



INDIA AND CHINA IN THE POST-REFORM ERA: A COMPARATIVE ANALYSIS OF MANUFACTURING GROWTH

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ABSTRACT

Industrial development is essential for achieving long term sustained economic growth and economic transformation. The manufacturing sector, with its widespread influence on various industries holds more crucial role to the economy than commonly perceived. This paper provides a brief comparative analysis of India and China's manufacturing sector using time series data from 1991 to 2023. China and India have adopted different development models. China's economic strategy emphasizes manufacturing for export, positioning the country as a global production powerhouse. India, conversely, has become increasingly integrated with the global economy by focusing more on domestic demand and the services sector. China's strong focus on state investments and building infrastructure has made its manufacturing sector a global leader. Meanwhile, India's slower reforms, which focus on opening up the market and reducing regulations, have led to a different growth pattern with a strong service sector and mixed results in manufacturing. The main objective of this study is to analyze the performance of India and China's manufacturing sector, elucidating its economic significance, overall economic development and contribution to foreign trade.

KEY WORDS: Manufacturing, Export, Trade, Industry, Development

1. INTRODUCTION

In the contemporary era, industrial sector plays a key role in nurturing socio-economic resilience and promoting the country's prosperity. As outlined in the Sustainable Development Goals (SDGs), the advancement of inclusive and environmentally responsible industrialization can play a major role in augmenting employment opportunities, nurturing entrepreneurship, and strengthening GDP. So, Industrial development is essential for achieving long term sustained economic growth and economic transformation. The manufacturing sector, with its widespread influence on various industries holds more crucial role to the economy than commonly perceived.

Over the last few decades, the economies of India and China have experienced rapid growth, and it is widely believed that these two emerging powerhouses will bring about significant transformations in the global economy. The total population of India and China amounts to 1.44 and 1.42 billion respectively, making them the world's most populated economies. Together they represent approximately 35.85% of the global population. As of 2024, China holds the position of the 2nd largest economy in the world based on nominal terms, while India holds the 5th position. In terms of Purchasing Power Parity (PPP), China ranks 1st and India ranks 3rd. Together, these countries account for 20.51% and 26.87% of the total global wealth based on nominal and PPP terms respectively. Within Asia, China and India combined contribute to over half of Asia's GDP.

India has been experiencing an annual growth of 6% since the late 1980s, lagging behind china, which has been growing at a rate of 10% per year since 1981. The primary reason for this disparity is

the comparatively lower performance of Indian industrial sector. China and India have adopted different development models. China's economic strategy emphasizes manufacturing for export, positioning the country as a global production powerhouse. India, conversely, has become increasingly integrated with the global economy by focusing more on domestic demand and the services sector. China's strong focus on state investments and building infrastructure has made its manufacturing sector a global leader. Meanwhile, India's slower reforms, which focused on opening up the market and reducing regulations, have led to a different growth pattern with a strong service sector and mixed results in manufacturing. This paper provides a brief comparative analysis of India and China's manufacturing sector using time series data from 1991 to 2023. The main objective of this study is to analyze the performance of India and China's manufacturing sector, elucidating its economic significance, overall economic development and contribution to foreign trade.

2. REVIEW OF LITERATURE

Ahluwalia (1986) examines industrial growth in India from the mid-1950s, focusing on the stagnation starting in the mid-1960s. The study notes a significant slowdown in heavy industries and persistently slows growth in light consumer goods industries. These trends are linked to negative total factor productivity growth, indicating declining resource efficiency. The decline in heavy industries' growth is attributed to reduced public investment and decreased import substitution efforts. The paper argues for increased public investment in infrastructure, which has been neglected and inefficiently managed, causing negative economic impacts. Enhancing infrastructure is considered crucial for stimulating both industrial and agricultural development.



Kapoor (2018) provides a comprehensive analysis of the manufacturing sector in India, particularly focusing on employment generation and the characteristics of firms that contribute to productive job creation. Despite a notable rise in GVA, the sector has struggled to generate corresponding employment opportunities primarily due to an increasing reliance on capital – intensive production methods. Furthermore, the findings highlight the detrimental effects of financial constraints and inadequate infrastructure on employment growth that depend heavily on external financing and call for a reassessment of policies to better support firm growth and employment in generation in the critical sector.

