

Research on the development path of China's cross-border e-commerce industry under the COVID epidemic

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Abstract. The COVID-19 epidemic in 2020 has swept the world, bringing great challenges to Chinese cross-border e-commerce industry, as well as opportunities for development. According to my country's economic survey in the first and second quarters of 2020, the COVID-19 epidemic has caused a sharp drop in the transaction volume of Chinese foreign trade industry, while the cross-border e-commerce industry has grown against the trend. Starting from the characteristics of Chinese cross-border e-commerce industry, this article analyzes the impact of the COVID-19 epidemic on Chinese cross-border e-commerce industry, mainly in the obstruction of logistics and the impact on the global supply chain. Taking Ali International Station as a case analysis, through the formulation of support policies for sellers, investment in digital trade and other measures to help e-commerce sellers to tide over the difficulties, and then put forward suggestions on path selection for Chinese cross-border e-commerce industry to cope with the COVID-19 epidemic.

Keywords: COVID-19; cross-border e-commerce; Ali International Station

1 Introduction

The scale of China's foreign trade has continued to expand, the number of export commodities has also continued to increase, and the number of export cross-border e-commerce (EC) industries has also grown by leaps and bounds. According to e-commerce data released by the Ministry of Commerce, the scale of China's export cross-border e-commerce transactions in 2019 reached 8.03 trillion yuan. An increase of 13.09% compared with 2018, China's cross-border e-commerce industry continues to rise, cross-border e-commerce has higher and higher requirements for capital, technology and services, and the industry threshold and operational difficulty also increase accordingly.

More traditional enterprises and brands are beginning to move towards the center of the stage, the cross-border e-commerce industry began to develop in the direction of branding and diversification. "Therefore, if the EC market develops in a country, the negative impact of COVID-19 on import demand will decrease in that country." [1] The important parallel between import and exported were heavily impacted due to the pandemic of COVID-19.

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“Although China's exports continued to decline, cross-border electronic commerce's exports went against the trend.” [2] Nacar and Ozdemir [3] in their study focused on relation between of e-commerce marketplace website and the effect of the COVID-19. The COVID-19 pandemic heavily impacted the e-commerce market and changed the near future in shopping. “In the context of the global epidemic and economic structural reform and transformation, China has proposed a new economic pattern of "dual circulation" development, and this measure has greatly promoted the development of China's cross-border e-commerce industry” [4]. China and other countries all around the world were forced to change their market structures. But the pandemic didn't affect only the companies. “The Corona Virus Disease (COVID)-19 pandemic has disrupted the business and industry landscape and changed consumers' behavior.” [5]. The customers behaviour was drastically changed due to the pandemic of COVID-19. “Overall, consumers recognized the importance of e-commerce immediately after the pandemic, with no subsequent significant decline. Second, there may be a positive relationship between the time spent at home and the importance of e-commerce One reason is that an increase in stay-at-home duration decreases the opportunity to shop at retail stores.” [6]. Stronger; On the other hand, policy dividends from the cross-border e-commerce comprehensive pilot zone. “The strict traffic control and personal isolation measures were effective in hindering the spread of COVID-19 in China” [7]. Economic sanctions are among the most powerful instruments of international policy [8].

“Limitations on the mobility of workers, variations in consumer demands, the shutdown of food manufacturing industries, limited food trading regulations, and financial stress throughout the food supply chain are all results of the COVID-19 pandemic.” [9] It has a greater impact on the expectations and confidence of market players. Zhiyong [10] said that when the epidemic affects the centralized office model, the gradually mature online office has become the first choice of many enterprises, and remote office has ushered in a new "inflection point" of development, which will promote the rapid development of the industry. Nowadays, telecommuting is on the rise, and the awareness of enterprises and employees is also increasing. The way of working is only a form, and more importantly, it is to improve work efficiency. The COVID-19 pandemic, called a global health crisis, was an unpredictable risk of global proportions that paralyzed the entire world [11].

In 2020, affected by the epidemic, the risk of supply chain and logistics costs is relatively high, the risk of depending? Default on customer funds is rising, many small and medium-sized enterprises are facing bankruptcy, and the overall purchasing and consumption capacity will decline. “For e-commerce enterprises, logistics cost is an important factor that affects the operation effect and consumer experience.” [12] Therefore, by analyzing the development of cross-border e-commerce retail enterprises, as well as the import and export data of cross-border e-commerce from May 2019 to December 2020, we will analyze the problems existing in the cross-border e-commerce industry and propose solutions.

It is necessary to prepare internal corporate environment in context to digitization, when trades enter to unknown foreign markets [13].

