



A Study on disruption in India's Supply Chain due to the US trade tariff hike

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Abstract

The study examines how the 2025 tariff increase in the US, rising cumulatively to 50%, will disrupt India's supply chain with specific attention to the MSME (micro, small and medium enterprises) sector. The study uses secondary data derived from trade reports, government publications, and sectoral studies to analyze the level of disruption in India's major export categories (textiles, gems and jewellery, engineering and chemical products), all of which have a strong presence in the MSME ecosystem. The study finds that sectors that are most reliant on price competitiveness and are labour-intensive declined sharply in export orders (20 to 40%) between May and September 2025 resulting in factory closures, unemployment, and reduced foreign exchange inflows. The sectors that were considered 'strategic' (electronics and pharmaceuticals) that were not constrained by tariffs maintained a stable position. The implications of the research suggest that there are structural weaknesses in India's MSME-led supply chains and raises the need for investment in diversification, financial support, and trade initiatives.

Keywords: US tariffs, MSME exports, supply chain disruption, India-US trade, global trade

Introduction

In a globalized trade climate, the Micro, Small, and Medium Enterprises (MSME) sector is arguably the foundation of India's export economy, generating approximately 45% of the nation's total exports while employing more than 280 million people. MSME's are important touchpoints in global supply chains, particularly in labour-intensive sectors, such as textiles, gems and jewellery, and chemicals. However, in 2025, a new round of protectionism started to emerge in the global trading system when the United States implemented heightened tariffs ending with a 50% ad valorem duty on select Indian goods.

The policy was launched with the Trump administration's slogan of "America First," and it completely disrupted India's export channels. MSMEs that depend on low

Margins, limited capital buffers, and fixed buyer relationships were particularly affected. For example, diamond and textile clusters in Gujarat, garment units in Tamil Nadu, and engineering units in Maharashtra have all reported immediate losses in export orders, laid off workers, and are facing liquidity crises. The disruption goes beyond short-term trade contraction. It signifies a structural shock to India's export supply chain revealing overdependence on the US market and limited diversification capacity. This study investigates these disruptions empirically and narratively, situating them within the broader global trade realignment triggered by the 2025 US tariff escalation.

Escalating US Tariffs and the Disruption of India's Supply Chain: A Year-wise Analysis of Trade Policy Shocks (2018–2025)

Table 1: Year-wise US Tariff Hike on Indian Exports (2018–2025)

Year	US Tariff Rate on Indian Goods	Key Events / Policy Actions	Coverage/Notes
2018	2.5% – 6%	Pre-Trump base tariffs, minor sectoral duties	Stable, normal MFN rates
2019–2021	6% – 11%	Section 232 (National Security) duties (limited)	Steel, aluminum
2022	11%	Reciprocal review begins, minor increases	Narrower scope
2023	11%	No major change	
2024	11%	Early negotiations, threat of "reciprocal tariffs"	
Apr 2025	10% (baseline) + 16% planned	Announcement of "reciprocal tariffs" (delayed)	Targeted at India, delayed twice
Aug 7, 2025	25% total	Executive order, baseline + reciprocal tariff	Textiles, gems, chemicals, etc.
Aug 27, 2025	50% (peak)	Additional 25% penalty for Russian oil purchases	55–70% of Indian exports affected
Oct 2025	50%	Grace period for in-transit goods, highly enforced	Pharmaceuticals, electronics, energy exempt

- **Steady Baseline:** Tariffs averaged 2.5–6% until 2019, with minor sectoral increases under national security law.
- **First Wave (2021–2022):** Targeted duties emerged, mainly affecting steel, aluminum, and some chemicals.
- **Major Escalation (2025):** On August 27, total tariffs hit 50% for most Indian goods, a combination of a 10% baseline, a 25% reciprocal action, and a special 25% penalty. This hike is unprecedented by US standards and among the highest for any major trading partner.

- **Sectoral Impact:** About 55–70% of India’s exports to the US (especially textiles, gems/jewellery, auto components, chemicals) now face severe rates, while critical supply chain sectors like pharmaceuticals and electronics receive exemptions to safeguard US interests.

- **Global Standing:** India now faces a higher tariff barrier than China (30%) or Vietnam (20%), severely affecting its competitiveness in the US market.

