Grant Thornton | 90 in Bharat and beyond

#GTBharat SHAPING VIBRANT INDIA

Engineering and Industrial Products

Quarterly newsletter

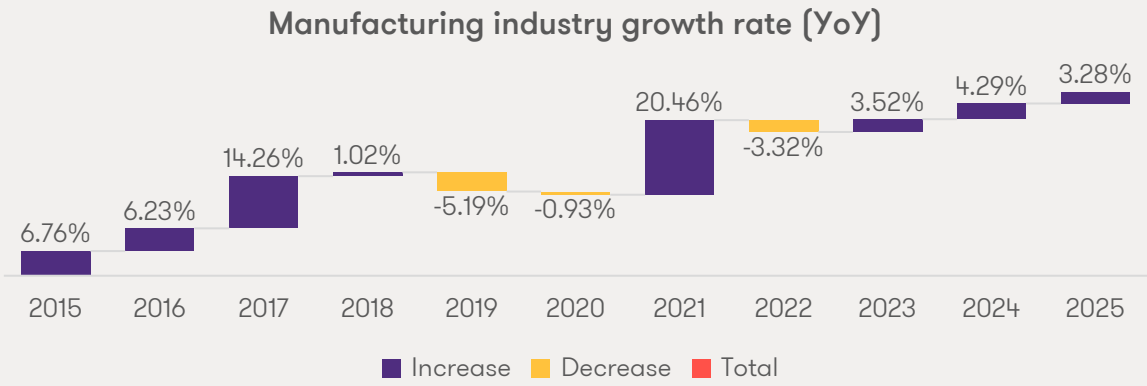
July 2025

The engineering sector continues to play a crucial role in India's industrial growth. A strong push toward self-reliance is evident with multiple initiatives aimed at enhancing manufacturing in India while reducing import dependency. Production growth has been steady, with electronic goods seeing remarkable growth — including 99% of smartphones being manufactured locally. In light of this, there is a need to ensure that the right manufacturing technology and talent are available along with a robust ecosystem to enhance productivity, quality, and cost competitiveness. At the same time, India's participation in global value chains is becoming increasingly vital, allowing domestic industries to integrate with international production networks, improve efficiencies, and drive higher-value exports. Strengthening these linkages, coupled with investments in Industry 4.0, digital transformation, and innovation-driven strategies, will not only elevate India's competitiveness but also reinforce its role as a key player in the global manufacturing landscape.

Shridhar Kamath
Partner and Industry Leader,
Engineering and Industrial Products
Grant Thornton Bharat

Introduction to the manufacturing and engineering sector in India

The manufacturing sector in India is a key driver of economic growth. In India, the Index of Industrial Production (IIP) tracks the growth rates of three key sectors — mining, manufacturing, and electricity — on a month-on-month basis. Manufacturing remains the largest contributor, accounting for 77.6% of total industrial production. The IIP stood at 152 in April 2025, up from 148 in April 2024. Among the sectors, manufacturing, which carries the largest weight in the index, grew 3.4% in April 2025, up from 3.0% in March 2025. Within the manufacturing sector, 16 out of the 23 industry groups recorded positive growth. The manufacture of machinery and equipment not elsewhere classified (n.e.c.) led the gains with a 17.0% increase.[1][2][3][4]



*Projected growth rates represented for 2024 and 2025.

[1] Source: PIB; PIB 2; PIB 3; PIB 4; India Briefing;

