

The Trend in the Development of China as a Market that Cross-border Electronic Commerce in the Mist of the COVID-19 Pandemic

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ABSTRACT

As the pandemic progressed, many factories in China and worldwide closed, having a severe economic impact. In China, cross-border e-commerce began in the 90s and has been prosperous in the recent ten years. Whether the pandemic will affect e-commerce? What is the effect will be? This paper will discuss the current situation of e-commerce under the pandemic in China and talk about the opportunity and challenges. Then use the time series method to analyse the trend in China's cross border e-commerce. First, the development trend is centralisation, which means small and micro-sized enterprises are less and less. There will be some big enterprises, like Tmall international. Second, as the change of lifestyle and way of entertainment, the short video is famous under the pandemic, it is also changed the way of shopping, more and more sellers through short video sell stuff to customers, the shopping became more and more by way of interest. Thirdly, customers become young in average age under the pandemic. They bring health products and vitamins through cross-border e-commerce.

Keywords: *cross-border, electronic commerce, covid-19 pandemic, centralization.*

1. INTRODUCTION

The COVID-19 pandemic is likely to go down in history as one of the most spectacular events of the early twenty-first century (xiang 2018). The pandemic changed the way of work and lifestyle significantly. In contrast, cross-border electronic commerce in China has had a fast spade of development in the recent decade. As statistic shows, at the end of 2019, cross-border e-commerce in China has reached more than 10500 billion yuan. Compared to 2018, which is 90000 billion yuan, it is increased by 16.6%. That figure export accounts for 76.5%, import account for 23.5%. Cross-border e-commerce in China is steadily increasing. However, the pandemic has a significant effect on cross-border e-commerce in China. The pandemic has changed people's way of life. This paper will discuss the opportunities and challenges faced by cross-border electronic commerce under the pandemic. In addition, this paper aims to analyze the trend in China's cross-border e-commerce amid pandemics.

The paper is structured as follows. First, this paper show the background and relevant research on collaboration on China's cross-border electronic commerce in the

mist of the COVID-19 Pandemic. Next, the applicable research methodologies for the study goal are then defined. In the following two sections, the study's findings are given and analyzed about relevant literature. Finally, the following section summarises significant issues and discusses the consequences for scholarship and practice.

2. LITERATURE REVIEW

From the affection of the pandemic to cross-border e-commerce in China, [1], [2] and [3] take the position of the pandemic taking the new opportunity to China and is the benefit to cross-border e-commerce development in China. [4], mainly through theoretical analysis, discusses the pandemic's effect on the cross-border platform, supply chain, and logistics. [5] considers that the pandemic cannot terminate in a short time. Therefore, under the pandemic, developing cross-border e-shopping requires increasing its competitive power. [6] considered the supplied chin to play a significant role in transporting epidemic prevention materials.

Currently, the whole amount of export statistics show that during the pandemic, sales in May 2020 were lower than in May 2019, but sales climbed dramatically after

May. Compared with December 2019, the figure for export and import in 2020 increased 11.5% [7]. From that, we can see the pandemic impact the cross-border e-commerce just at the beginning. Secondly, cross-border retail developed quickly. In 2019, cross-border retail reached 218,27 billion, whereas increased 35.8% compared to 2015. Thirdly, the cross-border turn to sales small package, due to higher profit [6].

3. METHODS

3.1. model selection and construction

This paper choose cross-border e-commerce trade size of China(CE) as a construed variable, size of manufacture(MVA), size of economics(GDP), size of population(REN) as an explanatory variable, model construction and model construction as a natural logarithm. The model is as follows:

$$\ln_{CE_i} = C + \beta_1 \ln_{MVA} + \beta_2 \ln_{GDP} + \beta_3 \ln_{RNA} + \varepsilon_i$$

In this model, C refer to constant term, ε_i refer to error term.

3.2. Empirical study process

Time series stationarity indicates that the statistical law of time series does not vary with time. Modern time series econometrics believes that the traditional regression analysis methods face a big problem when dealing with time series. Though the explained and explanatory variables in the processed time series are non-stationary, even if the regression results appear to be very significant, they may not genuinely reflect the change law between time series, making pseudo regression possible. This paper uses the ADF stationarity test to test the variables.

