

The Impact of Cross-border E-commerce Development on China's Export Trade

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Abstract: Cross-border e-commerce has significantly influenced China's trade development as a new type of contemporary international business activity. It opens up a fresh avenue for Chinese businesses to investigate the global market, encourages the expansion of international trade, increases market share, and consequently creates a wealth of commercial chances. The obstacles that come with cross-border e-commerce include heightened market competitiveness, as well as tax and regulatory issues. The government must create and refine pertinent regulatory and tax policies to solve these issues and enable the healthy and orderly growth of international e-commerce. Additionally, the key to fostering its sustainable and stable development is increasing industrial skills and educating professional cross-border e-commerce talent. Generally speaking, cross-border e-commerce has presented China's trade with both opportunities and obstacles, and a thorough response strategy is required to assure its healthy development.

Keywords: cross-border e-commerce, China's trade, Influencing factor

1. Research background and significance

In the current state of the world economy, China is subject to external pressures including declining external demand and trade conflict, which have a large detrimental effect on China's trade. Additionally, domestic production costs are rising, which leads to a steady decline in the price competitiveness of export goods and the development of export trade suppression. Cross-border e-commerce has arisen as a new export trade model and has grown to be a crucial component of China's trade transformation and upgradation, however, as a result of the advancement of Internet technology and the widespread use of digital technology [1]. This model makes use of the benefits of the Internet and information technology so that export businesses can quickly broaden the market on a global level, improve the added value of products, and increase brand influence, all while streamlining the supply chain, cutting costs, and improving overall competitiveness [2]. Cross-border e-commerce business has given China numerous economic benefits, but it has also presented new problems. Therefore, a thorough examination of the precise effects of cross-border e-commerce on China's trade has broad implications for China's actual trade in addition to theoretical importance.

2. Overview of cross-border e-commerce

2.1. Basic concepts of cross-border e-commerce

Cross-border e-commerce business is a particular sort of international trade that entails electronic platform-based transactions between two parties with separate customs. In particular, a cross-border transaction is finished when the buyer and seller come to an agreement, complete the payment and settlement, and ship the items to the buyer using cross-border logistics. Cross-border e-commerce business is distinct from conventional import and export trade in that it is totally based on the Internet platform, making trade activities more practical and effective. It is a significant expansion of conventional international trade and a novel type of trading [3]. Cross-border e-commerce business, which includes but is not limited to cross-border e-commerce retail, import, logistics as well as other integrated services, primarily refers to various e-commerce activities that sell goods or deliver services abroad. In essence, cross-border e-commerce creates a novel marketplace for buyers as well as sellers throughout the world by fusing the ease of online shopping with the diversity of international trade.

The table below displays the categorization of cross-border e-commerce.1. With the expansion of offline and online stores in tandem, cross-border e-commerce business directly connects buyers and sellers of international trade through online platforms and develops a new retail model. A new type of trade is created at the same time as the online transaction process is realized through the cross-border e-commerce platform, opening up the various transaction stages of contract signature, payment, logistics, and customs clearance [4]. In order to conduct a theoretical study, this research will first define two distinct cross-border e-commerce focuses before combining the B2B and B2C cross-border e-commerce models. The research object for the empirical section, which broadly defines cross-border e-commerce, is the impact on the export trade of goods.

2.2. Development history of cross-border e-commerce

Cross-border e-commerce development can be broken down into three phases: start, expansion, and prosperity.

There were some early merchandise sales activities over the network during the original stage (1990–2007), but the scale and sales were modest. Cross-border e-commerce started to take off in China in 2002 after eBay entered the country's market, luring additional global trade and e-commerce platforms to get involved [5].

Cross-border e-commerce ushered in quick expansion as it entered the growth stage (2008–2014), thanks to advancements in global logistics, payment, and language translation technologies. Not just B2B models, but also B2C models have grown throughout this time. Cross-border services have been introduced by domestic e-commerce platforms like Taobao, Tmall, Jingdong, etc., while international e-commerce giants like Amazon, eBay, etc. have also intensified their focus on the Chinese market [6].

The current boom started in 2015 and is still going strong. The Chinese government's Belt and Road Initiative has helped to accelerate the growth of international e-commerce. Today, numerous foreign e-commerce platforms are not only making inroads into the Chinese market, but numerous Chinese businesses are also using cross-border e-commerce models to advertise their goods internationally [7]. Cross-border e-commerce has so far been recognized as the primary development direction for international e-business.

Table1: Cross-border e-commerce classification

Basis of delineation	Types	Main features
Subject of the transaction	B2B	Existing in inter-firm
	B2C	Existing in business and individuals
	C2C	Existing in the individual and the individual
Direction of cargo flow	Export Cross-Border E-Commerce	External exports
	Import Cross-Border E-Commerce	Internal imports
Platform development and operation	Third-party open platforms	The platform is responsible for integrating the resources of buyers and sellers
	Self-operated platforms	The platform is responsible for the entire process of production, sales and distribution

2.3. Status of development and trend of cross-border e-commerce

2.3.1. Development status of cross-border e-commerce

In China, there has been a major growth and change in cross-border e-commerce.