2 Characteristics of China's cross-border e-commerce industry

From 2015 to 2019, the total value of China's cross-border e-commerce import and export retail sales continued to expand. In 2019, the total value of China's cross-border e-commerce retail imports and exports continued to rise, reaching 186.21 billion yuan, an increase of 38.3% over the previous year. Affected by the COVID-19 epidemic, the cross-border e-commerce industry has been greatly impacted in 2020, and the total value of China's cross-border e-commerce retail imports and exports has decreased compared with the previous year.

From 2014 to 2019, the scale and proportion of cross-border e-commerce transactions in China showed a trend of increasing year by year. In 2018, the transaction scale of China's cross-border e-commerce reached 9.0 trillion yuan, accounting for 28.3% of the total import and export trade.

The penetration rate of China's cross-border e-commerce industry has increased year by year. In 2019, the penetration rate of China's cross-border e-commerce industry was 33.29%, an increase of 3.79% compared with 29.5% in 2018. The penetration rate of the cross-border e-commerce industry has increased year by year from 2014 to 2019, indicating that more and more consumers are willing to purchase products or services on e-commerce platforms.

3 The impact of the COVID-19 outbreak on China's cross-border e-commerce industry

3.1 Order volume is affected by the severity of the epidemic

As shown in Table 1, from 2019 to 2020, the average number of parcels sent by Chinese logistics companies to the world is as high as 60%. Due to the impact of the new crown epidemic, many parcels could not be sent out, especially in February 2020, which dropped significantly. The issue of e-marketing communication is currently very topical since today, in the time of the rapid development of digitization processes caused by the coronavirus crisis, it is an important part of business operation. As a result, it is important for businesses to consider which strategy to choose in order to achieve a long-term prosperity. Nowadays, the cooperation with influences is highly effective, since by means of sharing and recommendations on social platforms, they may present a given product or service to the public [14].

Table 1. Statistical table of the number of parcels sent by Chinese logistics companies from 2019 to 2020.

Time	Number of packages sent	Global Share
10.2019	29 600 000	66.56%
11.2019	34 750 000	64.55%
12.2019	35 150 000	62.59%
01.2020	33 680 000	60.36%
02.2020	30 360 000	50.54%
03.2020	34 650 000	63.23%
04.2020	40 970 000	56.72%
05.2020	34 330 000	48.79%
06.2020	24 850 000	45.37%
07.2020	18 980 000	42.32%

Source: Global Logistics Query Platform, [15].

China's cross-border e-commerce exporting countries are mainly distributed in the United States, Europe and other places, and the penetration and competitiveness of emerging markets are relatively low. Since February 2020 is the peak period of the COVID epidemic in China, European countries are worried that it will be affected, so the volume of express parcels has dropped significantly. The rebound began from March to April 2020, mainly due to the

proper control of the epidemic in China and the absence of the spread of the epidemic abroad. By May, the outbreak of foreign epidemics began, and countries with severe epidemics began to issue policies to block cities, further hindering logistics, and the volume of express orders began to decline again.

3.2 Supply chain efficiency declines, hoarding of goods

The data on the sharp drop in the number of Chinese export containers in 2020 reflects the impact on the global supply chain due to the shutdown of production and insufficient production capacity in various parts of China, forcing the industry to face the danger of chain interruption of intermediate products.

As shown in Table 2, from January to June 2020, the number of China's container exports was 750,000, a year-on-year decrease of 43.7%. From January to February 2020, the shutdown of enterprises due to the epidemic reduced China's external supply, resulting in a significant drop in the number of export containers. Although there has been a rebound from March to June, the overall efficiency is still low.

Table 2. Data table of China's export container quantity from June 2019 to June 2020.

Time	Cumulative number of export containers	Cumulative year-on-year growth
06.2019	1 330 000	-22.5%
07.2019	1 600 000	-21.6%
08.2019	1 770 000	-24.7%
09.2019	1 930 000	-27.5%
10.2019	2 070 000	-29%
11.2019	2 250 000	-29%
12.2019	2 420 000	-29%
01-02.2020	210 000	-48%
03.2020	360 000	-44%
04.2020	490 000	-41.9%
05.2020	620 000	-44.7%
06.2020	750 000	-43.7%

Source: General Administration of Customs of China, [16].

3.3 International logistics blocked

The global outbreak of COVID-19 has caused logistics costs to continue to rise. The price of international long-term routes in Europe and the United States has risen from 20 yuan to 100 yuan, and the short-term Asian prices have risen from 10 yuan to 40 yuan. Global flights continue to shrink, and the current global air capacity has been reduced to less than 40%, the European air capacity has been reduced by 80%, and the US air capacity has been reduced by 70%.

During the epidemic in 2020, due to the reduction in the international aviation market capacity compared with normal times, the logistics capacity in the belly of passenger aircraft has dropped significantly, resulting in an increase in air freight time and a continuous increase in prices. Nearly 80% of cross-border e-commerce sellers said that international logistics prices are rising every day. Under the influence of factors such as declining air capacity, insufficient logistics manpower and regional border control, cross-border logistics has been seriously hindered.

