

# Research on the Development of Cross-border E-commerce in the Guangdong-Hong Kong-Macao Greater Bay Area under the New Dual Circulation Strategy and RCEP Integration

Siyou Zhang<sup>1</sup>, Chen Yuan<sup>1,\*</sup>, Yingchun Fang<sup>1</sup>

<sup>1</sup>Guangzhou City University of Technology, Guangzhou, China

\*Corresponding author

**Abstract:** Under the new dual circulation strategy, the Guangdong-Hong Kong-Macao Greater Bay Area, as a new engine for China's economic development, plays a crucial role in promoting regional economic integration and international trade through the development of cross-border e-commerce. This paper explores the development of cross-border e-commerce in the Greater Bay Area in alignment with the Regional Comprehensive Economic Partnership (RCEP) from a field research perspective. It finds that the area currently faces challenges such as intellectual property issues, a shortage of skilled talent, after-sales service deficiencies, and payment risks. Therefore, to achieve high-quality development of RCEP-aligned cross-border e-commerce in the Greater Bay Area, it is essential to enhance intellectual property protection, cultivate professional cross-border e-commerce talent vigorously, promote after-sales service development, and establish a cross-border e-commerce credit payment management system. These measures will enable flexible and effective development of cross-border e-commerce in the Greater Bay Area, realizing a new pattern of "international and domestic" dual circulation development.

**Keywords:** Dual circulation; Guangdong-Hong Kong-Macao Greater Bay Area; Cross-border E-commerce; RCEP

## 1. Introduction

### 1.1. Research Background

In February 2019, the Central Committee and the State Council released the "Development Plan Outline for the Guangdong-Hong Kong-Macao Greater Bay Area," officially inaugurating the initiative. As a hub for numerous high-tech industries, the Greater Bay Area produces a vast array of high-tech products that have propelled the socio-economic development of China. A key question is how to efficiently and successfully market these products abroad, particularly to Southeast Asian nations within the RCEP region, warranting in-depth exploration. Especially under the dual circulation development strategy promptly proposed by the central leadership, exploring how cross-border e-commerce in the Greater Bay Area can align with RCEP to expand its reach into Southeast Asia and broaden its economic cycle is a pressing issue. Since 2020, the COVID-19 pandemic has impacted global supply chains, leading to product stagnation, prompting national and local governments to strongly support e-commerce trade, especially cross-border e-commerce, to accelerate the development of the e-commerce economy. This support is crucial for promoting product sales, boosting rural revitalization, and enhancing the GDP.

On November 15, 2020, China, Japan, South Korea, Australia, New Zealand, and the 10 ASEAN countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam) formally signed the Regional Comprehensive Economic Partnership (RCEP). This agreement, hailed as a landmark event in China's foreign trade sector following its WTO accession, holds significant importance. Under the RCEP, domestic companies actively participating in the cross-border e-commerce supply chain represents both a seizing of significant opportunities and an innovative exploration of new trade models and formats.

## ***1.2. Research Significance and Purpose***

According to the agreement, 90% of goods traded within the region enjoy zero tariffs, and trade barriers such as tariffs, quotas, and entry thresholds are gradually reduced or even eliminated, significantly boosting trade activities among the countries. Simultaneously, RCEP has clearly defined numerous regulations supporting the development of cross-border e-commerce, leading to the emergence of a large number of professionals in the industry. With its vast e-commerce product base and decades of first-mover advantage in operating in the e-commerce sector, the Guangdong-Hong Kong-Macao Greater Bay Area undoubtedly stands as the biggest beneficiary. Therefore, this paper aims to explore how the Greater Bay Area can effectively align with the RCEP framework under the new dual circulation economic development strategy, providing a basis for decision-making for relevant government departments and thereby aiding the healthy development of Guangdong's cross-border e-commerce economy and stimulating the broader mainland e-commerce sector. The paper first analyzes the concepts and characteristics of the "dual circulation" strategy and RCEP, outlines the favorable impacts of RCEP on the cross-border e-commerce industry, examines the current state of cross-border e-commerce development in the Greater Bay Area, identifies issues in the development of RCEP-aligned cross-border e-commerce under the new dual circulation strategy, and offers strategic recommendations. Lastly, the paper forecasts future trends in cross-border e-commerce development in the Greater Bay Area, emphasizing that under the dual benefits of "dual circulation" and RCEP, the region is poised to become a new high ground for cross-border e-commerce development.

