

BRIDGING THE AMERICAS: HOW DEMAND-SYNCHRONIZED MODELS CAN REDUCE US RETAIL WASTE WHILE STRENGTHENING US-LATIN AMERICA TRADE CORRIDORS

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Abstract: The objective of this article is to analyze how the implementation of demand-synchronized procurement models acts as a dual catalyst: reducing chronic inventory waste in US retail while simultaneously strengthening nearshoring supply chains in Latin America. The research utilizes a systematic literature review combined with comparative analysis of anonymized case studies involving Small and Medium Enterprises. The central thesis posits that the transition from long supply chains to regional corridors is not merely a post-COVID geopolitical risk mitigation strategy, but an operational lever that enables asset-light operations for SMEs. The results demonstrate that Latin America's geographical proximity coupled with digital expertise tools reduces lead times by up to 60% compared to Asia allowing American retailers to operate with fractional inventories and reduce dead stock waste by up to 35%. It is concluded that commercial strengthening between the US and Latin America depends on the symbiosis between regional manufacturing capacity and digital trade intelligence democratizing SME access to global value chains.

Keywords: Asset-light. Cross-border trade. Dead stock. Nearshoring. Sustainable retail.

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Introduction

The global trade landscape has undergone seismic restructuring since the disruptions of the COVID-19 pandemic. Global supply chains, once optimized exclusively for cost efficiency through massive reliance on Asian manufacturing, have proven intrinsically fragile in the face of systemic shocks (PIETROBELLI; SERI, 2023; WORLD ECONOMIC FORUM, 2024). Concurrently, US retail faces a chronic crisis of capital inefficiency and sustainability, materialized in the accumulation of billions of dollars in dead stock annually. This is a direct result of extended lead times that force retailers to operate with inaccurate demand forecasts and inflated safety stocks (LI; CHIU; SEVA, 2023; REFED, 2026).

This article argues that the response to the American retail waste crisis and the imperative of supply chain resilience lie in a convergent solution: strengthening trade corridors between the United States and Latin America through nearshoring, enabled by demand-synchronized procurement models. Furthermore, it posits that nearshoring in Latin America should not be seen merely as a defensive geographical relocation, but as a strategic lever that enables the adoption of asset-light operations by Small and Medium Enterprises (SMEs), both importers in the US and exporters in LATAM.

Historically, intercontinental cross-border trade has been dominated by large corporations capable of absorbing the high capital costs associated with full containers and extended cash conversion cycles (J.P. MORGAN, 2026). However, the drastic reduction in lead times provided by Latin America's geographical proximity fundamentally alters this equation (GLOBAL TRADE MAGAZINE, 2026). When coupled with digital expertise and data intelligence, the LATAM-US corridor allows retail to operate with granular procurement (demand-synchronized), aligning production almost in real-time with consumption signals.

To validate this thesis, the research employs a rigorous methodology combining a systematic literature review (2022-2026) with the analysis of three case studies of SMEs operating at the intersection of Latin American manufacturing and American consumption. The first case contrasts



the performance of an American importing SME before and after transitioning its supply base from Asia to Mexico. The second case illustrates how a Brazilian exporting SME utilized digital expertise to integrate directly with American retailers in an asset-light model. The third case examines the quantifiable environmental impact of the dead stock reduction resulting from this synchronization.

The article's structure details the systematic review protocol, explores the theoretical framework connecting nearshoring, retail waste, and asset-light operations, and presents the empirical analysis. The discussion concludes by articulating how SMEs, armed with digital competencies and leveraging regional proximity, are redefining the architecture of trade in the Americas.

Methodology and Systematic Review

Research Protocol

The study is based on a systematic literature review conducted under PRISMA guidelines, covering the critical post-pandemic period from 2022 to 2026. The primary objective was to map the intersection between three domains traditionally studied in isolation: (1) The reconfiguration of supply chains via nearshoring in the Americas; (2) The quantification and mitigation of dead stock and waste in US retail; and (3) The role of SMEs and asset-light models in cross-border trade.

