

# ***A Case Study of Temu: Development Strategies for Emerging Cross-Border E-Commerce Platforms***

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**Abstract:** Pinduoduo's overseas version of Temu targets the North American market for the first time, rapidly expanding based on Pinduoduo's accumulated supply chain advantages and the "group low price" model in China. Just two months after its launch, it topped the shopping category on the US app store, surpassing giants such as Amazon and SHEIN. This paper explores the development strategies of Temu, a fast-growing cross-border e-commerce platform backed by PDD Holdings. It examines Temu's product, pricing, logistics, and promotional strategies in the context of global digital commerce trends. The study highlights Temu's aggressive market penetration using AI-driven pricing, supply chain efficiency, and social media marketing. Prospects for Temu involve deeper integration of artificial intelligence, market localization, and expansion into underdeveloped regions. The paper concludes by recommending a shift from low-price competition to value-based strategies, emphasizing localization, ESG compliance, and digital innovation to secure sustainable growth in the global market.

**Keywords:** Temu, E-commerce platforms, Marketing Strategy, Cross Border e-Commerce.

## **1. Introduction**

The global cross-border e-commerce sector has experienced exponential growth which was driven by technological advancements, shifting consumer preferences and globalization. As of 2025, cross-border e-commerce transactions have emerged as a pivotal component of international trade, exemplified by platforms like Temu-- a rapidly expanding entity backed by Chinese company Pinduoduo's cost-efficient supply chain and aggressive pricing strategies. And from the official data offered by Chinese Customs in the last three years, China's cross-border e-commerce imports and exports are ¥2.1 trillion, ¥2.38 trillion and ¥2.63 trillion, reflecting an 11.6% year-on-year growth, with projections indicating sustained momentum through 2025. The key drivers can be attributed to artificial intelligence, localized logistics and user-driven data analytics, enabling platforms to penetrate markets such as North America, Europe and emerging economies.

Academically, the rise of Temu highlights a paradox: while its low-price strategy disrupts traditional retail, sustainable growth necessitates a shift from volume-driven strategies to value creation through digital ecosystem integration. In this context, Temu's case serves as a microcosm of the risks and opportunities in cross-border e-commerce. Analysing its strategies which major in algorithmic pricing to user-driven acquisition to social media can provide critical insights into e-commerce development.perspex

Previous studies have shown different perspectives and approaches to cross-border e-commerce. Many of them focus on the development and challenges of CBeC and point out that promotional strategies play a key role in those cross-border e-commerce platforms. Hazarika and Mousavi conducted a full review of existing literature, aiming to answer the questions of what factors contribute to CBeC's success and what gaps need to be tackled. The summarization of the research as a framework provides guidelines on the questions above. It divides the framework into two levels, namely macro and micro level, to illustrate how those factors affect CBeC. The macro level focuses on four major groups of factors that cause success or failure in CBeCs, which include policies, culture differences, communication and monetary costs. When it comes to the micro level, it emphasizes customers' experience, the characteristics of CBeC platforms and products, and customers' beliefs/attitudes. Besides the framework, the research mentions that there is no online C2B trade like traditional e-commerce in CBeB. The intention to purchase online is determined by the kind of attitude of the consumers and how they perceive the quality of products and services. Hence, whether the platforms can meet the consumers' needs determines the motivation to purchase [1].