## **2. The New Dual Circulation Strategy and Overview of RCEP**

### ***2.1. The Conception and Characteristics of the New Dual Circulation Strategy***

In November 2020, during the Fifth Plenary Session of the 19th Central Committee of the Communist Party of China, a new development pattern was proposed. This pattern focuses on the domestic economy as the mainstay while promoting an integrated development of domestic and international circulations<sup>[1]</sup>. This strategy is crucial for achieving high-quality development of China's economy. emphasized at the Third China International Import Expo that this development pattern is not a closed domestic cycle but a more open interaction between domestic and international circulations, which aids in propelling China's development and benefits people worldwide. The strategy calls for enhancing the quality of international circulation, not through isolation but by elevating openness and quality standards. China's economic development requires technological innovation, and self-reliance in technological innovation is urgent. Dual circulation does not mean reducing openness but rather advancing reform and opening up more vigorously, optimizing the business environment, focusing on core resources, building modern industrial systems, and creating open platforms to achieve high-quality economic development.

### ***2.2. The Main Content and Beneficial Effects of the RCEP Agreement***

#### ***2.2.1. Overview and Characteristics of RCEP***

On the historic day of November 15, 2020, leaders of 15 countries witnessed the signing of the Regional Comprehensive Economic Partnership (RCEP). This agreement consists of a preamble and 20 detailed chapters covering initial provisions, rules on goods trade, rules of origin, customs procedures, trade facilitation, sanitary and phytosanitary measures, technical barriers to trade, trade remedies, trade in services, movement of persons, investment, intellectual property rights, electronic commerce, competition policy, support for small and medium enterprises, economic and technical cooperation, government procurement, general provisions and exceptions, institutional provisions, dispute resolution mechanisms, and final provisions. Additionally, there are four specific annexes on market access commitments including tariff reduction commitments, a list of commitments on services, details of investment restrictions and exceptions, and specific commitments on the movement of persons.

RCEP is regarded as an "integrator" of economic and trade rules within the region<sup>[2]</sup>. It integrates the existing "10+1" free trade agreements between ASEAN and countries like China, Japan, South Korea, Australia, and New Zealand, as well as multiple free trade partnerships existing among China, Japan, South Korea, Australia, and New Zealand, and establishes new free trade relationships between China and Japan, and Japan and South Korea. By adopting regional rules of origin, RCEP strengthens

the integration of supply chains and value chains within the region; employs new technologies to facilitate customs procedures, enhancing the efficient development of cross-border logistics; and uses a negative list approach to advance the liberalization of investment, increasing the transparency of investment policies and helping to optimize and integrate the economic and trade rules within the region. RCEP achieves high quality and inclusivity in its agreements. Overall, the proportion of zero-tariff goods will exceed 90%, and the overall level of openness in services and investment is significantly higher than the existing "10+1" agreements, covering high-level intellectual property protection, e-commerce, competition policy, and government procurement. Moreover, considering the differing national conditions, RCEP provides special and differential treatment to the least developed countries and stipulates strengthened economic and technical cooperation to meet the actual needs of developing and least developed countries. RCEP maximally considers the needs of all parties, promoting inclusive and balanced development within the region and enabling all parties to share the benefits of RCEP.

