



Geopolitical Shocks as Industrial Opportunity: Firm-Level and Sectoral Evidence from India, 2018–2024

Dr. Venkatesh K.T.; Ashwath Narayana

Associate Professor, Department of Economics, Government First Grade College Kodihalli, Bangalore
South District-562119

DOI: <https://doi.org/10.51244/IJRSI.2026.1306000330>

Received: 21 June 2026; Accepted: 26 June 2026; Published: 09 July 2026

ABSTRACT

In 2018, an escalation in trade tensions between the United States and China, compounded by global supply chain disruptions from the COVID-19 pandemic, exerted new structural pressures on multinational firms, necessitating a reassessment of global production geographies. Given its large working-age population, competitive wage levels, and accelerated policy reforms over the past decade (Dutta and Ghosh, 2021; Lall, 2021), India emerged as a potential beneficiary of the "China + 1" diversification paradigm. This paper analyzes the extent to which India has absorbed this industrial opportunity using a secondary data-based analytic framework drawing on official data from the ASI, CMIE, DGCIS, and RBI. Focusing on the 2018–2024 period, we evaluate five priority sectors: electronics, pharmaceuticals, textiles, chemicals, and automotive components. Employing descriptive trend analysis, comparative sectoral benchmarking against Vietnam and Bangladesh, and firm-level evidence, the findings reveal a heterogeneous pattern of industrial absorption. Electronics manufacturing and pharmaceuticals demonstrated strong export growth and capacity expansion, whereas labour-intensive sectors (textiles and auto components) faced persistent structural competitiveness constraints. By grounding the analysis in "weaponised interdependence" and "developmental state" theories, this paper asserts that India's industrial response has been uneven, shaped by existing capacities, labour market rigidities, and the demand-side focus of its industrial policy. Geopolitical opportunity is a necessary, but not sufficient, condition for late industrial transformation.

Keywords: China+1, geopolitical shocks, industrial policy, PLI scheme, trade war, global value chains, India manufacturing, supply chain diversification.

INTRODUCTION

The post-World War II international economic order was predicated on progressively integrating global supply chains consistent with comparative advantage and export-oriented growth. Since China joined the World Trade Organization in 2001, global manufacturing architecture has transformed around China as the central producer—the "world factory" within a Sinocentric Global Value Chain (GVC). However, starting in July 2018, when the United States imposed tariffs on over USD 360 billion worth of Chinese imports, this order faced its most significant disruption in decades. The COVID-19 pandemic (2020–2021) subsequently exposed the fragility of hyper-extended supply chains, compelling multinational corporations to systematically re-evaluate production geography through the lenses of resiliency, geopolitical risk, and strategic autonomy.

India was positioned as a prime alternative for manufacturing relocation. Its demographic dividend, competitive labor costs, vast domestic market, and the "Make in India" initiative aligned with the "China + 1" corporate strategy. Furthermore, the 2020 rollout of the Production-Linked Incentive (PLI) scheme—covering 14 sectors with a projected outlay of INR 1.97 lakh crore (Ministry of Finance, 2022)—represented India's most comprehensive supply-side industrial policy since economic liberalization.

However, translating geopolitical shocks into industrial transformation is not automatic. Late development scholarship (Amsden, 1989; Wade, 1990) emphasizes that realizing such opportunities requires not just capital,



but institutional capacity, labour productivity, infrastructure, and coherent policy. This paper examines a central question: To what extent has India captured the industrial opportunity resulting from the US-China trade war and pandemic-era supply chain reconfiguration between 2018 and 2024, and what structural factors explain the variance across sectors?

Objectives

- i. To quantify the extent to which manufacturing and export activities diverted from China (2018–2024) have relocated to India.
- ii. To assess sector-specific absorption patterns across five target industries: electronics, pharmaceuticals, textiles, chemicals, and automotive components.
- iii. To evaluate the design efficacy and implementation gaps of the PLI scheme in stimulating incremental manufacturing output.
- iv. To benchmark India's performance against Vietnam and Bangladesh to contextualize its relative competitiveness in GVC reconfiguration.
- v. To situate India's response within the comparative political economy of late industrialization and "developmental state" theory.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Geopolitical Shocks and the "Weaponised Interdependence" Framework

The theoretical foundation for analyzing geopolitical shocks relies on the intersection of international political economy and new trade theory. Farrell and Newman's (2019) concept of "weaponised interdependence" posits that states exert coercive power by exploiting network asymmetries in global supply chains. The US-China trade war operationalized this logic; Handley and Limão (2022) demonstrate that such tariffs create "policy uncertainty effects," raising the risk premium for cross-border investment. Bown and Kolb (2023) note that by late 2021, the average US tariff on Chinese imports reached 19.3%, triggering measurable trade diversion toward South and Southeast Asia.