4 Case study: The development of Ali International Station under the COVID epidemic

4.1 Announcement of business support policy plans during the epidemic

On February 19, 2020, Ali International Station released a business support policy plan during the epidemic, which focuses on solving logistics, capital chain and cloud office problems.

a. In terms of logistics, Alibaba International Station Logistics cooperates with Cainiao and the ecology to provide customers with high-certainty full-link visualization logistics solutions.

b. To solve the capital chain problem, Alibaba International Station launched a corporate financial service support plan during the epidemic, and corporate finance and MYbank provided many financial rights and interests for merchants on the international station.

c. Regarding working from home, Alibaba International Station has cooperated with DingTalk to provide sellers with an exclusive online office support channel. In addition to the ordinary rights and interests of DingTalk, there are also a series of exclusive rights and interests.

4.2 New trade festival promotes digital new foreign trade

On March 2, 2020, the "2020 New Trade Festival" of Ali International Station was officially launched.

a. In terms of sources of business opportunities, Alibaba International Station is committed to bringing more and more accurate traffic to platform merchants. On the one hand, traffic channels are fully opened to create new growth points for online traffic, and on the other hand, accurate traffic is introduced to match industrialization and orientation for efficient conversion to ensure efficient conversion from traffic to orders. As shown in Figure 1, during the New Trade Festival in March, the order volume increased by 114% year-on-year.

b. In terms of contract performance assurance, Alibaba International has launched a series of measures in terms of logistics, supply chain and cash flow to ensure the certainty of contract performance for merchants.

c. In terms of operational efficiency improvement, Ali International Station has launched a series of measures aimed at improving the digital transformation and upgrading of small and medium-sized foreign trade enterprises.

As shown in Figure 1, Alibaba International Station achieved remarkable results in the New Trade Festival in March 2020. The total transaction volume increased by 167% year-on-year, the number of orders increased by 114% year-on-year, and the number of paid buyers increased by 77% year-on-year. China's new foreign trade format bucked the trend.

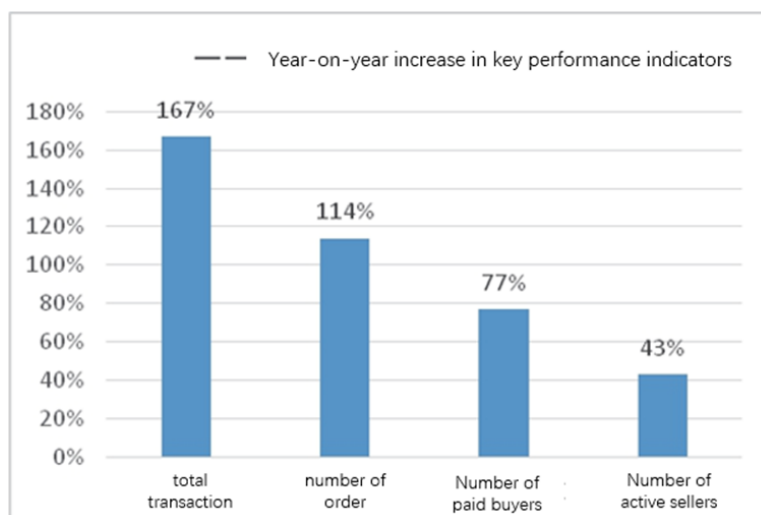


Fig. 1. Synchronous increase in key performance indicators of Ali New Trade Festival in March 2020 (unit: %).

Source: Alibaba.com, [17].

4.3 Open online fair to help transformation

a. Use live broadcast marketing to improve the quality of live broadcast content and accelerate the doubling of inquiries brought by merchants through live broadcast. Set up a short video special session to intuitively and three-dimensionally present the merchant's capabilities and product advantages.

b. With the help of the technical means of big data analysis, the precise matching of business opportunities between the supply and demand sides can be achieved.

c. Ali International Station launched a free audio conference function, which supports real-time one-to-one communication and negotiation between buyers and sellers, builds trust between buyers and sellers, and improves the efficiency of online communication.

The effect of merchants at the exhibition has improved significantly, and the number of active buyers per day of live broadcast merchants has increased significantly. According to the official data of Ali International Station, the average number of daily customer inquiries of the exhibitors at this online fair increased by 132.2% year-on-year, the average daily customer inquiries of live broadcast merchants increased by 129.9% year-on-year, and the number of paid orders increased by 243% year-on-year.