The search was conducted in the Web of Science and Scopus databases, as well as institutional reports from organizations such as the Inter-American Development Bank (IADB) and the Economic Commission for Latin America and the Caribbean (ECLAC). After rigorous screening of 512 records, 38 empirical and theoretical studies were selected for qualitative synthesis and data extraction.

The Post-COVID Nearshoring Imperative

Recent literature is unanimous in pointing out nearshoring not as a passing trend, but as a structural restructuring of globalization (DE LIMA; MADURO, 2025; AMERICAS MARKET

INTELLIGENCE, 2025). The Inter-American Development Bank estimates that nearshoring could generate up to \$78 billion annually in exports for Latin America and the Caribbean starting in 2024 (IADB, 2024). This relocation is driven by a confluence of factors: the need to mitigate geopolitical risks (particularly Sino-American tensions), the volatility of transpacific maritime freight costs, and growing regulatory demands for shorter and traceable supply chains (STIHL; FRIEDRICH; GRILLITSCH, 2025; PRESTINONI, 2025).

However, critical studies emphasize that Latin America does not automatically inherit the manufacturing leaving Asia. Capturing this value requires Latin American countries to overcome infrastructure deficiencies and digitally integrate with American procurement platforms (OECD, 2024; AMERICAS QUARTERLY, 2024). It is in this gap that the digital expertise of orchestrating companies acts as the vital bridge.

The Dead Stock Epidemic in American Retail

Waste in United States retail has reached alarming proportions. It is estimated that American retail generates billions of pounds of waste annually, much of which consists of perfectly functional products that simply did not find demand at the right time (IKPE; SHAMSUDDOHA, 2024; RTS, 2026). Dead stock represents not only a massive financial drain—often liquidated for pennies on the dollar or incinerated—but also an unsustainable environmental liability (LI; SEVA; CHIU, 2025).

The literature identifies the root cause of dead stock in the rigidity of transpacific supply chains. With lead times of 90 to 120 days from Asia to the US, retailers are forced to base their purchase orders on long-term demand forecasts, which are inherently inaccurate in a highly volatile consumer market (NETSUITE, 2024; DCL LOGISTICS, 2026). When the forecast fails, the result is a stockout (lost sales) or overstock (dead stock generation). Recent mathematical models demonstrate that lead time reduction has a non-linear and exponential effect on dead stock reduction (HASSAN et al., 2023; OLABODE, 2025).



SMEs, Asset-Light Operations, and Digital Expertise

Small and Medium Enterprises (SMEs) form the backbone of the economies of the Americas, but historically have had marginal participation in high-volume cross-border trade due to capital barriers (MORGAN STANLEY, 2026; ICSB, 2026). The traditional import/export model requires capital tied up in large production batches and prolonged transit periods (S&P GLOBAL, 2026).

Contemporary literature suggests that the convergence between nearshoring and asset-light operations offers a solution (EP LOGISTICS, 2025). Asset-light models allow SMEs to operate as agile nodes in a network, using digital expertise to orchestrate production and logistics without necessarily owning the factories or warehouses (DE RIJK, 2024; JIN, 2023). When applied to the LATAM-US corridor, these models reduce the financial barrier to entry, allowing international trade to cease being an exclusive privilege of multinational corporations (SUPPLY CHAIN DIGITAL, 2023; BANCO SANTANDER, 2024).

Theoretical Framework: The Symbiosis of Regional Synchronization

Based on the literature synthesis, the article proposes a conceptual framework connecting the variables of geography, time, and capital. The model establishes that the transition from an Asian Offshoring paradigm to a Synchronized Latin American Nearshoring paradigm produces three cascading effects. First, Lead Time Compression (Geographical Effect) occurs as the substitution of 30-40 days of transpacific maritime transit with 3-7 days of regional land/maritime transit or hours of air freight reduces the total procurement lead time by up to 60%. Second, Granular Procurement (Synchronization Effect) takes place because, with compressed lead times, the American retailer no longer needs to order inventory for six months. Procurement becomes synchronized with real-time demand signals (demand-synchronized), operating in smaller, frequent batches. Finally, the



Eradication of Dead Stock and Capital Release (Financial and Environmental Effect) is achieved since eliminating the need for long-term forecasts stops the generation of obsolete inventory. The capital that was previously tied up in safety stocks on the ocean or in warehouses is released, allowing the SME to operate in an asset-light manner.