The volume of international e-commerce has consistently increased in China. Data indicate that in 2021, China's cross-border e-commerce import and export scale increased by 18.6% to approximately 1.92 trillion yuan. 4.9% of all imports and exports were represented by this. It is noteworthy that the export component of the expansion is particularly strong, increasing by 28.3% to reach 1.39 trillion yuan, while the import component only slightly declines, falling by 0.9 percent to 0.53 trillion yuan [8].

The cross-border e-commerce market in China is going through fundamental changes and displaying signs of diversity. New transaction models like C2C and O2O are replacing the conventional B2C paradigm over time. These new trading patterns are a reflection of the varied market demand and shifting customer habits. Due to cultural, economic, and technological differences, the cross-border e-commerce sector in each nation and region also exhibits distinct features and dimensions [9]. In China, the regulation of international e-commerce is likewise tightening up. The quality of goods, taxation, and intellectual property are just a few of the areas where regulations are being tightened. For instance, the Cross-border E-commerce Retail Import List Management System has severe standards for imported items since it was implemented in 2016 to make sure their quality complies with Chinese laws and regulations [10]. The list has been modified four times by January 2022, encompassing 1,476 product categories. Cross-border e-commerce in China is developing at a fast, diverse, and stringent pace, which presents both enormous market prospects and a number of obstacles.

2.3.2. Growth trend of cross-border e-commerce

The most significant of the new development patterns that are affecting cross-border e-commerce have three directions.

The prime pillars of cross-border e-commerce have gradually been replaced by artificial intelligence and big data technology. Because of the precise data collection and analysis made possible by these cutting-edge technology, businesses can now provide customers with more efficient and tailored purchasing experiences. With more powerful data processing, businesses may more precisely identify consumers' purchasing patterns, tastes, and needs to create marketing campaigns that are more suited to their demands. Further enhancing the effectiveness of the shopping process and user pleasure is the application of artificial intelligence in customer support, logistics, and payment links, all of which are growing in popularity.

Cross-border e-commerce business continuously pays attention to the creation and optimization of supply chains and logistics. In addition to guaranteeing product quality, an effective and dependable supply chain and logistics system may increase distribution speed and satisfy customers' demands for convenience and speed. Many businesses have developed sophisticated supply chain systems and logistics networks at home and abroad in response to the ongoing growth of cross-border e-commerce to make sure that items can be delivered in a timely and accurate manner to every location on Earth.

Cross-border e-commerce is increasingly shifting to a new environment centered on social media and content marketing. Companies can utilize social media platforms and content marketing to not only raise brand awareness but also to improve customer contact and communication and deepen user loyalty. Consumers benefit from a richer and more engaging purchasing experience because to this content-driven marketing strategy, which also helps businesses better communicate their brand values and stories.

In conclusion, cutting-edge technologies, improved supply chain systems, and cutting-edge marketing techniques will be more important for the future growth of cross-border e-commerce.

3. Development of cross-border e-commerce in China

3.1. Development stage of cross-border e-commerce

Three stages, each of which has unique traits, can be used to summarize the growth of cross-border e-commerce in China.

The initial phase of cross-border e-commerce, from 1999 to 2003, was in its infancy. The e-commerce platform primarily served as a channel for online product display and data collection during this time. Businesses are more likely to adopt the online display and offline transaction model, primarily through email marketing. The main activity during this time was B2B transactions, and the platform concentrated on integrating web data on cross-border trade while earning money from membership fees.

The second stage of cross-border e-commerce (2004–2012) is the research phase. The platform Dunhuang represents supports comprehensive services like online trading, payment, and logistics in addition to information services. The percentage of B2C transactions gradually increased during this time, and e-commerce platforms also transitioned from a membership fee strategy to a commission one for generating revenue. The main characteristic allows for online completion of all parts of cross-border trade through the integration of information flow and commodity flow.

The third stage, which runs from 2013 to the present, is when cross-border e-commerce is developing. At this point, substantial B2B orders were launched into the cross-border e-commerce platform by a huge number of factories and large service providers. On the other hand, with the progress of mobile technology, the number of mobile cross-border e-commerce users has increased sharply, making B2C also develop rapidly. In addition, favorable government policies, such as the "single window", have further promoted the development of cross-border e-commerce. Modern cross-border e-commerce has not only realized the complete online transaction process, but also derived a variety of new business models and provided enterprises with a full range of industrial chain services.

From the initial information display to the current online industry chain, China's cross-border e-commerce has experienced three distinct stages from germination, exploration to rapid development.