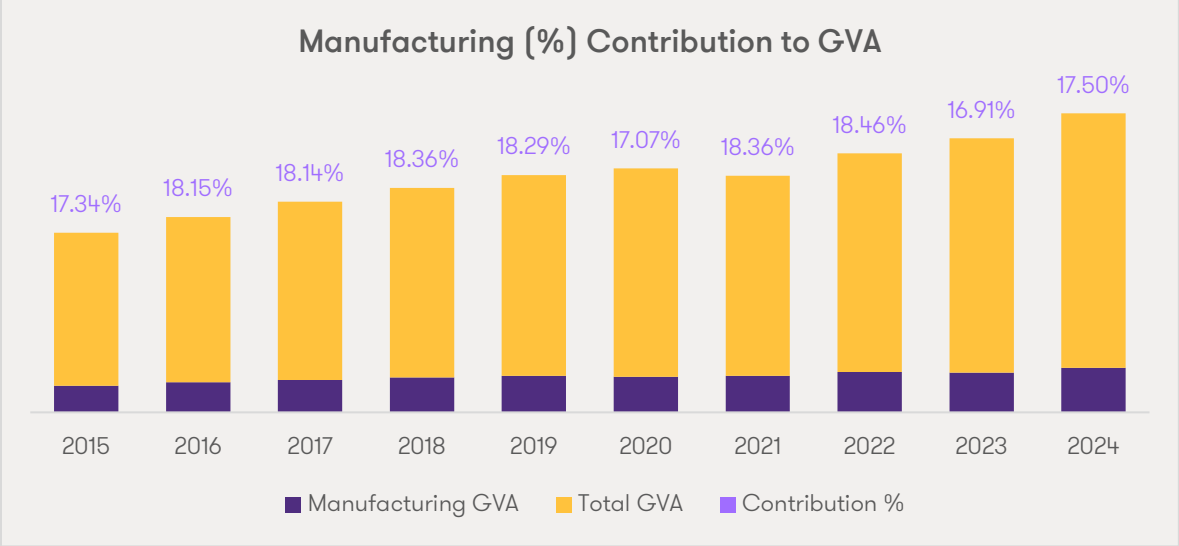
[2] The Index of Industrial Production (IIP) is a weighted measure of industrial output in India, published by the Central Statistical Organisation (CSO). A rise in the index indicates increased industrial activity compared to the base year, with higher values reflecting expansion across mining, manufacturing, and electricity."

[3] Source: Macrotrends

[4] Source: India Briefing;

Revitalising Indian manufacturing: A pathway to economic expansion

India's manufacturing sector is a crucial driver of the economy, contributing around 17% to the country's GDP. However, to meet the ambitious target set for 2047, experts suggest this share needs to increase to 25%, requiring consistent annual growth of 15%. In terms of gross value added (GVA), the industrial sector — comprising manufacturing, mining, and utilities — grew by 4.3% in FY25, marking a significant deceleration compared to 11% growth in FY24. Manufacturing, experienced a sharp decline, growing at 4.3%, down from 12.3% the previous year, largely due to slowing activity in critical industries such as petroleum, metals, and cement. Despite these challenges, manufacturing remains an essential pillar of India's economic framework, with policymakers emphasising urban expansion, increased energy capacity, and deeper integration into global supply chains to sustain long-term industrial growth.[5]



[5] Source: PIB; NITI Aayog

Employment trends in India's manufacturing sector

India's manufacturing industry also plays a vital role in job creation, employing approximately 1.85 crore workers as of FY24 — a 7.5% increase from the previous year. This surge has pushed employment beyond pre-pandemic levels, signalling a strong recovery. Key industries such as metals, petroleum, food processing, and automobile manufacturing have contributed to this expansion.

States like Tamil Nadu, Maharashtra, Gujarat, Uttar Pradesh, and Karnataka lead in manufacturing employment, benefiting from industrial hubs and government incentives. A notable shift in hiring patterns has emerged, with companies preferring permanent employees over temporary staff, reflecting long-term confidence in workforce stability.

Despite economic pressures and global uncertainties, manufacturers remain optimistic about sustaining employment growth, backed by rising domestic demand and increasing global integration. To maintain momentum, policymakers focus on skilling initiatives and technology adoption, ensuring India's workforce remains competitive in the evolving industrial landscape.[6]

*Projected growth rates represented for 2025 and 2026.

[6] Source: MOSPI;

India's manufacturing sector: Driving innovation and growth

India's industrial landscape is evolving rapidly, with MSMEs playing a crucial role, backed by the INR 50,000 crore Self-Reliant India Fund and cluster development programmes. As the country ranks 6th globally in patent filings, its commitment to innovation is solidifying its position as a global manufacturing hub.

Government-led initiatives like Smart Manufacturing and Industry 4.0, driven by SAMARTH Udyog centres, are modernising factories and integrating advanced technologies into operations. While MSMEs and large enterprises benefit, financial constraints limit accessibility for small businesses, necessitating sector-specific digital transformation strategies. Despite a slowdown in FY23–24, strategic investments and technological advancements are set to fuel a strong rebound, reinforcing India's global manufacturing presence.