Nidiya.C and Lv.K.J (2018) opines that there is a positive relationship between industrial development and economic growth. Industrialization fails due to the imbalance caused by the lack of technological base and structural problem. Study recommended that government should take some policy measures related to infrastructure, protection of property rights and finance which can promote productivity of industrial sector and uplift sustainable development.

Gechev. V. (2020) compared the economic growth dynamics of china and India from 1980 to 2018, highlighting the massive difference in economic performance between the two countries. It is found that China’s economic growth has far outpaced that of India over the past four decades, with china’s economy being five times larger than India’s in 2018 and having a significantly higher GDP per-capita. Key macroeconomic indicators such as GDP, exports, imports, net FDI inflows and domestic credit to the private sector all favor China over India, further highlighting China’s economic dominance. China also excels in human capital indicators, infrastructure quality and innovation ecosystem which contribute to its economic growth. Overall, the paper suggests

that, targeted policies for economic development along with comprehensive economic reforms have been instruments in China’s significant economic growth and its ability to outgrow India economically.

3. OBJECTIVES OF THE STUDY

- To assess the recent growth trends and performance of India and China’s manufacturing sector.
- To Analyze the Export Trends and Performance of Manufactured Goods in India and China.
- To propose actionable strategies and policy recommendations.

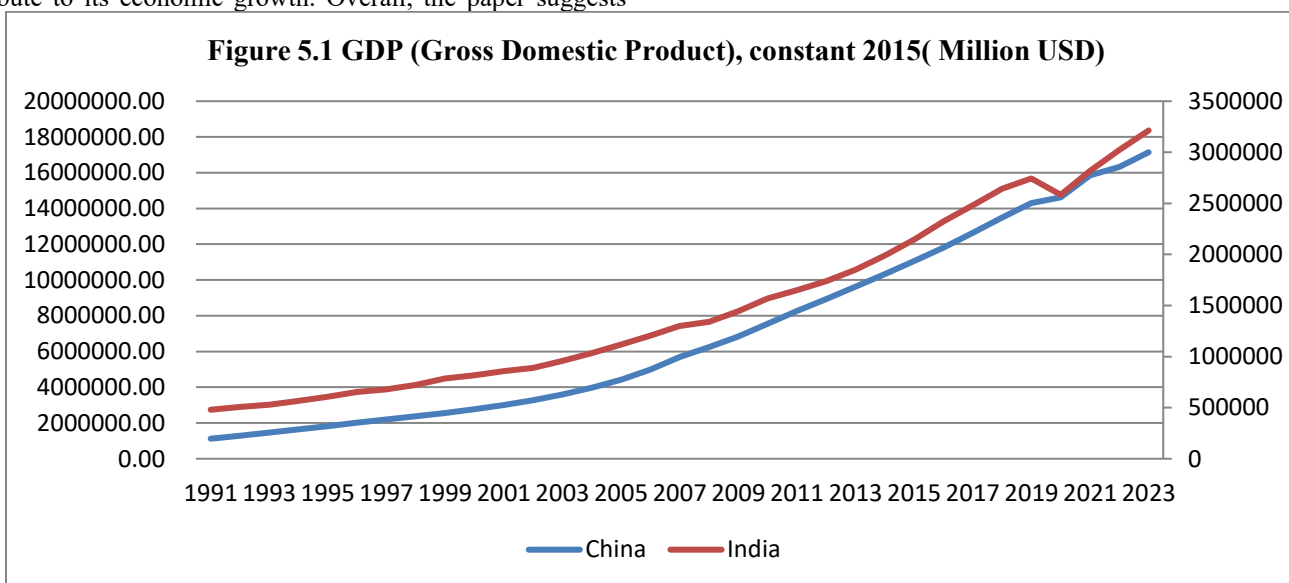
4. RESEARCH METHODOLOGY

The study is based on secondary information and data. Secondary data were collected from the World Bank Development indicators, UNIDO Database, OECD Tiva 2023 report, Economic Survey Report of India. Studies and investigations by other researchers have been considered as supplementary sources. A suitable statistical tool such as average and CAGR has been used for the analysis of the data. Statistical tables and graphs have been used to provide clear picture of the collected data.

