Economics & Business Management
ISSN Print: 3079-5214
ISSN Online: 3079-5222
https://doi.org/10.63313/EBM.9205

How Cross-Border E-Commerce Empowers the Internationalization of Small and Medium-Sized Enterprises: Mechanisms, Constraints and Optimization Paths

Jiarui Zhou*. Shishi Dai
School of Economics and Trade, Foshan University, Foshan 528000, China
Email: 1052922439@qq.com

How to cite this paper: Zhou, J., & Dai, S. (2026). How Cross-Border E-Commerce Empowers the Internationalization of Small and Medium-Sized Enterprises: Mechanisms, Constraints and Optimization Paths. Economics & Business Management, 6(2), 20–30. ISSN Print: 3079-5214, ISSN Online: 3079-5222.
https://doi.org/10.63313/EBM.9205
Published: 2026-07-09

Copyright © 2026 by author(s) and Erytis Publishing Limited.
This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).
http://creativecommons.org/licenses/by/4.0/

Abstract

Digital technologies and platform economies are changing how small and medium-sized enterprises (SMEs) enter international markets. Based on transaction cost theory, the resource-based view and absorptive capacity theory, this paper explains how cross-border e-commerce empowers SME internationalization. The study argues that platform traffic, transaction data, logistics services, digital finance, compliance tools and public services reduce market-entry costs and partly compensate for SME resource constraints. Yet these external resources do not automatically become international capabilities. Their effects depend on digital absorptive capacity, namely the ability to acquire, assimilate, transform and exploit platform-based information. Cross-border e-commerce works through three mechanisms: transaction cost reduction and market expansion, ecological resource compensation, and capability upgrading driven by data feedback and compliance pressure. The paper identifies platform dependence, weak control over customer data, logistics pressure, supply-chain fragility and rising overseas compliance costs as major constraints, and proposes optimization paths centered on lightweight data systems, differentiated platform deployment, shared service infrastructure and whole-process compliance management.

Keywords

Cross-Border E-Commerce; Small and Medium-Sized Enterprises; Internationalization; Platform Empowerment; Digital Absorptive Capacity

1. Introduction

Cross-border e-commerce is no longer only an online extension of traditional foreign trade. It has become a new international business setting jointly shaped by platforms, digital payment, logistics, data services, digital finance and public service systems. According to the General Administration of Customs of China, China's

cross-border e-commerce imports and exports reached 2.63 trillion yuan in 2024, with a year-on-year increase of 10.8%1. This figure indicates that cross-border e-commerce has moved from a supplementary trade channel to an important infrastructure for Chinese firms seeking overseas markets. For small and medium-sized enterprises (SMEs), this change is particularly significant because their traditional internationalization has long been constrained by limited capital, limited overseas distribution channels, insufficient market knowledge and weak bargaining power in international transactions.

The significance of cross-border e-commerce for SMEs is not limited to opening online stores or obtaining overseas orders. A more important issue is how the resources supplied by platforms, including traffic, customer reviews, transaction data, logistics solutions, financing services and compliance guidance, are identified, absorbed and converted into durable internationalization capabilities. Existing studies have examined the effects of e-commerce policy, platform networks and institutional environments on international business activities2. Related studies have also discussed how cross-border e-commerce affects value-chain participation, product quality upgrading, enterprise innovation and Environmental, Social and Governance (ESG) performance7,9-11. However, much of the existing literature places emphasis on macro-level policy effects, platform-level facilitation or firm-level performance outcomes. The internal conversion process through which SMEs turn external platform resources into market coverage, customer relationship management, product adaptation, brand accumulation and regulatory adaptation remains insufficiently integrated.

This paper addresses that gap by combining transaction cost theory, the resource-based view and absorptive capacity theory. The core argument is that cross-border e-commerce empowerment is not a simple process in which platforms provide resources and SMEs passively benefit. Platform resources are external conditions. Digital absorptive capacity is the internal conversion mechanism. Internationalization capability is the outcome jointly shaped by the two. Accordingly, this study analyzes three questions. First, through which mechanisms does cross-border e-commerce reduce market-entry barriers and support SME internationalization? Second, why do some SMEs fail to transform platform opportunities into sustainable overseas operations? Third, what optimization paths can help SMEs, platforms and public service systems improve the quality of internationalization?