### ***2.2.2. The Beneficial Impact of RCEP on E-commerce Development***

The e-commerce chapter of RCEP is the first wide-ranging and high-level multilateral e-commerce regulation outcome in the Asia-Pacific region. This chapter covers various aspects including, but not limited to, promoting paperless trading, endorsing electronic authentication and electronic signatures, protecting the personal information of e-commerce users, safeguarding online consumer rights, and enhancing cooperative regulation of unsolicited commercial electronic information. Additionally, the parties have reached important consensus on issues such as cross-border data transfer and data storage within the agreement. These provisions provide an institutional guarantee for strengthening cooperation in the field of e-commerce among member countries, helping to create a favorable environment for the development of e-commerce. They foster mutual trust in e-commerce policies, standard recognition, and business connectivity among the member countries, thereby greatly promoting the development of e-commerce within the region.

### ***2.3. The Role and Status of the Guangdong-Hong Kong-Macao Greater Bay Area in the New Dual Circulation Strategy***

The Guangdong-Hong Kong-Macao Greater Bay Area, consisting of nine cities and two special administrative regions (Hong Kong and Macao), along with cities including Guangzhou, forms an economic conglomerate. Since the release of the "Development Plan Outline for the Guangdong-Hong Kong-Macao Greater Bay Area" by the State Council in February 2019, the area has been tasked with advancing China's reform and opening-up to a new stage and constructing the new dual circulation development pattern. The Greater Bay Area has a solid foundation for mutually promoting domestic and international economic circulations, with its open economic structure providing ample space for dual circulation and effectively reducing the institutional friction costs of internal and external interfacing. Additionally, with the development of the digital economy, the construction of a Digital Greater Bay Area has rapidly progressed, accelerating digitalization processes and significantly enhancing the level of trade digitalization. The Greater Bay Area will leverage its industrial and regional advantages to enhance both international and domestic circulations, rely on technological innovation, develop digital industries comprehensively, and gradually establish a diverse industrial pattern in the bay area. As a significant force in promoting the rapid development of digital trade, the rise of cross-border e-commerce is imminent. With the comprehensive coverage of the cross-border e-commerce pilot zones, the Greater Bay Area is actively building an innovation center for cross-border e-commerce, creating a favorable development environment, stimulating industrial vitality, facilitating the formation of a new development pattern, and aiding China's transformation from a major trade and technology country to a powerful one in these fields.

## **3. The Current State of Cross-Border E-commerce Development in the Guangdong-Hong Kong-Macao Greater Bay Area**

Cross-border e-commerce in China, marked by distinct characteristics of the information age, has experienced rapid growth by leveraging the successful experience of domestic e-commerce and the extensive use of internet technology. As a key component of digital trade, cross-border e-commerce is currently in a "golden period" of rapid development. The Guangdong-Hong Kong-Macao Greater Bay Area, as a crucial hub for the development of cross-border e-commerce, is also experiencing a surge in growth.

**Market Potential:** The Guangdong-Hong Kong-Macao region boasts a vast consumer market with a large overall economic scale and strong consumption capacity. This provides broad market space and business opportunities for cross-border e-commerce.

**Policy Support:** Under the cooperation framework of the Guangdong-Hong Kong-Macao Greater Bay Area, governments are actively rolling out policies to support the development of cross-border e-commerce. These policies include simplifying trade procedures, reducing tariffs and taxes, and encouraging businesses and individuals to actively participate in cross-border e-commerce.

**Technological Advancements:** With the rapid development and widespread adoption of internet technology, along with the improvement of cross-border payment and logistics systems, the transaction efficiency and convenience of cross-border e-commerce in the Guangdong-Hong Kong-Macao region have been enhanced.

**Logistics and Supply Chain:** The region possesses advanced port and airport facilities and an efficient logistics transportation network, which facilitate and support the flow of goods for cross-border e-commerce.

**Cross-Border E-commerce Platforms:** Several cross-border e-commerce platforms have emerged in the Guangdong-Hong Kong-Macao region, including Amazon, eBay, Mecoxlane, Rakuten, AliExpress, Walmart, JD International, and Alibaba. Among them, Amazon is the largest global cross-border e-commerce platform in terms of visitor traffic, attracting numerous e-commerce businesses and entrepreneurs. This participation further stimulates the robust development of cross-border e-commerce.