5. RESULT AND DISCUSSION

5.1 Gross Domestic Product trends

The GDP patterns in Figure- 5.1 show that despite both China and India experiencing impressive economic growth in the last thirty years, China's growth has been faster and steadier. China and India have both seen significant GDP growth from 1991 to 2023. China experienced a growth in GDP from \$1.12 trillion to around \$17.14 trillion, while India saw an increase in GDP from \$480 billion to roughly \$3.21 trillion.



Source: UNIDO. National Account

China has consistently shown greater GDP growth than India, with a Compound Annual Growth Rate (CAGR) of 9% compared

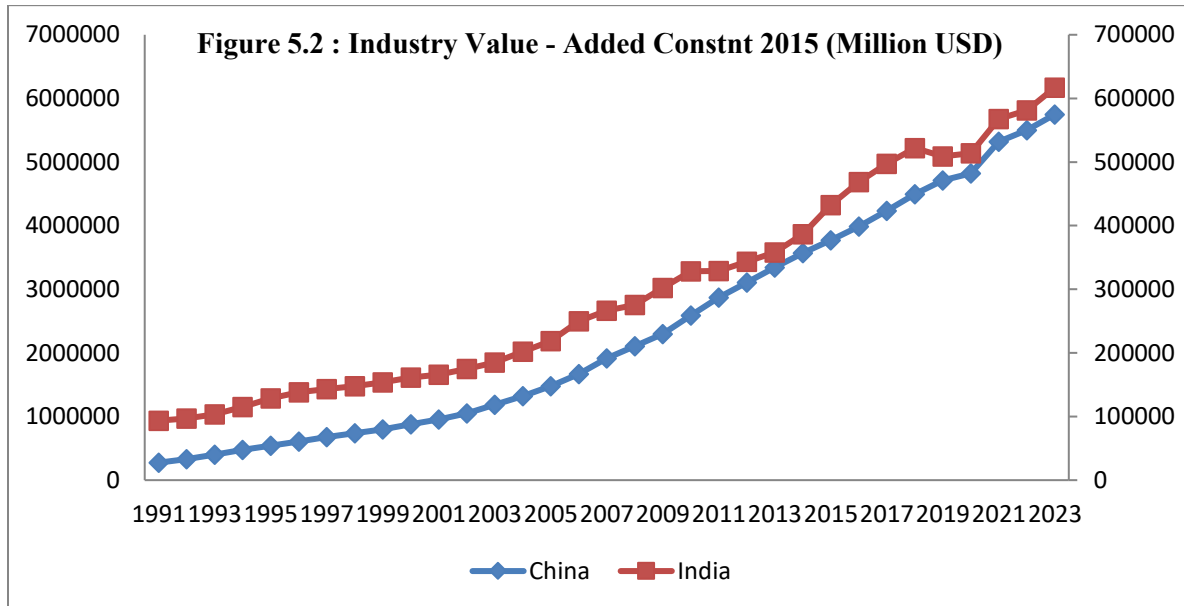
to India's 6%. This reflects China’s rapid industrialization and successful incorporation into international markets.



5.2 Trends in Industry Value Added (IVA) for India and China

According to Figure – 5.2 China's IVA rose from around \$274,831.12 million in 1991 to roughly \$5,747,646.12 million in 2023. This shows an impressive increase pattern; with a Compound Annual Growth Rate (CAGR) of 9.7% throughout the period. The data demonstrates steady annual growth, which reflects China's effective industrialization, focus on

manufacturing investment, and export-driven growth plan. On the other hand, India saw its IVA increase from \$93,543.93 million in 1991 to \$616,992.63 million in 2023, with a compound annual growth rate (CAGR) of 5.9%. Although this shows consistent expansion, it is significantly less rapid compared to China's growth. The statistics of IVA in India have seen notable changes, especially after the global financial crisis, but have shown resilience and gradual growth in recent years.