2025 US Tariff Hike on Major Indian Export Sectors

Sector	Tariff Rate (2025)	Exemption Status	Impact
Textiles	50%	None	Severe contraction; mass layoffs in Gujarat and Tamil Nadu
Gems & Jewellery	50%	None	Export order collapse; significant factory closures in Surat
Chemicals	50%	None	High cost inflation; loss of US market share
Auto Components	50%	None	Major contract losses; competitiveness loss to Mexico, Vietnam
Leather	50%	None	Order cancellations; rising financial stress in MSMEs
Pharmaceuticals	0%	Exempt	No tariff hike; sector insulated
Electronics	0%	Exempt	Stable exports; critical for US supply chain
Steel/Aluminum	25%	Partial	Mostly flat products hit; long products less affected
Petroleum Products	25%	Partial	Product-dependent disruptions; moderate overall impact
Food/Seafood	50%	None	Sharp export decline for shrimp and seafood MSMEs

Literature Review

Trade disruptions resulting from protectionist policies have been studied extensively since the early 2000s. Krugman (2018) noted that tariff increases in large economies tend to cause long-term supply chain adjustments instead of temporary adjustments. Bown and Irwin (2019) [1] discussed how global trade tariff wars between the US and China caused the reconfiguration of intermediate goods networks with potential spillovers to emerging markets. In the context of India, KPMG (2025) [6] and the Global Trade Research Initiative (GTRI, 2025) [5] reported that micro, small, and medium enterprises (MSMEs) are structurally disadvantaged in the capacity to absorb trade shocks due to smaller balance sheets, reliance on export intermediaries, and lack of hedging strategies. Ravichandran (2025) [8] reports that certain sectors like textiles and diamonds, where MSMEs provide job work to other exporters, have the highest employment volatility when there are external shocks. NDTV (2025) [7] and The Economic Times (2025) [4] detail the human impact of this crisis: factory closures in Surat and Ahmedabad, layoffs of over 100,000 workers from diamond units in Gujarat, and repercussions on ancillary sectors. BBC News (2025) [2] reported a similar decrease in apparel and chemical exports. Taken together, these studies point to a pattern of MSME vulnerability under tariff-induced shocks, where survival depends on state support, access to credit, and new market linkages. Yet, there remains a research gap in systematically quantifying this impact in the context of the 2025 US–India trade confrontation. This study aims to fill that gap.

Research Methodology

Research Design

This study adopts a descriptive and analytical research design, drawing exclusively on secondary data from official government databases (DGFT, RBI, IBEF), industry associations (GJEPC, TEXPROCIL), and reliable financial media reports. Data were triangulated to assess the sectoral export performance before and after the tariff imposition.

Period of Study

The study focuses on the period January 2024 to September 2025, encompassing the pre-tariff, escalation, and post-tariff phases.

Research Objectives

1. To examine the degree of disruption in India’s MSME export supply chains caused by the 2025 US tariff hike.
2. To analyze the differential impact of tariffs across India’s major export sectors—engineering goods, textiles, gems and jewellery, chemicals, and others—with emphasis on MSME vulnerability.

Research Hypotheses

- **H1:** There is a significant negative correlation between the US tariff hike and India’s MSME export performance.
- **H2:** Tariff-affected sectors (textiles, gems, engineering, chemicals) show greater contraction in export value than tariff-exempt sectors (electronics, pharmaceuticals).

Data Sources

Secondary data were compiled from

- Government of India (Department of Commerce, DGFT)
- Global Trade Research Initiative (GTRI, 2025) [5]
- Economic Times, NDTV, KPMG Reports (2025) [4, 6, 7]
- Industry Bodies (GJEPC, EEPC, FIEO)
- International trade portals such as OEC World and Factodata.

Data Analysis and Representation

Table 1: India’s Major Export Sectors to the US (FY 2024–25) and Tariff Impact

Export Category	Export Value (USD Billion)	Share of Total Exports (%)	Tariff Impact
Engineering Goods	19.15	22.14	Severe
Electronic Goods	14.63	16.92	Exempt
Pharmaceuticals	10.51	12.15	Exempt
Gems & Jewellery	9.93	11.49	Severe
Textiles (All Garments)	5.33	6.16	Severe
Organic/Chemicals	4.19	4.85	Severe
Petroleum Products	4.09	4.73	Moderate

Sources: ClearTax (2025) [3]; GTRI (2025) [5]; Economic Times (2025) [4]

The quantitative analysis indicates that severely affected sectors engineering goods, textiles, gems & jewellery, and chemicals, represent almost 50% of India’s total exports to

the US. Following the tariff hike, export orders declined by 20–40%, reducing the monthly export value from USD 8.8 billion in May 2025 to USD 5.5 billion in September 2025 (a 37.5% fall).

Sectoral Vulnerabilities

- **Engineering Goods:** Loss of major contracts due to uncompetitive landed prices.
- **Textiles:** Severe order cancellations; factory shutdowns in Gujarat and Tamil Nadu.
- **Gems & Jewellery:** Mass layoffs in Surat's diamond polishing units; > 100,000 workers affected.
- **Chemicals:** Input cost inflation and contract losses.
- **Exempt Sectors:** Pharmaceuticals and electronics retained stability, softening aggregate impact.
- **Macroeconomic Impact:** GDP growth revised down by 0.3–0.8 pp; forex earnings fell by USD 4–5 billion.