#### **4. Opportunities and Challenges for the Guangdong-Hong Kong-Macao Greater Bay Area's Cross-Border E-commerce under the RCEP Framework**

##### ***4.1. Opportunities for Cross-Border E-commerce Development in the Guangdong-Hong Kong-Macao Greater Bay Area under the RCEP Framework***

###### ***4.1.1. Expansion of International Markets for the Guangdong-Hong Kong-Macao Greater Bay Area***

The cross-border e-commerce industry continues to heat up, with the acceleration of RCEP's benefits. RCEP is committed to promoting trade liberalization and facilitation; once effective, it will significantly reduce tariffs and non-tariff barriers, creating broader sales opportunities for cross-border e-commerce. Cross-border e-commerce enterprises in the Greater Bay Area will find it easier to enter other member countries' markets, benefiting from tariff reductions and other preferential policies. This promotes the free flow of production factors and goods within the region and fosters bilateral investment between the Greater Bay Area and RCEP member countries. It helps more local enterprises to reach international markets, attracts more foreign investment into the Bay Area, paves the way for implementing the dual circulation strategy, and enhances the competitive edge of Chinese enterprises.

###### ***4.1.2. Deepening Regional Industrial and Value Chains***

The essence of national trade is the interchange of goods, with the core being the continuous integration of market resources. RCEP implements regional accumulation origin strategies<sup>[3]</sup>, actively using technological innovation to promote efficient customs operations, and utilizing a negative list system to push investment liberalization. This facilitates the flow of resources and trade of goods among the 15 countries in the region, strengthens cooperation in advanced technology, services, capital, and talent, and can maximize international market value, optimize resource allocation, and promote effective resource integration. This also provides the Guangdong-Hong Kong-Macao Greater Bay Area with broad development opportunities and fosters the development of new cross-border logistics models; it enhances investment policy transparency, further deepening the regional industrial and value chains.

###### ***4.1.3. Closer Relationship between the Guangdong-Hong Kong-Macao Greater Bay Area and ASEAN Markets***

Geographically, the Guangdong-Hong Kong-Macao Greater Bay Area is advantageously located, bordering most RCEP member countries. This not only facilitates the entry of domestic goods into international markets but also provides ease for foreign goods entering the Chinese market, further promoting the construction of China's new dual circulation development pattern and positioning the Greater Bay Area as a potential core hub for RCEP. As the "Belt and Road" initiative continues to

deepen, the trade relations between the Greater Bay Area and countries along the Belt and Road have become increasingly close. This is especially true with emerging countries like Malaysia, Thailand, and Singapore, where trade growth is most rapid. Emerging developing countries have a growing demand for new technology products, and the Greater Bay Area, utilizing its own technological resources, has promoted trade with these emerging nations, achieving a complementarity of regional resources. In the future, these emerging developing countries are expected to become a new driving force for trade imports and exports in the Guangdong-Hong Kong-Macao Greater Bay Area.

#### ***4.2. Challenges and Issues in the Development of Cross-Border E-commerce in the Guangdong-Hong Kong-Macao Greater Bay Area***

##### ***4.2.1. Prominent Intellectual Property Issues***

During field investigations, it was discovered that cross-border e-commerce in the Guangdong-Hong Kong-Macao Greater Bay Area frequently faces issues with intellectual property rights (IPR) infringements. Enterprises have a weak awareness and limited means of protecting their rights, compounded by international legal differences and resource bottlenecks of small and medium-sized enterprises. Dispute resolutions often rely on platform rules, lacking effective strategies, thus exacerbating economic losses and legal risks.

