

Developing Logistics Services for Cross-Border B2c E-Commerce in Vietnam

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Abstract

Cross-border B2C e-commerce has become an important driver of online exports and Vietnam's digital economic integration. Logistics is critical to efficient goods circulation, delivery speed, cost control, and the international customer experience. This paper examines the role and development of logistics services in cross-border B2C e-commerce in Vietnam during 2024–2026, focusing on institutional, infrastructure, technological, human-resource, and cost-related constraints. Based on the analysis, the paper proposes six groups of solutions toward modern, smart, green, and sustainable logistics, supporting Vietnam's development as a regional e-commerce export hub.

Keywords: Logistics; cross-border e-commerce; B2C; Vietnam

1. Introduction

International economic integration and digital transformation are reshaping production, distribution, and consumption. Cross-border business-to-consumer (B2C) e-commerce enables enterprises to reach consumers in foreign markets directly while reducing market-entry time and costs. According to the Ministry of Industry and Trade, Vietnam's e-commerce market reached approximately USD 31 billion in 2025, increasing 25.5% and accounting for around 10% of total retail sales of goods and consumer service revenue (Ministry of Industry and Trade, 2025a). Amazon Global Selling Vietnam reported that, in the 12 months ending July 31, 2025, sales of branded products by Vietnamese selling partners increased by more than 40%, while the number of Vietnamese sellers exceeding USD 1 million in annual sales increased by 60% (Amazon Global Selling Vietnam, 2025). These figures represent the Amazon ecosystem rather than the entire cross-border e-commerce market.

Logistics is particularly important in B2C because orders are numerous and relatively low in value, while customers require fast delivery, shipment tracking, efficient returns, and compliance with customs and tax regulations. Logistics development is therefore an important condition for improving the international competitiveness of Vietnamese enterprises.

2. The Role of Logistics Services in Cross-Border B2c E-Commerce

In cross-border B2C e-commerce, logistics is a core component of the business model rather than merely a supporting activity. It links suppliers with final consumers across customs territories and ensures the safe, timely, and efficient movement of goods. Key activities include warehousing, packaging, shipment tracking, fulfillment, last-mile delivery, and returns processing. UNCTAD (2024) emphasizes the influence of logistics on cost, delivery time, and market scalability. Logistics models have evolved from traditional direct delivery toward 3PL, 4PL, and cross-border fulfillment. 3PL providers undertake transportation, warehousing, and distribution, whereas 4PL providers coordinate broader supply-chain planning and optimization. Fulfillment models, including Fulfillment by Merchant (FBM) and Fulfillment

by Platform (FBP), integrate international warehousing and order-processing capabilities. In Vietnam, the cross-border B2C logistics chain includes cargo consolidation, customs declaration, international transportation, fulfillment, warehousing, last-mile delivery, and reverse logistics. Developing infrastructure, data systems, and fulfillment services is therefore essential for expanding online exports (Ministry of Industry and Trade, 2026).

3. Current Development of Logistics Services in Cross-Border B2c E-Commerce in Vietnam

3.1. Achievements during 2024–2026

First, operating models are shifting from direct delivery from Vietnam toward fulfillment, intermediate warehousing, and 3PL/4PL services in destination markets, enabling better control of inventory, order processing, and last-mile delivery.

Second, logistics infrastructure continues to improve through investment in seaports, airports, expressways, logistics centers, and warehouses. The national logistics strategy emphasizes integrated infrastructure, connectivity, green logistics, and smart logistics (Ministry of Industry and Trade, 2025b). The Action Plan issued in 2026 further specifies implementation tasks (Ministry of Industry and Trade, 2026). Third, digitalization and automation are expanding. Logistics enterprises increasingly use transportation management systems (TMS), warehouse management systems (WMS), order management systems (OMS), AI, data analytics, and automation. The Vietnam Logistics Report 2025 indicates that approximately 61% of Vietnamese enterprises had applied digital technologies to logistics operations by the end of 2024. The Ministry of Industry and Trade is also promoting data-driven management, an e-commerce database, and the gradual application of AI (Ministry of Industry and Trade, 2025a). Fourth, export procedures are being modernized through electronic customs, the National Single Window, and greater data connectivity among enterprises, e-commerce platforms, logistics providers, and regulatory authorities. The Law on E-Commerce provides an additional legal basis for e-commerce governance (National Assembly, 2025).

