

The Impact of E-Commerce on International Trade

Jin Pan *

School of Insurance, Central University of Finance and Economics, Beijing, China

* Corresponding Author Email: 1811030318@stu.hrbust.edu.cn

Abstract. With the continuous deepening of world economic integration and globalization, the demand for efficient, flexible, and widely covered information exchange technologies in international trade has sharply increased. This trend directly nurtures and promotes the birth and development of e-commerce, a new business model. The rise of e-commerce is not only a product of the deep integration of information technology in international trade but also an important driving force for transforming and upgrading the global economic structure. It redefines the operation mode of international trade, promotes the global allocation of resources, and seamlessly connects with the market. E-commerce has rapidly emerged in global trade and, with its unique advantages, has become a powerful engine driving the deepening development of international trade. By eliminating geographical boundaries, optimizing transaction processes, enhancing information transparency, and promoting market diversification, e-commerce not only reshapes the competitive landscape of international trade but also greatly enhances the vitality and efficiency of international trade, injecting new vitality and momentum into the process of global economic integration. This article analyzes the specific manifestations of e-commerce in promoting the development of international trade and proposes corresponding countermeasures for the challenges faced by e-commerce.

Keywords: E-commerce; international trade; new economic background; virtual enterprises.

1. Introduction

In the context of the new economy, e-commerce has emerged. The so-called new economic background refers to the increasingly close economic interaction between China and the global market since joining the World Trade Organization. This trend has led to the development of China's international trade being deeply influenced by fluctuations in the international market economy. In the context of such economic development, the demand for information exchange technology in international trade continues to rise, and information technology plays a crucial role. E-commerce has emerged and gradually stood out from traditional international trade models, becoming one of the main ways to promote international trade and profoundly influencing the operation pattern of global trade.

E-commerce refers to commercial activities conducted through electronic means. This form of commercial activity includes online shopping, electronic payments, online banking, electronic ticketing, electronic auctions, etc [1]. E-commerce can stand out from traditional international trade models because it has the following characteristics. Firstly, e-commerce is a virtual trading platform.

Compared with the traditional trade mode, the fundamental difference of e-commerce is that it relies on the broad platform of the Internet. The network platform is constructed by advanced digital technology, creating a virtual and active e-commerce space. In this virtual domain, digital means are extensively used for business communication between producers, intermediaries, and consumers, achieving seamless information flow. From the identity of the business entity, the object of market transactions, to the operational form of the entire business activity, digital elements have been integrated to varying degrees, achieving a transformation from electronic, digital, and even virtual. These characteristics collectively define the unique nature and profound impact of e-commerce compared to traditional commerce. Secondly, e-commerce is a borderless trading market. The essence of the Internet media that e-commerce relies on is openness and globality, which directly facilitates the free flow of e-commerce data and information on the Internet, completely crossing the boundaries of time and geography. As a result, e-commerce has built a truly borderless global market, achieving unprecedented transaction convenience and coverage breadth.

There is no doubt that e-commerce has had a profound impact on the development of international trade. Its main impact can be divided into two aspects. Firstly, the positive impact is reflected in various aspects, such as the impact on transaction costs, trade opportunities, and consumption levels, which are worth analyzing and discussing separately. In addition, while e-commerce has brought certain opportunities for the development of international trade, it must also address a series of challenges. This article will further explore and provide corresponding strategies. Understanding the profound impact of e-commerce on international trade can provide theoretical support for Chinese enterprises to better utilize e-commerce.

2. E-commerce has a Positive Impact on Promoting International Trade

2.1. E-commerce Reduces Transaction Costs

2.1.1 The internet improves publicity efficiency and reduces publicity costs

The Internet is the medium of e-commerce. Compared with traditional advertising media, the use of an Internet platform for advertising shows the ability to significantly increase the sales volume. BP (British Petroleum) has attracted a large number of customers by establishing an online energy trading platform to promote sustainable energy products, resulting in a 20% increase in customer numbers [2]. More significantly, while realizing this sales growth, its cost investment is significantly lower than that of traditional advertising strategies, highlighting the huge advantages of Internet advertising in the cost-benefit ratio. According to relevant statistical data analysis, the cost per thousand (CPM) of online advertising for enterprises is 1/5 of that of newspapers and 1/8 of that of television [3]. Traditional marketing strategies, such as directly contacting potential customers by phone, holding product exhibitions, sending sales personnel to various locations to expand customer base, and market research teams traveling to collect user feedback, are often difficult to accurately measure in terms of marketing effectiveness and come with high costs. In contrast, e-commerce, as the result of the explosive development of the Internet, has broken the barriers to information transmission and demonstrated an incomparable advantage in the speed of information transmission. On the Internet, enterprises can introduce their products, promote their corporate image, and expand their popularity. All kinds of information are presented to consumers at home and abroad in a very intuitive way. Nowadays, the cost of enterprises using the Internet for marketing activities, including the cost of Internet use and website construction, is quite low, which has greatly reduced the propaganda expenses of enterprises.