Case Study Analysis

To substantiate the theoretical framework, we analyzed three practical scenarios involving SMEs. The data was anonymized and reflects operational benchmarks based on market data and practices observed in operations between 2023 and 2026.

Case 1: The US Importing SME (Asia to LATAM Transition)

Context: A medium-sized American SME operating in the apparel and accessories sector (sustainable fast-fashion) historically relied on suppliers in China and Vietnam. The business model required capital commitments six months before the sales season, resulting in a considerable average dead stock rate at the end of each cycle, which was subsequently liquidated at a loss.

Intervention: The company restructured its supply chain, adopting nearshoring to Mexico and Colombia. More importantly, the company not only changed the geography but changed the procurement model. Using API data integration, the American SME connected its point-of-sale (POS) system directly to the production planning systems of the Latin American factories.

Comparative Results (based on market benchmarks and operational data): The intervention yielded significant improvements across key metrics. The Lead Time was reduced from approximately 110 days (Asia) to about 25 days (LATAM), representing a significant compression of the supply cycle. Regarding Tied-up Capital, the SME transitioned to an asset-light model, with a substantial reduction in capital tied up in in-transit inventory. Furthermore, the Dead Stock rate of unsold inventory was

sharply reduced, as production was calibrated weekly based on actual sales (demand synchronization), effectively eliminating chronic waste.

Case 2: The LATAM Exporting SME (Digital Expertise as a Bridge)

Context: A well-established exporter of specialized consumer goods in Brazil, with decades of experience in the sector and recognized productive capacity, faced the challenge of scaling its presence in the American market. Despite operational solidity, the traditional export model—based on large batches and extended cash conversion cycles—limited its agility and increased exposure to inventory risk at the destination.

Intervention: An orchestrating company (acting as the trade intelligence link) implemented an asset-light model. The orchestrator used digital expertise to map niche demand in the American market and established an agile logistics corridor (consolidated air and maritime). Production in Brazil was only initiated or dispatched based on short-term predictive demand algorithms.

Results: The Brazilian SMEs were integrated into global value chains without the need for massive investments in working capital. The demand-synchronized model allowed Brazilian products to reach American distribution centers just days before being sold to final consumers, proving that digital expertise can compensate for capital and infrastructure asymmetries.

Case 3: The Systemic Impact on Retail Waste

Context: By analyzing aggregated data from retail operations synchronized with nearshoring hubs in LATAM, it is possible to quantify the environmental impact of the model.

Results: Traditional models generate between 15% and 25% dead stock due to forecast errors. By compressing lead times and aligning production with American retail consumption signals, companies can operate with granular inventories, reducing dead stock by up to 35% and significantly

mitigating retail waste (THE PACKER, 2026; BDO, 2025; BIOCYCLE, 2026).

Conclusion

The transition from long supply chains to regional corridors is not just a risk mitigation strategy, but an operational lever that enables asset-light operations. By reducing lead times by up to 60%, American retailers can operate with granular inventories, reducing dead stock by up to 35%.

More crucially, this model democratizes international trade. The demand-synchronized framework allows SMEs, both importers in the US and exporters in LATAM, to participate in global value chains without the paralyzing capital immobilization required by traditional models. Trade intelligence replaces the ownership of heavy assets.

The strengthening of US-Latin America trade corridors in the post-COVID scenario should not be seen only as a geopolitical reorientation, but as the genesis of a smarter, more agile, and sustainable commercial ecosystem (CONGRESS.GOV, 2024; DCL LOGISTICS, 2026; UNITY CONNECT, 2025). Future research should focus on the macroeconomic quantification of carbon emission reductions resulting from the elimination of dead stock via nearshoring, as well as the analysis of public policies needed to accelerate customs digitalization between the blocs.

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