Engineering and electronics: Shaping the future

India's engineering sector, the largest industrial segment, accounts for 63% of foreign collaborations, catering to critical industries such as infrastructure, electricity, mining, oil & gas, refineries, steel, and automobiles.

Meanwhile, domestic electronics production is undergoing a transformation, reducing import reliance and strengthening India's standing in the global value chain (GVC). The country has moved beyond assembly-based production to high-value finished goods, reinforcing its competitive edge.

Mobile manufacturing boom:

Now the world's second-largest producer, India has expanded to 300 production units — a remarkable jump from just two in 2014.

Economic projections:

Electronics production is expected to reach USD 300 billion by 2026, fueled by the Make in India initiative.

However, India's global electronics export share remains modest, highlighting the need for deeper localisation of high-tech components, investment in R&D, and strong design capabilities. This shift toward value-added production enhances economic resilience, attracts foreign investment, fosters innovation, and positions India as a key supplier in international markets.

Global value chains in manufacturing and industrial products sector

The foundation of a global value chain (GVC) is a blend of production operations anchored by manufacturing plants and pre- and post-production services, facilitated by global capability centres (GCCs). GVCs are critical in modern manufacturing, involving international collaboration across design, production, marketing, and distribution. They represent 70% of international trade. India's GVC-related trade accounted for 40.3% of India's gross trade in 2022, highlighting the urgent need to enhance its participation, especially in electronics, semiconductors, automobiles, chemicals, and pharmaceuticals. The automotive sector plays a pivotal role, accounting for 3% of globally traded parts. Despite India's strong manufacturing base, its share in the global auto component market remains modest, highlighting the need for deeper integration into international supply chains. Countries can participate in GVCs by engaging in backward or forward linkages based on their economic specialisation.[7]

Key themes shaping the GVC ecosystem:

01 Nearshoring and regionalisation:

Global organisations are shifting production closer to key markets. This localised approach cuts shipping times and costs while reducing dependency on distant suppliers and mitigating geopolitical risks.

02 China+1 strategy:

Enhancing supply chain resilience by establishing parallel manufacturing hubs alongside China. This leverages government incentives to stimulate indigenous production, reducing dependency on a single manufacturing source.

03 Global trade tensions:

Ongoing trade disputes are increasing costs in global value chains. Tariff changes and rapid policy shifts force companies to diversify their suppliers and reconfigure production networks, leading to both operational challenges and new opportunities.

04 Digital transformation (AI, automation, blockchain)

India's participation in GVC's can be boosted by integrating AI, automation and blockchain. AI predicts disruptions and optimises operations, automation cuts delays and costs, and blockchain ensures secure, transparent records.

05 Energy efficiency:

Adopting sustainable innovations to shift from linear to closed-loop supply chains. This transformation can cut global greenhouse gas emissions while reducing reliance on finite resources and mitigating geopolitical risks.

06 ASEAN and India manufacturing hubs:

ASEAN and India attract manufacturers with low-cost labour, while Singapore and India are evolving as centres for R&D and trade services, boosted by GCCs and increasing FDI.

[7] Source: PIB; PIB 2; World Bank;

Centre of gravity shifting to the East

The centre of gravity of the global economy is shifting to the East where Asian economies such as China, Vietnam, and India play pivotal roles. This shift significantly impacts participation in GVCs and reflects Asia's growing dominance in manufacturing, trade and regional economic integration, as seen in agreements like the Regional Comprehensive Economic Partnership (RCEP). These shifts have made Asia important to GVCs, with countries such as Vietnam excelling by capitalising on streamlined policies and proximity to existing hubs. Meanwhile, China continues to lead in high-value manufacturing and exports, anchoring its influence within GVCs.

Though aspiring to strengthen its integration into GVCs, India faces barriers like higher tariffs, regulatory inefficiencies, access to technology, and low factor productivity. These obstacles hinder its ability to scale and compete globally. To align more effectively with GVCs, India needs to reform its trade policies and incentivise innovation while leveraging its demographic dividend and Foreign Direct Investment (FDI) inflows. Successful integration into GVCs will not only enhance India's competitiveness but also solidify the East's role as the epicentre of global economic activity.