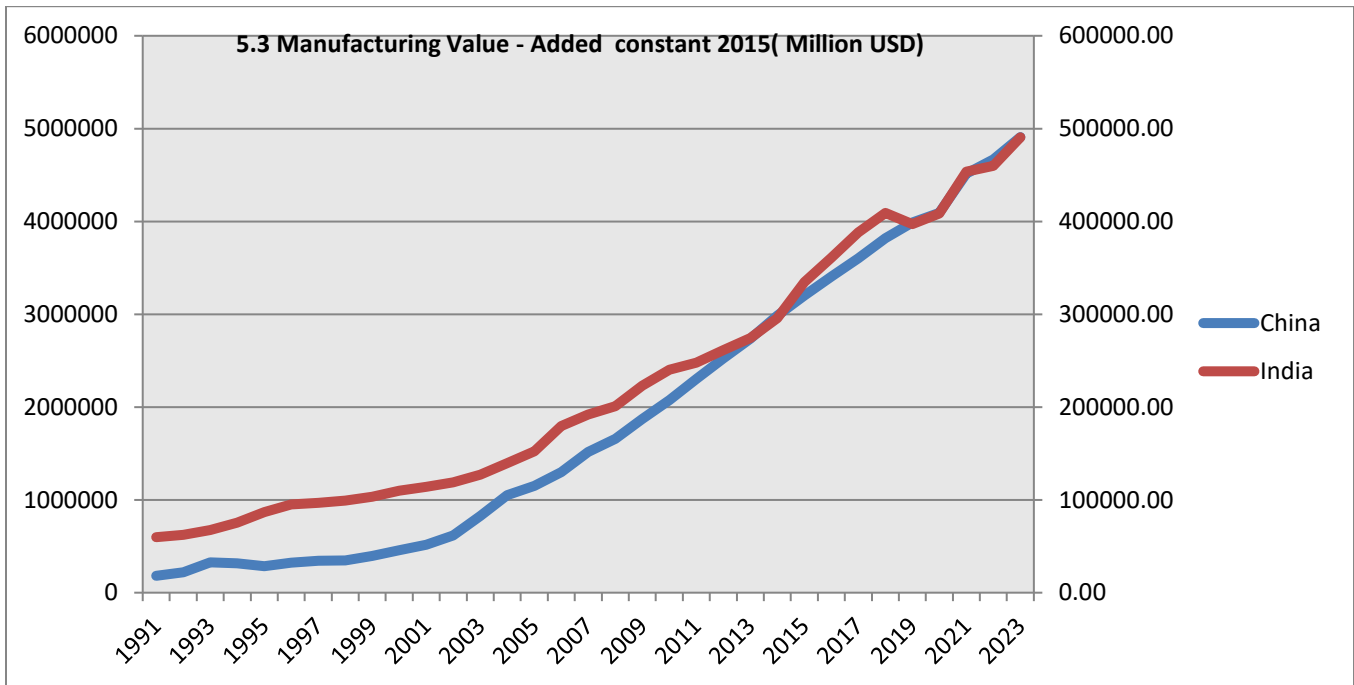


Source: UNIDO Database

5.3 Trends in Manufacturing Value- Added (MVA) for India and China

Figure -5.3 explains the Manufacturing Value Added (MVA) in constant 2015 million USD for China and India from 1991 to 2023, demonstrating the industrial development paths of each country. Between 1991 and 2005, China experienced a substantial increase in its MVA, rising from \$181,871.06 million to \$1,149,110.59 million. During this time, China experienced a surge in manufacturing due to economic reforms that encouraged foreign investment. After 2005, there was a continued increase in China's MVA, exceeding \$2,302,018.98 million by 2011 and peaking at \$4,908,512.33 million in 2023. The CAGR of 0.11

reflects the countries strong industrial growth over the years, highlighting its role as a top global manufacturing powerhouse. Between 1991 and 2005, India's MVA increased consistently from \$59,807.42 million to \$152,434.21 million. Despite having a positive growth rate, India's economy grew at a significantly slower pace compared to China's, indicating a slower industrialization process in the country. From 2010 to 2023, India's MVA increased steadily, growing from \$240,256.94 million in 2010 to \$490,594.31 million in 2023. India's growth rate of 0.07 shows steady growth, but it falls behind China due to a more diversified economy that is less dependent on manufacturing.

