

Research on the Development Path of Cross-Border E-Commerce Comprehensive Pilot Zones from the Perspective of Digital Empowerment

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Abstract: Against the backdrop of digital reform driving China's cross-border e-commerce development, the Yiwu Cross-Border E-Commerce (CBEC) pilot zone also faces certain practical challenges. These are primarily reflected in the need for more refined management of customs clearance and online services, as well as further improvements in the completeness of the regulatory framework and the effectiveness of its enforcement, and industrial imbalance from uneven enterprise digital transformation. Corresponding solutions include innovating regulatory systems, optimizing digital service management, and building a specialized talent training and retention system, offering references for national CBEC pilot zone development.

Keywords: Digital empowerment; Cross-border E-commerce Comprehensive pilot zones; Development path; Yiwu; Foreign trade digital transformation

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1. Introduction

Amid digital reform, cross-border e-commerce grows steadily with digital advantages, serving as a core engine for China's foreign trade digital transformation and economic restructuring ^[1]. China has built cross-border e-commerce comprehensive pilot zones to tackle industrial bottlenecks via institutional innovation, and their construction has become a key academic research focus ^[2]. Yiwu CBEC pilot zone, backed by its small commodity industry edge, has achieved construction progress but still faces digital challenges including inadequate services, flawed regulation, and unbalanced industrial development. This paper analyzes Yiwu zone's current situation and core dilemmas, and proposes targeted digital-era development paths to guide the high-quality growth of national CBEC pilot zones.

2. Current construction status of cross-border e-commerce comprehensive pilot zones

Yiwu CBEC pilot zone leverages its robust local small commodity industry and trade foundation, positioning itself to build the world's "Capital of Small Commodities" and realize coordinated cross-border e-commerce import and export development. It drives regional small commodity trade upgrading, offering a practical reference for nationwide pilot zone promotion.

The zone plans to construct three core platforms and six supporting systems, aiming to build a new international small commodity trade center. Policy implementation has streamlined e-commerce procedures, boosted operational efficiency, and expanded exports, effectively driving regional foreign trade and proving pilot zones' positive role in import and export growth ^[3]. However, platform system construction remains incomplete, with prominent service and regulatory flaws, and digital empowerment effects are underutilized, a common issue for most domestic CBEC pilot zones ^[4].

3. Core dilemmas in the construction of cross-border e-commerce comprehensive pilot zones

3.1. Obvious shortcomings in service management level

Despite simplifying some industrial processes, the Yiwu pilot zone still has management gaps in cross-border customs clearance and online services. Cross-national customs clearance differences waste massive resources, and the online platform requires cumbersome filing materials, limiting cross-border commodity circulation convenience ^[5]. In addition, poor coordination between customs inspection, release, and related departments causes inefficient handover, triggering economic losses, lowering industry efficiency, and hindering pilot zone construction.

3.2. Imperfect regulatory system and insufficient enforcement

Under digital reform, the zone has rolled out supportive policies, but its supporting regulatory system is incomplete and poorly implemented, with prominent non-standard supervision problems. Cross-border e-commerce involves multi-domain domestic and foreign systems, and unbalanced regional industrial development disrupts regulatory uniformity, dragging down industrial efficiency periodically. Misalignment between regulatory plans and actual operations also raises enterprise risks, harming the industry's long-term stability. Optimizing tax supervision, a core regulatory link, is critical for the pilot zone's standardized development ^[6].

3.3. Unbalanced industrial development and low transformation quality

Differences in enterprise scale and business models lead to uneven uptake of digital transformation policies among Yiwu's cross-border e-commerce firms, causing obvious industrial imbalance ^[7]. Some small and medium-sized enterprises (SMEs) adopt rigid operations, prioritize short-term profits, and neglect product quality and digital upgrading, resulting in low industrial value and substandard goods, while financing strains worsen this dilemma. Industrial structure imbalance stalls overall progress, and SMEs' transformation hurdles restrict industry-wide digital upgrade, weakening the zone's economic empowerment effect ^[8].

