

Research on the Development Status, Problems, and Countermeasures of China's Cross-Border E-commerce

Xiaoxue Zheng*, Qiong Wu

Kyung Hee University Graduate School, Seoul 17104, Korea

*Corresponding author: Xiaoxue Zheng, z2530057514qqcom@163.com

Copyright: 2025 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY-NC 4.0), permitting distribution and reproduction in any medium, provided the original author and source are credited, and explicitly prohibiting its use for commercial purposes.

Abstract: With the global popularization of internet technology and the widespread use of mobile devices, commercial activities are rapidly shifting online, and the global e-commerce market continues to maintain high-speed growth. Cross-Border E-commerce (CBEC), as a new trade model, integrates new technologies and business models, becoming a crucial component of international trade. China, as one of the world's largest e-commerce markets, has seen particularly rapid development in its CBEC sector, which has become an important means of stimulating economic growth and strengthening international cooperation. This paper examines the development history and market status of China's CBEC through literature review and case analysis. It deeply analyzes the prominent issues in tax and legal systems, information infrastructure, credit and payment security, logistics, and talent cultivation. Targeted countermeasures are proposed, including improving tax and legal frameworks, strengthening information infrastructure, perfecting credit and payment security systems, optimizing logistics, and increasing talent development efforts, to promote the healthy and sustainable development of China's CBEC.

Keywords: Cross-Border E-commerce; Development Status; Problems; Countermeasures; APA Format

Published: Nov 22, 2025

DOI: https://doi.org/10.62177/apemr.v2i6.889

1.Introduction

1.1 Background

In recent years, the scale of China's cross-border e-commerce has continued to expand. According to data from the General Administration of Customs of China and the Ministry of Commerce, the import and export scale of China's CBEC reached approximately 1.92 trillion yuan in 2021, an increase of 18.6% year-on-year, accounting for 4.9% of the total import and export volume (State Council Information Office, 2021; State Council Information Office, 2021). Exports alone reached 1.39 trillion yuan, a year-on-year increase of 28.3%. With its flexibility and low-cost advantages, CBEC has challenged traditional trade models while offering new opportunities for the global trade market. The E-commerce Law of the People's Republic of China, which came into effect on January 1, 2019, provides legal protection for the standardized development of China's e-commerce, further promoting the healthy development of the industry.

1.2 Research Objectives

CBEC has broken down national trade barriers, establishing an open, multi-layered economic and trade cooperation model that significantly promotes the optimal allocation of global resources. For businesses, it broadens access to international markets; for consumers, it provides a convenient way to acquire high-quality global products. However, alongside its rapid

growth, CBEC faces numerous challenges. This study aims to analyze the current status and major problems of China's CBEC and propose practical development countermeasures.

1.3 Research Methods and Content

This paper primarily employs literature review and case analysis. By reviewing relevant domestic and international literature, the theoretical foundation of CBEC is established. Through case studies of Chinese CBEC enterprises, practical problems in the industry's development are revealed.

The paper is divided into five chapters: Chapter 1 is the Introduction; Chapter 2 examines the concept, types, and characteristics of CBEC; Chapter 3 analyzes the development history and market status of China's CBEC; Chapter 4 delves into the existing problems; and Chapter 5 presents the conclusion and policy recommendations.

2. Concept, Types, and Characteristics of Cross-Border E-commerce

2.1 Concept of Cross-Border E-commerce

E-commerce is a new type of transaction based on modern information technology and internet technology, integrating information flow, capital flow, and logistics. Cross-Border E-commerce (CBEC) specifically refers to international business activities where trading entities from different countries or regions conduct commodity transactions, payment settlements through e-commerce platforms, and ultimately complete the transaction via cross-border logistics services. It includes two main forms: domestic consumers purchasing goods from abroad (direct purchase) and foreign consumers purchasing domestic products (reverse direct purchase).