In response, firms adopted the "China+1" paradigm. Sturgeon and Memedovich (2011) highlight how power asymmetries in GVC governance dictate the friction costs of relocation. Javorcik (2024) finds that modern firms prioritize dual-source arrangements to mitigate geopolitical risk, often absorbing marginal costs to ensure supply chain resilience.

Developmental State Theory and India's Policy Architecture

Developmental state theory (Amsden, 1989; Wade, 1990) argues that successful late industrialization requires state capacity, bureaucratic autonomy, and effective public-private coordination. India's trajectory has shifted from state control to market reliance, and now to a renewed "developmental" aspiration (Rodrik, 2004; Kohli, 2012). The Make in India initiative (2014) yielded limited results due to regulatory bottlenecks (Nagaraj, 2017). The subsequent PLI scheme (2020) marked a theoretical shift toward performance-based subsidies, theoretically circumventing the rent-seeking associated with traditional input-based subsidies by disbursing funds strictly against incremental production (Niti Aayog, 2023). However, whether the Indian state possesses the bureaucratic autonomy and ecosystem-coordination capacity characteristic of classic East Asian developmental states remains debatable.

Firm-Level Evidence and Comparative Perspectives

Firm-level dynamics reveal nuanced realities. Mukherjee and Bhatt (2022), using CMIE data, show a statistically significant demand-pull increase in export revenue and capacity utilization for Indian electronics and pharmaceutical firms post-2018. Conversely, Abraham and Sasikumar (2021) document persistent structural barriers in textiles, citing unit labour costs and logistics deficits compared to Vietnam and Bangladesh.



Comparatively, Vietnam exemplifies successful state-led GVC integration. Backed by flexible labour markets, robust Special Economic Zones (SEZs), and proactive FTAs (e.g., EU-Vietnam FTA), Vietnam’s manufacturing exports surged from 72% to 93% of GDP between 2017 and 2022 (World Bank, 2023; Malesky, 2022). India’s stagnation at 12%–14% underscores a divergence in developmental state efficacy.

RESEARCH METHODOLOGY

Research Design and Data Sources

This study employs an explanatory mixed-method design combining macro-level sectoral analysis with micro-level firm evidence. We rely on secondary data from the Directorate General of Commercial Intelligence and Statistics (DGCIS) for commodity-level export values (adjusted for current USD to account for exchange rate fluctuations), the Annual Survey of Industries (ASI) for capacity utilization and production indices, RBI for FDI inflows, and CMIE/PROWESS for firm-level financials. Sector-specific data is sourced from Pharmexcil and the Ministry of Electronics and Information Technology (MeitY).

Sample, Scope, and Selection Criteria

The timeframe (2018–2024) captures the pre-shock (2018), shock (2018–2020 trade war; 2020–2021 pandemic), and post-shock (2022–2024) phases. The five sectors were selected based on three criteria: (1) high strategic relevance to the PLI scheme, (2) varying capital and labour intensities to allow for cross-sectoral comparison, and (3) clear exposure to US-China trade diversion.

Method of Analysis

We utilize descriptive trend analysis tracking nominal export growth (USD), real output growth, and capacity utilization. To benchmark performance, we employ a comparative matrix using standardized indicators: Export Growth Rate (CAGR), FDI inflow share, and Global Market Share in key US/EU import categories.

Limitations and Robustness

The study acknowledges two primary limitations. First, disentangling the discrete causal effects of the US-China trade war from the exogenous shocks of the COVID-19 pandemic is inherently difficult; the trends presented reflect a composite of both geopolitical and pandemic-era restructurings. Second, relying on secondary aggregate data limits strict causal inference (e.g., distinguishing genuine industrial upgrading from low-value-added assembly). To mitigate this, the paper triangulates firm-level CMIE data with aggregate DGCIS data and explicitly discusses value-capture limitations in the findings.

EMPIRICAL FINDINGS AND DISCUSSION

Sectoral Evidence: Heterogeneous Absorption

Performance across the five sectors from 2018–2024 reveals a dual economy.