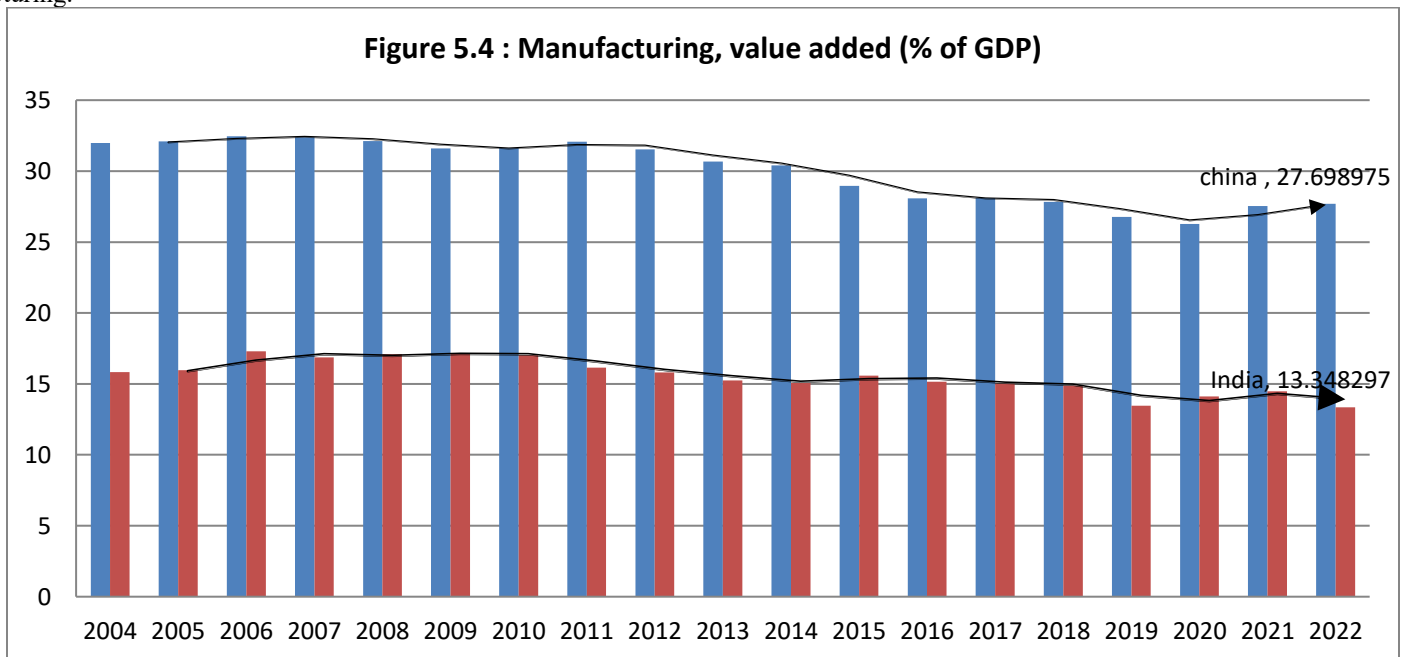


Source: UNIDO, Manufacturing trade database.

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5.4 Manufacturing Value Added Trends

The data in the figure 5.4 shows the manufacturing sector's value added as a percentage of GDP for India and China from 2004 to 2022. The percentage of manufacturing value added in India's GDP saw ups and downs, typically staying between 15.84% - 17.30% until 2018, after which it dropped significantly. On the other hand, China's manufacturing industry consistently contributed over 25% to its GDP, with a gradual decrease over time.