Table 2-1 Comparison o	f Traditional Trade and Cross-Border E-commerce Trade Charac	cteristics

Feature	Traditional Trade	Cross-Border E-commerce Trade
Trading Parties	Overseas trading companies (B2B, fixed buyers)	Overseas consumers (B2C, unspecified number of consumers)
Transaction Cycle	Periodic	Real-time (irregular)
Sales Characteristics	Large volume, small variety	Small volume, large variety
Transportation Time	Long-term (months)	Short-term (within 2 weeks)
Main Logistics Method	Sea freight	Air freight
Logistics Cost	Low cost (bulk transport)	High cost (individual shipment)
Transaction Method	Offline (paper-based transactions)	Online ordering
Export Clearance	Export declaration obligation (using customs)	No export declaration obligation (submission of export clearance manifest)
Contract Cancellation	Difficult (strict enforcement of trade standards)	Simple (frequent cancellation/return due to consumer change of mind)

2.2 Types of Cross-Border E-commerce

Based on the trading entities, CBEC is mainly categorized into the following types:

Business-to-Business (B2B): Transactions between enterprises, which is currently the dominant model in China's CBEC.

Business-to-Consumer (B2C): Enterprises sell products directly to consumers through platforms or independent websites, the most common form.

Consumer-to-Consumer (C2C): Consumers sell goods directly to other consumers through platforms (e.g., Taobao, eBay).

Manufacturer-to-Consumer (M2C): Manufacturers provide products or services directly to consumers, reducing intermediate circulation links and lowering costs.

2.3 Characteristics of Cross-Border E-commerce

CBEC, based on the nature of the internet, possesses the following key characteristics:

Globalization: The borderless nature of the internet gives CBEC a global reach, maximizing information sharing, but also introducing risks related to culture, politics, and law.

Multilateralism: CBEC adopts a multilateral model, allowing trade activities with multiple countries simultaneously, unlike the bilateral model of traditional trade.

Intangibility and Paperless: Communication and contract signing between trading parties can be done electronically, significantly improving transaction efficiency.

Concealment: Trading parties can hide their identities and relevant information as needed, which helps protect consumer privacy.

Timeliness: E-commerce is not constrained by time, space, or distance, and can efficiently compress multiple intermediate steps, thus offering high timeliness.

3. Current Status of China's Cross-Border E-commerce

3.1 Development History

The development of China's CBEC has generally gone through the following stages:

Incubation Stage (1999-2003): Marked by the emergence of Alibaba International (predecessor of 1688.com), primarily providing information display platforms for SMEs and cultivating early CBEC merchants.

- 2.0 Stage (2004-2012): Transaction activities began to shift online, with payment and logistics gradually digitized. Platforms generated revenue by charging membership fees and transaction fees.
- 3.0 Development Stage (2013-2018): With the full popularization of the internet and the increase in mobile users, the government began introducing policies to stimulate transactions, such as adjusting tax rates, improving customs clearance efficiency, and establishing Comprehensive Pilot Zones for Cross-Border E-commerce (e.g., Shanghai, Chongqing, Hangzhou) (An, 2017).

Maturity Stage (2019-Present): The refinement of policies and systems has driven continuous industry development. From 2013 to 2021, China's CBEC maintained an average annual growth rate of 24.14% (Korea Ministry of Trade, Industry and Energy, 2021).

3.2 Market Scale and Structure

3.2.1 Transaction Scale

The transaction scale of China's CBEC continues to grow rapidly. According to data from the Qianzhan Industry Research Institute and the General Administration of Customs of China, the scale of China's CBEC was 2.7 trillion yuan in 2013, and by 2021, it had reached 19.23 trillion yuan, with an average annual growth rate maintained above 20% (Qianzhan Industry Research Institute, n.d.).

3.2.2 Model Structure

China's CBEC is still dominated by the B2B model, but the proportion of the B2C model is increasing year by year. In 2019, B2B transactions accounted for 80.5%, while B2C transactions accounted for 19.5% (State Administration of Market Regulation, 2020). This indicates that with the upgrading of consumer demand and the improvement of the logistics system, the cross-border retail model directly facing consumers is developing rapidly.

3.2.3 User Scale

The scale of cross-border online shopping users continues to expand. At the end of 2017, the number of cross-border online shopping users in China was approximately 66 million, increasing to 265 million by 2021 (State Council Information Office, n.d.). The growth in user scale reflects the increasing demand of Chinese consumers for global products.