The rest of this paper is organized as follows. Section 2 defines the key concepts and develops the theoretical framework. Section 3 analyzes the main empowerment mechanisms. Section 4 identifies practical constraints and risks. Section 5 proposes optimization paths. Section 6 concludes the paper and summarizes its theoretical and practical implications.

2. Conceptual Definitions and Theoretical Framework

2.1. SMEs and Internationalization in the Cross-Border E-Commerce Context

In this paper, SMEs are understood with reference to China's official classification standards, which classify medium-sized, small and micro enterprises according to industry, employees, operating revenue and total assets3. Considering the diversity of cross-border e-commerce participants, this study focuses on firms with relatively limited resources that rely on cross-border e-commerce platforms or related ecological services to conduct overseas business. The term internationalization is used in a capability-oriented sense rather than as a narrow indicator of export occurrence. Exporting, platform operation and global value-chain participation are all important forms of internationalization. Yet internationalization capability is broader. It includes the capacity to reach overseas markets, maintain customer relationships, adapt products and brands, organize learning processes and respond to rules in target markets.

This distinction matters because many SMEs can quickly enter overseas markets through platform registration, product listing and online promotion, but market entry does not necessarily imply capability formation. A firm may receive short-term orders while still lacking control over customer data, product positioning, after-sales service, brand identity and regulatory compliance. In such cases, cross-border e-commerce produces transactional internationalization, but not necessarily capability-based internationalization. The analytical focus of this paper is therefore the conversion from online market access to sustained international operating capability.

2.2. Platform Empowerment and Digital Absorptive Capacity

Platform empowerment refers to a process in which platforms and ecosystem actors support enterprise capability development through resource supply, capability support and rule-based guidance. In the cross-border e-commerce setting, platform empowerment includes traffic allocation, search recommendation, data analytics, payment settlement, digital finance, logistics coordination, training services, dispute settlement and compliance support. These services reduce the gap between resource-constrained SMEs and overseas markets. However, the value of platform empowerment depends on whether the firm can interpret and reorganize these resources.

Digital absorptive capacity is therefore the central concept in this paper. Cohen and Levinthal4 define absorptive capacity as the ability to recognize, assimilate and apply external knowledge. Zahra and George5 further conceptualize it as a process of acquisition, assimilation, transformation and exploitation. In cross-border e-commerce, acquisition refers to capturing platform traffic data, customer reviews, search terms, inquiry information and transaction feedback. Assimilation refers to understanding target-market demand, platform rules, consumer preferences and

compliance requirements. Transformation refers to embedding external information into product design, pricing, inventory, customer service and supply-chain processes. Exploitation refers to converting these adjustments into repurchase, brand recognition, product iteration, logistics improvement and rule adaptation. Empirical work also suggests that digital capability and employee skills affect SMEs' adoption of cross-border e-commerce6.

From this perspective, platform empowerment has a two-stage logic. At the first stage, platforms lower search, communication, trust-building and coordination costs. At the second stage, SMEs must absorb and reorganize the released information and resources. Only after this internal conversion can platform resources become firm-specific internationalization capabilities.

2.3. Analytical Logic: From Transaction Cost Reduction to Capability Formation

Transaction cost theory and the resource-based view together provide a coherent explanation. Cross-border transactions traditionally involve high search costs, information asymmetry, trust-building costs, exchange-rate and payment risks, logistics uncertainty and regulatory uncertainty. Cross-border e-commerce platforms reduce part of these costs by integrating information display, online communication, credit evaluation, payment settlement and order tracking. This improves the external transaction environment and lowers the threshold for SMEs to connect with overseas customers.