Source: UNIDO, National Accounts

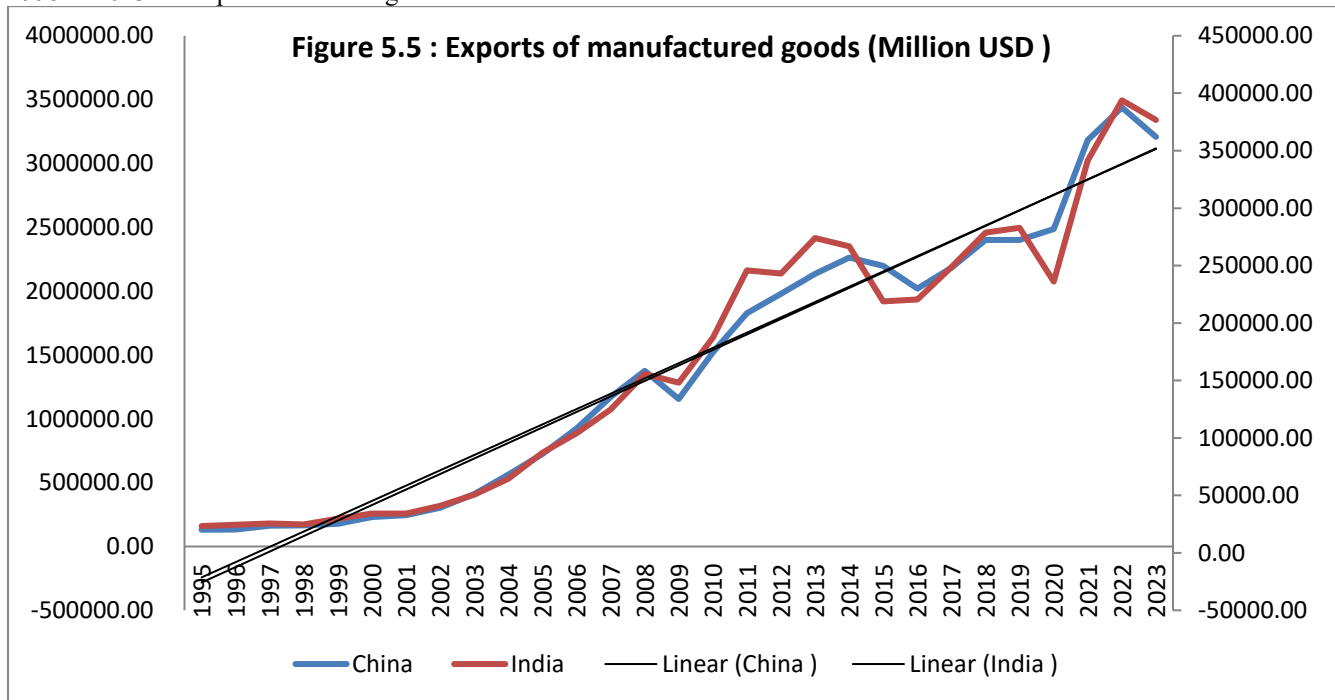


The period 2004-2011 highlights China's strong industrial capabilities and India's emerging manufacturing sector. A small decrease is noted in both nations, especially in India, where the value added dropped from 15.82% in 2012 to 15.07% in 2014. The manufacturing sector in China began to shrink, but it still maintained a steady lead over India's. India's manufacturing value added continued to decrease, dropping to a low of 13.35% in 2022. The percentage of manufacturing output in China also experienced a decline, falling to 27.70% within that year. This trend may indicate difficulties that both countries encounter in sustaining their manufacturing competitiveness.

5.5 Exports of manufactured goods in India and China:

The export values of manufactured goods from China and India from 1995 to 2023 are depicted in the diagram above. It is evident

from the Figure 5.5 that there has been substantial growth in the exports of both India and China over the years. China has consistently maintained a high export volume compared to India. Between 1995 and 2008, China experienced a substantial increase in exports, rising from \$ 131,280 million in 1995 to \$1,376,002 million in 2008, reflecting rapid industrial growth. During the same period, India's exports grew steadily from \$ 23,345.14 million in 1995 to \$ 155,511.84 million in 2008. Similar to China, India also faced a decline in 2009 amid the global financial crisis. However, between 2017 and 2022, India's exports demonstrated significant growth, indicating its deeper integration into the global manufacturing supply chain and the impact of policy changes, although it still lags far behind China. In 2023, exports experienced a slight decrease to \$ 376,778.45 million.