The reality around India's GVC contribution

Challenges	Solutions
Infrastructural and logistical bottlenecks: Outdated transportation networks, congested ports, and inefficient logistics boost costs and delay shipments.	**Infrastructure modernisation:** Invest in upgrading ports, roads, and rail networks; deploy digital tracking systems and optimise routes; accelerate initiatives like Sagarmala for streamlined, efficient logistics.
Regulatory complexity and bureaucratic hurdles: Fragmented regulations, state-level disparities, and slow customs procedures create uncertainty and deter investments.	**Regulatory simplification:** Implement single-window clearance, harmonise policies across states, digitise customs and trade processes, and reduce bureaucratic red tape to facilitate smoother operations.
Technological and skill gaps: Limited digital adoption and insufficient upskilling prevent access to higher value-added activities and innovative practices.	**Digital and skill enhancement:** Boost tech adoption via public-private partnerships, expand Skill India programmes, invest in modern IT infrastructure, and continuously train the workforce to meet advanced industry requirements.
Quality and sstandardisation issues: Inconsistent quality controls and varied product standards reduce reliability and global competitiveness.	**Quality standardisation:** Enforce stringent quality certifications, incentivise R&D and continuous improvement, and align local standards with international benchmarks to enhance product appeal.

[8] Source: NamTech;

Some additional challenges faced by the manufacturing sector include

[9] Survey conducted by AMS & ABB automotive outlook survey 2023

Empowering India's MSMEs and trade ecosystem for GVC growth

Key possibilities for enhancing India's GVC participation

Infrastructure and MSME integration: Invest in trade infrastructure, simplify business entry/exit, and integrate MSMEs into GVCs.

Policies and regulations: Streamline imports, minimise trade barriers, and enhance ease of doing business.

FDI promotion: Maintain an open-door policy, offer fiscal incentives, and develop modern special economic zones for export-oriented manufacturing.

Research and innovation: Strengthen industry-academia collaborations, increase R&D funding, and introduce research-intensive education programmes.

Intellectual property (IP): Boost IP awareness, increase R&D funding, fast-track applications, and strengthen enforcement mechanisms

Local business strategies: Small and mid-sized enterprises should form partnerships, pursue acquisitions, and invest in domestic technological capabilities to meet international standards.

Regional supply chain strategies

Make in South Asia programme: Expand Make in India to incentivise Indian manufacturers to invest in Bangladesh and Sri Lanka, focusing on key industries like food processing, textiles, apparel, and automotive

Comprehensive FTAs: Strengthen trade partnerships through bilateral Free Trade Agreements (FTAs) with Bangladesh and upgrade the Indo-Sri Lanka FTA

Regional trade and investment: Implement rules-based trade policies to integrate South Asian countries into India's supply chain activities

India's integration into GVCs: Trends in 2025

01 **Resilience and digital transformation:** Indian companies like Tata Steel have integrated AI-driven analytics and IoT sensor networks to continuously monitor operations, ensuring efficiency and agility in a dynamic market. By leveraging predictive maintenance systems, the company enhances supply chain resilience, enabling swift responses to disruptions while optimising resource utilisation. They have strengthened smart factory capabilities, incorporating automated quality control and data-driven decision-making to maintain seamless production.

02 **Decoupling and reshoring strategies:** Companies like Bajaj Auto and Patanjali Foods reshored significant production from overseas to India. Supported by the Make in India initiative, this decoupling strategy reduces import dependency, cuts logistics costs, and fortifies supply chains. Firms experience faster market responses and enhanced quality control by localising production across India.

03 **Advanced technology integration:** Maruti Suzuki integrated 5G-enabled IoT sensors, robotics, and cloud computing across its production lines. This advanced technology integration streamlines real-time data exchange, optimises maintenance schedules, and minimises downtime. By leveraging indigenous tech solutions, the company strengthens operational efficiency while maintaining a competitive edge in India's dynamic automotive sector.