3.2. Challenges and limitations

First, the legal framework and enforcement mechanisms require further improvement, particularly in customs, taxation, consumer protection, data governance, platform responsibilities, and digital import and export activities. Greater consistency and data interoperability among authorities, platforms, and logistics enterprises are needed.

Second, logistics and transport infrastructure remain insufficiently integrated. Stronger connections among road, rail, air, maritime transport, and logistics centers are required. Official and industry sources indicate that Vietnam's logistics costs remain approximately 16–18% of GDP, while road transport accounts for about 75% of freight volume; rail accounts for around 0.18% and inland waterways approximately 19–20% (Vietnam Logistics Report 2025; Vietnam Logistics Business Association; Ministry of Construction, 2025).

Third, technology adoption remains uneven. Small and medium-sized enterprises face constraints in capital, technological human resources, and organizational capacity. Integration among order management, warehousing, international transport, and last-mile delivery should be strengthened toward end-to-end supply-chain management (World Bank, 2025).

Fourth, reverse logistics and sustainability remain bottlenecks because of geographical distance, two-way transportation costs, differences in regulations, and returned-goods processing. Reverse logistics therefore requires networks for collection, inspection, repackaging, resale, recycling, and appropriate returns processing.

Fifth, human-resource and enterprise capabilities remain limited. Vietnam's total import-export turnover exceeded USD 659 billion in the first seven months of 2026, increasing demand

for transportation, warehousing, and related logistics services (Ministry of Finance, National Statistics Office, 2026).

4. Solutions for Developing Logistics Services in Cross-Border B2c E-Commerce

First, improve policies, regulations, and enforcement. Regulations should be reviewed and aligned with practical conditions and international commitments. Customs procedures should accommodate B2C shipments characterized by large volumes and low values, while appropriate incentives should support enterprise competitiveness and logistics infrastructure.

Second, develop integrated and modern logistics infrastructure. Priority should be given to international and multifunctional logistics centers, fulfillment centers, cross-border warehouses, air logistics, multimodal transport, and last-mile delivery networks in destination markets. These investments can shorten delivery times, reduce costs, and improve the B2C customer experience.

Third, accelerate digital transformation. Enterprises should strengthen data interoperability among orders, payments, logistics, and customs and apply AI, big data, and IoT to warehouse management, automated sorting, and route optimization. Government support for digital transformation and e-logistics is also needed.

Fourth, develop green and reverse logistics. Sustainability should accompany growth through environmentally friendly packaging, reduced use of non-biodegradable plastics, cleaner transport energy, and effective returns management. Extended Producer Responsibility (EPR) and packaging recovery and recycling systems should be strengthened.

Fifth, develop digital human resources and support micro, small, and medium-sized enterprises. Training should cover digital technologies, foreign languages, online marketing, legal knowledge, and digital supply-chain management. Stronger cooperation among educational institutions, enterprises, and industry associations is required.

Sixth, strengthen the competitiveness of Vietnamese logistics enterprises. Enterprises should invest in technology, expand international networks, cooperate with e-commerce platforms and foreign partners, and develop 3PL, 4PL, and cross-border fulfillment. Public policy should facilitate the formation of logistics value chains and participation in regional and global supply chains.

5. Conclusion

Logistics services play a pivotal role in the development of cross-border B2C e-commerce in Vietnam. The 2024–2026 period demonstrates changes in operating models, infrastructure, and technology adoption, while bottlenecks remain in institutions, infrastructure, costs, digitalization, reverse logistics, and human resources. Vietnam's e-commerce market reached approximately USD 31 billion in 2025, an increase of 25.5%, creating considerable potential for logistics services supporting online exports (Ministry of Industry and Trade, 2025a).

During 2026–2030, six groups of solutions should be implemented in an integrated manner: policy improvement, infrastructure development, digital transformation, green and reverse logistics, human resource development, and enhancement of enterprise competitiveness. Priorities should be given to data interoperability, fulfillment, supply-chain resilience, green transformation, and policy enforcement capacity. Quantitative targets should only be used when supported by consistent, up-to-date, and verifiable data.

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