The resource-based view adds a second layer. Cost reduction is only an entry condition. Whether SMEs can build sustained advantages depends on whether they transform platform-based resources into internal routines and distinctive capabilities. Traffic, data, logistics and finance are not firm-specific advantages when every seller can access them. They become valuable only when SMEs use them to build better product selection, faster response, more stable fulfillment, differentiated branding and more reliable compliance management. In this logic, the platform is an external condition, digital absorptive capacity is the internal mechanism, and internationalization capability is the final result.

3. Mechanisms of Cross-Border E-Commerce Empowering SME Internationalization

3.1. Transaction Cost Reduction and Market Expansion

The most direct effect of cross-border e-commerce is the reduction of transaction costs in overseas market entry. Traditional foreign trade often depends on exhibitions, foreign agents, distributors and intermediary networks. SMEs must spend considerable resources on customer search, communication, trust establishment and order coordination. Cross-border e-commerce platforms compress these costs through online search, recommendation algorithms, inquiry

systems, store ratings, credit records and transaction traces. Liu and Gu7 find that cross-border e-commerce can promote firms' participation in global value chains by reducing search and matching costs and lowering market-entry thresholds.

Cost savings also enlarge the scope of demand connection. Business-to-business platforms are more suitable for industrial products, components and production materials because they help firms enter overseas procurement systems. Business-to-consumer platforms are more suitable for light industrial products and consumer goods because they enable direct contact with end users. Independent websites are more appropriate for firms that already have brand assets and want to accumulate first-party customer data. These different platform types do not simply represent different sales channels. They correspond to different stages and resource requirements of SME internationalization.

In recent years, the full-service managed model has further lowered operational barriers. Under this model, suppliers mainly provide products, while platforms undertake store operation, sales management, pricing assistance and part of fulfillment coordination. This arrangement can be useful for SMEs that lack overseas operation teams. Yet long-term dependence on a pure supply model may weaken the firm's control over customer data, price formation and brand expression. If an SME remains only a low-cost supplier behind platform traffic, its overseas expansion may stay at the level of order acquisition. Therefore, market expansion should be understood not only as selling to more countries, but also as the reorganization of products, channels and customer segments.

3.2. Ecological Resource Compensation

SME internationalization is usually constrained by insufficient capital, logistics capacity, overseas service networks and specialized talent. Cross-border e-commerce ecosystems can partly compensate for these weaknesses. The ecosystem includes platforms, service providers, digital financial institutions, logistics firms, overseas warehouses, training institutions, industry associations and public service systems. For firms located in industrial clusters, many resources are not held within a single firm but can be accessed through shared services and economies of scale.

The role of logistics, information and financial services is particularly important. Liu, Yang and Liu8 show that cross-border e-commerce is connected with the agglomeration of producer services such as logistics, information and finance. Shared overseas warehouses can reduce fixed costs for firms with small order volumes. Digital finance can improve cash-flow management when orders, inventory and receivables fluctuate. Public compliance services can reduce the cost of product certification, translation, intellectual property consultation and customs documentation. Cross-border e-commerce comprehensive pilot zones can also integrate customs, taxation, foreign exchange, logistics and data services, thereby

reducing administrative and operational burdens on SMEs.

However, ecological resources do not create value automatically. The key is whether external services can be embedded in the enterprise's internal order, finance and fulfillment processes. If an SME only uses platform services in a fragmented manner, it may reduce immediate operational pressure without improving its own routines. If the firm connects platform orders with inventory planning, logistics selection, financial accounting and customer service response, then ecological support can become a basis for capability accumulation. Thus, resource compensation is not a substitute for capability building. It is a condition that makes capability building more feasible for resource-constrained firms.

3.3. Capability Upgrading and Compliance-Driven Learning

Cross-border e-commerce also promotes internationalization through data feedback and compliance pressure. Platform data contain information on search keywords, click-through rates, conversion rates, customer reviews, return reasons, advertising performance and stock keeping unit (SKU) performance. These data signals push firms to adjust product specifications, foreign-language descriptions, packaging, certification materials, customer service procedures and after-sales policies. Pan, Liu and Gu9 find that cross-border e-commerce platforms can promote export product quality upgrading. Ni, Ma and Meng10 further show that cross-border e-commerce can promote enterprise innovation through financing constraints relief and competitive pressure.