First, IPR infringements are prevalent. In 2023, customs authorities from Guangdong, Hong Kong, and Macao conducted three joint enforcement actions to protect intellectual property, seizing 2,825 batches of suspected infringing goods totaling over 2.2 million items. In December, during the third action, a significant quantity of exported goods suspected of infringing IPR, including mobile phones, shoes, bags, and cosmetics, were seized. This highlights the widespread and severe nature of IPR infringements and underscores the urgency of enhancing intellectual property protection.

Second, IPR disputes are inherently transnational. Variances in intellectual property legislation, protection scopes, and enforcement across countries mean that rights protected in one country may not be recognized in another. This particularly impacts cross-border e-commerce operators who, despite holding legal IPR in their home country, cannot ensure the same rights internationally. Furthermore, many small and medium enterprises lack the resources to mitigate potential IPR risks adequately. Often, affected businesses resort to settling disputes through third-party platform rules rather than pursuing legal action, leading to significant economic losses and potential legal risks.

##### ***4.2.2. Shortage of Comprehensive Service Talent***

Amid the rapid global expansion of cross-border e-commerce, companies are facing increasingly intense competition for talent. With high growth, new business formats, and models, the Guangdong-Hong Kong-Macao Greater Bay Area also confronts a shortage of professional talent, potentially becoming a key limiting factor in the region's development.

First, there is a high demand for operational roles. According to Zhaopin.com's "2023 Foreign Trade Talent Situation Research Report," demand for cross-border e-commerce operation positions has significantly increased, with Guangdong leading nationally at 51.6% of the total demand, particularly in Shenzhen and Guangzhou, which together account for 48.8%. In the first quarter of 2023, recruitment in the foreign trade import and export sector grew by 11.2% year-on-year, while demand for cross-border e-commerce operations talent doubled. However, enterprises in the Greater Bay Area currently face a shortage of such talent, which may become a significant obstacle to the development of cross-border e-commerce.

Second, there is a lack of long-term talent planning. The "Belt and Road" initiative imposes new and higher demands on the cross-border e-commerce sector, pressuring companies to transform. Many lack a clear self-positioning or long-term development goals and plans, leading to unclear talent needs and training, ineffective talent acquisition strategies, and consequently, a high turnover rate, affecting overall operational efficiency. As the industry evolves rapidly with new platforms emerging, hasty recruitment without proper planning and training could exacerbate talent attrition and impact operational efficiency.

##### ***4.2.3. Unresolved After-sales Service System Issues***

As China's cross-border e-commerce trade continues to expand and deepen, its scope also broadens, bringing to light numerous challenges. In the current context, cross-border e-commerce in the Guangdong-Hong Kong-Macao Greater Bay Area mainly relies on online transactions. However, based

solely on the online product descriptions, consumers find it difficult to effectively assess whether products meet their expectations. This often leads to dissatisfaction due to a disparity between expectations and reality, triggering various disputes.

First, logistical challenges hinder after-sales service. The logistics process in cross-border e-commerce is complex<sup>[4]</sup>: issues with courier efficiency, customs procedures, and return processes can lead to low management efficiency, high costs, and delays. Thus, many businesses exhibit disorganized management, and the efficiency of after-sales services is not high. Additionally, increasing production costs impact the profitability of businesses. If goods are not covered by freight insurance, consumers must bear high shipping costs and endure lengthy refund processes, which can diminish their overall shopping experience and expectations.

Second, a lack of experience leads to chaotic after-sales service. Insufficient after-sales teams and resources result in some cross-border e-commerce platforms lacking dedicated after-sales support, potentially leading to delayed responses to customer complaints, affecting consumer experience and trust. Negative experiences with cross-border e-commerce platforms may be shared on social media platforms like TikTok and Xiaohongshu or in product reviews. A credibility crisis poses challenges and risks for small and medium-sized enterprises developing cross-border e-commerce, damaging the platform's reputation and brand image. According to a survey on online shopping, 24.31% of respondents identified the lack of after-sales service as the primary issue; over twenty percent noted exaggerated or false advertising as a major problem; 16.53% mentioned inadequate return/exchange mechanisms; 15.10% pointed out overly biased product descriptions; 8.89% stated discrepancies in product names; and 7.67% complained about delays in shipment.