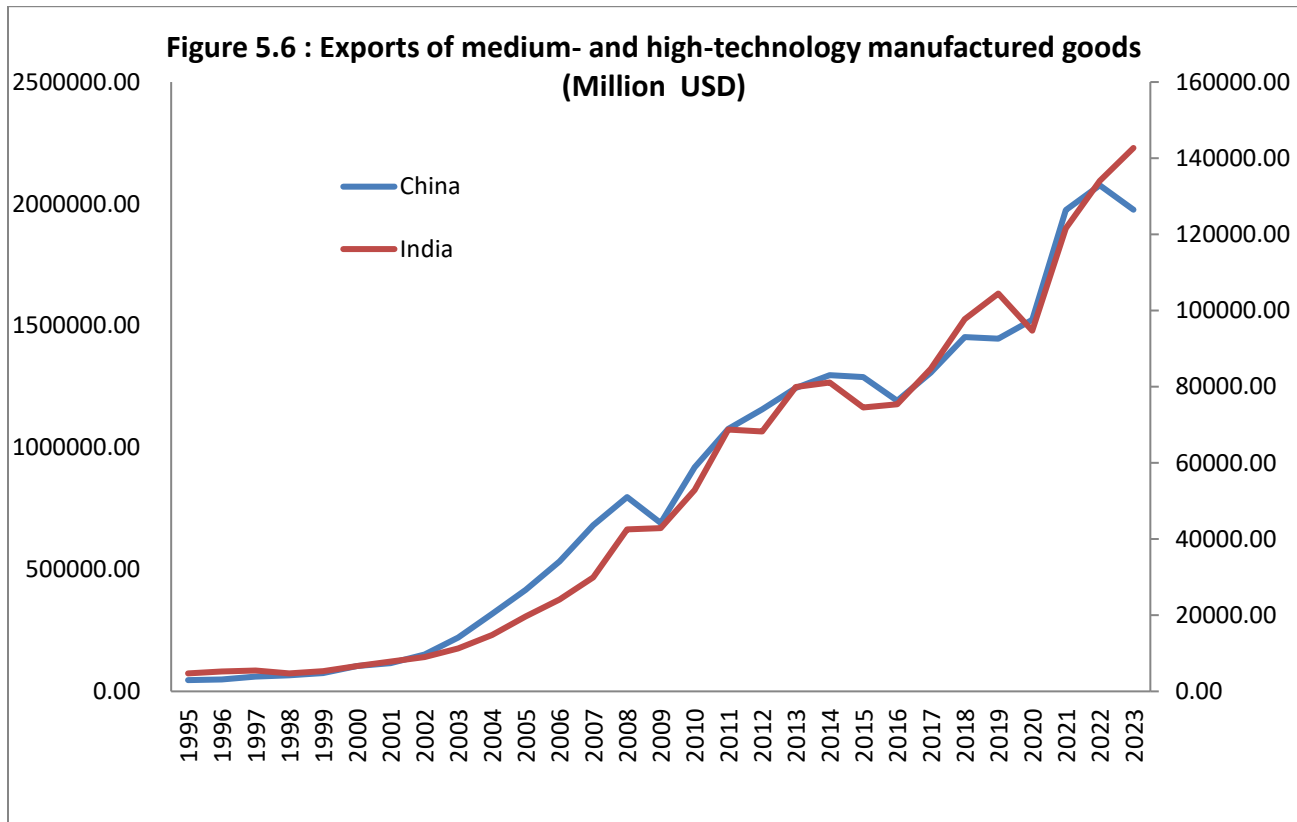


Source: UNIDO, Manufacturing trade database

5.6 Exports of medium- and high-technology manufactured goods:

Figure -5.6 illustrates the yearly exports of high and medium technology goods from 1995 to 2023 for China and India,

showcasing their performance in industries requiring technological expertise, including electronics, machinery, and other highly esteemed manufacturing sectors in both countries.