4. Innovative construction and practice paths of pilot zones under the background of digital reform

4.1. Innovate the regulatory system and lay a solid institutional foundation for industrial development

Complying with the requirements of digital economic development, the pilot zone should improve the whole-chain regulatory system and adhere to the regulatory principles of traceable product sources and controllable risks. An additional connection department should be set up in the customs clearance supervision link to promote the real-time and effective connection between customs clearance, quality inspection, and epidemic prevention inspection departments, standardize the review process, and improve the efficiency of product customs clearance and quality credibility. Relying on digital technologies, a cross-border e-commerce credit supervision system should be built to integrate users' social credit data, transaction records, logistics information, capital flow, and other content, and establish a sound credit file. An intelligent data analysis-based credit evaluation and reward and punishment mechanism should be constructed to promote the integration of internal and external enterprise supervision and reduce the credit risks in virtual economy and digital economy transactions. At the same time, tax supervision decisions should be optimized in combination with the actual development of the pilot zone, so as to promote the in-depth adaptation of the regulatory system to the actual industrial development, improve the effectiveness of supervision, and lay a solid institutional foundation for the improvement of the operational performance of the pilot zone ^[9].

4.2. Optimize the service management model and improve the digital operational efficiency of the industry

Centered on digital reform, the zone should optimize full-process service management covering customs clearance, logistics, finance and taxation, the core innovation direction for pilot zones under the dual circulation pattern.

For logistics, warehousing facilities should be laid out in overseas and transit centers to build a warehousing and logistics system, realize the integration of cargo collection, packaging and distribution, and promote the real-time connection between logistics and customs clearance departments to improve the efficiency of international freight transport.

For customs clearance, the filing forms and procedures should be simplified to reduce the operational costs and risks of enterprises. Digital technologies such as live streaming, big data, and artificial intelligence should be fully applied and integrated into logistics supply, product marketing, financial services, and other links. The integration of new customer acquisition methods with traditional operation models can improve the efficiency of industrial economic transformation ^[10].

For finance, the supply chain finance model should be relied on to alleviate the financing difficulties of SMEs. Cooperation with third-party payment institutions should be encouraged, cross-border payment outlets should be built, foreign exchange settlement procedures should be simplified, and cross-border settlement channels should be expanded.

For taxation, the export tax rebate policy should be optimized to support small-scale taxpayers to obtain VAT invoices and apply for tax rebates or exemptions, so as to reduce enterprise operational costs and maximize economic benefits, thus giving full play to the driving effect of the pilot zone on regional import and export trade ^[11].

4.3. Innovate the talent training system and strengthen the industrial talent support

To address the shortage of cross-border e-commerce professionals, the zone should build a talent system integrating university-enterprise cooperation, professional training, and incentive mechanisms. Deepen school-enterprise collaboration, optimize majors and internships to cultivate practical talents. Set up professional training institutions and online platforms to upgrade practitioners' skills. Improve talent incentives and support policies to retain high-caliber professionals, and partner with human resource agencies to establish a standardized recruitment system. This ensures stable talent supply, promotes balanced industrial development, and unlocks the zone's economic empowerment potential ^[12].

5. Conclusion

Digital reform is an inevitable trend for cross-border e-commerce, and pilot zone construction quality directly dictates foreign trade digital transformation levels. The challenges confronting the Yiwu pilot zone are common across domestic CBEC pilot zones. Only by anchoring industrial traits, focusing on regulatory innovation, service optimization and talent cultivation, and solving problems via financial and tax adjustments, can pilot zones improve development efficiency and fulfill their economic driving role. Going forward, CBEC pilot zones must deepen institutional innovation, advance digital-real economy integration, fuel China's foreign trade high-quality development and strengthen its global cross-border e-commerce competitiveness.

Disclosure statement

The authors declare no conflict of interest.

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