Do China+1 Shifts Lift India's MSME Exports? Evidence from Product-Level Exposure and Firm Capabilities

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Abstract- Purpose — This paper examines whether global supply-chain diversification away from single-country dependence—popularly termed "China+1India+1"—is associated with improved export performance among Indian micro, small, and medium enterprises (MSMEs).

Design/methodology/approach — I propose a dual-track empirical strategy. First, I construct a product-level exposure index at the HS-6 level that captures declines in China's import shares across major buyer markets (United States, European Union, Japan, and ASEAN) between 2016 and 2025, and estimate a difference-in-differences model for India's export growth in treated versus less-exposed products. Second, I design a firm-level survey of exporting MSMEs to measure capabilities—quality certifications, lead times, delivery reliability, digital readiness, access to trade finance, and logistics connectivity—and test how these mediate export outcomes.

Findings — The conceptual framework predicts that India's export gains will be concentrated in products/sectors where (i) buyer markets reduce dependence on a single country, (ii) India's policy complements (e.g., production-linked incentives, testing/certification infrastructure) are strongest, and (iii) firm-level capabilities meet or exceed buyer thresholds. The paper provides an implementable measurement approach and instruments for future empirical work.

Research limitations/implications — While the study outlines a replicable quasi-experimental design, final causal estimates require access to micro-level customs data and execution of the designed survey. The paper therefore serves as a research-in-progress manuscript and a protocol for subsequent data collection.

Practical implications — Policymakers can target export-readiness programs—certifications, EDI/API adoption, and logistics upgrades—toward products and clusters with high exposure. MSMEs can use the capability checklist to prioritize investments most valued by global buyers.

Originality/value — The paper links a global sourcing reallocation phenomenon to MSME outcomes through a two-level design and offers open instruments other researchers and agencies can directly adopt.

Keywords: China+1; India+1; MSME; exports; supply chains; difference-in-differences; HS-6; capabilities

1. INTRODUCTION

Global supply chains have undergone visible reconfiguration during the past decade due to trade tensions, pandemic disruptions, and a renewed emphasis on resilience. A prominent managerial and policy response is diversification away from single-country dependence—often labeled "China+1" on the sourcing side and, more recently, "India+1" on the market expansion side. For India, which seeks deeper integration into global value chains (GVCs), these shifts may open opportunities for MSMEs that can deliver reliable quality at competitive cost and lead time.

However, rigorous evidence connecting global reallocation to MSME export performance remains limited. Much of the public discourse relies on anecdotal announcements or macro-level trends, which cannot tell us whether specific product categories with documented buyer diversification actually translate into measurable export gains for India, nor which firm capabilities and state-level ecosystems enable MSMEs to capture these orders. This paper addresses that gap by proposing an implementable measurement framework and an empirical strategy that combines product-level quasi-experimental analysis with firm-level microdata.

We make three contributions. First, we define a product-level exposure index that quantifies the extent of buyer diversification away from a single country in key end markets at the HS-6 level and link that exposure to India's export growth. Second, we

articulate a capabilities-mediated mechanism through which MSMEs translate demand shifts into realized exports, focusing on certifications, on-time delivery, digital readiness, trade finance, and logistics. Third, we highlight how subnational ecosystems—captured by export-readiness indicators—moderate these effects. Together, these contributions create a replicable blueprint for policy, industry bodies, and researchers.

2. LITERATURE REVIEW

2.1 Supply-chain diversification and resilience

Management research on supply-chain resilience emphasizes multi-sourcing, geographic diversification, and inventory buffers to mitigate disruption risks. Diversification can reduce exposure to correlated shocks but may increase coordination costs and quality variance. Recent work in international trade and operations documents how firms balance these trade-offs in the presence of tariffs, transport bottlenecks, and systemic disruptions. A key insight is that buyers switch more readily in product categories where quality is certifiable, demand is stable, and switching costs are moderate, conditions that often hold in intermediate manufactured goods.

2.2 Trade policy, industrial policy, and GVCs(Global Value Chains)

Tariff shocks and industrial policies can reconfigure value chains by altering relative costs and expectations. In emerging economies, complementary public goods—testing and certification labs, logistics connectivity, and digital trade facilitation—shape a country's ability to absorb relocated demand. Production-linked incentives (PLI), export credit guarantees, and streamlined customs can collectively strengthen the pull factors that attract new orders.

2.3 MSME export performance and firm capabilities

At the firm level, export performance is closely tied to capabilities: quality certifications (e.g., ISO 9001, IATF 16949, CE), on-time and in-full (OTIF) delivery, cycle-time reliability, digital integration with buyers (EDI/API), and access to trade finance. Empirical studies consistently find that capability upgrades precede or accompany entry into more sophisticated export markets. For MSMEs, constraints in finance, information, and logistics can limit the ability to respond to new orders even when demand exists.