2.1.2 Network reduces procurement costs

The Internet is the medium of e-commerce. Walmart's EDI system standardizes the information processing program, which improves the reliability of information while greatly reducing procurement costs [4].

By using the Internet platform, enterprises can cross geographical boundaries and search for and lock in suppliers with the most favorable prices in the global market. In addition, seamless information sharing can be achieved between enterprises and suppliers, which significantly reduces intermediate losses caused by information asymmetry or information lag, thereby reducing procurement costs. Alibaba's website is a good platform for information exchange.

2.1.3 Effective shortening of the marketing chain

Compared to traditional trade methods, e-commerce shortens the marketing chain and reduces trade costs. In traditional trade methods, products need to go through many intermediate links such as domestic and foreign agents, wholesalers, retailers, etc. to achieve the transfer from manufacturers to foreign consumers. This process has a long marketing chain and high marketing costs [5]. E-commerce uses Internet big data and artificial intelligence technology to conduct in-depth analysis of consumer behavior, achieve precision marketing, accurately reach target customer groups, shorten the marketing chain, and reduce trade costs.

2.2. E-commerce Increases Trade Opportunities

2.2.1 E-commerce creates free and equal development opportunities for small and medium-sized enterprises

Small and medium-sized enterprises are the most dynamic component of the economic system, creating a wide range of employment opportunities and increasing tax revenue for society. However, under traditional business models, they often face competitive pressure from large enterprises and are excluded by them. Small and medium-sized enterprises are limited by resource bottlenecks such as funding and manpower, making it difficult for them to enter the international market. Even if some of their products have significant advantages, they can only operate on a small scale. However, with the booming development of e-commerce, this situation has fundamentally changed. E-commerce provides a global platform for small and medium-sized enterprises to access market dynamics and seek partners in the global market. E-commerce undoubtedly injects strong impetus into the development of small and medium-sized enterprises, unleashing their unlimited potential.

2.2.2 E-commerce creates a platform for virtual enterprises

Virtual enterprise refers to a mutually beneficial alliance of enterprises with different resources and advantages, established based on information networks, that share technology and information, share costs, and jointly develop when new opportunities arise in the market, to jointly explore the market and deal with other competitors. As an innovative organizational form, virtual enterprises rely on the powerful functions of e-commerce platforms to quickly respond to new market opportunities and closely connect enterprises with different resources and advantages distributed around the world. Through e-commerce, these enterprises can cross geographical boundaries, share market information, technological resources, and customer data in real time, and accurately capture trade opportunities. E-commerce platforms enable virtual enterprises to collaborate more efficiently in developing new products, jointly exploring markets, and flexibly responding to market changes. E-commerce not only provides fertile soil for the birth and development of virtual enterprises but also greatly increases trade opportunities through its unique advantages, promoting the prosperity and development of global trade.

2.3. E-commerce Stimulates Consumption Levels

The booming rise of e-commerce has made online shopping increasingly the mainstream choice for mass consumption, effectively supplementing the shortcomings of traditional shopping models and promoting the diversification of digital transformation and upgrading of retail formats. According to the Report on Online Shopping Market Development in the First Half of 2008 released by Taobao, China's largest online shopping platform, in the first half of 2008 alone, Taobao's total transactions reached 41.3 billion yuan, a year-on-year growth rate of 263%, significantly surpassing traditional retail giants such as Wal Mart and Carrefour. Another survey data shows that in recent years, the proportion of online shopping transactions in China's total retail sales of consumer goods has continued to rise. In the current situation where the price level is still high, online shopping has successfully attracted a large consumer group with its price advantage, a rich variety of products, and convenience of purchase [6]. In addition, consumers in the domestic market generally have curiosity and a desire to explore foreign products, which further enhances the market attention of the products. This mentality is infinitely amplified in the e-commerce environment. E-commerce platforms use big data to analyze consumer preferences, accurately push personalized products, effectively stimulate consumers' stronger consumption motivation, and continuously increase market demand, providing a continuous source of power for international trade. Therefore, the strong promotion of e-commerce by the government has undoubtedly become a key factor in stimulating consumption growth and enhancing consumption vitality.

3. Current Challenges and Countermeasures for E-commerce

The positive impact of e-commerce on international trade has demonstrated strong vitality. At the same time, this article explores the risks and challenges that the development of e-commerce in China still faces and proposes corresponding measures.

3.1. Challenges Faced by the Development of E-commerce in China

3.1.1 Cross-border logistics issues

Under the development framework of e-commerce, although the transaction process of intangible goods can be fully digitized, the final delivery process of physical goods transactions still needs to follow traditional methods. This means that the entire business activity can only be considered successful when the goods or services are effectively transferred to the consumers. In the process of circulation, goods need to go through multiple links, including supplier shipping, distributor transportation, domestic logistics company distribution, cross-border transportation of multinational logistics companies, as well as mandatory inspection and clearance by customs and tax departments. In this series of complex and ever-changing processes, there may be situations such as loss of goods, physical damage, or functional damage.