5 Path choices for China's cross-border e-commerce to deal with the covid-19 outbreak

5.1 Online exhibitions drive sales

At the moment of the epidemic, the exhibition industry is deeply affected. According to the "Research Report on the Convention and Exhibition Industry's Response to the COVID Epidemic" released by the China Convention and Exhibition Economic Research Association, nearly 3,500 domestic exhibitions and outbound exhibitions were affected by the epidemic in China from February to April 2020. The impact is more serious, and the impact of the conference industry is no less than that of the exhibition industry. Orders are

the lifeline for enterprises to survive. If there is no exhibition, there will be no orders. Online exhibition will be a new trend for foreign trade enterprises to expand their business in the future.

The State Council's April 7 executive meeting decided that the 127th Canton Fair will be held online in mid-to-late June. Foreign trade enterprises should vigorously develop digital means to conduct online negotiations and use online exhibitions to attract customers. "Enterprises and exhibits are all online", without the limitation of traditional physical space, the number of products that enterprises can sell may increase significantly. In order to increase the exposure of products and enterprises, the exhibition recommends that enterprises make full use of the Google search engine commonly used in e-commerce, Facebook and other online community marketing and live broadcast delivery. An increasing number of retailers and service providers are aware of the importance of loyalty programmes as a tool to support sales [18].

As of June 24, 2020, the total export of the online Canton Fair was about 1,412.6 billion US dollars. It is worth noting that sellers who settled in Ali International Station created a year-on-year increase of 243% in the order volume at the online fair.

5.2 Accelerate the digital new foreign trade path

First of all, the cross-border e-commerce digital trade platform has entered the stage of digitalization of the industrial chain from the stage of digitalization of marketing and digitalization of transactions, that is, from the single online display function of the year, to gradually satisfying the basic trade demands of order placement, payment, and logistics, and then it has developed into a one-stop comprehensive foreign trade service platform that can support customs clearance, overseas warehousing, foreign exchange settlement and tax refund, and agency operations.

Secondly, the difficulty of forming a global enterprise will be reduced rapidly, and "zero-based globalization" will be finally realized. With the help of the digital platform of cross-border e-commerce, even companies lacking foreign trade experience do not need to spend a lot of money and time to find various service providers, quickly start foreign trade business, and establish a global marketing network, supply chain system and contract performance channel. Most successful companies have established effective marketing communication as a useful tool for selling their products to customers [19]. Not only the improved visibility into marketing effectiveness has helped companies to better prioritize their efforts, but it also has improved the quality and precision of the marketing resources demanded by the sales force. Finding the appropriate key metrics should contribute to the evaluation of marketing effectiveness [20].

5.3 Further improvement of international logistics channels

The COVID-19 epidemic has made cross-border e-commerce companies realize the outstanding importance of logistics. Insufficient international transportation capacity, limited overseas warehouses, and poor logistics channels are important factors that inhibit the development of cross-border e-commerce in China in the short term.

First of all, Chinese cross-border e-commerce companies actively optimize international logistics routes to ensure product delivery, and open overseas warehouse services to the vast number of cross-border e-commerce sellers to ease the pressure of Amazon FBA to restrict the warehousing of goods.

Secondly, in terms of air transport, we actively carry out the "passenger-to-cargo" business, temporarily transforming passenger planes into cargo planes, and continuing to send epidemic prevention materials and cross-border e-commerce products.

Finally, China's cross-border logistics supply chain enterprises should fully release their vitality and start to build independent international logistics channels in an all-round way, which will help reduce China's cross-border e-commerce's dependence on foreign logistics enterprises and improve their ability to resist risks.

6 Conclusion

The aim of this paper was to recognize and subsequently determine possible problems that may be an obstacle to the future development of e-commerce of companies. Based on the results achieved, the conclusions presented below can be stated.

Under the government's promulgation of many cross-border e-commerce industry support policies, cross-border e-commerce enterprises hold online exhibitions and other measures to help traditional small and medium-sized enterprises and foreign trade merchants to further transform to online. By using the new digital foreign trade model, it can precisely match the information and needs of buyers and sellers, thereby saving operating costs and improving efficiency. During the epidemic, the problems existing in the cross-border e-commerce industry have been highlighted, and many improvements have been made in the global supply chain and logistics system to help sellers solve the problems of contract performance, stockpiling and cash flow. Although the COVID-19 epidemic has had an inevitable impact on the cross-border e-commerce industry, with the joint efforts of the government, cross-border e-commerce platforms and businesses, the difficulties were overcome and the crisis was finally turned into an opportunity. This opportunity is precisely the development of e-commerce to global dimensions, which has helped not only to simplify but also to speed up cross-border trade. This also had a positive impact on the incentive to modernize and improve global logistics. This has a positive effect on the development and further functioning of road, air and ship transport.

Further research in this area could focus on evaluating the impact of the Covid-19 pandemic on the development of e-commerce in other countries. The topic of e-commerce itself brings many research opportunities, as this industry is relatively young and is currently starting to come to the fore. Further research and the shift of industry and its economy towards Industry 4.0 are also related to this.

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