2.4 Empirical identification of reallocation effects

To move beyond anecdotes, identification strategies typically combine shift-share or difference-in-differences (DiD) approaches with granular product-level or firm-level data. Event studies help validate common-trend assumptions, while heterogeneity analyses probe where effects are strongest (e.g., technology intensity, buyer markets, or policy-linked sectors). I adopt this toolkit to map product-level exposure to India's export growth and connect it to micro-level capability differences among MSMEs.

3. CONCEPTUAL FRAMEWORK AND HYPOTHESES

I suggest a two-stage mechanism. Stage 1 (market-wide): global buyers reduce single-country concentration in selected HS-6 products, reallocating a portion of demand toward alternative suppliers. Stage 2 (firm-level): Indian MSMEs in those products convert opportunities into realized exports if their capabilities meet buyer thresholds and if the state-level ecosystem reduces transaction costs.

H1 (Product-level effect): HS-6 products with larger declines in a single country's import share in major buyer markets experience higher India export growth compared with less-exposed products.

H2 (Policy complementarity): Effects are stronger in sectors aligned with active industrial policy support (e.g., PLI supply chains).

H3 (Capability mediation): At the firm level, certifications, OTIF delivery, digital readiness, trade finance, and logistics connectivity mediate the relationship between exposure and export outcomes.

H4 (State moderation): Effects are larger for firms located in states with stronger export-readiness ecosystems.

4. DATA

W propose four data pillars. (1) Product-level trade flows at HS-6 with partner breakdowns for 2016–2025, sourced from official statistical repositories; (2)

India's national export series for triangulation; (3) state-level export-readiness indicators to capture ecosystem differences; and (4) a primary MSME exporter survey with complementary interviews of buyers, export promotion councils, and logistics service providers.

Constructed variables include: (i) a China+1 exposure index measuring the decline in a single country's import share in each product across major buyer markets; (ii) India's export growth by HS-6; (iii) policy tags for products that fall within incentivized or strategic sectors; (iv) state ecosystem scores; and (v) firm-level capability indices built from survey responses.

5. RESEARCH DESIGN AND METHODS

5.1 Product-level quasi-experiment — I classify HS-6 products into treated versus less-exposed groups based on the top-quartile decline in a single country's import share across major buyer markets between baseline and post periods. A two-way fixed-effects DiD model estimates differential export growth for India in treated products, controlling for rest-of-world demand and product fixed effects. Dynamic event-study coefficients assess pre-trend validity.

5.2 Firm-level study — I survey exporting MSMEs (n≈300–600) across 6–10 states and 6–8 sectors, stratified by size and export intensity. Outcomes include growth in export value/volume, new buyers, order frequency, and price realization over the prior 12–24 months. Capability indices capture certifications, OTIF, lead times, defect rates, digital integration, access to trade finance, and logistics connectivity. Mediation is tested via structural equation modeling (SEM) and robustness checks include propensity-score weighting and sensitivity analysis.

5.3 Validity and robustness — I test alternative treatment cutoffs, partner-market subsets, placebo years, and cluster standard errors at the product level. For the micro study, we examine common-method bias and validate constructs via reliability ($\alpha \geq 0.70$), confirmatory factor analysis (CFA), average variance extracted (AVE), and HTMT ratios.

6. EXPECTED RESULTS AND CONTRIBUTIONS

I expect positive and heterogeneous effects: product categories with higher exposure to diversification should exhibit stronger India export growth, with the largest gains in sectors where policy complements are active and where domestic supplier ecosystems are dense. At the firm level, capability-rich MSMEs should demonstrate higher order conversion, lower defect rates, and improved price realization. The paper contributes by (i) operationalizing an exposure index usable by policymakers, (ii) integrating product-level and firm-level evidence, and (iii) providing open survey and interview instruments to accelerate replication.

7. POLICY AND MANAGERIAL IMPLICATIONS

For MSMEs, the results imply prioritizing investments in internationally recognized certifications, OTIF improvement, digital integration (EDI/API), and trade-finance readiness. For state and central policymakers, a granular exposure map can guide cluster-specific interventions—testing labs, export facilitation, and logistics corridors—while export credit and risk-mitigation tools enable firms to accept larger or more demanding orders. Buyer–supplier matchmaking and supplier-development programs are likely to have the highest payoff in highly exposed product categories.

8. LIMITATIONS AND FUTURE RESEARCH

Our design relies on publicly available product-level data and a new primary survey; full causal identification would benefit from customs microdata and buyer-level panels that capture purchase-order dynamics. Future work should extend the analysis to competing supplier countries, incorporate transport-cost shocks and certification-lab capacity at fine geographic levels, and explore firm-product match data for richer heterogeneity.

9. CONCLUSION

This paper advances an actionable framework to test whether diversification away from single-country dependence in global supply chains translates into higher MSME exports from India. By combining a product-level quasi-experiment with a capabilities-focused firm-level study, we aim to move the debate from announcements to measurable outcomes and to identify the policy and managerial

levers that convert opportunity into export performance.

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