3.3 Main Payment Methods

The main payment methods for China's CBEC are dominated by third-party payment platforms. According to an Adyen survey, Alipay (48%) and Tencent Pay (19%) are the primary payment methods for domestic e-commerce, with international UnionPay and international cards also holding a certain proportion (Adyen, n.d.). The stability and convenience of third-party payments provide an important guarantee for the rapid development of China's e-commerce market.

4. Challenges Facing China's Cross-Border E-commerce Development

Despite its rapid development, China's CBEC still faces numerous challenges in terms of systems, infrastructure, credit,

logistics, and talent.

4.1 Tax and Legal System Issues

4.1.1 Tax System Issues

The online transaction nature of CBEC poses challenges to traditional tax systems:

Tax Loss Risk: The hidden nature of cross-border transactions makes it difficult to verify the identity of taxpayers and ensure the authenticity of transactions, leading to tax loss (Yu, n.d.).

Imperfect Collection and Management System: The division of labor for tax collection, management, and inspection is unclear, the flow of tax sources is vague, and there are many loopholes in collection and management. Many online operators fail to obtain business licenses or complete tax registration, resulting in inadequate tax payment.

4.1.2 Legal System Issues

Product Quality Supervision and Rights Protection: The rate of substandard product quality on CBEC platforms is relatively high. Due to geographical and regulatory restrictions, consumer rights are difficult to protect effectively (Huang, 2019).

Intellectual Property Protection: Intellectual property rights, product quality evaluation systems, and legal environments vary across countries in international trade, making the definition of IP rights in CBEC transactions difficult and restricting industry development.

4.2 Information Infrastructure Shortcomings

The realization of e-commerce is highly dependent on information infrastructure. China still has deficiencies in information infrastructure construction:

Low Informatization Level: The level of informatization and digitalization in most small and medium-sized enterprises is low, making it difficult to adapt to the digital requirements of international trade.

Urban-Rural Disparity in Penetration: Although internet penetration continues to rise, the urban-rural gap remains significant. In 2021, urban internet penetration was 82%, while rural penetration was only 57.5% (State Council Information Office, n.d.). The network environment and penetration rate in rural areas still need to be strengthened.

4.3 Credit Deficiency and Payment Security Issues

Credit Deficiency: The problem of counterfeit and shoddy products is serious. Unscrupulous individuals exploit the virtual nature of the internet for fraud, harming consumer interests and affecting the international reputation of CBEC (Wang, n.d.). Payment Security: Cross-border payment systems are highly complex, lacking a comprehensive system and regulation. Differences in exchange rates between countries and the difficulty in accurately assessing the financial status of the counterparty create the possibility of illegal transactions. Furthermore, non-compliant operations by some third-party payment

platforms also affect the stability of payment settlements.

4.4 Logistics Issues

Logistics is a critical link in completing CBEC transactions. The main current problems include:

High Transportation Costs: The costs of transportation, warehousing, and management for cross-border logistics are significantly higher than domestic costs. Statistics show that the average cost of cross-border logistics is 100 yuan per kilogram, which is 10 times the domestic average (State Administration of Market Regulation, n.d.).

Long Transportation Time: Procedures such as customs clearance, inspection, and quarantine are time-consuming, leading to long delivery times. It takes at least 3 days, and up to 3-4 weeks, for goods to reach consumers in China's first and second-tier cities. Consumers generally prefer delivery times within 5 days (Chen, n.d.).

Insufficient Infrastructure: The construction of overseas warehouses by Chinese CBEC enterprises is still in its infancy and cannot meet the growing demand. Weak logistics informatization leads to low efficiency and high error rates.

4.5 Talent Shortage

CBEC requires composite talents with expertise in e-commerce, international trade, foreign languages, and marketing. Currently, China faces a severe shortage of CBEC talent, mainly reflected in:

Shortage of Platform Operation Talent: A lack of composite talent with practical experience who can skillfully handle store setup, product listing, order processing, and customer service.

Shortage of Marketing Talent: A lack of talent with keen market insight and skilled network marketing techniques (e.g., social media marketing, content marketing).

Shortage of Logistics Talent: A lack of professionals familiar with international logistics processes and capable of handling complex international logistics issues.

Shortage of Data Analysis Talent: A lack of professionals who can use data analysis tools to support corporate decision-making.

