

From Assembly Hub to Innovation Hub: Evaluating ‘Make in India’ in the Context of Global Supply Chain Reconfiguration

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ABSTRACT

Because of the epidemic, nations are not getting along, and new technologies are emerging, which is changing how goods are being created and sold. Cause of which the way global value chain function is being altered. India aspires to become a country where new and innovative things are produced rather than a place where things are assembled economically. India's reaction to this change is examined in this study.

The report examines India's involvement in global value chains related to electronics, healthcare, automobiles and renewable energy. It also examines the government's efforts to support businesses in India, such as funding the construction of ports and highways and facilitating business dealings. India is still primarily undertaking basic duties, but it has improved at enticing foreign businesses to invest and export goods to other nations. India continues to rely on foreign countries for parts and technology. It needs sufficient ports, roads, and a trained labour force.

According to this article, India must concentrate on developing leading-edge technologies, doing research and designing products if it really needs to improve. India must assist its own businesses in innovating, engage businesses, train employees in new skills and facilitate commerce with other nations. We can better understand how India can strengthen and increase the competitiveness of its economy thanks to this study. It examines how India can fortify its manufacturing sector and collaborate with other nations to strengthen global value chains.

Keywords: *Global Value Chains, Make in India, Supply Chain Changes, Industrial Development, Innovation, Foreign Investment, Infrastructure, Skill Development, Manufacturing Growth and Economic Competitiveness.*

1. Introduction

1.1 The Big Change in How the World Makes Things

The way things are made and traded around the world is not the same as it was ten years ago. The time for harsh cuts to costs is over. Now, the most important things are how reliable and strong a region is (KPMG, 2026). Global Value Chains (GVCs) still make up almost 46.3% of all international trade (WTO, 2025), but the “how” and “where” of production are changing. The “China Plus One” strategy, which has been talked about a lot, is the result of multinational corporations looking for new places to make things because recent health crises and geopolitical tensions have shown how weak traditional manufacturing bases are (OECD, 2025; Frigate, 2025).

This change is more than just a trend; it is a historic chance for India. The country is now a “pivotal” player in this new geoeconomic order, not just an up-and-coming market (KPMG, 2026). India's appeal stayed strong, even though global productive capital was slowing down. The UNCTAD World Investment Report 2025 says that in 2024, India was the 15th most popular place for foreign direct investment (FDI). Recent policy papers say that the real goal now is “strategic necessity.” This means becoming a global innovator that the world can't ignore, not just using new technologies (Ministry of Finance, 2026; Grant Thornton, 2026).

1.2 How Value Moves Along the Production Chain

The “Smiling Curve” by Stan Shih shows how value moves along the production chain, which helps us make sense of this change. The “edges”—the beginning of R&D and design and the end of branding and services—bring in the most money. The central assembly stage has the smallest margins (Meng et al., 2020). Historically, India entered these chains through the low-value middle segment, often with “environmental downgrading,” where developing countries take on assembly tasks that produce a lot of pollution (Riccio et al., 2025).

According to the Economic Survey 2025-26, India is now moving towards “Strategic Indispensability” (Ghosh, 2026). This means moving up the curve so that Indian parts become nodes in the global system that can’t be replaced. Some people say that the curve is starting to “smirk” or flatten out because of AI and 3D printing. This makes the distribution of value more even, which India is in a good position to take advantage of (Rehnberg & Ponte, 2025).

2. Research Methodology

This study employs a qualitative research design to delineate India’s evolving role in global manufacturing. The methodology focuses on a thematic analysis of secondary data derived from reputable institutional sources. The Economic Survey 2025–26, NITI Aayog’s Vision 2030 sectoral reports, and global benchmarks from the WTO, OECD, and UNCTAD are all examples of these.

We had to put together information on GVA growth, sector-specific FDI, and the results of different Production Linked Incentive (PLI) schemes. The paper uses global investment trends and domestic statistics to figure out where India stands on the value curve in four important areas: electronics, automotive, MSMEs, and digital infrastructure. This method makes sure that the policy suggestions are based on the most up-to-date and reliable data available for this technical session.

3. Analysis and Results: India’s Participation in Global Value Chains

3.1 Macroeconomic Fortitude

India is still the major economy in the world that is growing the fastest. This is because it has a big market at home and a middle class that is expected to buy the second most things in the world by 2030 (IBEF, 2025; Invest India, 2024). When it comes to greenfield investments, India is especially strong. The country announced over 1,000 projects in 2024, making it the fourth most active country in the world (UNCTAD, 2025).

