

Effects of Covid-19 on international trade and cross-border e-commerce live streaming: Evidence from China

Fodouop Kouam Arthur William

Abstract:

The Covid-19 crisis hurt different sectors in China, and international trade is no exception. This paper analyses the effects of the pandemic on China's international trade and cross-border e-commerce. The study aims to present China's foreign trade during the pandemic. Our empirical research question is to determine the pandemic's effects on China's international trade and cross-border e-commerce live streaming. In the context of Covid-19, China's international trade faces various difficulties. On the other hand, our research highlights the positive impact of Covid-19 on China's cross-border e-commerce live streaming. We conducted this research using a questionnaire to collect data from 50 companies from different business sectors in China involved in foreign trade. We analyzed data using descriptive statistics. Findings indicate that the pandemic contributes to the rapid development of cross-border e-commerce live streaming in China. To our knowledge, this study is the first to classify cross-border e-commerce live streaming into different categories. It represents the innovation of this research to the existing literature.



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Introduction

After the financial crisis in 2008, cross-border e-commerce was the strategy China adopted as a new international business model. Over a few years ago, cross-border e-commerce (CBEC) exports and imports in China overgrew. Between 2018-2019, China's trade/GDP ratio was about 32%, and its total merchandise trade value was about \$4.6 trillion (Fang et al., 2022). Data also show that the penetration rate of CBEC in international trade reached 37% in 2019, more than 3% higher than that in 2018, ranking the highest in the world. The advent of Covid-19 in 2019 has plunged the world into new realities. All economic sectors have needed restructuring to cope with the crisis. Foreign trade was no exception. Following Vo and Tran (2021), the pandemic negatively impacted transportation and individual and business travel. According to the authors, uncertainty about the Covid-19 pandemic impacted trade costs. In the same sense, Matezo and Matondo (2022) suggest that the Covid-19 problem in exporting countries negatively affects trade. Hayakawa et al. (2021) argue that many confirmed cases or deaths from the pandemic negatively affect international trade in exporting and importing countries. The pandemic resulted in a negative impact on the export of most foreign trade worldwide. However, the restrictions linked to the pandemic have led to the intensification of information and communications technology, e-commerce, and CBEC. According to Dumanska et al. (2021), the Covid-19 crisis boosted the spread of e-commerce and m-commerce through new firms, product types, and customers. Moreover, Hayakawa et al. (2021) suggest that the pandemic contributed to the development of e-commerce in several countries. Xiao et al. (2022) suggest that the Covid-19 pandemic contributed to the development of global e-commerce. Several studies only focused on the adverse effects of the pandemic on international trade. This paper aims to show that the Covid-19 pandemic not only hurt international trade but also positively impacted the intensification and development of CBEC live streaming in China. The empirical research question is to determine the pandemic's impact on China's international trade and CBEC live streaming. This paper has two main objectives. The first is to display China's foreign trade during the pandemic. The second is to present the positive impact of Covid-19 on CBEC live streaming. Our research is structured as follows. The following section reviews the existing literature. Section three presents the methodology and data used in this study. Section four displays and discusses the results. The last section concludes, offers the contributions of this research, and highlights limitations and further research direction.

Literature Review

Relationship between international trade and cross-border e-commerce

There is no general agreement about the link between international trade and cross-border e-commerce. While some research works found a positive relationship, others illustrated the opposite. Following Mzwri and Altinkaya (2019), e-commerce significantly impacts service trade. It also impacts international trade in different ways: affecting the output of products and their price, imports, and exports of merchandise trade, profits of enterprises, Etc. Hang and Adjouro (2021) argue that CBEC positively and significantly influences international trade in the short and long term. Moreover, the development of CBEC has significantly boosted the expansion of China's export trade scale (Wang et al., 2021). Several other research works came to the same conclusion concerning the positive relationship between CBEC and international trade (Wang et al., 2017; Yige & Meivitanli, 2018; He & WANG, 2019). Contrary to them, other researchers found a negative relationship between cross-border e-commerce and international trade. Using the OLS method, Zhang et al. (2018) demonstrated that import and export trade decrease by 3.68 when CBEC increases by 1 unit in the short term. Moreover, Lei and Zheng-yao (2019, May) found similar results using the same method.