#### ***4.2.4. Persistent Payment Risks and Issues***

In the realm of cross-border e-commerce, cross-border payment issues are significant, involving currency exchange and payment security, among other aspects. Different payment platforms each have their advantages and risks. Regulatory standards on business scope and margin payments are not uniform across countries. Any regulatory violations, information leaks, or system failures by third-party agencies directly threaten consumer financial security, posing greater challenges for cross-border payments in China that require increased efforts in security and convenience.

First, settlement processes are long, and the capital return cycle is slow. Compared to traditional trade, cross-border e-commerce involves complex transaction entities, intricate transaction data, and lengthy settlement chains, resulting in extended spatial and temporal spans of cross-border payment processes and slow capital return. The transaction parties in cross-border payments include but are not limited to buyers and sellers, third-party operational platforms, cross-border logistics companies, payment institutions, and various levels of supply chain companies. Identifying all parties involved in a single cross-border payment transaction and verifying the authenticity of each transaction extend the entire capital return cycle. In cross-border e-commerce, each transaction involves four basic flows: information, commerce, logistics, and funds. Large and intricate data volumes complicate transaction data and processes. These factors extend the capital return cycle for foreign trade enterprises, increasing financial occupation and business risks.

Second, cross-border payment platforms are deficient in protecting personal information. Because the cross-border payment process involves multiple parties and stages<sup>[5]</sup>, each stage retains transaction information, and any minor issue in the process can lead to consumer information leaks. Consumers, being a crucial link in the cross-border payment chain, involve a lot of personal information during transactions. If cross-border payment institutions collect, process, and use consumer information, personal information leakage may occur. Lower entry barriers for third-party cross-border payment platforms and insufficient regulatory oversight make it difficult to ensure financial data security<sup>[6]</sup>. Consumers, lacking awareness of security risks, are easily deceived by these companies, leading to the leakage and exploitation of their personal transaction information. In such an environment, criminals are likely to use third-party payment platforms for fraudulent activities.

## **5. Strategic Responses for the Development of Cross-Border E-commerce in the Guangdong-Hong Kong-Macao Greater Bay Area**

### ***5.1. Strengthening Intellectual Property Protection***

The RCEP agreement provides comprehensive regulations in the field of intellectual property, with

member countries committed to strengthening protective measures. Governments can utilize the provisions of the agreement to enhance the protection of intellectual property related to cross-border e-commerce, aiding businesses in enhancing their protection awareness, deepening cooperation, increasing resource allocation, and perfecting the intellectual property protection system to ensure sustainable business growth.

On one hand, for enterprises whose rights have been infringed, governments need to expand the scope of intellectual property protection awareness. By increasing financial support for corporate intellectual property training, cross-border e-commerce businesses have more opportunities to learn and master theoretical knowledge of intellectual property, including the classification of various types, application procedures, and defense strategies. This enhances enterprise and public awareness of intellectual property protection and reduces the occurrence of infringement. For infringing enterprises, governments should also intensify crackdowns and legally sanction companies that violate intellectual property rights. For instance, requiring infringing companies to pay fines and compensate the victims for losses, including economic and reputation damages, to mitigate the victims' losses. Additionally, enhancing the regulatory capabilities of relevant departments, such as conducting regular company audits, can effectively reduce infringement and ensure that such actions are penalized, protecting the lawful rights of intellectual property.

On the other hand, establishing a robust intellectual property protection mechanism is crucial. First, sharing information, resources, and experiences is fundamental to establishing a cross-border e-commerce intellectual property protection mechanism. Governments can regularly organize seminars and training sessions, exchanging and sharing successful experiences and effective regulatory policies in intellectual property protection, providing directional support and assistance to businesses. Secondly, establishing transnational cooperation mechanisms is essential for ensuring effective supervision and protection of intellectual property. Through such mechanisms, information exchange and cooperation can be strengthened, regulatory efficiency enhanced, and swift responses to intellectual property infringements made. Furthermore, setting up dispute resolution mechanisms to handle disputes in the cross-border e-commerce field promptly protects the legitimate rights of businesses and enhances the industry's overall reputation. Additionally, governments can establish specialized intellectual property protection platforms, offering one-stop services to help businesses manage related affairs, aiding them in better understanding and maintaining their intellectual property rights.

