

# Analysing India's manufacturing capabilities: Identifying gaps and opportunities for improvement on a global scale

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For decades, India's services sector has been the driving force behind its economic growth, but a transformative shift is underway as the country's manufacturing story gains momentum. Fueled by the government's ambitious initiatives such as Make in India, Aatmanirbhar Bharat, Skill India, and Digital India, as well as attractive Production-Linked Incentive (PLI) schemes in 14 critical sectors, India is emerging as a credible alternative for multinational corporations seeking to diversify and de-risk their global supply chains. Giants like Boeing, Apple, Samsung, and Tesla have been drawn to India, lured by the potential it holds.

The country's demographics and vast domestic market size add to its allure. With a population of 1.3 billion, a median age of 29 years, a highly employable workforce exceeding 65%, and the world's second-largest English-speaking population, India presents an enticing destination for manufacturing endeavours. Several other inherent strengths further bolster this potential, this includes a substantial pool of skilled engineers, a youthful labour force, competitive wages relative to China, and significant domestic consumption of manufactured goods. Furthermore, access to vital natural resources such as iron ore, aluminium, cotton, and coal facilitates production processes across industries.

There is also the "China + 1" strategy that has garnered considerable attention as an evolving paradigm with vast potential benefits for India. This strategic shift, prompted by the COVID-19 pandemic, has led to a comprehensive reevaluation of supply chain

vulnerabilities, igniting a fresh emphasis on diversification. As a result, India emerges as a promising destination, poised to seize substantial gains from this transformative global trend.

Currently contributing 17% of the nation's GDP and employing over 27.3 million workers, the manufacturing sector plays a pivotal role in India's economic landscape. The government's vision aims to elevate manufacturing's share in the economy to 25% by 2025, a goal that holds the promise of profound economic transformation. However, to realise its full potential as a manufacturing powerhouse, India must address critical areas that require strengthening.

In this article, we will explore these key aspects that demand immediate attention and investment to bolster India's competitiveness on the global manufacturing stage.

**Industrial Infrastructure:** India's industrial infrastructure has been improving, with the establishment of industrial parks, special economic zones, and dedicated manufacturing corridors. Initiatives like "Make in India" have aimed to boost manufacturing by enhancing infrastructure development. However, there are still challenges in terms of inadequate physical infrastructure, such as logistics and power supply, which need further attention.

**Skill Development and Talent Shortage:** India possesses a sizable pool of technically skilled workers, particularly in IT, software development, and engineering domains. However, to excel in advanced manufacturing technologies, continuous investment in skill development programs is essential to bridge the existing gaps across various sectors. Presently, rigid labour laws compel companies to rely on casual workers, and vocational schools lack the necessary infrastructure to train workers effectively.

**Manufacturing Diversification:** India's manufacturing sector has traditionally been strong in areas like textiles, automotive components, pharmaceuticals, and generic drugs. In recent years, there has been a push towards diversification into sectors like electronics, aerospace, defence, and renewable energy. This diversification is essential to reduce dependency on specific industries and achieve a more balanced manufacturing portfolio.

**Balancing Labor Cost and Automation Investment:** Manufacturers often use the low cost of labour to offset the significant initial investment required for automation. To control capital costs, they adopt various strategies such as semi-automation, low-tech automation solutions, or even customising their automation equipment. While this is a reasonable approach, the problem arises when manufacturers prioritise labour arbitrage as their primary means of gaining a competitive advantage, rather than focusing on enhancing quality and productivity. Unfortunately, relying heavily on labour and non-standard automation leads to a multitude of issues, including labour-related problems, increased non-value-added time, compromised plant-floor ergonomics, heightened health, safety, and environmental concerns, and ultimately, a decline in product quality levels.

**Ease of Doing Business:** Improving the ease of doing business has been a priority for the Indian government. Reforms have been undertaken to simplify regulations, streamline tax systems, and facilitate foreign investment. While progress has been made, there is still room for improvement in areas like labour laws, land acquisition, and bureaucratic processes.

**Technology and Innovation:** India has a vibrant technology and innovation ecosystem, with a thriving startup culture. Several Indian companies are at the forefront of technological advancements, especially in sectors like information technology, pharmaceuticals, and automotive components. Encouraging indigenous R&D and fostering collaboration between academia and industry can further strengthen India's manufacturing capabilities.

**Global Competitiveness:** India faces tough competition from countries like China, South Korea, and Taiwan which have well-established manufacturing sectors. To enhance its global competitiveness, India needs to focus on factors such as cost competitiveness, quality control, efficient supply chains, and consistent policy support.

**Export Potential:** India has been a significant exporter of manufactured goods, including textiles, automotive components, pharmaceuticals, and software services. Expanding export markets and diversifying export products can help boost India's manufacturing sector and increase its presence in the global arena.

The growth of India's manufacturing capability plays a vital role in its economic development and in achieving the promise of a 5 Trillion Dollar Economy. Addressing infrastructure gaps, enhancing skill development, promoting innovation, and creating a favourable business environment is crucial to this endeavour. India holds a strategic advantage in the interconnected world, where manufacturing operates within complex global value chains (GVCs) shifting towards the East. Embracing our strengths and receiving dedicated government support will be instrumental in capitalising on the immense opportunities presented by evolving geopolitical dynamics.