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An Analysis of Manufacturing Sector Performance: During Pre and Post-Pandemic COVID-19 in India

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Abstract

Government is aiming to establish India as global manufacturing hub through various policy measures and incentives to specific manufacturing sectors. Launched in 2014, the Make in India initiative aims to transform India into a manufacturing, design, and innovation hub. The initiative spans 27 sectors, supported by policies like PLI schemes, GST, corporate tax reduction, and ease of doing business reforms. The One District One Product (ODOP) initiative promotes regional development by highlighting unique products from each district, fostering socio-economic growth. In this paper we have taken quarterly and yearly data of Manufacturing Sector 2012-13 to 2023-24 from Ministry of Statistics and Programme Implementation. In this paper we have seen the growth rate on yearly basis, CAGR, trend analysis and performance of Manufacturing Sector in pre and post-pandemic period. Is there any fluctuations in the growth rate of this sector during pre and post pandemic or any type of pattern?

Keyword: Global, Manufacturing, GST, ODOP, Pandemic.

1. INTRODUCTION

The Gross Value Added (GVA) within the manufacturing sector in India experienced a compound Annual Growth Rate (CAGR) of 5% between 2015-16 and 2019-20, based on the annual national income data released by the Government of India. The estimated Gross Value Added (GVA) of the sector at current prices in 2019-20 was US$ 397.14 billion, according to provisional estimates. Favourable business conditions endure in the Indian manufacturing sector, with the manufacturing segment of the Index of Industrial Production (IIP) climbing to 129.8 in 2019-20. Noteworthy growth rates were observed in the production of basic metals (10.8%), intermediate goods (8.8%), food products (2.7%), and tobacco products (2.9%). India's Index of eight core industries reached 131.9 in 2019-20. The Bureau of Figures & Scheme Implementation announced a 3.6% year-on-year surge in India's industrial output, as gauged by the IIP, in October 2020. Items exported experienced a 4.78% decline year-on-year, reaching a total of US$ 314.31 billion in FY20. The manufacturing sector in India displayed improvement for the third consecutive month in October 2020, with firms expanding production significantly amidst strong sales growth. The Acquiring Managers' Index (PMI) plunged from 58.9 in October 2020 to 56.3 in November 2020, indicating substantial growth in the manufacturing sector despite a modest decrease. The machine tool industry was literally the nuts and bolts of the manufacturing industry in India. Today, technology has stimulated innovation with digital transformation a key aspect in gaining an edge in this highly competitive market.

Technology has today encouraged creativity, with digital transformation being a critical element in gaining an advantage in this increasingly competitive industry. The Indian manufacturing sector is steadily moving toward more automated and process-driven manufacturing, which is projected to improve efficiency and enhance productivity.

India has the capacity to export goods worth US$ 1 trillion by 2030 and is on the road to becoming a major global manufacturing hub.

The manufacturing sector in India, with 17% contribution to the national GDP and a workforce of over 27.3 million individuals, holds a significant position in the country's economic landscape. The Indian government aims to increase the manufacturing sector's contribution to 25% of the overall economy by 2025 through various initiatives and policy implementations.

India's existing physical and digital infrastructure now enables a potential enhancement in the manufacturing sector's share in the economy, positioning the country to emerge as a key player in global supply chains. The manufacturing industry, offering global competitiveness, stands as India's prime opportunity for fuelling economic expansion and generating employment opportunities in the current decade. India possesses considerable potential for international market engagement, driven by factors such as sustained growth in energy resources, long-lasting employment avenues, and pathways for skills development for a vast population. Numerous elements contribute to this potential, including leveraging India's strengths in terms of raw materials, industrial knowledge, and entrepreneurial spirit.

Furthermore, the manufacturing sector can capitalize on four key market prospects: expanding exports, localizing imports, catering to domestic demand, and engaging in contract manufacturing. In today's fiercely competitive landscape, digital transformation plays a pivotal role in gaining a competitive edge in the manufacturing sector, sparking innovation through technology. The gradual transition of India's manufacturing sector towards automated and process-oriented production is anticipated to enhance operational efficiency and elevate production output.

India is gradually progressing on the road to Industry 4.0 through the Government of India's initiatives like the National Manufacturing Policy which aims to increase the share of manufacturing in GDP to 25 percent by 2025 and the PLI scheme for manufacturing which was launched in 2022 to develop the core manufacturing sector at par with global manufacturing standards.

India is planning to offer incentives of up to Rs.18, 000 crores (US$ 2.2 billion) to spur local manufacturing in six new sectors including chemicals, shipping containers, and inputs for vaccines.

