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MSMEs and Global Value Chains in India: Opportunities, Challenges, and Policy Imperatives

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ABSTRACT

Micro, Small and Medium Enterprises (MSMEs) form the economic backbone of India. MSMEs contributes approximately 30% of Gross Domestic Product (GDP), over 45% of total exports and gives employment to more than 26 crore people. Global Value Chains (GVCs) where production is broken into specialised stages across countries. GVCs provides MSMEs a path towards international trade. Yet India's GVC participation stays well below East Asian and South-East Asian peers. This paper examines what Indian MSMEs stand to gain from GVC integration, what holds them back, and whether recent government schemes like the Production Linked Incentive (PLI), Udyam Registration, the Government e-Marketplace (GeM) and the Trade Receivables Discounting System (TReDS) are delivering results. Drawing on secondary data from the Ministry of MSME, the Press Information Bureau (PIB), the Organisation for Economic Co-operation and Development's (OECD) Trade in Value Added (TiVA) database, the Small Industries Development Bank of India (SIDBI), and the Directorate General of Commercial Intelligence and Statistics (DGCIS), the paper argues that while India's policy framework has improved since the pandemic, structural problems around credit access, outdated technology, high logistics costs, and widespread informality continue to block most MSMEs from global production networks.

Keywords: *MSMEs, Global Value Chains, PLI Scheme, Udyam Registration, India, Trade Facilitation, Viksit Bharat*

1. Introduction

Consider a shirt sold in New York. Its cotton may come from India, its yarn from Vietnam, its fabric from Bangladesh, and its stitching from Cambodia. That is a Global Value Chain in action. Instead of one country doing everything different countries handle different production stages. The OECD estimates that around 70 per cent of world trade today moves through such chains (OECD, 2023). India wants to become a serious player in this system. The Make in India, Atmanirbhar Bharat (Self-Reliant India), and Digital India campaigns all push in that direction. The MSME sector sits right at the centre of this ambition because it is India's second-largest employer after agriculture. The Ministry of MSME Annual Report 2024-25 puts the numbers in perspective: MSMEs contribute 30.1 per cent of India's GDP, account for 45.73 per cent of total exports, and employ over 26 crore people spread across an estimated 7.34 crore enterprises (PIB, 2025a). The trouble is that India's actual involvement in GVCs does not match this domestic strength. To measure GVC participation, economists track two things. Backward participation asks: how much of the raw materials and parts used in India's exports actually came from abroad? Forward participation asks: how much of what India exports gets used as an input by some other country's exporters? The OECD TiVA database (2023 edition) shows India's backward participation at about 17.2 per cent for 2020, while forward participation has hovered around 15 to 16.5 per cent in recent years. Compare this with the Association of South-East Asian Nations (ASEAN) countries, where backward participation alone reaches 30.9 per cent (ERIA, 2024). The gap is hard to ignore.

This paper asks a simple question: what prevents Indian MSMEs from capturing a larger share of global production networks and are the policies introduced after 2020 making any real difference?