3.2. Cross-border e-commerce transactions grow continuously

Over 40 years have passed since China's cross-border e-commerce began to expand. Although in the first two phases, its growth rate is relatively modest and constrained to a small area, with the passage of time, particularly in the last few years, China's cross-border e-commerce has demonstrated an explosive growth trend. For instance, in 2012, the value of transactions amounted for 5% of all import

and export trade while cross-border e-commerce expanded at a rate of only 12.5%. However, in just ten years, by 2022, the transaction volume had increased to China than 10 trillion yuan, almost ten times what it had been in 2012, and the share of total import and export trade had also increased to almost one-third. The rapid expansion of domestic Internet businesses and the successful growth of e-commerce have amassed a wealth of experience that is the driving force behind this remarkable growth. The Chinese government has supported this growth with favorable policies like promoting the "single window," changing the regulatory approach, and improving the efficiency of customs clearance. More evidence that the nation places a high priority on this industry comes from the creation and development of 105 cross-border comprehensive pilot zones. Additionally, consumers now have access to unparalleled ease and variety of options thanks to the combination of cross-border e-commerce platforms and mobile Internet, which meets their specific needs. Additionally, it makes it simpler for local businesses to display and sell their goods abroad because high-quality domestic goods can more easily reach international markets. Cross-border e-commerce in China is generally in a golden development phase, and its potential and growth momentum are still high, pointing to a larger market and more prospects in years to come.

Table 2: Cross-border E-commerce transactions in China (2012-2022)

Years	Transaction volume (trillions of yuan)	Growth rate%	Proportion%
2012	0.9	12.50%	5.31%
2013	1.1	22.22%	4.46%
2014	1.7	54.55%	4.65%
2015	2.1	23.53%	8.60%
2016	3.2	52.38%	12.39%
2017	4.2	31.25%	15.89%
2018	5.4	28.57%	22.00%
2019	6.7	24.07%	27.53%
2020	8.1	20.30%	28.98%
2021	9.0	11.66%	29.51%
2022	10.5	16.67%	33.27%

4. Strategic proposals to promote the development of cross-border e-commerce

4.1. Strengthen cross-border e-commerce supervision and risk prevention

The supervision and risk management processes must be strengthened for cross-border e-commerce to grow healthily. A commodity quality standard system for cross-border e-commerce should be developed, the inspection and certification of goods should be tightened, and harsh penalties should be applied to substandard items in order to safeguard the quality of goods and the rights and interests of consumers. Enhance the cross-border e-commerce intellectual property protection system, define the legal liability and compensation for intellectual property protection, and severely penalize infringements in order to safeguard the rights and interests of innovators and businesses. To establish their legal obligations, assure the legality, and protect the platforms' security, all cross-border e-commerce platforms should be registered. To assure the wellness and steady growth of international e-commerce, risk prevention is essential. In terms of logistics, it is advised that cross-border e-commerce platforms work with logistics and warehousing firms to achieve information sharing, track the status of goods in real-time, select the best mode of transportation, and even set up overseas warehouses at the destination, with the goal of lowering logistics costs and risks. In terms of

competition, businesses should set up a reliable quality assurance system, focus on innovation and brand building, safeguard intellectual property rights, stay away from aggressive rivalry like low-price dumping or false advertising, and abide by international trade regulations to ensure market stability and fairness. The cornerstones to guarantee the sustainable development and healthy development of cross-border e-commerce are appropriate oversight and risk prevention.

4.2. Optimize tax policies for cross-border e-commerce

New difficulties in tax administration have arisen as a result of the increasing growth of international e-commerce. First, a unique tax administration system for cross-border e-commerce needs to be established due to the numerous taxes and increasing complexity involved in this industry. In order to guarantee that tax money is collected fairly, precisely, and effectively, this requires establishing the tax's topic as well as the method of collection and the regulatory structure. Second, it is suggested to gradually optimize and adjust the value-added tax system, as well as appropriately lower the single transaction limit and annual transaction limit of cross-border e-commerce retail imports, in order to support the steady development of domestic industries, particularly manufacturing. Additionally, tax advantages encourage cross-border e-commerce businesses to make larger investments in product and technology upgrades, boosting their ability to compete on the global market. In other words, tax policy should promote industrial innovation and upgrading while also ensuring equitable taxes.

4.3. Pay attention to the training of cross-border e-commerce merchants

The growth of international e-commerce requires outstanding talent. First and foremost, domestic colleges should promote e-commerce professional education, encourage students to delve deeper into the area, and guarantee high-quality teaching materials if they want to improve the quality of talents. In order to ensure that research findings can be swiftly put in practice, strong collaboration between universities and corporations is encouraged through vocational training that combines the needs of businesses. Second, in order to secure the selection of the most qualified people, a thorough talent evaluation system must be established owing to the complexity of cross-border e-commerce. This system must cover skills, language, cross-cultural communication, and other areas of comprehensive assessment. Finally, it's important to consider retention techniques. Top talent will be attracted to and retained in the cross-border e-commerce business thanks to highly competitive pay and benefits as well as a wealth of professional development possibilities including international exchange programs, which will further contribute to the industry's sustained prosperity.

5. The conclusion

This study reveals the phenomena of cross-border e-commerce's rapid expansion in China through in-depth investigation and research, but it also identifies several issues that are unavoidable. To address these issues, we provide a set of focused strategic recommendations. These ideas address several different areas, including talent development, tax policy optimization, cross-border e-commerce legislation, and risk prevention. These tactics have broad ramifications for fostering the long-term growth of China's cross-border e-commerce sector in addition to aiding in the solution of immediate issues.

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