Gomez-Herrera et al. applied the gravity model to present the analysis of user data from the EU market and examine some options for policymakers. They found that home bias is not drastically different in the EU online markets and that the language barrier affects the most [2]. Saydam and Civelek interviewed the executives of companies (CEOs) to determine the survey questions and provided the questionnaire for a group of 55 people consisting of middle and senior e-commerce experts. In summary, cross-border e-commerce is facing problems related to taxation and customs, payment and delivery, marketing and services. A scale was presented as the result of the questionnaire, using factor loads to evaluate those problems but it still needs to be tested in different samples [3]. Goldman et al. explored the strategic orientations and digital marketing tactics in cross-border e-commerce by comparing developed and emerging markets. They conducted a questionnaire-based study during 2016-2017. In this study, 948 e-retailers responded positively and 735 of them completed the online survey. After eliminating those unqualified items, 446 samples remained and they were from 20 European countries. The study consisted of three strategic marketing orientations which were growth orientation, customer orientation and foreign market orientation. The result pointed out that foreign market orientation has a vital and positive influence on small e-tailers' international business performance in cross-border e-commerce. When fewer digital marketing tactics were applied in emerging markets, the effect on international business was stronger compared with developed markets [4]. Lee et al. used several analysis methods to analyze customer perception with big data and propose some suggestions about e-commerce. The data were derived from Chinese e-commerce companies—AliExpress, Temu and Shein during 2023-2024 through text mining techniques. The result of the data analysis mentioned that international markets chose more active and attractive activities to expand their user groups while the domestic markets focused more on market share. Some suggestions were given as a result. AliExpress needs to maintain its current strategy and actively adapt to its competitors' targeted strategy. While Temu should focus on improving the product quality and customer service in the mid-to low-cost product segments. Lastly, Shein emphasizes expanding its brand influence and improving the brand image [5]. Do et al. conducted an online survey on Vietnamese consumers using a Vietnamese social media platform to collect response data. After examining the structural equation modeling analysis and testing the hypothesis, the results confirmed that staff quality, order quality, information quality, timeliness, and price fairness all enhance customer satisfaction, loyalty, and purchase intention in cross-border e-commerce (CBeC). Moreover, the CBeC environment helps strengthen the positive link between customer satisfaction and staff quality, while weakening the positive links between customer satisfaction and both service timeliness and price fairness [6]. Wang and Ni apply the single case study methodology within a “driving motive—behavior—outcome” analytical framework. The

research data was derived from Temu's annual report, media disclosures, and capital datasets. Based on traditional internationalization theories and the growth desperation theory, they built a theoretical mechanism model of Pinduoduo's internationalization strategy, exploring the similarities and differences among e-commerce platforms like Alibaba and TikTok. The conclusion indicated that companies tend to proactively adopt new markets with closer psychological proximity when they face domestic market growth barriers [7]. Trisolvena et al. used various algorithms to analyze the daily sales data of Temu from July 2022 to August 2024. The Prophet and SARIMA achieved more accurate predictions in product demand forecasting on Temu. The results indicated that Prophet analyzes complex trends and seasonality via a modular design, with automatic outlier correction and missing-value imputation for dynamic demand forecasting, while SARIMA is effective in forecasting product demand with seasonal variations [8].

This study uses the emerging cross-border e-commerce platform Temu as a case, applying the 4P marketing framework to examine its practices in product, pricing, place, and promotion strategies, and explores the challenges and areas for improvement such platforms face in cross-border trade to achieve sustainable global expansion.

## **2. Current cross-border e-commerce market landscape**

### **2.1. Overview of the global market**

The global cross-border e-commerce market is currently undergoing a rapid phase of expansion, characterized by structural diversification, regional clustering, and increasing integration within global digital trade. According to *Cognitive Market Research (2024)*, the market size reached USD 791.54 billion in 2024 and is expected to grow at a compound annual growth rate (CAGR) of 30.50% between 2024 and 2031. This growth indicates a robust market momentum and heightened investor interest across both emerging and established economies, with the industry evolving beyond traditional B2B export models to embrace a more diversified landscape that includes B2C and C2C formats [9].

Amazon, for instance, has established a global presence in over 100 countries and regions. Through initiatives such as Fulfillment by Amazon (FBA), the platform has enhanced logistics efficiency, reducing delivery times and mitigating consumer anxiety around international purchases. Meanwhile, Chinese platforms such as AliExpress and Temu, backed by Alibaba and PDD Holdings respectively, have entered European and Southeast Asian markets by leveraging cost-effective supply chains and high-value offerings.

### **2.2. Diversification of market players**

The current cross-border e-commerce landscape is characterized by a growing variety of market participants, including platform-based companies, supply chain service providers, localized operators, and independent sellers. The dominant vertically integrated platform model is increasingly evolving into a full-chain ecosystem of collaborative value creation [10].

For example, SHEIN exemplifies the integration of a flexible supply chain with localized overseas operations. Leveraging agile garment manufacturing hubs in cities like Guangzhou and Zhongshan, the company has reduced product turnaround time to 7–10 days. It also operates local warehouses and customer service centers in the United States, offering a user experience comparable to that of domestic platforms. Similarly, the rise of independent websites supported by Shopify has enabled small and medium-sized brands to establish a decentralized presence overseas, paving the way for “brand globalization” as a transformation path for Chinese manufacturers.