2. Review of Literature

Research on GVCs and small enterprises in developing countries has grown rapidly over the last twenty years. Gereffi, Humphrey, and Sturgeon (2005) laid the groundwork by identifying five ways in which lead firms govern their global supply networks: through market relationships, modular contracts, relational partnerships, captive arrangements where small suppliers depend on a single buyer, and full hierarchical control through subsidiaries. Most later work on small firm participation in GVCs builds on this classification. The OECD (2008) published one of the earliest focused studies on this subject, covering several countries including India. Its core finding was that GVC participation does not happen on its own. Governments must actively support small firms through easier finance, better technology, and stronger institutions. Without these building blocks, small enterprises simply cannot meet the quality, cost, and delivery standards that global buyers demand. Turning to India, Mukherjee and Mukherjee (2022) evaluated two decades of government policy from 2000-01 to 2020-21. Their empirical analysis painted a mixed picture. The number of schemes and programmes had grown. But the actual effect on MSME exports and GVC participation was disappointing. They found that poor implementation, low awareness among small firms, and deep-rooted structural problems diluted the results. They argued that India should aim to raise the MSME share in exports to 60 per cent. Ray and Miglani (2020), working at the Indian Council for Research on International Economic Relations (ICRIER), added an important detail. India's GVC profile was lopsided. The country was doing more assembling of imported parts for re-export, and less of supplying intermediate goods to other countries. In other words, India was buying from the world's production chains more than it was selling into them. Banga (2013) had spotted this problem earlier. She showed that India was earning less value from its GVC participation than the raw trade numbers suggested. Veeramani and Dhir (2017) confirmed the same: even as India integrated more deeply into international production networks, the share of genuinely Indian value in its manufactured exports was actually falling. Reddy and Sasidharan (2020) examined what separates an Indian MSME that participates in GVCs from one that does not. The biggest factor was access to formal bank credit. Firms that could invest in modern machines and hire trained workers were far more likely to join a global chain. Biswas (2014) and Hamid (2017) reported the same from different angles. Recently, Ramachandran, Chandramohan, and Taibangnganbi (2024) looked at fresh numbers. India's share of world exports did grow from 1.7 per cent in 2018 to 2.1 per cent in 2022. But the share of value that India actually earned from those exports barely moved, crawling from 1.7 per cent in 2014 to just 1.82 per cent in 2023. India was exporting more, but not earning proportionately more. Yeung and Coe (2015) approached the question from a different angle altogether. They argued that market access alone does not guarantee successful GVC participation. Firms also need what they called institutional readiness: the ability to comply with international quality standards, protect intellectual property, and meet regulatory requirements of importing countries. For Indian MSMEs, where most firms operate informally and rarely hold international certifications, this is a real problem. Taken together, the literature agrees that GVCs present a genuine opportunity for small firms in developing countries. But a clear gap remains. We know the opportunity exists. What we do not know well enough is whether the specific policy tools India rolled out after 2020 are actually helping MSMEs grab that opportunity. This paper tries to fill that gap.

3. Data Sources and Methodology

This paper relies entirely on secondary data from government and multilateral sources. These include the Ministry of MSME Annual Report 2024-25, the PIB, the National Statistical Office (NSO), the DGCIS, SIDBI, the OECD TiVA database (2023 edition), and reports from the Economic Research Institute for ASEAN and East Asia (ERIA). The approach is descriptive. It tracks trends in MSME contribution to GDP, exports, and employment alongside India's GVC participation indicators over time, and examines policy interventions introduced since 2020.

4. The MSME Sector in India: Scale and Economic Contribution

India revised its MSME classification criteria in June 2020 under the Atmanirbhar Bharat Abhiyaan. Earlier, enterprises were classified only by their investment in plant and machinery. Now, annual turnover is also considered. A micro enterprise, for instance, must have investment up to Rs. 1 crore and turnover up to Rs. 5 crore. This change brought more firms into the MSME fold and pushed many informal units toward registration.

Table 1: Share of MSME Gross Value Added in India's GDP (in per cent)

Financial Year	MSME GVA as % of GDP	MSME Mfg. GVA as % of All India Mfg. GVA
2017-18	29.7	36.8
2018-19	30.5	37.0
2019-20	30.5	36.6
2020-21	27.2	36.9
2021-22	29.2	36.2

Source: Ministry of Statistics and Programme Implementation; PIB (2024)

Table 1 shows how hard COVID-19 hit the sector. The MSME share of GDP fell from 30.5 per cent in 2019-20 to 27.2 per cent in 2020-21. It recovered partially to 29.2 per cent the following year, but has not yet returned to pre-pandemic levels. This matters for GVC discussions. If small firms buckle this easily under shocks, global buyers will hesitate to rely on them as stable links in their supply chains.