5. Conclusion and Policy Recommendations

To promote the healthy development of China's CBEC, this paper proposes the following countermeasures:

5.1 Improve Tax and Legal Systems

Establish a tax collection and management model adapted to the development of CBEC, clarifying tax subjects, objects, and rates, and simplifying tax procedures. Accelerate the legislative process in the CBEC field, clarify the rights and obligations of all trading parties, and establish sound mechanisms for consumer rights and intellectual property protection to provide legal guarantees for standardized industry development.

5.2 Strengthen Information Infrastructure Construction

Increase investment in network infrastructure, especially in central and western regions and rural areas, to improve internet penetration and network speed. Encourage enterprises to upgrade their informatization, promote the establishment of data sharing platforms among government, industry, and enterprises, and utilize big data and cloud computing to enhance operational efficiency.

5.3 Perfect Credit System and Payment Security

Establish a unified national CBEC credit evaluation system to enable credit information sharing and joint disciplinary action. Strengthen the supervision of third-party payment platforms, standardize their operations, and ensure payment security. Promote the use of safer payment technologies to prevent financial risks.

5.4 Optimize Logistics System

Encourage logistics enterprises to build overseas warehouses and bonded warehouses to shorten delivery times and reduce logistics costs. Support the development of third-party logistics and smart logistics, utilizing technologies like the Internet of Things and artificial intelligence to improve logistics efficiency and transparency. Strengthen coordination among customs, commodity inspection, and other departments to simplify clearance procedures and enhance efficiency.

5.5 Increase Talent Cultivation Efforts

Encourage cooperation between universities and enterprises to offer CBEC-related majors and courses, cultivating composite talents. Establish CBEC talent training bases to provide continuous on-the-job training for industry practitioners. Implement talent introduction programs to attract high-end overseas talent, providing intellectual support for the development of China's CBEC.

Funding

No

Conflict of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

Reference

- [1] Adyen. (n.d.). Global e-commerce payment guide."
- [2] An, B. (2017). Research on the basic direction and environment for e-commerce promotion policy formulation."
- [3] Chen, W. (n.d.). Research on the development plan of intermediate B2C e-commerce in Korea [Master's thesis]."
- [4] eMarketer. (2018, 2019). Global retail e-commerce sales."
- [5] Huang, Y. (2019). Research on risk prevention and countermeasures of China's trade e-commerce [Master's thesis]."
- [6] Kang, Z., Huo, X., & Li, M. (n.d.). Problems and countermeasures of logistics model under cross-border e-commerce.

China Market."

- [7] Korea Ministry of Trade, Industry and Energy. (2021). Press release on cross-border e-commerce size."
- [8] Li, et al. (2016). [Original source details missing]."
- [9] Ni, Y. (2019). Research on the current status and development of China's e-commerce—Taking Pinduoduo as an example. National Circulation Economy, (6)."
- [10] Park, J. (n.d.). Dictionary of the current status of Korea's cross-border e-commerce—Focusing on global e-commerce companies. Industrial Economy."
- [11] Qianzhan Industry Research Institute. (n.d.). China cross-border e-commerce industrial park development model and industry overall planning report."
- [12] State Administration of Market Regulation. (n.d.). Data on cross-border e-commerce cost structure."
- [13] State Administration of Market Regulation. (2020). 2019 China cross-border e-commerce data report."
- [14] State Council Information Office. (n.d.). Data on cross-border e-commerce user size."
- [15] State Council Information Office. (n.d.). Data on internet penetration rate."
- [16] State Council Information Office. (2021). China e-commerce survey report."
- [17] State Council Information Office. (2021). 2021 cross-border e-commerce report."
- [18] Transparency Market Research. (n.d.). Data on global logistics market size."
- [19] Wang, J. (n.d.). Empirical study on the impact of free trade zone cross-border e-commerce on China's foreign trade [Master's thesis]."
- [20] Yu, X. (n.d.). Analysis of tax issues in the new cross-border e-commerce policy. National Chinese Core Journal."
- [21] Zhou, C. (2018). Research on the optimization of G company's cross-border e-commerce model [Master's thesis, Hunan University of Technology]."
- [22] Zou, J., & Li, D. (n.d.). Research on the current status of China's cross-border e-commerce and cooperation plan with North and South Korea's e-commerce."