Indicator	FY 2024-25	FY 2025-26 (Projected)
Real GDP Growth Rate (%)	6.4%	6.3% – 6.8%
Industry GVA Growth (%)	5.9%	7.0% (H1)
Manufacturing GVA Growth	7.72% (Q1)	9.13% (Q2)
High-Tech Share of Manufacturing GVA	46.3%	Expanding
<i>Source: Economic Survey 2025-26; Invest India.</i>		

3.2 Electronics: A Success Story

The electronics industry is clearly ahead of the rest of India’s GVC upgrading efforts. Production has gone up six times in the last ten years, and by 2024-25 it will be ₹11.3 lakh crore (PIB, 2025). Mobile phone manufacturing has been the real driver here, with production value rising 28 times to ₹5.45 lakh crore in the same time (PIB, 2025).

In the second quarter of FY 2025-26, India passed China to become the top exporter of smartphones to the US. It was a big deal (DD News, 2025). The government has raised the Electronics Components Manufacturing Scheme (ECMS) budget to ₹40,000 crore to make sure that this growth isn’t just in assembly. This money will go towards the domestic component ecosystem (PIB, 2026).

3.3 MSMEs: The Backbone of the Economy

Small and medium-sized businesses (MSMEs) are the real backbone of the economy, making up 35.4% of manufacturing output and almost 49% of all exports (PIB, 2025). To make cross-border e-commerce easier, big problems for these smaller players, like the ₹10 lakh limit on courier exports, have been taken away (PIB, 2026). The TEAM Initiative and ONDC are two programmes that are helping these companies go from being tier-three suppliers to real innovation partners (PIB, 2025).

3.4 Automotive and Green Mobility

India is now making the difficult switch to electric vehicles (EVs) as the world's fourth-largest maker of cars. The government is putting together a domestic battery value chain with the help of the PM E-Drive and PLI for ACC Battery Storage. This will cost more than ₹44,000 crore (PIB, 2024). Industry leaders are reacting strongly. As an example, Tata Motors is putting ₹18,000 crore into its EV division to reach a goal of 25% EV sales share by 2025 (IBEF, 2025).

4. What We Think: Challenges and Opportunities

4.1 The "Agentic" AI Transformation

One important thing we learned from our analysis is that technology in Indian industry has gone beyond just automating tasks. Agentic AI is on the rise. These are systems that not only point out risks but also plan and carry out workflows on their own (Financial Express, 2025). In manufacturing, these "AI agents" have already shown a 66% drop in defects (ASSOCHAM, 2025). This change is very important because it changes the Indian factory from a "low-cost labour" site to a "high-precision execution" hub, which is necessary for it to become an irreplaceable part of global supply chains.

4.2 Environmental Responsibility and the Smile Curve

Interestingly, moving up the value chain can also lead to long-term success. The "Environmental Smile Curve" idea shows that the carbon footprint is usually biggest in the middle of the assembly process (Riccio et al., 2025). This means that India's push for high-tech design and research and development (R&D) is good for the environment as well as for business. India can grow its economy and lower its carbon intensity per unit of value added by getting into high-value, low-emission markets (OECD, 2025).

4.3 The Gap in Innovation

The R&D deficit is still the biggest problem. India's GERD is stuck at 0.64% of GDP, but the real problem is the "Valley of Death," which is the gap between early-stage research (TRL 1-3) and market readiness (TRL 7-9) (Samreen Wani, 2026). India has a lot of smart people and talented people, but we don't always turn that into products that people want to buy. The new ₹1 lakh crore RDI Fund is a brave attempt to fix this, but it will only work if it can get the private sector to spend more on research and development. Right now, the private sector only spends 41% of all R&D money (Ministry of Finance, 2026).

5. Conclusion and Policy Recommendations

The path from discussion to discovery is clear, but we're still mid-journey. To have a big say in how the new global economy works, India needs to do the following:

- **Setting "Quality Gold Standards":** To gain the trust of people all over the world, India needs to create its own high-end quality certifications, like the Indian Space Quality Standard, that are accepted around the world. This will make us less dependent on audits from other countries (PIB, 2026).
- **Vertical Integration in High-Tech:** To cut down on the 80% reliance on imports for important parts like display modules and sensors, we need to expand programmes like the ECMS and Semiconductor Mission.
- **Bridging the Translation Gap:** The RDI Fund should be used to build Translational Research Centres that help small and medium-sized businesses and startups move their products from the prototype stage to the market.
- **Human Capital for Industry 4.0:** At least half of the people who work in manufacturing need to learn new skills right away so they can use Agentic AI and advanced robotics.

In conclusion, India's path to 2026 is strong and moving towards more strategic depth. By turning our population's wealth into new capital, we are making the country a key, irreplaceable centre in the global trade network.

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