The capability-upgrading mechanism works because platform operations shorten the feedback cycle between overseas demand and domestic production. In traditional export modes, SMEs often receive market information through intermediaries and may respond slowly. In cross-border e-commerce, firms can observe customer reactions more directly. Negative reviews, low conversion rates, high return rates and repeated inquiries may reveal problems in product design, sizing, instructions, packaging or delivery time. If these signals are transmitted to production and supply-chain decisions, the firm can gradually build product adaptation and market learning capabilities.

At the same time, stricter overseas regulation has turned compliance into a basic condition for internationalization. Intellectual property protection, product safety, green packaging, data privacy, tax declaration and consumer protection are increasingly important in major markets. Li and Li11 find that cross-border e-commerce may improve firms' ESG performance, which suggests that compliance and sustainability are not merely defensive requirements but may become part of long-term competitiveness. For SMEs, the pressure of compliance can force the standardization of product documentation, trademark management, supplier selection, quality inspection and customer service. If firms respond passively only after account suspension, product removal or fund freezing, compliance remains a

cost. If they integrate compliance requirements into product development and platform operation, compliance becomes a learning mechanism.

4. Practical Constraints and Risks

4.1. Platform Dependence and Weak Control over Data Assets

While cross-border e-commerce lowers entry barriers, it may also increase platform dependence. SMEs often rely on platform traffic, search ranking, advertising tools, account rules and logistics policies. When platforms adjust commission rates, account review rules, advertising algorithms or fulfillment requirements, the order stability of SMEs can be affected quickly. The core issue is that customer entrances and key transaction data are often controlled by platforms rather than by individual sellers.

If SMEs do not build their own customer assets and brand recognition, they may be locked into price competition. This produces a low-value path of internationalization: the firm sells across borders, but it has weak bargaining power, weak customer retention and limited brand accumulation. The risk is more visible under full-service managed models. Such models reduce early operating difficulty, but they may also make firms less sensitive to customer data, consumer preferences and overseas regulatory information. Over time, the firm may become a replaceable supplier rather than an international operator.

4.2. Logistics Fulfillment and Supply Chain Resilience

Logistics fulfillment is a central cost node in cross-border e-commerce. Large enterprises can obtain lower shipping rates through scale and are more capable of establishing overseas warehouses and after-sales networks. SMEs usually have smaller order volumes, more volatile stock keeping unit structures and higher working-capital pressure. As a result, they have weaker bargaining power with logistics service providers. Delivery delays, unstable freight rates, return costs and inventory mismatches can quickly damage customer ratings, platform scores and repurchase rates.

Supply chain resilience is also uneven across firms. For cross-border e-commerce SMEs, resilience is not only about production continuity. It also includes the ability to select alternative logistics routes, manage overseas inventory, handle returns, respond to platform penalties and adjust product supply when market demand changes. If logistics, inventory and customer service are not coordinated, a firm may gain traffic but lose reputation during fulfillment.

4.3. Organizational Capability, Overseas Compliance and Localization

Cross-border e-commerce operation appears simple at the surface: register a store, list products and receive orders. In practice, it involves product selection, advertising, foreign-language communication, customer-service response, data

analysis, compliance review, supply-chain coordination and financial management. Many SMEs are flexible, but their internal routines are weak. Data analysis, foreign-language business communication and compliance management often depend on a few experienced employees. When these employees leave or when the platform rule changes, organizational knowledge may not be retained.

This weakness directly reduces digital absorptive capacity. The firm may acquire a large amount of external information but fail to assimilate it. It may understand consumer feedback but fail to transform it into product and process changes. It may make operational adjustments but fail to exploit them in a stable way. Therefore, the key problem is not simply the absence of digital tools. It is the absence of routines that connect data, decisions and execution.