## ***5.2. Actively Cultivating Professional Talent in Cross-Border E-commerce***

The talent shortage in the cross-border e-commerce industry in the Guangdong-Hong Kong-Macao Greater Bay Area is a real challenge. Effectively addressing the shortage of talent and the lack of long-term talent planning has become a critical issue for business development. As a free trade agreement covering 15 countries and regions in the Asia-Pacific, RCEP provides opportunities and platforms for addressing the talent shortages and long-term planning issues in the Greater Bay Area's cross-border e-commerce industry.

First, formulate talent development policies. Governments can use the RCEP agreement to establish long-term talent development policies for the cross-border e-commerce industry in the Guangdong-Hong Kong-Macao Greater Bay Area. By studying international talent development trends and adopting successful experiences from other member countries, governments can develop targeted policies for talent cultivation, introduction, and retention. For example, encouraging businesses and schools to provide professional skills training and international exchange opportunities for cross-border e-commerce talent, attracting top talents to the industry. Governments can also set up talent reward programs to motivate talents to work and start businesses in the Greater Bay Area. These policies will promote talent mobility and industry innovation, providing foundational support for the long-term development of the cross-border e-commerce industry and driving the development of cross-border e-commerce in the Greater Bay Area.

Second, promote international exchange and cooperation among cross-border e-commerce talents. The RCEP agreement provides a more favorable trade and investment environment for member countries. Governments can utilize the facilitation measures of the agreement to cooperate with other member countries in establishing talent exchange mechanisms, organize talent exchange programs, and introduce more professionals with international perspectives and skills to the Greater Bay Area. This fosters talent mobility between the Greater Bay Area and other member countries, bridging the gap between talent demand and supply. Governments can also develop policies conducive to attracting international cross-border e-commerce talents, such as simplifying visa processes and procedures,

offering favorable tax policies, and setting up scholarships for talents, enhancing the attractiveness and competitiveness of the Greater Bay Area, and injecting new vitality into the regional cross-border e-commerce industry.

### ***5.3. Enhancing After-sales Service Development***

In the context of deepening economic globalization, the flexible application of the cumulation principle of origin will stimulate the growth of intra-regional trade in intermediate goods and drive innovative development in the cross-border logistics industry. Simultaneously, advancements in digital technology have provided broader development prospects for cross-border e-commerce, where improving after-sales services has become key to enhancing competitiveness.

Firstly, the flexible application of the RCEP agreement's cumulation principle of origin should be utilized to stimulate innovative developments in the logistics industry. As the rules of origin take effect under the RCEP agreement, logistics service providers can develop multimodal transport solutions offering customers cost-effective, one-stop transportation options, thereby increasing the internal demand for regional intermediate products. This will greatly stimulate the demand for convenient logistics services, drive innovation in cross-border port logistics industries, enhance the development level of domestic logistics industries, and simplify logistics processes. The improvement in trade facilitation, especially the speed of customs clearance for express and perishable goods, can effectively reduce logistics costs. Continual reductions in restrictions on international maritime, air, and land transportation services will further optimize the logistics network and enhance convenience.

