

# Performance of Automobile Sector in India: A case of Two and Three-Wheeler Vehicles

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## Abstract:

India's annual production of automobiles in FY23 was 25.92 million vehicles, and 22.92 million vehicles were produced in FY22. The share of Two and Three wheeler vehicles are 19.45 million and 0.85 million (SIAM, 2023). The automobile industry is an important driver of the economic growth in India and one of the successful sectors in which the country has high participation in global value chains (GVCs). India was the sixth largest producer of automobiles globally with an average annual production of about 23 million vehicles in 2021–2022, of which about 5 million were exported (SIAM, 2023). In this paper we have taken yearly data of production and domestic sales of two and three wheeler vehicles from 1991-92 to 2022-23 from Society of Indian Automobile Manufactures (SIAM). In this paper we have seen the growth rate on YoY, CAGR and trend analysis of two and three wheeler vehicles, is there any fluctuations in the production and domestic sales in the two and three wheeler vehicles or any type of pattern.

**Keyword:** Automobile, Production, Sales, CAGR, Fluctuations.

## 1. Introduction:

The Indian automobile sector has traditionally served as a reliable barometer of the overall economic performance, given its pivotal role in macroeconomic expansion and technological progress. Dominating the market in terms of volume, the two-wheeler segment is buoyed by an expanding middle class and a substantial young demographic within India. Furthermore, the sector's growth has been significantly bolstered by heightened corporate interest in tapping into rural markets. Anticipated future market expansion is expected to be primarily driven by emerging trends, notably the shift towards electric vehicles, particularly in the three-wheeler segment.

In the fiscal year 2023, India's annual automobile production reached 25.92 million units, underscoring the nation's robust domestic demand and export capabilities. During the same period, India's automobile exports totalled 4,761,487 units. Over the years, this sector has witnessed a steady increase in its contribution to the national GDP, rising from 2.77% in 1992-1993 to approximately 7.1% at present, supporting a workforce of around 19 million individuals directly and indirectly.



India's standing as a key player in automobile exports is further solidified by optimistic projections for future export growth. Moreover, various strategic endeavours undertaken by the Indian government, such as the Automotive Mission Plan 2026, scrap policy and production-linked incentive scheme, are poised to position India as a global frontrunner in the two-wheeler and three-wheeler segments by 2022.

## 2. Review of Literature:

- ✓ Causal Effect of Economic Indicators on Indian Automobile Sector by **Rama Krishna Yelamanchili (2019)**. In our analysis we observe that Indian automobile industry is facing turbulent times since 2017 and the industry woes still continue. We perceive that increase in wealth creation in the country, general increase in industrial production and substantial decrease in oil prices do not help auto industry to recover. We opine that Indian automobile industry is in transition stage because of GOI's new policies, stringent regulatory and emission norms. In turn these adversely affect automobile manufacturers cost of production, cost of sales, sales, and the bottom line. In this paper we consider AUTO index as a proxy for automobile industry. However, considering multiple segments and multiple manufacturing companies in automobile industry, future research should focus on co-movements and causal relationships between economic indicators and individual firms belong to each segment.
- ✓ The Indian Automobile sector slowdown by **Vijaya Kittu Manda (2019)**. Being one of the most significant contributors to GDP and a top employer, the Indian Automobile and Auto-ancillary sectors are vital for the economic progress of the country. The recent global slowdown has its toll on the Indian automobile sector and hence has a chain of consequences. This paper examines some factors in the context of some recent experiences observed. Companies have to take a more realistic view of determining the number of units they need to manufacture. Further, futuristic technologies require Indian buyers to be mentally be prepared before the products are being launched. Finally, severe

economic push in the form of Government policies is necessary for the sector to revive failing, which the slowdown cycle would get extended further.

**3. Objective:**

To Study the performance of Two and Three Wheeler Vehicles 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.