### **2.3. Regional market disparities**

Cross-border e-commerce development varies significantly across regions due to differences in policy environments, consumer behavior, and infrastructure maturity.

In mature markets such as Europe and North America, consumers place a premium on brand recognition, payment security, and after-sales service. Platforms are thus required to localize extensively. For instance, in Germany, platforms must comply with strict GDPR and support SEPA payment systems. In contrast, in emerging markets like Latin America and Southeast Asia, more focus is placed on logistics penetration and the cultivation of local partnerships. In Brazil, for example, Shopee has partnered closely with Correios (the national postal service) and introduced customer loyalty programs to increase user retention and expand its consumer base.

### **2.4. Technological advancements and logistics evolution**

Technology plays a central role in driving the cross-border e-commerce sector, particularly through the integration of artificial intelligence, big data, blockchain, and automated warehousing systems, all of which significantly enhance operational efficiency and customer experience. JD International, for example, employs AI-driven inventory forecasting in its overseas business, enabling faster order fulfillment through intelligent warehouse hubs. Blockchain technology is being applied by platforms like eBay and logistics providers such as DHL to ensure traceability and transparency for high-value shipments, thereby addressing the “trust deficit” that has long plagued cross-border transactions.

### **2.5. Complex policy and cultural adaptation challenges**

Driven by concerns over data security, tax fairness, and consumer protection, governments around the world are intensifying regulations on cross-border e-commerce. As a result, globalization and localized protectionism are emerging as parallel trends. For instance, since the implementation of the EU’s Import One-Stop Shop (IOSS) scheme in 2021, all parcels entering the region must be pre-declared for VAT, forcing platforms to adjust pricing strategies and customs procedures.

Differences in brand awareness, payment preferences, and delivery expectations across markets require platforms to develop strong cultural adaptability and localization capabilities. For example, in the Middle East, due to religious and customs-related considerations, products often must be halal-certified before entering the market. Platforms need to implement filter mechanisms at the product selection stage to ensure compliance with local regulations and values.

## **3. Multidimensional strategic evaluation: an integrated analysis based on 4P**

### **3.1. Product: full-category coverage and direct supply chain integration**

Temu's strategy focuses on full-category coverage and supply chain integration, leveraging China's manufacturing advantages to offer low-cost essentials and high-value electronics. Adopting Turnkey and Hybrid models, ensures rapid product listings and fast delivery, with U.S. orders arriving within three days. In fashion, Temu appeals to young consumers with affordable and trend-driven apparel and often uses viral marketing to enhance differentiation. For example, its “Hot Girl” sets command 30-50% price premiums because of their stylish cuts. The platform’s formula— “copy hits + extreme pricing + regional adaptation”—has driven rapid growth, surpassing 300 million SKUs, and high-priced items contribute 35% of GMV. However, challenges such as market saturation and regulatory risks persist.

### 3.2. Price: take Bluetooth earphones as an example

Temu optimizes costs by centralizing manufacturing in China, reducing logistics expenses from 15-25% (typical for cross-border trade) to just 5-8%. This enables it to offer competitive pricing. For instance, white-label Bluetooth earphones are produced for \$3.5-\$4.5 and sold at \$9.99 with 30-40% margins. Additionally, its return rate remains below 8% (compared to Amazon's 15%), cutting post-sale costs by 50%. Though suppliers bear half of the shipping fees under platform pressure. Market research informs Temu's pricing strategy. Bluetooth earphones are priced 60-75% lower than competitors' \$25-\$40 models, targeting budget-conscious buyers. The platform also tailors offerings to regional markets and boasts 17 million users in Germany with high return ratings. Its pricing approach includes penetration pricing, selling at a 30% loss (e.g., earphones at \$7.99) to drive over 10,000 daily sales. While bundle deals like "Buy 2 Get 1 Free" (\$14.99) boost order values by 30%. A dynamic pricing algorithm continuously adjusts rates, ensuring Temu undercuts Shein by 20% and Amazon by 40%.

### 3.3. Place

Temu utilizes both direct and indirect sales channels, with its Turnkey Solution—where sellers supply goods while Temu manages logistics—contributing 65% of GMV. Direct traffic from its website and app makes up 44% of visits, while the Hybrid Model, allowing sellers to oversee overseas logistics, expanded to 14 new markets in 2024. KOL collaborations account for 15% of sales. Efficient logistics ensure 7-day delivery in Europe with an 8% return rate, and ERP automation has boosted order processing efficiency by 30%. Temu focuses on North America, Europe, and Southeast Asia, covering 53 countries, with products ranging from daily necessities (65% of GMV) to high-value electronics. Partnerships with logistics firms like J&T Express and YunExpress enable handling 2 million daily orders, improving delivery speed five times faster than before.

