

The Future Global Factory—An Exploration of the Advantages and Disadvantages of India’s Workforce

Yiwei Sun

Shenghua Zizhu Academy, No. 155
Tanjiatang Road, Minhang District,
Shanghai, China, 200241

Email: c368yqbqh4@163.com

Abstract:

This study explores India’s burgeoning potential as a global manufacturing powerhouse by examining the advantages and disadvantages of its workforce. With a vast, youthful demographic, abundant natural resources, and the government’s “Made in India” initiative alongside competitive labor costs, India is well- positioned to attract significant international investment. However, the nation faces serious challenges, including entrenched social inequality, widespread child labor, and excessive overtime work within its manufacturing sector. These issues hinder the improvements of the workforce’s overall quality and limit India’s competitiveness in high-end manufacturing. Through a literature review, comparative labor market analysis between India and China, and qualitative research, this study provides a comprehensive insight into how India can overcome these obstacles to realize its full potential in the global manufacturing arena.

Keywords: India, manufacturing, workforce, “Made in India”, child labor, overtime work, economic growth

1. Introduction

The global manufacturing landscape has undergone a significant transformation over the past few decades, shifting from developed nations to developing economies with more affordable labor. Following its reforms and opening-up, China emerged as the epicenter of global manufacturing, benefiting from its inexpensive workforce and robust infrastructure. However, rising labor costs in China, coupled with a reconfiguration of global supply chains and geopolitical dynamics, have prompted multinational corporations to explore other emerging markets, with India taking center stage.

As the world’s second most populous country, India boasts abundant natural resources and a large, youthful workforce, positioning it as a strong contender for the next global manufacturing hub. Since the launch of the “Made in India” campaign in 2014, the country has made notable progress in attracting foreign capital, creating jobs, and improving the competitiveness of its manufacturing sector. Yet, despite these advantages, India faces numerous challenges on its journey to becoming the “factory of the world.” This study aims to analyze the advantages and disadvantages of India’s workforce and evaluate its potential role in the global manufacturing arena.

2. Research Background and Significance

The shift of the global manufacturing epicenter is not coincidental, it results from a convergence of factors including labor costs, infrastructural conditions, geopolitical dynamics, and supply chain agility. For decades, China has played a pivotal role in the global manufacturing landscape, serving as a backbone of the global supply chain. However, its dominance in manufacturing is not guaranteed.

The rise of India in the global manufacturing arena not only bears profound implications for the global economy but also serves as a benchmark for other developing nations. India's labor market, while quantitatively robust, faces challenges such as underdeveloped infrastructure, inadequate education levels, child labor issues, and concerns about excessive overtime work. Therefore, analyzing the advantages and disadvantages of India's workforce can help global enterprises better assess their investment prospects, but also guide the Indian government in policy formulation, and enable the Chinese government and businesses to learn from India's experiences, fostering a mutual understanding of strengths and weaknesses in respond to evolving market conditions.

3. Research Methods

This study employs a diversified research approach, encompassing the following methods:

3.1 Literature review

The method involves examining both domestic and international research on India's labor market. By doing so, we gain insights into the current state and challenges of the workforce in India's manufacturing sector, including issues such as child labor, overtime work and skill gaps.

3.2 Comparative study

We analyze labor market data from India and China to identify the comparative advantages and disadvantages of India's workforce. This includes an assessment of factors such as cost, productivity, and skill levels.

3.3 Qualitative research

Through specific case studies, we investigate the utilization of labor in India's manufacturing sector. This focus includes an in-depth look at overtime work in labor-intensive industries and the repercussions of child labor for the sector as a whole.

4. Advantages of Indian Workforce

4.1 Large and Young Population

As of 2023, India's population has exceeded 1.412 billion, making it the second most populous country after China, with a significant portion under the age of 35. According to Population Pyramid data, the spindle-shaped population structure of India indicates a vast reservoir of youthful labor. This demographic advantage can effectively meet the demands of labor-intensive industries and, with improved skill training and education, support the high-tech manufacturing sector.