China's cross-border e-commerce and international trade in the context of Covid-19

In the context of the pandemic, China's cross-border e-commerce faces several challenges: suspension of domestic logistics, international flight, and rail transportation (Liu, 2020, April). In addition, small, medium, and micro cross-border e-commerce companies suffered an essential loss for rejection of the parcel and cancellation of the order. Li (2021, April) uses three main axes to present the current status of China's cross-border e-commerce in the context of Covid-19. First, foreign trade faced an unprecedented grim situation. During the pandemic, cross-border e-commerce faces various difficulties: falling orders, cancellations, and delays. The second was the obstruction of international logistics. The capacity of the international aviation market has declined compared to regular times. Therefore, there was a considerable reduction in the logistics capacity of passenger aircraft, leading to an increase in air transportation time and rising prices. The third was the restructuring of the global supply chain. As a result of the pandemic, production capacity across China was reduced, hitting global supply chains. Zhang et al. (2021) find a direct causal relationship between the imports and exports of China and Covid-19-related deaths. The authors argue that there happens to be a negative association between Covid-19 and trade. In addition, there are adverse effects of Covid-19 on China's trend analysis trade patterns. Furthermore, Cao et al. (2020) suggest that the supply chain disruption negatively impacted China's agricultural exports in the short term. Moreover, Hu (2020, December) argues that Covid-19 negatively impacted China's cultural services and international contracting projects. However, Fang et al. (2022) argue that due to the mechanical & electrical, and high-tech industries, China's exports to its major trading partners recovered in the second half of 2020 and 2021. According to the authors, China's exports continue growing. Contrary to the previous findings, Wei et al. (2021) argue that domestic epidemics in China have a non-significant effect on imports. The authors find a positive correlation between epidemics in significant trading partners and exports in China. In addition, Hu (2020, December) suggests that the pandemic offered new opportunities for trade and the digital economy. In summary, the current literature analyzing the effects of Covid-19 on China's foreign trade and CBEC highlights several challenges China faces. It also presents some positive impacts on the pandemic, such as opportunities in the digital economy and trade. However, the existing literature does not assess the effects of the pandemic on China's CBEC live streaming. Our research contributes to the current literature by analyzing the impact of Covid-19 on China's CBEC live streaming development.

Methodology and Data

To analyze the development of CBEC live streaming in China in the context of Covid-19, we have conducted a survey. We have collected 50 valid questionnaires from Chinese companies from different business sectors based in China. All 50 companies are involved in CBEC and live streaming practices.