India's mobile phone manufacturing industry anticipates creating 150,000 to 250,000 direct and indirect jobs within the next 12-16 months, driven by government incentives, and increased global demand. Major players like Apple and its contract manufacturers, along with Dixon Technologies, are expanding their workforce to meet growing production needs.

2. LITERATURE REVIEW:

- ✓ The Study of the Indian Manufacturing Industry related to Utilities, Infrastructure and Economic Development discussed Indian data on the basis of direct effect of roads and electricity purchased by manufacturing industries was carried out by **Hulten Charles R, Bennathan Esra and Shrinivasan Shilaja (2006)**. Infrastructural development and economic development has been analyzed in this paper. A period of 20 years from 1972 to 1992 was considered to check the growth of road and electricity generation capacity in India.
- ✓ **Kumar and Arora (2007)** endeavored to observe technical and scale efficiency in Indian manufacturing sector using a cross-sectional analysis of 127 manufacturing industrial groups classified at 4-digit level for the year 2003-04. Using the technique of Data Envelope Analysis (DEA), the study concluded that the average Overall Technical Inefficiency (OTIE) is to the

tune of 39.7 percent in Indian manufacturing. Only, nine industrial groups are identified to be globally efficient along with 17 locally efficient industrial groups. However, the observed OTIE is dominated by improper management practices i.e., pure technical inefficiency, whereas scale inefficiency is relatively a scant source of OTIE. Further, decreasing returns-to-scale was found to be prevailing in Indian manufacturing sector and the environmental variables such as capital deepening, profitability and labor skill are positively affecting technical efficiency.

- ✓ Manufacturing Slowdown in India: New Evidence from a Double Deflation Approach by **Sutirtha Bandyopadhyay (2019).** The double deflation approach to measuring real value added provides significantly different conclusions about the performance of the manufacturing sector and the overall economy, both in terms of levels as well as growth. These differences are driven by differences in the movement of the corresponding output price indexes and the intermediate input price indexes. The manufacturing contraction and the slowdown in the overall economy in 2014-15 are visible only in the double deflation value added figures. In the case of manufacturing, the contraction is corroborated by the movement of high frequency indicators that are correlated with manufacturing sector performance.

3. OBJECTIVE:

To analyze the performance of Manufacturing Sector during pre and Post-pandemic COVID-19 period in India.

4. METHODOLOGY

4.1. The Meaning of Trend:

A form of gradual modification in a condition, yield, or process, or an average or general tendency of a serial publication of data points to a move in a certain way over time and that is represented by a line or curve on a graph.

4.2. Variables and Data Sources:

The present study based on secondary data. We have considered secondary data of Manufacturing Sector in India and taken a period of 2012-13 to 2022-24 on quarterly and Yearly basis. We have distribute the data between three parts, pre-pandemic, pandemic and post-pandemic period. The secondary date has collected from Central Statistics office (CSO), National Statistical office (NSO), 'Handbook of statistics of Indian Economy' Reserve Bank of India, etc.

4.3. Method of Analysis:

- ➢ Trend Analysis has been used to analyse India's Manufacturing Sector performance.
- ➢ Graph, Trend line etc. are used for diagrammatic analysis.
- ➢ Year on Year (YoY) Basis Growth Rate
- ➢ Compound Annual Growth Rate (CAGR)