In contrast, China's aging population and rising labor costs suggest that India is poised to take over China's position as the global manufacturing epicenter. A younger workforce also implies greater adaptability and extended working lifespans, which provides companies with greater flexibility and potential productivity gains.

4.2 Abundant Natural Resources

India is rich in natural resources, including coal, iron ore, bauxite, oil, natural gas, and a variety of mineral resources. This wealth serves as a foundation for the development of its heavy industries, particularly in the fields of steel, chemicals, and energy. Utilizing these mineral resources not only ensures a steady supply of raw materials for domestic consumption but also attracts international capital to further boost the growth of the manufacturing sector.

For instance, India's coal reserves, the third largest in the world, provide critical energy security for India's power-intensive industries like steel manufacturing and aluminum smelting. In addition, India's abundant agricultural resources have also created more employment opportunities in labor-intensive sectors like food processing and textile manufacturing, thereby bolstering supply and demand in the labor market.

4.3 Government Support

The Indian government's "Made in India" initiative, launched in 2014, aims to attract foreign investment and develop the manufacturing sector, positioning the country as a global manufacturing powerhouse. The objective of the initiative is to increase the manufacturing sector's contribution to India's GDP from 15% to 25% by 2025. The government has actively attracted global enterprises to invest in India through tax incentives, land policy reforms, and relaxed foreign investment restrictions. The initiative spans various industries, including automobiles, textiles, electronic components, and chemical products. Government support has not only fostered a conducive environ-

ment for India's manufacturing sector but has also spurred rapid growth among domestic enterprises.

One notable triumph of the "Made in India" initiative is its success in attracting multinational corporations like Apple. Apple's investment and manufacturing operations in India have been expanding, particularly for models such as the iPhone SE, iPhone 12, and iPhone 14, primarily through its manufacturing partners like Foxconn, Wistron and Pegatron. These factories are situated in various India states, including Tamil Nadu and Karnataka. Through Production-Linked Incentive (PLI) scheme, the Indian government offers tax breaks and other incentives to further encourage international companies like Apple to establish manufacturing plants and increase their investment in India. Additionally, various measures have been introduced to support the development of small and medium-sized enterprises, especially by providing loan subsidies and entrepreneurial incentives, which help vulnerable groups in achieving employment and economic independence.

4.4 Low Cost

In 2023, India's per capita GDP was US\$2,484.85, ranking 140th globally, significantly lower than China's per capita of US\$12,610. Concurrently, according to 2023 data, the average monthly wage of Indian workers is only about one-third that of their Chinese counterparts. This relatively low labor cost is one of the key factors attracting global manufacturing to India. Moreover, India's lower cost of living also enables companies to hire workers at reduced wages, further reducing production expenses.

The prevalence of the informal economy is another reason for the low labor costs. Since many workers are engaged in informal employment, companies are spared the additional burden of benefits and social security costs, which further depresses labor prices. However, this phenomenon also leads to the irregularities in the labor market and increases the complexity of management.

5. Disadvantages of Indian Workforce

5.1 Severe Social Stratification

India exhibits one of the most pronounced wealth disparities globally. According to a report published by the European think tank "World Inequality Lab" as of March 2023, the wealthiest 1% of the population in India controls 40.1% of the nation's wealth, with their income constitutes 22.6% of the total national income. This data highlights that India has become one of the most unequal countries in terms of wealth distribution in the world. Such severe wealth inequality not only hinders the healthy

development of the labor market, but also determines social equity and stability.

Wealth directly influences access to education and skills training. The lower-income groups often struggle to obtain high-quality education and vocational training, which further aggravates the differentiation of the labor market. The rigid social hierarchy restricts many workers from entering high-skilled industries, confining them to low-wage and unstable jobs. This limitation ultimately caps the overall improvement in the quality of India's workforce.

5.2 Serious Child Labor Issue

According to the 2011 India census, approximately 10.2 million children were working in India, accounting for 3.9% of all children aged 5 to 14, making it one of the countries with the largest number of child laborers globally. Despite a decline in child labor over the past decade, the economic disparity between rural and urban areas in India has forced many rural children to migrate to cities for hazardous, low-skilled jobs in sectors such as construction, textiles, and mining. As a result, the urban child workforce continues to swell.