Table 2: Share of MSME Specified Products in India's Total Exports (in per cent)

Financial Year	MSME Export Share (%)
2019-20	49.77
2020-21	49.35
2021-22	45.03
2022-23	43.59
2023-24	45.73
2024-25 (up to May 2024)	45.79

Source: Directorate General of Commercial Intelligence and Statistics; SIDBI Report (2025)

The export numbers tell a more troubling story. MSME products made up nearly half of India's exports in 2019-20. That share dropped steadily to 43.59 per cent by 2022-23. It has since recovered to 45.73 per cent. But here is the catch: India's total exports grew by over 44 per cent during these same years, jumping from roughly USD 313 billion to over USD 450 billion. The MSME sector could not keep up with that growth. Larger firms and sectors like petroleum and chemicals grabbed the bulk of this export surge. Mukherjee and Mukherjee (2022) had warned about exactly this sort of outcome. On the brighter side, the push toward formalisation is gaining ground. By December 2024, the Udyam Registration Portal had recorded 5.77 crore MSMEs, including informal micro-enterprises registered through the Udyam Assist Platform. Employment reported by these registered MSMEs stood at 20.39 crore as of July 2024 (PIB, 2024). In total, over 6.5 crore MSME units now account for about 28 crore jobs (PIB, 2025a).

5. India's GVC Participation: Where Do MSMEs Stand?

The OECD TiVA database (2023 edition, covering data up to 2020) offers the most reliable picture of India's position in global production networks. India's backward participation, meaning the share of imported inputs in its exports, stood at 17.2 per cent. This is higher than Japan (13.3 per cent) and Australia (9.4 per cent), but falls well short of the ASEAN average of 30.9 per cent. India's forward participation, meaning the share of Indian exports used as inputs in other countries' exports, hovered around 15 to 16.5 per cent (ERIA, 2024). In manufacturing, a curious pattern appears. Backward linkages were strong at 27.0 per cent, meaning India imports many parts for its manufactured exports. But forward linkages were only 9.5 per cent. Australia managed 21.0 per cent, Japan 18.8 per cent, and even ASEAN reached 10.6 per cent. India buys from the world to assemble and export, but does not sell enough intermediate goods that other countries use in their exports. Ray and Miglani (2020) described this well: India is trapped more in assembly than in supplying. The employment numbers are perhaps the most concerning. In 2020, only 11.6 per cent of India's total workforce, about 61 million workers, was producing goods or services meant for foreign buyers. The OECD average was 27.4 per cent. India's own figure in 2008 was 16.7 per cent (OECD, 2023). So GVC-linked employment in India has actually fallen, not risen. Four barriers hold MSMEs back from deeper GVC engagement. First, credit. SIDBI (2025) estimates that the gap between what MSMEs need and what they can borrow stands at roughly Rs. 30 lakh crore. Most micro firms still borrow informally. Second, technology. Small firms typically run old machines and spend almost nothing on research. They struggle to meet the quality benchmarks that global buyers set. Third, logistics. Moving goods from a small factory in, say, Ranchi to an export port remains expensive, and these costs eat into price competitiveness. Fourth, and this may be the most basic problem of all, micro-enterprises make up over 97 per cent of all registered MSMEs. These are very small operations. Most do not have the scale to accept large export orders or get international quality certifications (Reddy and Sasidharan, 2020; Biswas, 2014).

6. Policy Interventions Since 2020

The government has rolled out a broad set of interventions since 2020. Some show early results. Others need more time or sharper design.

6.1 Production Linked Incentive (PLI) Scheme

Launched in April 2020 across 14 sectors, the PLI scheme offers financial incentives to manufacturers who meet production and investment targets. By March 2025, 806 applications had been approved and actual investments had reached about Rs. 1.76 lakh crore. Total sales by PLI beneficiaries crossed Rs. 16.5 lakh crore, and the scheme created over 12 lakh jobs. Exports under PLI crossed Rs. 5.31 lakh crore (PIB, 2025b). What matters most for this paper is that 176 MSMEs are among the approved beneficiaries, spread across bulk drugs, medical devices, pharmaceuticals, telecom equipment, white goods, food processing, textiles, and drones. Big PLI anchor units are now building vendor networks around themselves, and many of these smaller vendors are MSMEs.

6.2 Udyam Registration and Formalisation

Before an MSME can access government loans, subsidies, or procurement preferences, it needs to be formally registered. The Udyam Registration Portal, launched in July 2020, makes this free and paperless. By December 2024, 5.77 crore MSMEs had registered. A separate platform called Udyam Assist, started in January 2023 for the very smallest informal enterprises, brought in another 2.78 crore registrations in just two and a half years (Ministry of MSME, 2025). Yeung and Coe (2015) argued that institutional readiness is a prerequisite for GVC participation. Udyam is India's answer to that problem, and it is working at scale.