Secondly, by leveraging digital technologies to enhance after-sales services and reduce disputes. In the RCEP context, as competition in the cross-border e-commerce trade market intensifies, a relatively comprehensive after-sales service can significantly enhance China's competitive edge in the international market. Thus, cross-border e-commerce should focus on providing round-the-clock after-sales services. By integrating AI customer service systems, automated processes, and artificial intelligence technologies, 24-hour uninterrupted after-sales support can be realized. This strategy can significantly increase the speed and convenience with which users obtain solutions. Enterprises must also recognize the importance of adopting and maintaining transparent and effective e-commerce consumer protection measures and other measures conducive to developing consumer confidence. Enhancing product quality and the construction and management of excellent corporate teams fundamentally gains customer trust and reduces dissatisfaction caused by product issues.

### ***5.4. Establishing a Cross-Border E-commerce Credit Payment Management System***

Thanks to RCEP, China's goods will increasingly move upstream in the industrial chain, benefiting the advantageous industries of the Guangdong-Hong Kong-Macao Greater Bay Area. The government should strongly encourage major banks and third-party payment institutions to actively engage in cross-border electronic payment services and advise commercial banks to quickly explore and form regionally appropriate cross-border e-commerce financial support policies, including loans and insurance.

Firstly, actively promote the "Blockchain + Cross-Border Payment" model. In recent years, blockchain and other technologies have been increasingly integrated into the fintech sector. Blockchain technology features decentralization, anonymity, immutability, and traceability<sup>[7]</sup>. Creating a "Blockchain + Cross-Border Payment" model can effectively solve problems in the payment phase of cross-border e-commerce, such as low efficiency, high cost, significant payment risk, and difficulty in verifying authenticity. Using blockchain technology's peer-to-peer transaction transmission mode, bypassing traditional SWIFT systems, promotes the development of a decentralized cross-border digital renminbi financial infrastructure, expands the application scenarios of cross-border digital renminbi payments, optimizes and perfects the CIPS-led cross-border payment settlement system, and builds a cooperative pattern of multilateral central bank joint digital currency payments, striving to significantly improve the current lengthy, inefficient, and slow settlement issues in cross-border payment chains.

Secondly, strengthen cross-border payment supervision. One approach is for the nation to enhance international cooperation with other international organizations and central banks to accelerate the establishment of relevant laws, regulations, and regulatory frameworks for cross-border payments. Focus on payment institution supervision and foreign exchange business regulation, narrow the regulatory gaps and gray areas in cross-border operations, elevate cross-border payment anti-money laundering supervision, information data protection, and reserve fund custody to the international level



for effective supervision, and further delineate measures and violation handling for third-party payment institutions engaging in cross-border foreign exchange payment services<sup>[8]</sup>. Another is to perfect regulatory coordination mechanisms, forming a regulatory synergy. Central banks, the State Administration of Foreign Exchange, customs, and tax authorities should establish a unified information-sharing platform, achieving comprehensive management of the information flow, logistics, capital flow, and transaction data of cross-border e-commerce, and establish a complete, transparent, and traceable monitoring system throughout the cross-border transaction process. Lastly, strengthen the role of commercial banks in the back-end verification of trade authenticity in cross-border e-commerce payment settlement operations, while raising awareness of compliance operations among third-party payment institutions, jointly ensuring the healthy and sustained development of the cross-border payment market.

## 6. Conclusion

Under the new dual circulation strategy, the integration of the Guangdong-Hong Kong-Macao Greater Bay Area with RCEP is crucial for the development of cross-border e-commerce. This paper has analyzed the current state of cross-border e-commerce development in the Greater Bay Area, identified existing challenges, and proposed specific optimization strategies and recommendations through the helpful provisions in RCEP. As the global trade landscape evolves, the issues surrounding cross-border e-commerce development require further in-depth study. The Greater Bay Area should fully leverage its geographical advantages for cooperation, continuously optimize the cross-border e-commerce industry model, and enhance the level of trade facilitation. This will promote cross-border e-commerce cooperation with RCEP member countries, bringing more business opportunities and development chances to enterprises in the region, and also promoting regional trade prosperity and interconnectivity. By strengthening cooperation, the Greater Bay Area can better integrate into the global value chain, enhance its overall competitiveness, and achieve sustainable development in the cross-border e-commerce sector.

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