

Innovation or Bubble? The Temu Supply Chain Case

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Abstract. This teaching case explores the business model of Temu, a rapidly growing e-commerce platform known for its ultra-low prices. The case delves into how Temu leverages a robust and agile “direct shipping from China” supply chain to maintain its low-cost advantage while ensuring timely delivery of products to international shoppers. Despite its remarkable growth, Temu was also facing substantial financial burden and uncertainties. The case was developed to provide a basis for discussing the latest supply chain strategies for online retailers in consideration of cost, supply chain responsiveness, and risks.

Keywords: operations strategy, supply chain management, logistics network, supply risk management.

1. Introduction

The retail sector is a significant component of the global economy. In the U.S. alone, total retail sales reached approximately US\$7.24 trillion in 2023.¹ Retailers range from supermarkets to e-commerce platforms, each with distinct business models. Traditional brick-and-mortar (B&M) stores focus on bulk procurement and face-to-face sales, while e-commerce, led by companies like Amazon and Alibaba, uses digital platforms and fulfillment networks to deliver directly to consumers. In 2023, Amazon held a dominant 37.6% share of the U.S. e-commerce market, followed by Walmart with 6.4%.²

Founded in 2015, Pinduoduo (PDD) is a Nasdaq listed Chinese online retailer that sells a wide range of products at extra-low prices in China. The company successfully used social campaigns to generate large-volume orders for numerous order-hungry suppliers.³ Despite being criticized for selling

1. <https://www.statista.com/statistics/197576/annual-retail-sales-in-the-us-since-1992/>, accessed on 07/09/2024.

2. <https://www.statista.com/statistics/274255/market-share-of-the-leading-retailers-in-us-e-commerce/>, accessed on 07/12/2024.

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counterfeit products, Pinduoduo managed to achieve 94.0 billion Chinese yuan (US\$14.7 billion) of annual sales in 2021, a 61.7% increase from 2020. As of late 2021, the company's market capitalization reached approximately US\$100 billion.⁴ At a surprising pace, the company had quickly become one of the major players in the Chinese e-commerce industry, alongside Alibaba and JD.com.

To expand internationally and establish a cross-border B-to-C platform in overseas markets, Pinduoduo, later renamed PDD Holdings, launched Temu in Boston in September 2022.⁵ Similar to Pinduoduo, Temu mainly sells goods with unknown brands at extra low prices, positioning itself as a competitor to Amazon, Walmart, and discount retailers like Dollar General. Shortly after its launch, Temu expanded to multiple other countries. As of April 2024, Temu operated in a total of 53 countries, spanning Asia, Europe, North America, Latin America, Africa, and Oceania.⁶

Since its launch, Temu has employed aggressive marketing strategies to attract new clients to its platform. Specifically, Temu invested heavily in online advertising through social media platforms, search engines, and other digital channels. In its first month of operations, Temu burned US\$140 million on marketing expenses.⁷ In the U.S., Super Bowl has historically been one of the most watched television events of the year. Temu's Super Bowl ads in 2023 and 2024 stormed America, attracting tens of millions of consumers to try out the emerging shopping app to "shop like a billionaire"⁸. In addition, Temu also invested in micro-marketing, persuading influencers to recommend its products via social channels like TikTok and YouTube.⁹ As a result, Temu's popularity soared and its app has consistently been one of the most downloaded in the U.S., with 152 million monthly users.⁹

What exactly does Temu sell? Temu actually distinguishes itself in the following offerings:

- **Product range:** Intending to serve the global markets except China, Temu offers a wide variety of products across numerous categories including apparel, beauty care, home and kitchen, electronics, and toys. For instance, there are over 2 million stock keeping units (SKUs) available on Temu's U.S. website alone.^{2,3} Furthermore, most Temu

3. Zhang, A.H., 2024. *High Wire: How China Regulates Big Tech and Governs Its Economy*. Oxford University Press. ISBN 9780197682258.

4. <https://finance.yahoo.com/quote/PDD/>, accessed on 07/11/2024.

5. <https://hbswk.hbs.edu/item/how-shein-and-temu-conquered-fast-fashion-and-forged-a-new-business-model>, accessed on 07/05/2024.

6. <https://www.etowertech.com/industry-news/temu-opens-three-new-sites-again,-reaching-53-countries.html>, accessed on July 1, 2024.

7. <https://36kr.com/p/2519372871950464>, accessed on 07/07/2024.

8. <https://www.businessinsider.com/temu-spends-millions-super-bowl-ads-effort-win-us-users-2024-2>, accessed on 07/06/2024.