6.3 Trade Facilitation and Credit Support

Working capital shortage is one of the top reasons MSMEs fail to deliver export orders on time. The Trade Receivables Discounting System (TReDS) addresses this by letting MSMEs convert their pending bills from buyers into immediate cash. The Government e-Marketplace (GeM) gives MSMEs easier access to government contracts. The Raising and Accelerating MSME Performance (RAMP) programme, with Rs. 6,000 crore over five years, strengthens state-level capacity to support small firms. On credit, the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) now offers collateral-free loans up to Rs. 5 crore, with a record Rs. 3 lakh crore in guarantees extended in 2024-25 (PIB, 2025a). The Micro Units Development and Refinance Agency (MUDRA) loan ceiling has been raised from Rs. 10 lakh to Rs. 20 lakh for borrowers who repaid earlier loans.

7. Emerging Opportunities

The global picture has shifted in India's favour. After COVID-19 disrupted supply lines worldwide, multinational companies started looking for alternatives to China. The 'China Plus One' strategy, where firms maintain Chinese suppliers but add a second source country, is now shaping real purchasing decisions. Tensions between the United States and China, and the back-and-forth on tariffs, have only deepened this trend.

India's electronics sector shows what becomes possible. Under PLI, electronics production jumped 146 per cent, from Rs. 2.13 lakh crore in 2020-21 to Rs. 5.25 lakh crore in 2024-25. Mobile phone exports surged nearly eight times. In pharmaceuticals, India went from a Rs. 1,930 crore deficit in bulk drugs in 2021-22 to a Rs. 2,280 crore surplus by 2024-25 (PIB, 2025b). These numbers show that India can move up in global supply chains when the policy push is strong enough.

MSMEs can benefit from this shift by becoming second and third-tier suppliers to the big PLI anchor units. Auto components, textiles, food processing, medical devices, and drones all have space for smaller firms. India is already the world's third-largest startup ecosystem, with over 1.57 lakh recognised startups, and more than half of them come from smaller cities where MSME density is highest (SIDBI, 2025). Programmes like Zero Defect Zero Effect (ZED) certification, MSME Innovative, and Lean manufacturing are helping some firms upgrade their production processes and compete at a global level.

8. Conclusion and Recommendations

The MSME sector is central to whether India can achieve its GVC ambitions and the broader Viksit Bharat 2047 goal. The policy toolkit has improved a great deal since 2020. But the distance between what exists on paper and what happens on factory floors remains large. A credit shortfall of Rs. 30 lakh crore, a sector where over 97 per cent of firms are micro-sized, outdated production technology, and expensive logistics all hold MSMEs back. The declining MSME export share between 2020 and 2023, and the fall in GVC-linked employment from 16.7 per cent in 2008 to 11.6 per cent in 2020, confirm what the research literature has been saying: expanding the number of policy schemes does not automatically translate into better outcomes for small firms (Mukherjee and Mukherjee, 2022; Ramachandran et al., 2024).

Five recommendations flow from this analysis. First, a dedicated MSME Export Promotion Fund should target small firms entering GVC-linked markets in auto components, electronics, technical textiles, and processed foods. Second, the PLI scheme should create a separate tier with lower targets for MSMEs, since only 176 out of 806 approved firms are MSMEs. Third, cluster-based technology centres should be set up in high-MSME districts, offering shared testing labs and quality certification. Fourth, the Udyam Assist Platform needs stronger links to skill development so newly registered enterprises can find trained workers. Fifth, India should pursue regional value chain integration with ASEAN through trade agreements addressing small firm supply chain needs. India's GVC integration with ASEAN grew by 1.3 percentage points of gross exports between 2010 and 2020 (ERIA, 2024). There is momentum to build on.

India's MSME sector has the numbers and the entrepreneurial energy. It now also has a growing set of policy supports. What it still lacks is the on-ground execution that connects 7.34 crore enterprises to the opportunities that global production networks offer. Closing that gap is the real work ahead.

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