Overseas compliance and localization further raise the threshold. Liu, Cui and Pan12 point out that the regulatory policies of the United States and Europe for cross-border e-commerce retail are becoming stricter, including product safety, intellectual property, green packaging and adjustments to small-parcel tax policies. Trademark disputes, insufficient certification, wrong tax declaration or account compliance problems may lead to product removal, fund freezing or exit from a target market. In addition, different markets have different language habits, payment preferences, after-sales expectations and consumer protection norms. Without localization, traffic may not be converted into stable demand.

5. Optimization Paths

5.1. Strengthening Digital Absorptive Capacity and Differentiated Platform Deployment

SMEs should place digital absorptive capacity before platform expansion. This does not mean that every SME must conduct costly digital transformation. A more realistic path is to build lightweight operational data systems. Firms can continuously record traffic, inquiry conversion, customer reviews, return reasons, advertising input-output ratios, inventory turnover and logistics performance. This completes the acquisition stage. Regular review meetings can then connect customer feedback with product design, supplier coordination and service procedures. This completes the assimilation and transformation stages. Finally, firms should formalize product selection, pricing, inventory planning and after-sales response into repeatable routines. This completes the exploitation stage.

Platform deployment should match product characteristics, resource endowment and internationalization stage. Industrial product firms should strengthen technical descriptions, inquiry response and sample delivery on B2B platforms. Consumer goods firms can use B2C platforms to expand terminal coverage while improving inventory and after-sales management. Firms with stronger brand foundations can gradually establish independent websites and accumulate first-party customer data. SMEs using full-service managed models should treat them as tools for lowering

early entry costs, not as replacements for capability building. They should retain as much access as possible to brand identity, product feedback, pricing logic and customer preference information.

5.2. Building Shared Service Systems

Because logistics, finance, certification and compliance services often involve high fixed costs, SMEs need shared service systems supported by firms, platforms and public actors. Cross-border e-commerce comprehensive pilot zones, local governments and industry associations can integrate industrial-cluster resources and build shared overseas warehouses, public compliance service centers, intellectual property warning systems and multilingual product-standard services. These arrangements can spread fulfillment and compliance costs across many firms and increase the feasibility of overseas operation.

Platforms should provide clearer risk-control guidance, order financing, logistics options, training modules and rule-change notifications. Service providers should develop standardized and modular packages for SMEs rather than offering only costly customized services. SMEs themselves should outsource non-core activities such as logistics coordination, certification consultation and basic compliance documentation when appropriate, while concentrating internal resources on product quality, customer operation and brand accumulation. The purpose of shared services is not to remove firm responsibility. It is to reduce the learning cost of entering complex overseas markets.

5.3. Embedding Compliance and Localization into the Whole Process

Overseas compliance should be treated as a whole-process management activity rather than as a remedial action after problems occur. Before entering a target market, SMEs should complete product certification, trademark registration, tax registration, intellectual property checks and platform-rule confirmation. During operation, they should update product descriptions, packaging, labels, customer-service language and after-sales policies according to local requirements. European and American markets place more emphasis on product safety, green packaging, intellectual property and data protection. Southeast Asian markets often require more attention to logistics timeliness, local payment habits and native-language customer service. Latin American and African markets require careful evaluation of payment security, exchange-rate risk, after-sales capacity and last-mile delivery.

Localization should not be reduced to translation. It includes product adaptation, visual expression, customer communication, payment method, return policy and service response. An SME that understands local usage scenarios can differentiate products even when it lacks large-scale advertising resources. In this sense, compliance and localization are connected. Compliance helps the firm meet the

minimum market requirements. Localization helps the firm build stronger customer recognition within those requirements.

6. Conclusions

Cross-border e-commerce empowers SME internationalization through a compound process rather than a single channel effect. Platforms, logistics, finance, data and public services jointly form an external resource supply system. Transaction cost reduction and market expansion lower the threshold of overseas entry. Ecological resource compensation mitigates the resource constraints that normally limit SMEs. Capability upgrading and compliance-driven learning push firms from order acquisition toward sustained operation. Yet the effects of these mechanisms depend on the firm's digital absorptive capacity. Without acquisition, assimilation, transformation and exploitation, external platform resources may remain temporary traffic or fragmented services.