04 **Workforce upskilling and geographic diversification:** Infosys implemented AR-enabled training modules in collaboration with Skill India, equipping employees with emerging digital competencies. Concurrently, TCS expanded regional centres in Tier-2 cities like Jaipur and Kochi, diversifying talent pools. This strategy enhances workforce upskilling and geographic reach, fostering localised innovation and sustainable growth across India significantly.

05 **Heightened regulatory demands:** Indian enterprises such as HDFC Bank and State Bank of India adopted RegTech solutions for data protection and ESG compliance. Following the Digital Personal Data Protection Act and RBI mandates, these institutions revamped compliance frameworks, strengthened cybersecurity, and ensured transparent reporting, reinforcing trust and stability amid a regulatory landscape. [13]

[13] Source: PIB;

Driving higher value addition in India's manufacturing sector

Significant opportunities exist for higher value addition exist across various sub-sectors in the manufacturing industry. With technological progress, policy reforms, and global demand shifts, Indian industries can move beyond low-cost production and position themselves as leaders in innovation and premium manufacturing. Key sectors such as electronics, biotechnology, automotive, aerospace, renewable energy, advanced materials, and medical devices are poised for substantial growth, driving economic expansion and enhancing India's global competitiveness. By focusing on research & development, automation, and high-tech capabilities, Indian manufacturers can capture more value in the production chain and accelerate the country's transformation into a global manufacturing hub.[14]

Electronics and semiconductors:

With India's semiconductor push, there is scope for chip design, fabrication, and assembly.

Renewable energy and Greentech:

Wind turbine parts, solar panel manufacturing, and energy storage solutions are key areas of sustainable growth.

Pharmaceuticals and biotechnology:

Biologics, biosimilars, and precision medicine expansion can strengthen India's pharmaceutical exports.

Advanced materials and specialty chemicals:

High-performance polymers, nanomaterials, and specialty chemicals have applications in multiple industries.

Automotive and electric vehicles (EVs):

Progress in battery technology, EV components, and autonomous vehicle systems offer high-value manufacturing potential.

Medical devices and healthcare equipment:

Innovation in diagnostic tools, robotic surgery systems, and wearable health devices adds significant value.

Aerospace and defence:

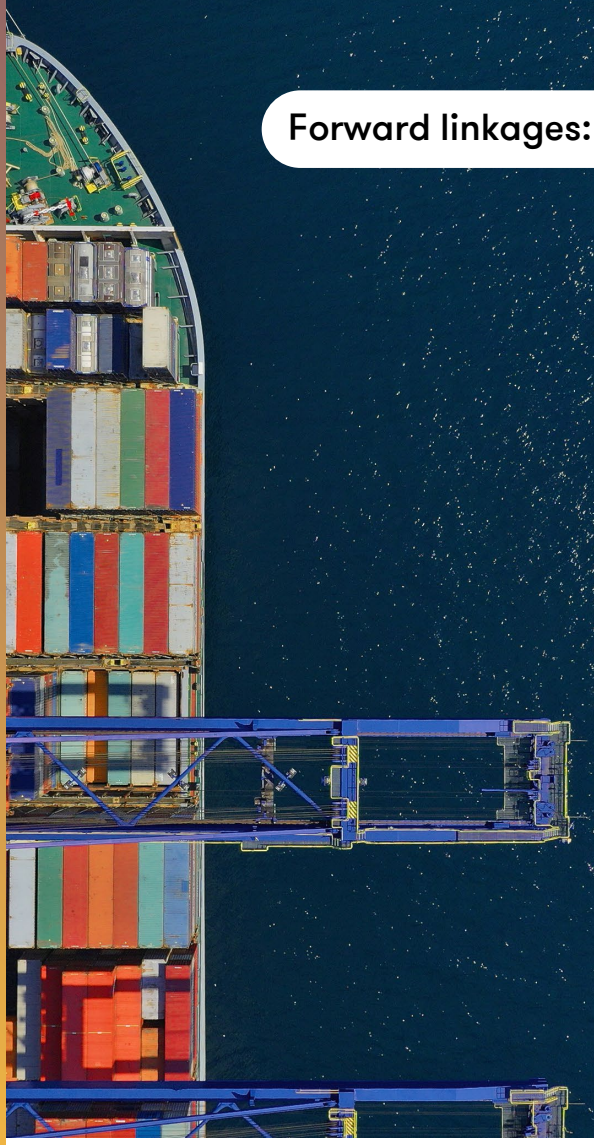
Producing high-precision components, avionics, and defence equipment can bolster India's self-reliance.

