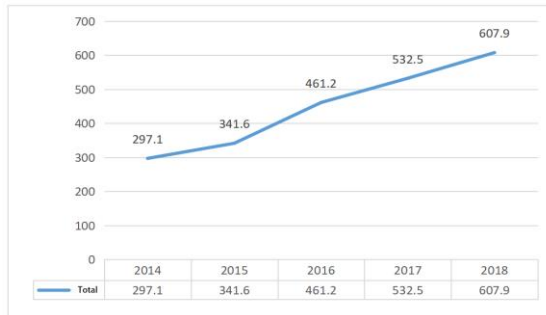
projects and labor service cooperation in Shandong Province, it still kept developing at a relatively high level compared with other regions, as shown in Fig. 3.



Data Source: Shandong Statistics Bureau <http://tjj.shandong.gov.cn/>

Fig. 3. 2000-2020 Foreign contracted projects and labor service cooperation

Shandong Province is a major economic province and its total economic output ranks among the top three in China. According to statistics from Shandong Provincial Department of Commerce, service trade volume in Shandong Province increased from US\$29.71 billion in 2014 to US\$60.79 billion in 2018; services trade grew the fastest from 2015 to 2016 in Shandong Province, reaching US\$11.96 billion, compared with the same period of 2015, it increased by 35%, showing a good development momentum, as shown in Fig. 4.



Data Source: Shandong Department of Commerce <http://commerce.shandong.gov.cn/>

Fig. 4. 2014-2018 Service trade volume of Shandong Province (USD 100 million)

5 Problems existing in the impact of cross-border e-commerce on service trade

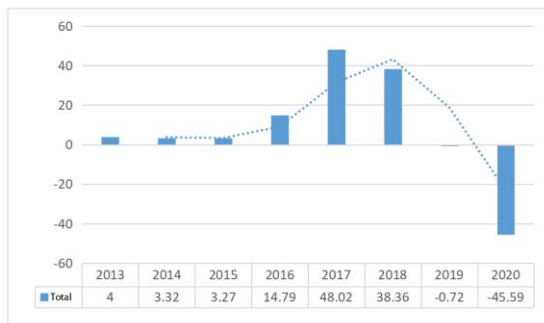
Cross-border e-commerce also has the following problems While promoting the development of service trade,

5.1 Intellectual property issues

In cross-border service trade, intellectual property issues are not uncommon. In 2016, 3,000 independent sites were seized for allegedly selling counterfeit products; a New Zealand toy company sued Chinese consumers for patent infringement in 2017; and in 2018, more than 1,000 exporters were sued for trademark infringement. According to statistics from Qingdao Customs, in 2018, there were 192 disputes involving intellectual property rights, involving more than one million pieces of goods. Cross-border service trade is faced with problems such as low security, large negative impact, lack of effective communication and cooperation between sellers and buyers, and the possibility of false information in their transactions to defraud interests. Intellectual property rights will become a major obstacle.

5.2 Consumer complaints

According to the data of Netease, from 2013 to 2018, the number of national e-commerce complaints showed a gradual increase trend, as shown in Fig.5. This is mainly because the state has formulated a series of laws and policies to improve the environment for online transactions, promote emerging companies to improve their platform management level, and strengthen their efforts to safeguard the legitimate rights and interests of consumers. Furthermore, it is also closely related to China’s network supervision departments increasing the supervision of the Internet industry.



Data Source: NetEconomy <http://www.100ec.cn>

Fig. 5. 2013-2020 Distribution of the growth trend of online consumer complaints (%)

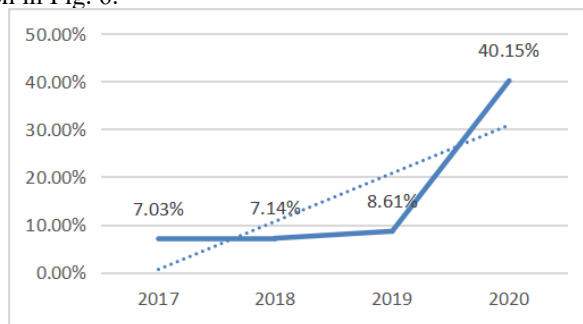
5.3 Unbalanced regional development

While cross-border e-commerce boosts the rapid increase in the total import and export of service trade in Shandong Province, it also brings a certain degree of unfavorable impact on the economic development of different regions, making the economic and trade development of various regions in Shandong Province more and more biased to the eastern coastal cities, which has caused the phenomenon of unbalanced development in various regions. According to relevant information in 2021, Qingdao,

Yantai, Weifang, and Weihai ranked the top fourth in the total trade volume of all regions in Shandong Province, accounting for 29%, 14.04%, 9.07%, and 6.94% respectively. The total trade volume of four cities accounted for 59.05% of Shandong Province, accounting for more than half of the total. Among them, the total trade volume of Yantai City accounted for 14.04%, which was 14.96% different from that of Qingdao City, accounting for less than Qingdao City. Qingdao alone accounted for 29% of the total trade volume of Shandong Province, but the average share of other cities were only 4.73%, which showed that there was a big gap in the import and export trade of various regions and the imbalance development was serious in Shandong Province.

5.4 Insufficient professional talents

There is a serious shortage of professional talents in cross-border e-commerce. From 2017 to 2020, the demand for cross-border e-commerce talents in Shandong Province increased by 7.03%, 7.14%, 8.61%, and 40.15% respectively. The demand for cross-border e-commerce talents in Shandong Province was increasing year by year. According to the data, the cross-border e-commerce industry in Shandong Province recruited as many as 46,392 new jobs closely related to cross-border e-commerce in 2017, however, job seeker who intended to engage in the cross-border e-commerce industry is only 18,544. Even on the premise that everyone can find his desired position, there were still 27,848 vacancies. The number of employees only accounts for 39.9% of the total number of jobs, and the supply and demand of jobs in the industry is seriously unbalanced, and the supply of talents is far from the needs of employers, which can be seen in Fig. 6.