9. "How Temu is shaking up the world of online shopping," BBC, 03/18/2024.

products carry unfamiliar “brand names” (called unbranded products hereafter). In terms of quality, it was reported that many of Temu products were exactly the same as those found elsewhere, and others were a little bit “junkier”.¹⁰

- Aggressive pricing: Temu products are often priced 40%-70% lower than similar items on Amazon or elsewhere. To give an example (as of 07/10/2024), for the same Anker 511 cell phone charger, the Amazon price was \$13.99 (one day delivery for Prime members), while Temu price was \$9.88 (local warehouse item, delivery: 79.3% within 4 days).
- Free shipping: Standard shipping from Chinese warehouses is free, with a \$5 credit for late deliveries beyond 11 days. Many items are also available from local warehouses with free shipping on orders over \$30.¹¹
- Return and price adjustment policies: Temu offers free returns within 90 days and price adjustments within 30 days if prices drop.

Temu’s offerings seemed well received. Global sales on Temu reached \$15.3 billion in 2023.¹² In that year, Temu captured 17% of the U.S. discount retail market, driving significant market share reductions for established players like Dollar General and Dollar Tree.¹³ In the first half of 2024, Temu’s gross merchandise value (GMV) surged to \$20 billion, surpassing its overall sales in 2023.¹⁴ It is evident that Temu has established itself as a major force in the global e-commerce market, less than 2 years after its launch.

2. Temu’s Unique Supply Chain Model

Temu’s phenomenal growth arose from its operations and supply chain strategy. Its supply chain model includes the following steps: 1) Temu negotiates with suppliers to select SKUs to sell; 2) The supplier manufactures the product(s); 3) The supplier ships the orders to Temu’s warehouses in southern China; 4) Overseas customers place orders on Temu’s website; 5) Temu ships the orders to a transfer facility in the destination country; and 6) a local logistics company (e.g., UPS and USPS in the U.S.) completes the final leg of the delivery.

10. <https://www.npr.org/2024/02/14/1230907159/temu-shopping-app-super-bowl-ads>, accessed on 07/07/2024.

11. www.temu.com, accessed on July 1 2024.

12. <https://backlinko.com/temu-stats>, accessed on 07/08/2024.

13. <https://www.linkedin.com/pulse/rise-temu-supply-chain-competitive-advantage-anna-ybkye>, accessed on 07/07/2024.

14. <https://www.scmp.com/tech/big-tech/article/3271594/pdd-owned-temus-first-half-sales-surge-us20-billion-exceeding-2023-total-report>, accessed on 07/24/2024.

Temu's model can be summarized as "a centralized consignment mode" with direct shipment from China. Temu makes centralized decisions on the supply chain network, assortment selection, pricing, stocking, and order fulfillment. Its inventory is 100% owned by suppliers until sale (called consignment inventory)¹⁵. As the first full-category retailer adopting the direct-shipping approach, Temu's inter-continental air shipping differs sharply from the bulk shipping by sea used by its competitors.

Sourcing and Manufacturing

Temu has taken advantage of several economic factors in their favor for sourcing. First, China's role as a global manufacturing hub gives Temu tremendous sourcing leverage. While consumers around the world depend on Chinese factories for a wide range of products, many small and mid-sized factories in China struggle to gain access to large overseas markets. Temu helps provide them access. Second, as growth in China has slowed in recent years, the shrinking domestic demand in China has left many factories with idle capacity. In addition, international companies have been redirecting orders to other low-cost countries (e.g., SE Asia nations and Mexico) in an effort to diversify their global suppliers and to improve supply chain resilience. Previously robust manufacturing industries in China were hungry for orders to fill their loose production schedule. Moreover, while many major economies (e.g., the U.S. and Europe) were experiencing inflation, China was embracing deflation. All these factors provided Chinese suppliers with a strong incentive to seek overseas customers and Temu has been able to engage them at low cost.⁷ Under the Temu "direct from China" mode, the suppliers have access to a simplified process – they ship the products to Temu's warehouses in southern China and Temu manages the complications of international shipping, customs clearance, duty, marketing in different countries, storage, customer service, and local delivery processes. There is a low barrier to entry – albeit at a low margin.

For each SKU, there is often a list of potential suppliers ready to work with Temu. Temu's focus is on capable factories with product development experience and manufacturing capacity. Temu's supplier relationships are largely transactional. They strive to maintain price pressure by analyzing real time price data of similar products and notifying their suppliers to reduce prices when a lower price is identified elsewhere. Therefore, the Temu price-cutting pressure on suppliers is significant and relentless.

If an SKU sells well, Temu often sources similar goods from other suppliers, forcing the factories to compete. If an SKU does not sell, Temu's

15. Battini, D., A. Gunasekaran, M. Faccio, A. Persona, and F. Sgarbossa, 2010, Consignment stock inventory model in an integrated supply chain, *International Journal of Production Research*, Vol. 48, pp. 477-500.