[14] Source: MEITY; DoPH; SIAM; NITI;

Low-growth sectors vs. high-growth sectors

High-growth sectors like IT, healthcare, renewable energy, and electric vehicles benefit from global demand, skilled labour, and supportive policies, positioning them as strong contributors to GVCs. Meanwhile, low-growth sectors such as traditional manufacturing and agriculture require modernisation and targeted reforms. By channelling FDI to upgrade infrastructure, supply chains, and innovation in these sectors, India can enhance scalability and competitiveness, fostering a balanced and sustainable integration into GVCs. [12]

[12] Sources: ADB;



Forward linkages: India's role in the global value chain

India plays a pivotal role in global supply chains through forward linkages, where it supplies intermediate goods and raw materials integral to production processes of other countries. Key sectors driving India's forward linkages include chemicals, textiles, petroleum products, and auto components. For instance, India exports auto parts to global automakers for assembly of vehicles. Additionally, India's growing semiconductor and electronics industries are becoming critical suppliers in high-tech manufacturing chains. With global companies like Apple and Tesla increasing their production footprint in India, the country looks to emerge as a reliable partner in diversified supply chains. These forward linkages not only enhance India's export potential but also solidify its role as a key player in the evolving global trade landscape.

Grant Thornton Bharat's offerings and solutions

At Grant Thornton Bharat, we are your one-stop, end-to-end solutions partner for manufacturing, engineering and industrial products companies — offering consulting, audit, tax and strategic advisory. With deep expertise in digital transformation, Industry 4.0, supply-chain optimisation, ESG integration and regulatory compliance, we empower you to navigate complexity, execute M&A and financial restructuring, and drive sustainable growth. Backed by our global network and India Knowledge & Capability Centres, we're committed to strengthening your competitiveness and unlocking operational excellence.

Strategy	India entry strategy	Growth strategy/business model	Government / liasoning support
	(Design and development)	GTM / M&A strategy development	Business model preparation
Business Transformation	Supply chain	Sourcing and procurement optimisation (D/ID)	Supply chain restructuring
	Operations	Operations transformation	Business process re-engineering
		AI-based demand forecasting and management	Cybersecurity
	Operation excellence	Planning, procurement, logistics support	Supply chain resilience
	Technology enablement	ERP/ Cloud/Analytics implementation	Digital transformation
		ESG reporting	Implementation support
Finance	Financial advisory	Risk management (operational and financial)	Corporate finance, M&A and structuring
Implement	PMO and implementation support	Tech and digital implementation	Programme management

Great Place To Work. Certified DEC 2024-DEC 2025 INDIA

Best Workplaces™ in Professional Services Great Place To Work. INDIA 2025

We are
Shaping Vibrant Bharat

A member of Grant Thornton International Ltd., Grant Thornton Bharat is at the forefront of helping reshape the values in the profession. We are helping shape various industry ecosystems through our work across Assurance, Tax, Risk, Transactions, Technology and Consulting, and are going beyond to shape more **#VibrantBharat.**

Our offices in India

Ahmedabad • Bengaluru • Chandigarh • Chennai • Dehradun • Goa • Gurugram • Hyderabad • Indore • Kochi • Kolkata • Mumbai • New Delhi • Noida • Pune

Scan QR code to see our office addresses

www.grantthornton.in

Connect with us on

- @Grant-Thornton-Bharat-LLP
- @GrantThorntonBharat
- @GrantThornton_Bharat
- @GrantThorntonIN
- @GrantThorntonBharatLLP
- GTBharat@in.gt.com

Contact us:

Shridhar Kamath

Partner and Industry Leader,
Engineering and Industrial Products
Grant Thornton Bharat
E: shridhar.kamath@in.gt.com

Diya Anand

Senior Executive

Grant Thornton Bharat
E: diya.anand@in.gt.com

11729 | RD | VB | SM