### 3.4. Promotion

Temu has rapidly built its brand through high-profile investments and targeted marketing strategies. A \$14 million Super Bowl ad campaign in 2023 sparked a tenfold surge in U.S. brand searches, propelling downloads to 13.9 million by June and making Temu the most downloaded free app in the U.S. in 2023. Collaborations with influencers across Instagram, TikTok, and YouTube have led to 50% higher video views and a 40% increase in product click rates. Its ultra-low pricing, reinforced by the catchy slogan "Shop like a billionaire," has left a lasting consumer impression. Meanwhile, referral incentives like "Invite & Earn" boosted repurchase rates by 10%, while precision ad placement—8,900 ads on Meta platforms, with 68% of views from Facebook and Instagram—helped target key demographics. Content marketing, especially short-form unboxing videos on TikTok, increased views by 50% and conversions by 25% when paired with discount codes. Localized campaigns in Southeast Asia further enhanced engagement, with the Philippines site seeing a 60% jump in product click rates.

## 4. Future outlook

Temu's trajectory in the global cross-border e-commerce landscape is poised to be significantly shaped by technological innovation, especially the integration of artificial intelligence (AI) into its core operations. In the coming years, AI is expected to evolve from a tool of operational efficiency to a strategic asset for competitive differentiation. Specifically, Temu can leverage AI for hyper-personalized marketing, dynamic pricing based on real-time competitor analysis, inventory

forecasting using predictive analytics, and intelligent customer service systems powered by natural language processing.

Moreover, the platform is likely to deepen its regional strategies by incorporating more granular localization initiatives. These include support for regional languages and dialects, adoption of local payment systems, culturally relevant marketing campaigns, and collaboration with local influencers. In markets such as Latin America and Southeast Asia, where logistical infrastructure is developing, Temu could establish strategic partnerships with local logistics firms to optimize last-mile delivery and improve service reliability.

Temu may also explore platform diversification—potentially incorporating elements of social commerce, live-stream shopping, and Web3 technologies such as token-based loyalty programs. These innovations would allow Temu not only to attract digital-native users but also to differentiate its brand positioning. The emphasis will likely shift from cost leadership toward value co-creation with consumers and ecosystem partners, signaling a more sustainable, innovation-driven growth model.

## 5. Conclusions

This paper analyzed Temu's development strategies within the broader dynamics of emerging cross-border e-commerce markets. Temu exemplifies a new generation of platform-based commerce entities that capitalize on algorithmic management, price undercutting, and aggressive expansion to rapidly capture market share. However, this strategy, while effective in short-term user acquisition, poses several structural risks, including low brand loyalty, regulatory pushback, and diminishing returns on subsidization.

The evolution of Temu must be understood not merely in operational terms but within the theoretical frameworks of internationalization strategy and digital platform governance. Its expansion follows a pattern consistent with the “psychic distance” theory, whereby firms enter culturally proximate or logistically accessible markets first. However, long-term survival in such markets demands the transformation of consumer relationships from transactional to relational, driven by trust, service reliability, and perceived value.

To that end, several recommendations are offered for Temu and similar platforms:

**Strategic Localization:** Go beyond translation and currency adaptation by embedding culturally informed business practices and regulatory compliance mechanisms.

**Data Governance and ESG:** Develop robust policies on data privacy, environmental sustainability, and supply chain ethics to meet rising consumer and governmental expectations.

**Innovation Beyond Pricing:** Invest in product innovation, service quality, and co-creation to build a defensible market position.

**AI for Experience Design:** Utilize AI not only for efficiency but also for designing customer journeys that enhance engagement, retention, and brand equity.

**Resilience-Oriented Growth:** Diversify supplier bases and logistics partners to mitigate geopolitical risks and ensure operational continuity.

In conclusion, while Temu's disruptive tactics have proven effective in the platform's initial *stages*, *sustained growth will rely on its ability to transition from cost-centric competition to a value- and innovation-driven paradigm grounded in academic and strategic best practices.*

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