India's basic education system falls significantly behind that of China's, with notable gaps in gross enrollment rates for primary and secondary education, as well as literacy rates. According to the 2011 census, India's national average literacy rate was 74.04%, with 82.14% for males and 65.46% for females. Factors such as the belief that education is futile, gender discrimination, and the caste system have led many children to lose their desire to study, contributing to the persistence and growth of child labor. [3]

The issue of child labor represents not only a severe human rights violation but also a hindrance to the long-term development of India's labor market. Children who lack basic education will struggle to compete in the future labor market, which not only limits their career development opportunities, but also undermines the overall skill level of India's workforce.

5.3 Widespread Overtime Work

In India's manufacturing sector, especially in labor-intensive industries such as textiles, garments and electronics assembly, workers are often required to work overtime. This demand is driven by stringent production deadlines imposed by international orders, compelling companies to extend working hours to meet delivery schedules. According to data from the International Labor Organization (ILO), the average working hours of Indian workers significantly exceed those in other emerging countries, negatively affecting workers' health and productivity. The ILO

has documented that India's total annual working hours have exceeded 2,500 hours, with weekly working hours consistently surpassing 48 hours for several years. [2] The prevalence of overtime work also reflects the inadequate enforcement of labor laws in India. Although the Indian government has enacted a series of laws to regulate working hours and worker benefits, many sectors, especially those with informal employment, still struggle to ensure legal protection for the workers.

6. Literature Review

Research on India's labor market, conducted by domestic and international scholars, primarily focuses on the phenomenon of child labor, the skills gap, and policy support. Notably, studies highlight that child labor is not merely a consequence of poverty it is intricately linked to the institutional structure of Indian society and the unequal distribution of educational resources. Despite legislative efforts by the Indian government to combat child labor, inadequate law enforcement and low educational attainment in rural areas continue to perpetuate this issue across various industries.

R.P. Roy, in the paper "The Impact of the 'Made in India' Initiative on Child Labor: Evidence from the Manufacturing Sector", analyzes the changes in child labor within the manufacturing industry following the "Made in India" initiative. Roy points out that as labor-intensive industries expand, many companies, in an effort to reduce costs, continue to employ child labor, particularly in the textile and agricultural processing sectors. While the "Made in India" initiative has achieved remarkable success in fostering economic growth, there remains an urgent need for more robust supervision and enforcement to regulate the labor market, especially in safeguarding vulnerable groups.[4]

M.K. Jha in his article "Skills Gap in India's Manufacturing Sector: An Analysis", emphasizes that although India has an ample workforce, the overall skill level remains low, especially in high-tech manufacturing. Jha points out that India's manufacturing industry's competitiveness in the global market is hindered by this skills gap. To bridge this gap, Jha advocates that the Indian government and businesses must increase investment in vocational education and skills training, especially for the younger workforce, to enhance their adaptability in advanced manufacturing sectors.[1]

7. Conclusion and Recommendations

The analysis of India's labor market highlights that India possesses considerable potential to become a global manufacturing hub, driven by its large young workforce, abundant natural resources, and robust government support. However, to fully realize this ambition, India must address several critical challenges.

7.1 Infrastructure Development

The Indian government should prioritize improving infrastructure, focusing on transportation, electricity, and logistics. Enhancing these systems will lower manufacturing costs and increase the competitiveness of "Made in India" products in the global market.

7.2 Investment in Education and Skills Training

There is a pressing need for increased investment in education and skills training, particularly in rural and underprivileged areas. Initiatives like Digital India and Skill India should be expanded to effectively bridge the skills gap in the labor market.

7.3 Strengthening Labor Laws

The enforcement of labor laws must be intensified to standardize the labor market and protect workers' rights. This includes addressing critical issues such as child labor and excessive overtime work to create a more equitable working environment.

By implementing these recommendations, India can enhance its position as a viable global manufacturing hub and ensure sustainable economic growth.

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