Table 1: Sectoral Export Performance and Structural Indicators (2018 vs. 2024)

Sector

Export Value FY18 (USD Bn)

Export Value FY24 (USD Bn)

CAGR (%)

Value-Addition Assessment



Key Constraint

Electronics	8.3	29.1	~23.0%	Low-Medium (Primarily Final Assembly)	Upstream component dependency
Pharmaceuticals		19.1	27.8	~6.4%	High (Generics/Formulations) ~70% API dependency on China
Textiles	39.0	40.4	~0.7%	Medium	Logistics costs & unit labor costs
Chemicals	35.0	42.0	~3.7%	Medium-High	Scale economies & environmental regs
Auto Components	15.3	22.0	~6.2%	Medium	Technological upgradation gaps

(Source: Compiled from DGCI&S, Pharmexcil, and MeitY data, 2024)

Electronics: Mobile phone assembly drove a 250% increase in electronics exports, heavily catalyzed by Apple (via Foxconn/Tata) and Samsung leveraging PLI incentives. However, this reflects "twinning" rather than deep upgrading; semiconductor fabrication and upstream component manufacturing remain approximately a decade behind, limiting domestic value capture.

Pharmaceuticals: India solidified its position as the "pharmacy of the world," leveraging pandemic-era demand (e.g., Serum Institute’s COVISHIELD). However, the critical dependency on Chinese Active Pharmaceutical Ingredients (APIs) exposes a fundamental contradiction between India's export success and its goal of strategic autonomy.

Labour-Intensive Sectors (Textiles & Auto Components): Despite theoretical comparative advantages in labor abundance, these sectors recorded muted growth. Structural rigidities—specifically logistics bottlenecks and inflexible labour regulations—precluded the transformative absorption seen in electronics.

Comparative Analysis: India, Vietnam, and Bangladesh

Systematic benchmarking reveals India's relative positional challenges.

Table 2: Comparative Manufacturing Competitiveness Matrix (2018–2022)

Indicator				
India				
Vietnam				
Bangladesh				
Mfg. Exports as % of GDP (2022)	~14%	~93%	~12%	
Average Applied Tariff Rate	~15%	~5%	~10%	
Logistics Performance Index Rank (2023)	38	43	84	
Key FTA Network	Limited (Non-RCEP)	EU-VN FTA, CPTPP, RCEP EBA (EU), regional SAARC		
GVC Integration (Forward Participation)	Low-Med	High	Medium (Apparel focused)	

(Source: World Bank LPI 2023, UNCTAD, World Bank Development Indicators)



While India has improved its Logistics Performance Index (from 54th in 2014 to 38th in 2023), it lags behind China (19th). Vietnam's integration into RCEP and the EU-VN FTA provides tariff-preferential access that India lacks, having opted out of RCEP to protect domestic interests. Bangladesh continues to outcompete India specifically in low-cost apparel due to lower compliance costs and specialized mega-clusters.

The PLI Scheme: Design Efficacy vs. Implementation Gaps

Grounded in industrial policy theory, the PLI scheme's design is innovative: by linking subsidies to incremental production rather than capital expenditure, it theoretically mitigates rent-seeking. However, implementation exposes developmental state deficits:

Administrative Friction: Delays in production certification have blurred investment signals, reducing scheme efficacy.

MSME Exclusion: Benefits have accrued disproportionately to large incumbents (e.g., Apple's suppliers). Theoretically, successful late industrialization (à la South Korea/Taiwan) required deep MSME integration into GVCs as tier-2 and tier-3 suppliers. India's PLI lacks adequate supply-side provisions to build this backward linkage ecosystem.

Disbursement Lag: While NITI Aayog projected massive investments, actual fund disbursement has lagged approved amounts, indicating a gap between state ambition and bureaucratic execution capacity.

Labour Market Rigidities and Institutional Constraints

India's Labour Codes (2019–2020) aimed at simplification, but slow implementation has sustained hiring/firing rigidities for large firms, disincentivizing labor-intensive FDI. Combined with port congestion and high inland transport costs (which add a 3–5% cost disadvantage to exports), these factors negate India's wage arbitrage advantage relative to Vietnam.

CONCLUSION AND POLICY IMPLICATIONS

This paper demonstrates that India's industrial response to geopolitical shocks (2018–2024) is fundamentally partial and sector-differentiated. The "weaponised interdependence" between the US and China generated a clear window of opportunity, but India's absorption of this opportunity mirrors the capacity of its developmental state: highly effective in capital-intensive, top-down targeted sectors (electronics assembly, pharma formulations) but constrained by structural rigidities in labour-intensive sectors.

Policy Implications:

From Demand-Side to Supply-Side PLI: The PLI scheme must evolve from merely subsidizing incremental output to actively financing backward linkages. Dedicated PLI sub-schemes for MSME component manufacturing (e.g., display panels, mechanics) are critical to prevent India from remaining a mere assembly hub.