3.1.2 Payment security issues

The payment of goods in e-commerce usually relies on online channels. However, there is still insufficient regulation of cross-border foreign exchange electronic payments in China. This loophole has been exploited by some criminals who engage in various illegal activities such as bribery, money laundering, and fraud through cross-border e-commerce payment platforms. These behaviors not only disrupt market order but also seriously hinder the healthy and sustainable development of the e-commerce market.

3.1.3 Information security issues

The essence of e-commerce is to build a communication bridge between buyers and sellers through the Internet. Although this non-face-to-face transaction mode promotes the convenience of transactions, it also makes it difficult for both parties to directly verify the real identity of each other. There are differences in the regulatory strength and standards of e-commerce markets among countries, which provides opportunities for criminals to take advantage of. They may impersonate others to engage in fraudulent transactions or exploit regulatory loopholes to illegally obtain and sell sensitive seller information to other illegal organizations.

3.2. Policy Suggestions

3.2.1 Improve the cross-border logistics system

The government should establish and continuously optimize relevant laws, regulations, and regulatory frameworks, build a comprehensive cross-border logistics standard system, and provide solid policy support and guarantee for the development of e-commerce. At the same time, the government also needs to increase investment in infrastructure, upgrade logistics infrastructure, improve logistics operation efficiency, and effectively shorten the transit time of goods. Enterprises need to enhance the intelligence level of cross-border logistics, including achieving visual management of the entire cross-border transportation process, deepening the application of logistics informatization, and promoting automated operations in loading, unloading, and handling processes.

3.2.2 Strengthen the supervision of cross-border transaction payments

Large payment institutions and technology companies build stable and reliable cross-border payment platforms to avoid potential risks and losses in the payment process. At the same time, the People's Bank of China and other relevant government departments have strengthened their supervision of third-party transaction payment platforms to ensure that customer funds, cross-border

e-commerce transaction channels, and the property and information security of consumers are fully protected,

3.2.3 Strengthen information security

E-commerce platforms adopt the latest encryption algorithms and technological means to encrypt sensitive information during the transaction process, ensuring that data is not illegally obtained or leaked during transmission and storage. At the same time, strengthen network supervision technology, implement strict identity verification mechanisms, and conduct comprehensive reviews of the true identities of consumers and merchants. In addition, it is necessary to comprehensively monitor the status of transaction behavior, and timely detect and prevent any improper transaction activities that may be carried out by criminals using impersonation and other means.

4. Conclusion

The booming rise of e-commerce has injected a strong impetus into the prosperous development of global international trade. It not only greatly reduces transaction costs through digital means, but also eliminates many intermediate links in traditional trade, enabling buyers and sellers to connect more directly and efficiently, and promoting the optimization of resource allocation. At the same time, e-commerce has broken geographical limitations, providing an unprecedented international stage for small and medium-sized enterprises and virtual enterprises, greatly increasing trade opportunities, and making the global market more open and inclusive. In addition, e-commerce, with its convenience and rich product selection, effectively stimulates the purchasing desire of global consumers, improves consumption levels, and further promotes the prosperity of international trade.

However, behind the rapid development of e-commerce, there are also a series of risks and challenges that cannot be ignored. The complexity, high cost, and uncertainty of transportation time of cross-border logistics have become important bottlenecks restricting the development of e-commerce. Payment security issues occur frequently, involving multiple aspects such as fund security and transaction authenticity verification, posing potential threats to consumers and merchants. Information security issues are a sharp sword hanging over the e-commerce industry, with incidents such as data breaches and online fraud occurring from time to time, seriously threatening users' privacy and property security.

Therefore, relevant departments in our country need to actively respond and formulate policy measures according to local conditions. The government should work together with enterprises to improve the cross-border logistics system and enhance logistics efficiency and service quality. The People's Bank of China and relevant government departments need to strengthen the supervision of cross-border transaction payments to ensure the safety and reliability of the payment process. E-commerce platforms need to continuously improve their information security protection capabilities, build a comprehensive information security system, and protect user data from infringement. Through these efforts, China's e-commerce will be able to continue to develop in a healthy and stable environment, further enhancing China's competitiveness and influence in international trade.

References

- [1] Zhang Xiaoyi. Analysis of international trade development based on e-commerce. *International Economics and Management*, 2023, 4 (6): 7-9
- [2] Qu Tao. Research on international trade and e-commerce strategies in the fine chemicals industry. *International Academic Forum on Finance and Management*, 2023, 2 (7): 31-33
- [3] Yin Weihong, Li Mi, Yang Bo. Differences and similarities between online advertising and traditional media advertising. *Media Times*, 2011 (5): 4.
- [4] Chen Chunxiao, Zhu Yaxiong. Research on the application of EDI technology in Wal Mart. *China E-commerce*, 2011, (12): 1.

- [5] Chen Hui. International trade and e-commerce in China. Heilongjiang Foreign Economic and Trade, 2004, (012):25-26.
- [6] Li Jingxing. Analysis of the positive role of e-commerce in economic crisis. China Economic and Trade, 2009, (6): 2.