Data Source: Qilu Talent www.qlrc.com

Fig. 6. 2017-2020 Growth in the demand for cross-border e-commerce talents in Shandong Province

6 Countermeasures for cross-border e-commerce to promote the effective development of service trade in Shandong Province

6.1 Improve the legal system and supervision *mechanism*

The daily transaction activities of cross-border e-commerce involve the two fields of network and entity. Relevant departments should establish a regulatory system that conforms to their business characteristics according to the two aspects of network and entity, and formulate regulations and legal provisions that are consistent with their development direction, so as to effectively to supervise and regulate the daily transaction activities of cross-border e-commerce, and build a sound cross-border e-commerce reputation evaluation system. The government should establish a scientific and reasonable e-commerce integrity system, keep the strict e-commerce access system consistent to the end, and conduct an in-depth analysis of the past integrity status of cross-border e-commerce buyers and sellers and make corresponding integrity rating evaluations. Meanwhile, as the main body of cross-border data flow, enterprises must enhance their sense of responsibility, strengthen supervision at the enterprise level, and improve the self-discipline and self-discipline of the entire cross-border e-commerce industry.

6.2 Online and offline integrated development

Shandong Province's service trade should make full use of the advantages of "Internet +", build a new service trade ecology, and build a new retail system. New retail means that individuals and enterprises use the Internet as the support to update and transform the production, circulation, consumption and delivery of products through advanced technology, and establish a "golden ecosystem" and a new industry structure. In the future, only with the integration of online, offline and logistics will new retail be possible.

6.3 Coordinate development according to local conditions

In the implementation of the overall development strategy of cross-border e-commerce, the relevant government departments should actively promote the construction of their main functional areas, clarify the functional positioning of each region, and gradually form a distinctive regional cross-border e-commerce development pattern. For areas with relatively backward development, it is necessary to strengthen the degree of support, implement infrastructure construction step by step, encourage fast-growing localities to support slow-growing areas.

Local governments should encourage enterprises to hold various cross-border e-commerce activities, and give more preferential support to various enterprises in various regions. For example, the coastal port city such as Qingdao with huge development potential and rapid development speed, which has become a comprehensive

pilot area for cross-border e-commerce in China, its development experience can be gradually extended to areas with slower development speed, after preliminary consideration and demonstration. Taking advantage of dividends brought by cross-border e-commerce to develop cross-border e-commerce industrial parks and gradually reduce the uneven development of various regions

6.4 Cultivation of cross-border e-commerce talents

Colleges and universities should comprehensively apply professional resources such as cross-border e-commerce, economics, trade, and English, and combine with the needs of enterprises to strengthen the construction of cross-border e-commerce training bases and cultivate cross-border e-commerce compound talents.

At the government level, the state and relevant departments should formulate corresponding policies, strengthen the characteristics of vocational education types, establish an evaluation and feedback mechanism for relevant talents, regulate the development environment of cross-border e-commerce, and strengthen the training of their talents; At the enterprise level, third-party agencies can also be used to mobilize enterprises to actively participate in the training of cross-border e-commerce talents, carry out pre-job training based on their own needs, and establish a strict cross-border e-commerce entry qualification review standard system, which make talents come from the enterprise and return to the enterprise.

7 Conclusions

With the in-depth integration of China's foreign trade and Internet technology, cross-border e-commerce has become a powerful booster for the further development of China's international trade, which has brought a far-reaching impact on service trade in Shandong Province. Due to the severe impact of the epidemic, the foreign trade environment has become increasingly severe, and service trade is also facing fierce market competition. The international development of cross-border e-commerce not only provides an unprecedented development opportunity for service trade in Shandong Province, but also brings certain level of crisis and challenge.

This paper discusses the impact of cross-border e-commerce on service trade in Shandong Province, points out the problems faced by Shandong Province's service trade in the context of globalization, and puts forward corresponding countermeasures and suggestions on how to promote the development of Shandong Province's service trade, in order to help the sound development of foreign trade and economic cooperation in Shandong Province.

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References

1. Xin Jiang, Yi Ma, "Development Strategy of Cross-border E-commerce under the Background of Anhui Free Trade Zone," *Scientific Journal of Economics and Management Research*, vol. 03, pp. 23-25, June 2021.
2. Yueqing Yang, Ren Ge, "Studies on the Transformation and Upgrading of China's Foreign Trade under the Development of Cross-border E-commerce," *Frontiers in Economics and Management*, vol. 02, pp. 103-104, May 2021.
3. Zi Hui Yin, Chang Hwan Choi, "The effects of China's cross-border e-commerce on its exports: a comparative analysis of goods and services trade," *Electronic Commerce Research*, vol. 04, pp. 117-118, March 2021.
4. Kong Fanping, Luo Huan, Zheng Liying, "Research on the development of cross-border e-commerce in Yunnan Province under the background of "One Belt and One Road" ," *China's Collective Economy* , vol. 14, pp. 103-105, April 2021.
5. Li Xiaohang, "The impact of cross-border e-commerce on the competitiveness of my country's service trade and its countermeasures," *Modern Business*, vol.07, pp. 54-56, July 2021.
6. Qin Juan, "The impact of cross-border e-commerce development on the competitiveness of my country's service trade: theory and empirical studies," *Business Economics Research*, vol. 20, pp. 151-154, June 2021.
7. Mei Han, "Research on the development of cross-border e-commerce and its effect on 'reducing costs and promoting efficiency' in China's international trade," *Business Economics Research*, vol. 01, pp. 116-119, August 2020.

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