The theoretical contribution of this paper is to integrate transaction cost theory, the resource-based view and absorptive capacity theory into an analytical chain of external transaction-condition improvement, platform resource supply, digital absorptive conversion and internationalization capability formation. This framework avoids treating cross-border e-commerce as a simple sales tool or as an automatic source of competitiveness. It explains why SMEs facing similar platform opportunities may generate different outcomes. The difference lies in whether they can convert traffic, data, logistics, finance and compliance pressure into routines and capabilities.

For practice, SMEs should move beyond short-term traffic thinking and strengthen data review, product iteration, customer operation, logistics fulfillment and compliance management. Platform enterprises and cross-border e-commerce comprehensive pilot zones should reduce SMEs' learning costs through transparent rules, shared overseas warehouses, financial services, compliance lists, intellectual property warnings and modular training. Cross-border e-commerce offers a relatively lightweight path for SMEs to break resource constraints and participate in international division of labor. Compared with traditional gradual internationalization, the platform ecosystem lowers the cost of market experimentation. However, sustainable internationalization still depends on capability building inside the firm.

References

[1] General Administration of Customs of the People's Republic of China (2025) China's foreign trade import and export scale reached a new high. https://www.customs.gov.cn/customs/2025-01/14/article_2025121410054050048.html Accessed June 29, 2026.

[2] Cumming, D., Johan, S., Khan, Z., et al. (2023) E-commerce policy and international business. Management International Review, 63, 3-25. https://doi.org/10.1007/s11575-022-00489-8

[3] Ministry of Industry and Information Technology, National Bureau of Statistics, National Development and Reform Commission, and Ministry of Finance of China (2011) Provisions on the classification standards for small and medium-sized enterprises. MIIT Joint Enterprise Document No. 300.

[4] Cohen, W.M. and Levinthal, D.A. (1990) Absorptive capacity: A new perspective on learning and innovation. Administrative Science Quarterly, 35, 128-152. https://doi.org/10.2307/2393553

[5] Zahra, S.A. and George, G. (2002) Absorptive capacity: A review, reconceptualization, and extension. Academy of Management Review, 27, 185-203. https://doi.org/10.5465/amr.2002.6587995

[6] Peng, F., Yusoff, Y.M. and Soo, H.S. (2025) Determinants of cross-border e-commerce adoption in SMEs: A resource-based view. Journal of Distribution Science, 23, 27-38.

[7] Liu, B. and Gu, C. (2022) The impact of cross-border e-commerce on enterprises' participation in global value chains: Evidence from micro data. Statistical Research, 39, 72-87. [In Chinese].

[8] Liu, Y.R., Yang, L. and Liu, Z.B. (2023) Cross-border e-commerce and producer service agglomeration. The Journal of World Economy, 46, 63-93. [In Chinese].

[9] Pan, T., Liu, B. and Gu, C. (2024) Cross-border e-commerce platforms and export product quality upgrading: Evidence from Alibaba International Station big data platform. Forum of World Economics and Politics, 3, 138-154. [In Chinese].

[10] Ni, Y.N., Ma, Y.Q. and Meng, N. (2023) Does cross-border e-commerce promote enterprise innovation? Journal of Zhongnan University of Economics and Law, 3, 83-93. [In Chinese].

[11] Li, C.Q. and Li, Y. (2024) Can cross-border e-commerce improve corporate ESG performance? Journal of International Trade, 10, 70-86. [In Chinese].

[12] Liu, B., Cui, N.C. and Pan, T. (2025) New trends in US and European regulatory policies for cross-border e-commerce retail and China's response. Intertrade, 2, 52-60. [In Chinese]. https://doi.org/10.14114/j.cnki.itrade.2025.02.007