The analysis results show that following the first-order difference, the ADF value of the variable at the 1% level is less than the critical value, indicating that the variable is a stationary sequence that may be used for empirical research. Besides, the above analysis results show that after the first-order difference, the variable ln ADF value of CE is -4.969465, which is smaller than the critical value of -4.803492 at the significance level of 1%. The ADF value of MVA was -4.635728, which was less than the critical value of -2.937216 at the 1% significance level. The ADF value is 8.092766, smaller than the critical value of -3.501445 when the significance level is 1%, ln ADF value of RNA was -4.016405, which was smaller than the critical value of -4.803492 when the significance level was 1%. The test findings revealed that the variable ln CE, ln MVA, ln GDP, and ln RNA is a stationary sequence that can be empirically examined.

3.3. Construct regression model

Firstly, the variables for regression are estimated using OLS least squares, and the model results are as follows:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-174.2664	238.8613	-0.729572	0.4931
REN	34.72277	49.16384	0.706266	0.5065
MVA	0.132727	0.552314	0.240311	0.8181
GDP	-0.018253	1.994486	-0.009152	0.9930
R-squared	0.984903	Mean dependent var	4.806804	
Adjusted R-squared	0.977355	S.D. dependent var	0.273324	
S.E. of regression	0.041130	Akaike info criterion	-3.254960	
Sum squared resid	0.010150	Schwarz criterion	-3.133926	
Log likelihood	20.27480	Hannan-Quinn criter.	-3.387734	
F-statistic	130.4795	Durbin-Watson stat	1.043256	
Prob(F-statistic)	0.000007			

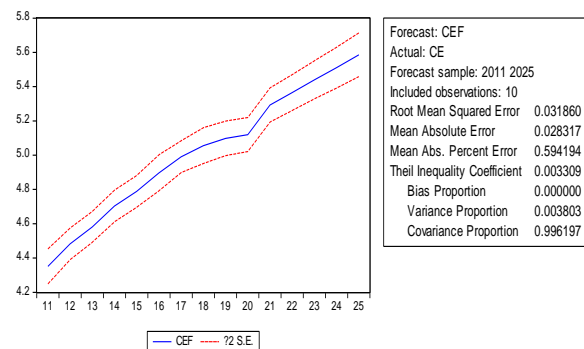
The model expression is as follows, based on the regression findings in the preceding table:

$$CE = -174.266442864 + 34.7227701871 * REN + 0.132726857949 * MVA - 0.0182533629877 * GDP$$

According to the regression results, R2 = 0.984903, indicating that the fitting degree of the model is good fit.

3.4. Model prediction

TABLE1. The predict model



Predict the model, as shown in the following figure it can be seen from the above figure that although the scale of cross-border e-commerce transactions declined slightly in 2020 due to the impact of the epidemic, it will be increased to the scale before 2020 in 2021, and the cross-border e-commerce transactions will steadily and gradually increase over the next five years. Trade between countries around the world is becoming more common as economic globalisation progresses.

4. CASE STUDY

People were forced to stay at home throughout the pandemic, and their way of life changed dramatically. People live a “stay home” lifestyle, influencing their buying habits. Those people who cannot go shopping outside

prefer to do so online. Due to the shortage of local stuff under the pandemic at the beginning of China, people prefer cross-border e-shopping. According to some statistics, cross-border e-commerce increased significantly with the commencement of COVID-19 in China. Because the pandemic has transformed the way people shop, this is the first opportunity for cross-border e-commerce.

The second opportunity is short video or living chatting growing increasingly popular in China. Because of the pandemic, people have to stay at home. Therefore, the phone is becoming a necessity in China. Similarly, short videos and online chatting are becoming popular in China. Short video apps like TalkTalk hit China in these two years. The statistic shows that TalkTalk has more than 7 billion daily active customers in China. The brief video features background music and a narrative. However, Short videos now include shopping material, and living conversational shopping is becoming increasingly popular in China. It altered the way people shop, causing people to stay at home and buy items from all over the world using only their phones. Short video or living chat brings massive profit to e-commerce. For instance, a famous online influencer Weiya bring 30 billion yuan in “double 11” 2019 one day by living chat. Therefore, short video and living chat is the second opportunity cross-border e-commerce confronted.

The third opportunity is the 90s, who are open and glad to accept new staff. They have changed the consumption concept, promoting e-commerce development.

Because the leading age group of the customer for online shopping is 25-35, mostly post the 90s, even post 00s. They are open mind and go for importing cargoes.