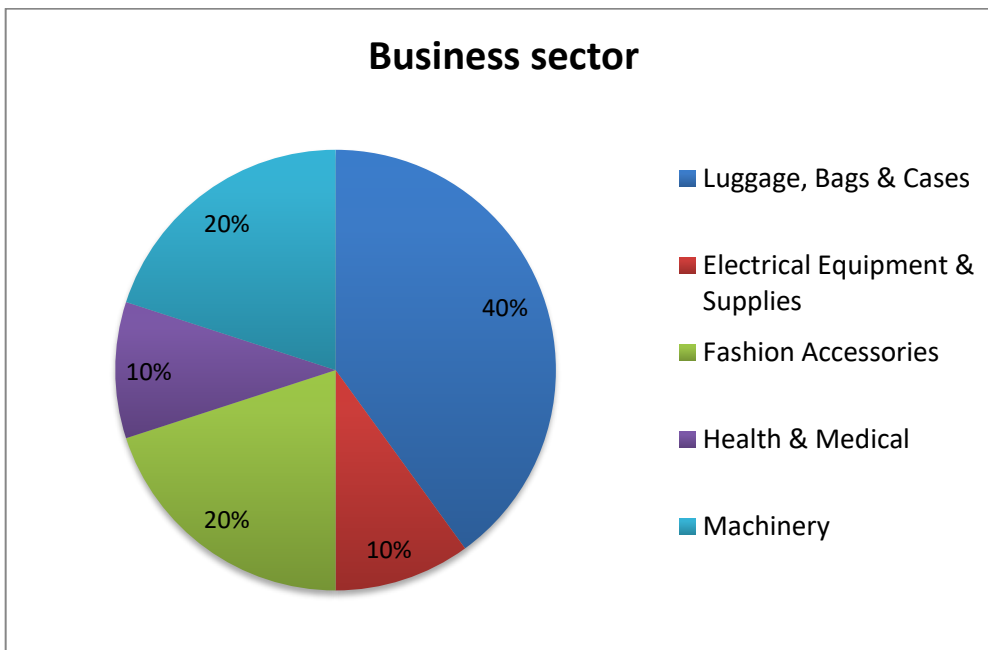


Figure 1. Business sectors of companies involved in the survey

Source: Survey conducted by the author

Results and Discussion

Development of cross-border e-commerce live streaming in a pandemic context

Live streaming, also known as live broadcasting and commonly called “zhibo”(直播) in China, is a new model of economy. Its rapid development started in 2019, with the beginning of e-commerce live streaming. During the Singles Day Shopping Festival of 2019, Taobao’s live streaming platform yielded \$2.85 billion in sales streaming (Hou, 2020). The intimate interaction environment for users that live streaming creates is the reason for its growing popularity. According to Lu and Siegfried (2021), several reasons trigger the rapid development of e-commerce live streaming platforms: internet celebrity economy, attracting consumer traffic, getting consumers’ demands quickly, accurate product information, improving consumers’ shopping environment, increasing interaction and communication, determining target consumers more accurately, and high Gross Merchandise Volume (GMV) rate. Furthermore, (Hou, 2020) argues that private traffic, host, and products are elements for successful live broadcasting of e-commerce. Moreover, live streaming lets sellers promptly answer consumers’ doubts and issues with a vivid presentation. It also permits buyers to confirm the authenticity of the products and sellers. On the other hand, video product presentation helps consumers better understand products, their functions, and their utilization (Zhang et al., 2019; Xu et al., 2021). In this sense, live streaming can counteract the adverse effects due to a lack of transparency, generating positive results. During the pandemic and its restrictions, companies in China have developed various categories of live streaming to present their business, factories, products, and services to customers outside China.

Categories of live streaming

Findings display four main categories of CBEC live streaming: product display & live selling, questions and answers (Q&A), Chief Executive Officer (CEO) presentation, and factory tour.

Product display & live selling live streaming

In this live streaming category, the host displays the company's products. The aim is to allow the public to collect more details and information and discover the company's new products. In addition, this live streaming category allows the audience to have a live discussion with the company through the host. Any viewer interested in a product can send a message to the host and then engage in the live discussion. This live streaming category aims to attract consumer traffic, collect information about consumers' needs, obtain consumers' demands as soon as possible, and increase customer interaction and communication.



Figure 2. Screenshot of product display & live selling live streaming: (1) chat between viewers and the host. (2) Product presented by the host. (3) Total viewers. (4) Likes. (5) Comments

Source: <https://maitaobag.en.alibaba.com/>

Screenshot taken by the author during the survey in a company

Questions and Answers live streaming

Generally called "Q&A" live streaming, in this category, the host welcomes all viewers and encourages them to ask questions related to the company and its products as much as possible. In this sense, any viewer has an opportunity to have a better understanding of the company and its products. This second category of live streaming aims to arouse the audience's interest in the company and give viewers a chance to learn more about the company.