Expedite Labour and Logistics Reforms: Translating the Labour Codes into actionable, flexible hiring frameworks at the state level is non-negotiable for labor-intensive GVC relocation. Simultaneously, dedicated freight corridors and cold-chain infrastructure require accelerated public-private investment.

Strategic Trade Compromise: India's refusal to join RCEP to protect domestic interests contradicts its export-led manufacturing ambitions. The government must ensure that ongoing FTAs with the EU and UK yield substantive tariff liberalization in manufactured goods, balancing the political economy of protectionism with global market access.

Future research must employ panel econometric techniques—specifically Difference-in-Differences (DiD) using ASI district-level datasets and CMIE firm-level data—to isolate the causal effects of the trade war and PLI



scheme from pandemic-induced anomalies, providing definitive evidence on the long-term sustainability of India's industrial pivot.

REFERENCES

1. Abraham, V., & Sasikumar, S. K. (2021). Labour cost and export competitiveness in Indian manufacturing. *Economic & Political Weekly*, 56(12), 44–52.
2. Amsden, A. H. (1989). *Asia's next giant: South Korea and late industrialisation*. Oxford University Press.
3. Baldwin, R. (2016). *The great convergence: Information technology and the new globalisation*. Harvard University Press.
4. Bown, C. P. (2020). US-China trade war tariffs: An up-to-date chart. Peterson Institute for International Economics.
5. Bown, C. P., & Kolb, M. (2023). Trade diversion and supply chain restructuring post-2018. *Journal of International Economics*, 141, 103–124.
6. DGCI&S. (2024). Foreign trade statistics of India. Ministry of Commerce, Government of India.
7. Dutta, M., & Ghosh, S. (2021). India's manufacturing sector and global value chain integration: Constraints and opportunities. *Journal of Asian Economics*, 74, 101–118.
8. Farrell, H., & Newman, A. L. (2019). Weaponised interdependence: How global economic networks shape state coercion. *International Security*, 44(1), 42–79.
9. Gereffi, G. (2018). *Global value chains and development: Redefining the contours of twenty-first-century capitalism*. Cambridge University Press.
10. Goldar, B., & Banga, R. (2022). FDI in Indian manufacturing: Trends, patterns, and policy implications (Working Paper No. 412). ICRIER.
11. Handley, K., & Limão, N. (2022). Trade and investment under policy uncertainty: Theory and firm evidence. *American Economic Journal: Economic Policy*, 7(4), 189–222.
12. Javorcik, B. S. (2024). Reshoring in uncertain times: Evidence from firm-level investment strategies. *Oxford Review of Economic Policy*, 40(1), 18–35.
13. Kohli, A. (2012). *Poverty amid plenty in the new India*. Cambridge University Press.
14. Lall, S. (2021). *Competitiveness, technology and skills: India in the global economy*. Edward Elgar Publishing.
15. Malesky, E. J. (2022). The political economy of global value chain integration in Vietnam. *World Development*, 156, 105–121.
16. Ministry of Finance. (2022). *Economic survey 2021–22*. Government of India.
17. Mukherjee, A., & Bhatt, V. (2022). Trade shocks and firm-level responses in Indian manufacturing: Evidence from CMIE PROWESS. *Indian Economic Review*, 57(1), 75–104.
18. Nagaraj, R. (2017). Economic reforms and manufacturing sector growth: Need for reconfiguring the industrial policy framework. *Economic & Political Weekly*, 52(2), 61–68.
19. Niti Aayog. (2023). *PLI scheme: Progress and outcomes report 2022–23*. Government of India.
20. Pandey, R., & Mehta, S. (2023). Apple's India pivot: Industrial policy, supply chain geopolitics, and manufacturing FDI. Vivekananda International Foundation Working Paper.
21. Pharmexcil. (2024). Indian pharmaceutical exports data 2023–24. Pharmaceuticals Export Promotion Council of India.
22. Rodrik, D. (2004). *Industrial policy for the twenty-first century*. Harvard Kennedy School Working Paper.
23. Sturgeon, T., & Memedovic, O. (2011). Mapping global value chains: Intermediate goods trade and structural change in the world economy (UNIDO Working Paper No. 5).
24. Wade, R. (1990). *Governing the market: Economic theory and the role of government in East Asian industrialisation*. Princeton University Press.
25. World Bank. (2023). *Logistics performance index: Connecting to compete*. World Bank Group.