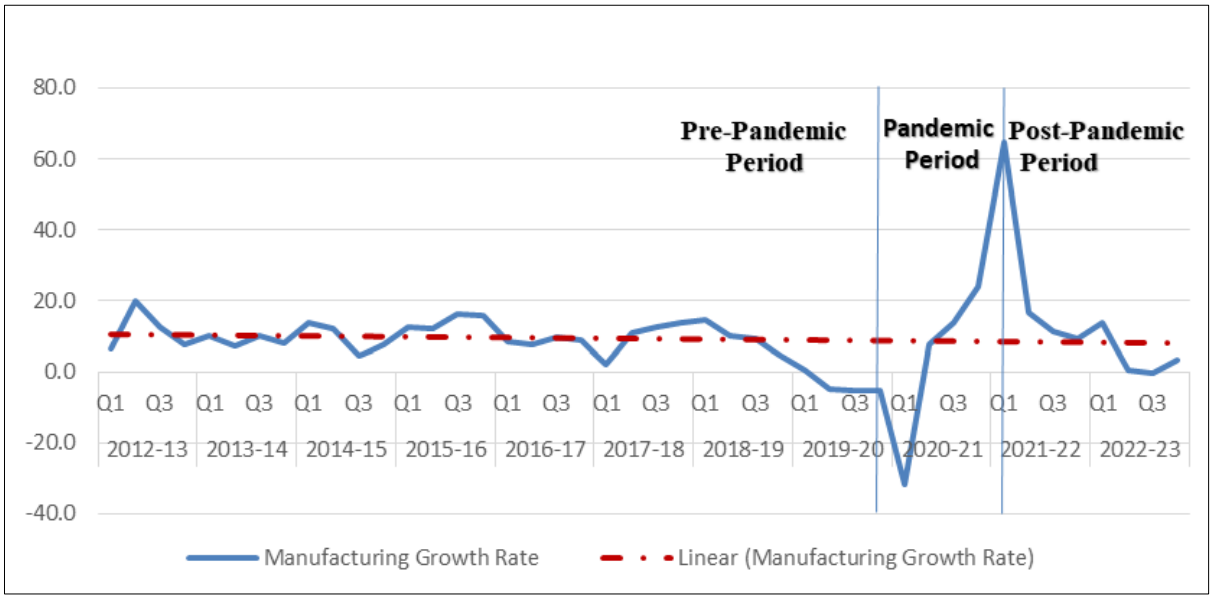

Figure 1: Manufacturing Growth Rate YoY Basis in (%)
Source: MoSPI

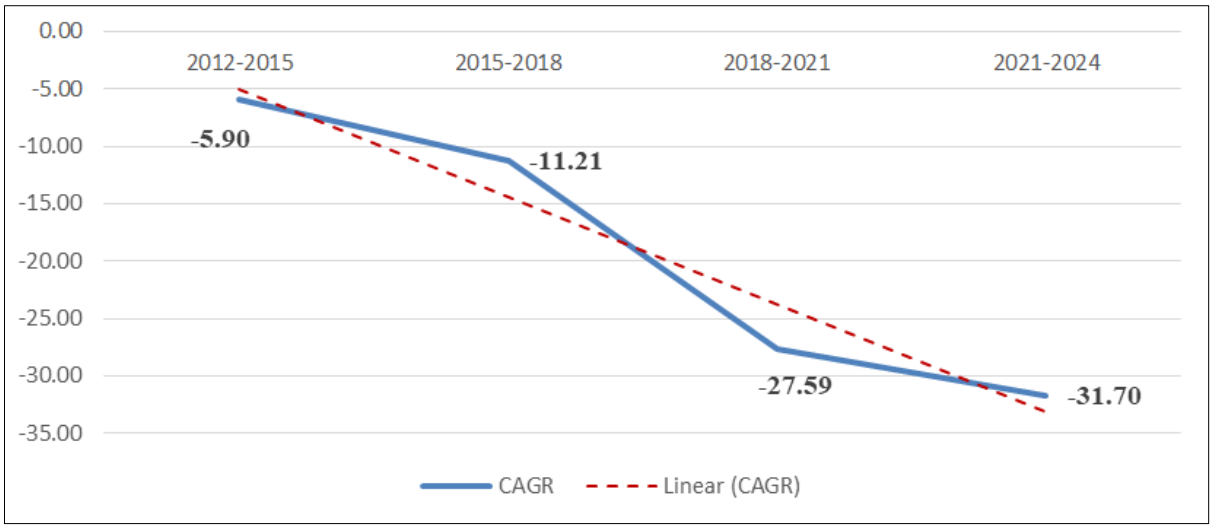

Fig: 2 Manufacturing Sector CAGR in (%)
Source: MoSPI

We have seen in fig.1 there is a straight trend line in pre-pandemic period. After 2019-20 there is a decline in YoY growth rate because this is a pandemic period and in post-pandemic period again decline in growth rate of manufacturing sector. Similarly huge negative trend line in Fig.2 after 2012-13 in manufacturing sector. The reason is mainly because of the twin balance sheet problem, implementation of demonetization, GST, and due to pandemic.

5. CONCLUSION

The chapter analysis that the manufacturing sector is an important contributor in Indian economy and but we have seen in fig.1 there is a straight trend line in pre-pandemic period. After 2019-20 there is a decline in YoY growth rate because this is pandemic period. Similarly huge negative trend line in Fig.2 after 2012-13 in manufacturing sector. The reason is mainly because of the twin balance sheet problem, implementation of demonetization, GST, and due to pandemic, which has highly negative impact on MSME sector which is come under the manufacturing sector and overall manufacturing sector shows negative CAGR.

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