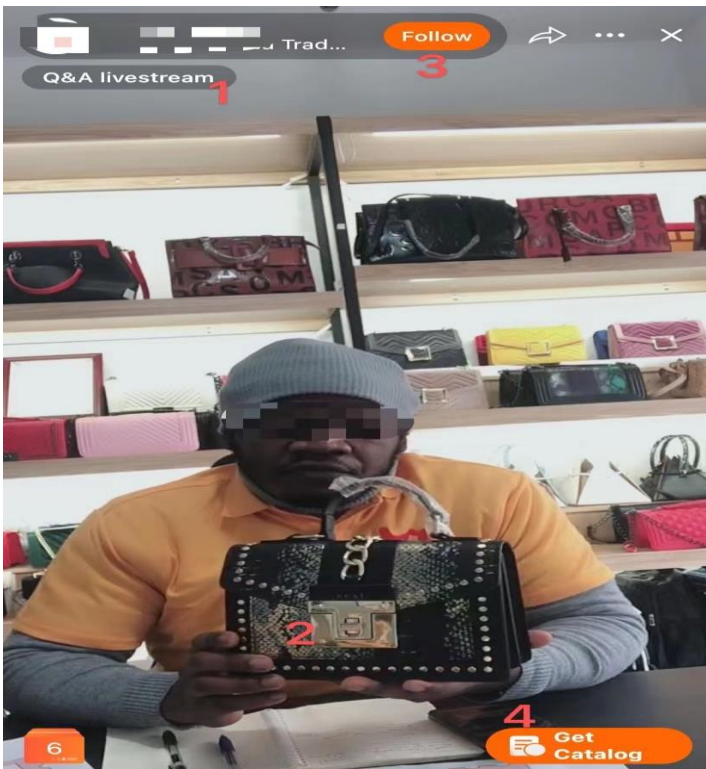


Figure 3: Screenshot of Q&A live streaming: (1) Live streaming category. (2) Product displayed. (3) Pattern to follow the company. (4) Pattern to get the company's catalog and send a message to the host.

Source: <https://maitaobag.en.alibaba.com/>

Screenshot taken by the author during the survey in a company

CEO live streaming

In this category, the company's CEO introduces his/her company and products and offers a better understanding to the public.

Factory tour

Recently, due to Covid-19 restrictions, the Chinese government does not grant China entry to foreign customers willing to come to China for a factory tour. During the factory tour's live streaming, the host virtually takes the audience inside the factory for a factory tour.

Advantages and disadvantages of cross-border e-commerce live streaming

Advantages of CBEC live streaming

Compared to pictures and short videos, live streaming allows consumers to visualize the product directly. Moreover, the streamer's emotion, his/her real-time language, and the audience's feedback make the product more real. In this sense, live streaming reduces the cost of trust (Hou, 2020). Furthermore, live streaming also makes viewers perceive their services; viewers' demands correspond quickly, and the host gets users' feedback quickly.

Disadvantages of CBEC live streaming

Even though live streaming allows viewers to see products live, they still cannot get some product details, such as touching their textures. Moreover, viewers cannot accurately perceive the product. The lighting and lens of the live streaming room greatly influence the appearance

of goods and mislead consumers (Hou, 2020). Furthermore, Lu and Siegfried (2021) distinguish other obstacles to live streaming in e-commerce: unsatisfied after-sales service, lack of excellent live hosts, consumers' low stickiness, and information asymmetry.

Conclusion

Our study investigates the effects of Covid-19 on China's international trade and CBEC live streaming. The paper first presents the negative effect of the pandemic on China's imports and exports. On the other hand, the paper exposes the positive impact of the pandemic on the development of CBEC live streaming in the same country. Findings show that the pandemic negatively impacts international trade. Following Kazunobu and Hiroshi (2020), the Covid-19 burden on exporting countries negatively affects trade. During the pandemic, China's foreign trade faces various obstacles: falling orders, cancellations and delays ensue, obstruction of international logistics, a decline in the international aviation market, reduction of logistics capacities, and reduction of production capacity. However, the pandemic seems to impact China's CBEC positively. It provided an essential window for *electronic World Trade Platform* (Johnston, 2021). Findings indicate that Covid-19 contributed to China CBEC's rapid live streaming development. Four categories of live streaming have emerged during the pandemic: product display & live selling, Q&A, CEO presentation, and factory tour.

Applications, limitations, and further research direction

To increase the international visibility of the company and its products, communicate with foreign customers, and eventually increase sales, companies involved in CBEC should engage in the live streaming practice. Moreover, to increase the live streaming consumers' traffic, companies already involved in this practice should improve the quality of live streaming and deal with its disadvantages. This study offers an essential contribution to the existing literature. It contributes to the literature on CBEC live streaming by being one of the first studies presenting the different categories of live streaming in cross-border e-commerce. Further research can investigate the benefits and impact of CBEC live streaming on companies' turnover and performances.

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