The government constructed 105 cross-border test locations, which included 30 provinces, till April 7, 2020. The government has made tax and financial concessions in the test area. The government imposes a 4 percent tax rate in terms of taxation, which is the lowest tax rate. For that product that matches the conditions, enforce the free tax. In finance, the Chinese insurance regulatory commission decreases the loan rate, increases credit loans, and helps cross-border e-commerce cross complex barriers.

There are also some challenges cross-border e-commerce faces. First, the logistic cost increase forced the cross-border e-commerce transformation. The statistic shows that the logistic for cross-border e-commerce increased 11% on average since the pandemic, and the logistic speed decreased. People prefer shopping faster and easy way, therefore people are less likely to select internet buying for cross-border products. Fortunately, there is an increasing number of bonded warehouses in domestic. Cross-border shopping has become a faster and easy way in China. However, more and more bonded warehouses in domestic increase the competition of online shopping. Therefore, product differentiation and uniqueness are essential for the e-commerce sales. Besides, this

situation also impacts the export products. The Amazonas’s logistics FAB delays a lot of products due to the pandemic. A large number of orders were canceled due to the delayed logistics; 17 percent of the 417 orders were canceled.

Secondly, due to the pandemic, the economy was affected. People prefer “light shopping,” which means they like shopping necessities. Yuguo online shows that 30% of cross-border online sellers decrease orders more than half of the pandemic. That leads to sales endurance the cash flow shortage, resulting in the challenge of cross-border e-commerce.

Thirdly, is “China fashion” become popular in China? “China fashion” means fashion which made and began in China, such as China brand Lining and Hongxingerke. Also, the Chinese factor has become popular among young people. The 90s and even 00s prefer Chinese products because they have good quality as export and local products a lot cheaper. However, buying the local product also a symbol of love their own country, therefore more and more young people enjoy the “China fashion”. In addition, because the leading buyer of cross-border products is young people, it also challenges cross-border e-commerce.

In the midst of the COVID-19 Pandemic, the trend in development of China as a market for cross-border electronic commerce.

4.1. Tmall international as a case

Tmall international is one of the biggest platforms that sell global products in China. It accounts for 37.8% market for cross-border e-commerce in China. Because the epidemic altered people's shopping habits, an increasing number of people prefer to purchase from the comfort of their own homes via the internet. The statistic shows that people from five to six-line choose online cross-border shopping significantly, increasing 60%. At the same time, the pandemic increases people's pursuit of high-quality products due to the "stay at home culture". People begin to pursue quality lifestyle. Therefore, people grow the demand for health products. Keeping in good health and keep healthy become popular in the 90s, the main customers for cross-border e-commerce. Whereas the mother and baby products also increase 17% compared to before pandemic and pet products increase 400% compared to before pandemic. Therefore, the pandemic changed people's shopping, which led people to shop for a healthy lifestyle.

4.2. Yiwu small product export as a case

As a result of the pandemic, the supply chain in Yiwu's small product export has run out of resources. During the epidemic, nearly 80% of owners reported a lack of resources in the supply chain. Another point is the return

product increase due to the export market's lack of confidence in China's pandemic. Yiwu's small product export business, more than 80%, rest at home. The third thing is the lack of cash flow, which makes small or micro companies difficult.

5. CONCLUSION

Overall, we can see that small and large businesses are in distinct situations throughout the epidemic. From the statistic we can see the total sales increase during the pandemic. Therefore, the trend in cross-border e-commerce in China under the pandemic is centralization, which means small and micro-businesses are close to big companies and sometimes rely on the big company in terms of logistics and warehouse. And there is more and more warehouse building, which makes the competition fierce. The first choice is to rely on a big company and be part of it. The second is transformation. From statistics, we can see that cross-border e-commerce becomes more centralized, and it will keep the centralization in the future, in and after the pandemic. Second, the shopping trend becomes the interest, which means people shop not only they need but also by interest. Short video and living chatting in China have changed the way people shop, which will continue to change the way people shop in and after the pandemic. Third, the trend of cross-border online shopping under the pandemic in China has become younger. That means people shopping become younger they mostly are the 90s and 00s they prefer healthy shop product and have the ability to shop. Pets' healthy product is also the trend of shopping. Fourth, "China fashion" became popular in China, young people brought more and more local products, rather than cross-border products, under the pandemic.

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