Case studies: Gujarat's Diamond Sector

The diamond industry, concentrated in Surat and Saurashtra, illustrates the crisis's depth. With the US accounting for 32% of India's diamond exports, the 50% tariff caused a 40% drop in shipments and mass layoffs (100,000 jobs lost). Small MSME polishing units dependent on contract work were first to close. Diversification efforts into lab-grown diamonds have so far offered only partial relief.

Gujarat's Textile Sector

Textile MSMEs in Ahmedabad and Surat initially rushed shipments before tariffs rose but collapsed once the 50% rate took effect. Layoffs, idle machinery, and factory closures have spread throughout synthetic fabric and garment clusters. Competitiveness has shifted to Bangladesh and Vietnam, whose tariff burden remains much lower.

Engineering Goods and Chemicals

Contracts in auto components and specialty chemicals have been diverted to Vietnam and Mexico. MSMEs face higher input costs and lower export prices, leading to working-capital stress and reduced production capacity.

Trade Diversification and Adaptation

While India has attempted to reroute exports to Europe, Africa, and West Asia, logistical and market-entry barriers limit results. Large enterprises with global distribution networks show partial resilience, but MSMEs lack scale and compliance resources.

Macroeconomic Perspective

The tariff shock has exposed India's dependence on the US market and revealed systemic risks in its export architecture. Policymakers are pursuing multi-pronged responses: targeted MSME credit support, negotiations for tariff exemptions, and accelerated Free Trade Agreement talks with the EU and UAE.

Future Outlook on India's Export Resilience Amid the 2025 US Tariff Shock

The imposition of heightened US tariffs in 2025 has triggered a structural disruption across India's export ecosystem, particularly affecting MSME-dominated sectors such as textiles, diamonds, and seafood. Recent data from October 2025 underscores a deepening export contraction, with textile exports to the US declining by nearly 20%

month-on-month and over 10,000 MSMEs in Gujarat and Tamil Nadu reportedly ceasing operations. The diamond industry in Gujarat remains under severe distress, with over 120,000 job losses and approximately 70% of small polishing units shut down due to unsold inventories and rising debt defaults. Similarly, shrimp and seafood exporters in Andhra Pradesh and West Bengal face revenue declines of nearly 40–50%, severely impacting coastal employment and rural livelihoods. This export shock has exposed the structural fragility of India's MSME-driven supply chains marked by high input costs, currency volatility, and limited credit access compounded by a sluggish policy response. Although the government has expanded emergency credit and introduced export insurance schemes, only about a quarter of eligible enterprises have successfully accessed such relief due to procedural delays and lack of institutional reach. As global buyers, particularly in the US, shift sourcing to Vietnam, Bangladesh, and Mexico, India's share in key product segments continues to erode. Attempts to pivot towards European, Latin American, and West Asian markets have encountered compliance, logistical, and pricing challenges, further reducing short-term recovery prospects.

Looking ahead, the outlook for 2026 and beyond remains uncertain unless India undertakes decisive structural and policy interventions. Trade analysts warn that without immediate tariff relief or accelerated diversification, India's export rebound will lag behind competing economies. Recovery of lost markets may take several years as global buyers establish new long-term partnerships. Policy recommendations therefore emphasize the urgent need to fast-track pending Free Trade Agreements with the EU, UK, and Gulf states while pursuing targeted sectoral carve-outs in US negotiations. Simultaneously, deeper financial inclusion, wage subsidies, and cluster-based digital trade infrastructure are essential to strengthen MSME competitiveness and resilience. Investment in compliance assistance, logistics modernization, and skill retraining can ensure smoother market realignment and social stability amid industrial distress. Ultimately, the 2025 tariff crisis represents a defining moment in India's trade trajectory one that underscores the need to transition from reactive relief to proactive resilience. Strengthening MSMEs and reinforcing supply chain adaptability will be central to sustaining India's global trade leadership and ensuring inclusive export growth in the post-tariff era

Findings

The findings of this study reveal multiple dimensions of disruption in India's MSME-led export supply chain as a consequence of the 2025 US tariff escalation. These findings are organized under five key themes: sectoral, economic, employment, trade diversification, and policy response dimensions.

Sectoral Disruption and Export Contraction

The imposition of a 50% tariff on selected Indian goods resulted in a 37.5% contraction in exports to the US within four months (May–September 2025). The most affected sectors—engineering goods, textiles, gems and jewellery, and chemicals—are those dominated by MSMEs, where margins are low and production depends heavily on export demand.