Source: UNIDO, Manufacturing trade database.

From 1995 to 2001, there was a period of moderate economic growth in both countries. China's export increased from \$46,226 million to \$116,005 million, whereas India's went up from \$4,750 million to \$7,804 million. The decade from 2001 to 2010 saw significant expansion in China, fueled by its entry into the WTO in 2001, allowing Chinese products to reach global markets. In 2010, China's exports had increased almost eight times from 2001 to reach \$919,082 million. India also experienced substantial growth during this period, albeit at a more gradual pace, hitting \$52,907 million in 2010. After 2010, both nations saw significant economic expansion, with China hitting its highest point at \$2,076,400 million in 2022 before a small decrease in 2023. In 2023, India reached a peak of \$142,690 million following a similar trend.

6. MAJOR FINDINGS AND SUGGESTIONS

6.1 Findings

- The growth of China's manufacturing sector has been driven by its involvement in international supply chains, significant FDI, and government support for export oriented industries. Its capacity to increase production across a wide range of sectors has led to its recognition as the global manufacturing hub.
- India's reduced economic expansion can be linked to various reasons such as difficulties with infrastructure, limited involvement in working worldwide production networks, and a greater focus on the service sector.

Domestic consumption is driving a significant growth surge.

- Between 1995 and 2023, there was a considerable expansion in the export of manufactured products in both China and India.
- The rapid growth and higher export values demonstrate China's strong presence in global export over the period. Although India's expansion has been gradual, it has made significant progress in recent years, establishing itself as growing manufacturing hub.
- The manufacturing sector in India has more potential to grow, as shown by its lower MVA. By implementing further reforms, India has the potential to boost its industrial growth in sectors such as high-tech and medium-technology manufacturing.

6.2 Suggestions and Conclusion

India has faced obstacles in its development due to issues like insufficient infrastructure, regulatory obstacles, and a slower pace of industrial expansion, despite making commendable progress. Enhancing the supply chain for raw materials and finished products to fully cater to the market is need of the hour. Expanding supportive measures beyond big companies promotes equity in policies through a more inclusive approach. Promoting creativity and simplifying regulatory procedures specifically for small and medium-sized businesses can boost their competitiveness and help achieve more equitable economic



growth. A robust manufacturing industry is essential for long-term and equitable development.

REFERENCES

1. Ahluwalia, I. J. (1986). *Industrial growth in India: Performance and prospects*. *Journal of Development Economics*, 23 (1), 1-18.
[https://doi.org/10.1016/0304-3878\(86\)90076-3](https://doi.org/10.1016/0304-3878(86)90076-3).
2. Gupta, H. a. S. J. (2017, February 1). *Performance of manufacturing sector in India: an empirical analysis*.
<http://hdl.handle.net/10603/125715>
3. Sharma, R. (2014). *Industrial Development of India in Pre and Post Reform Period*. *IOSR Journal of Humanities and Social Science*, 19, 01-07.
4. Sarkar, S., & Kalyan, S. (2016). *Industrial development in India- Challenges, Growth and Government Initiatives*. *Indian Economic Development* , 43-53.
5. Kapoor, R. (2018). *Understanding the performance of India's manufacturing sector: Evidence from firm level* (CSE Working Paper 2018-2). Centre for Sustainable Employment, Azim Premji University.
6. Nidiaya, C., & Kangjuan, Lv. (2018). *Role of Industrialization on Economic Growth: The Experience of Senegal (1960-2017)*. *American Journal of Industrial and Business Management*, 8, 2072-2085
7. Vasil, Gechev. (2020). *China & India: A Comparison of Economic Growth Dynamics (1980-2018)*. *Social Science Research Network*, doi: 10.2139/SSRN.3578163.
8. Government of India, MoSPI Annual Report -2023.
9. <https://dge.gov.in>
10. <https://mospi.gov.in>
11. <https://www.rbi.org.in/>
12. <https://www.statista.com/>