- Engineering goods, particularly automotive components and light machinery, experienced severe order cancellations from US importers due to price escalation.
- Textiles and garments saw an immediate decline in purchase orders as US retailers shifted to alternative sourcing from Bangladesh and Vietnam, whose exports remain tariff-free.
- Gems and jewellery, a flagship MSME industry in Gujarat, suffered one of the deepest blows. The US, which accounts for 32% of India's diamond exports, drastically cut imports, leading to a decline in shipments by nearly 40%.
- Chemical exports, particularly organic and specialty chemicals, became uncompetitive due to both tariff hikes and increased global logistics costs.

Overall, these sectors together account for almost half of India's total exports to the US, amplifying the systemic shock across the MSME ecosystem.

Economic Impact and Macroeconomic Indicators

The contraction in exports led to a measurable decline in India's external trade performance.

- India's overall exports fell from USD 8.8 billion in May 2025 to USD 5.5 billion in September 2025 a loss of USD 3.3 billion in four months.
- The GDP growth forecast was revised downward by 0.3–0.8 percentage points due to trade losses and the multiplier effects on domestic industries.
- Foreign exchange earnings from the US market declined sharply, affecting the current account balance and leading to currency volatility.

These macroeconomic shifts demonstrate that tariff shocks in a major export market like the US can ripple through India's entire trade and production network, reducing both economic stability and investor confidence.

Employment Losses and Social Repercussions

The MSME sector, being labour-intensive, faced severe employment shocks.

- In Gujarat's diamond-cutting and polishing sector, over 100,000 workers reportedly lost their jobs or faced wage reductions.
- Textile units in Surat, Ahmedabad, and Tirupur either shut down or operated below 50% capacity, affecting both permanent and contract workers.
- Ancillary industries such as logistics, packaging, and raw material suppliers also faced downturns.

The cumulative effect has been a significant erosion of livelihoods, especially in semi-urban and rural clusters that depend on MSME employment. The social dimension of the tariff shock thus extends beyond trade numbers—it represents a human crisis of underemployment, income insecurity, and migration.

Limited Trade Diversification and Market Reorientation

Although India attempted to redirect exports toward Europe, Africa, and West Asia, these efforts achieved limited short-term success.

- MSMEs often lack the financial and technical capacity to comply with the regulatory and certification standards required in new markets.

- Established buyer–supplier relationships in the US are difficult to replace quickly, leading to persistent inventory backlogs.
- Competitor nations like Vietnam and Mexico filled the gap in the US market faster, eroding India's market share.

This finding highlights India's overdependence on the US market and underscores the urgent need for structured market diversification policies, including bilateral trade agreements and digital trade platforms for MSMEs.

Policy and Institutional Response Gaps

The government has initiated measures such as emergency credit support under the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) and export incentives through the Remission of Duties and Taxes on Exported Products (RoDTEP) scheme. However, these measures remain insufficient and delayed in reaching small enterprises.

- MSMEs report difficulties accessing bank credit due to risk aversion among lenders.
- No direct compensation mechanism has been established for export losses due to foreign tariff actions.
- Industry associations have urged for bilateral negotiations and temporary relief packages to stabilize export clusters, but results are pending.

These policy gaps reveal the need for a more responsive and targeted trade shock management framework.

Conclusion

The results of this research collectively lead us toward a systemic fragility in the export-driven micro, small and medium enterprise (MSME) sector in India, especially in light of sudden changes to trade policies from external partners such as the United States. The tariff increases in 2025 not only diminished trade volumes but also revealed structural inefficiencies in India's supply chain and policy framework. The outcome of the increase in tariffs resulted in lowered exports, while the long-term effect is the diminishing competition. MSMEs, which already operate on narrow profit margins, were faced with cost inflation, diminished foreign buyer access, and liquidity constraints. The drop in production and employment hindered India's growth momentum and foreign earnings capability.

This incident illustrates how disruptions in global trade can rapidly move through interconnected value chains and that relying on why the economic narrative of a country is brittle in response to sudden economic circumstances. Ultimately, the US tariff increase of 2025 serves as a stark reminder that India's growth narrative cannot only rely on external demand, especially in this age of geo-economic protectionism. Resilient supply chains, technologically empowered MSMEs, and diversified trade partnerships will serve as the future definition of India's economic security and competitiveness in global trade. This episode demonstrates how global trade disruptions can transmit quickly through interconnected value chains, highlighting the vulnerability of countries that depend on a few dominant markets for export revenues. In conclusion, the US tariff hike of 2025 stands as a stark reminder that in an era of geo-economic protectionism, India's growth narrative cannot

rely on external demand alone. Resilient supply chains, technologically empowered MSMEs, and diversified trade partnerships will be the defining pillars of India's economic security and global trade competitiveness in the coming decade.

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