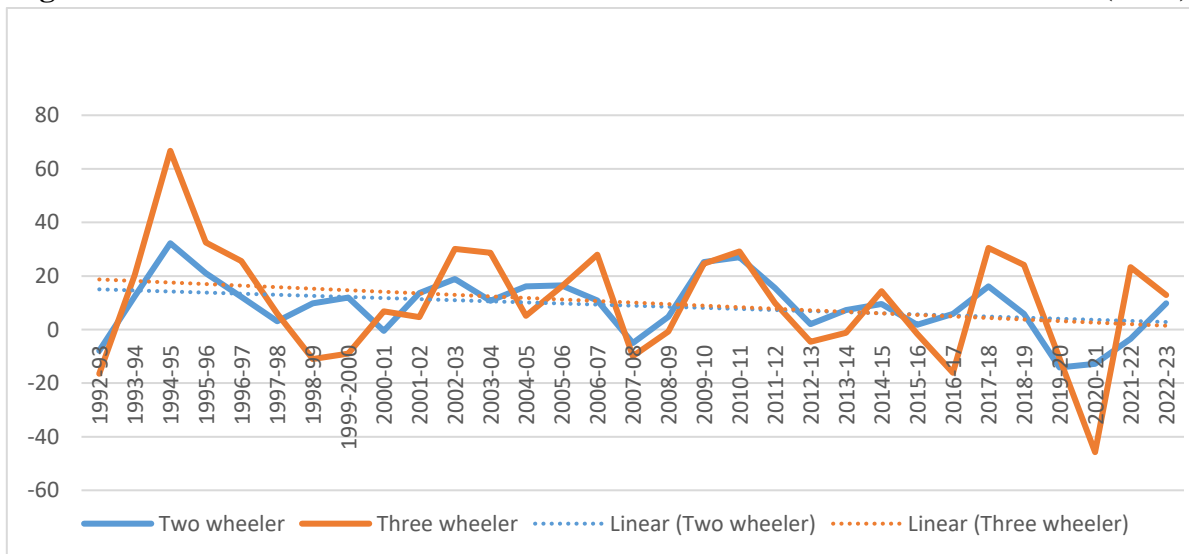
**4.2. Variables and Data Sources:**

We have taken two wheelers and three wheelers vehicles data in India and taken a period of 1991-91 to 2022-23 on yearly basis. We have taken time period after 1991 because a major policy was introduced at that time which had opened up Indian economy in world market. Before 1991, Indian policy was based on close economy but after 1991, Indian policy has become open economy after 1991, Indian economy growth rate increased and it gave more chance to all sector grow up at world level. Automobile sector has opened up their growth and increase after 1991 period. So, we have taken a study period of 1991 to 2023. To analysis the chapter, we have taken secondary data form SIAM (Society of Indian Automobile Manufacturers). To analysis the performance of two wheelers and three wheelers vehicles we have taken variable of production and domestic sales.

**4.3. Method of Analysis:**

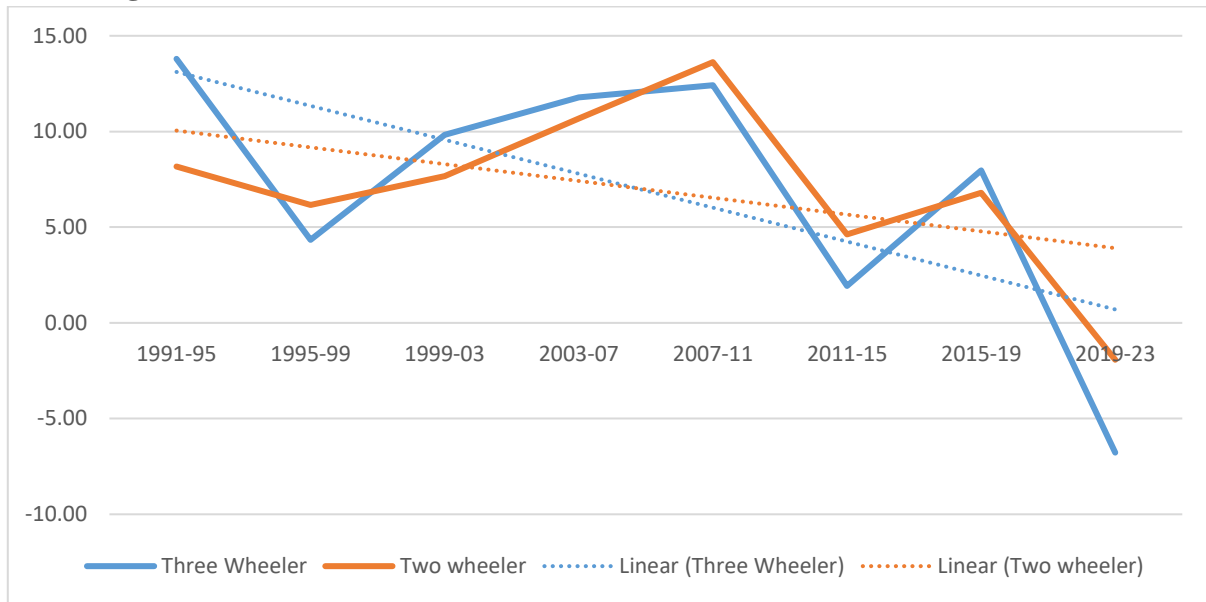
- Trend Analysis has been used to analyze India’s Automobile Industry performance.
- Graph, Trend line etc. are used for diagrammatic analysis.
- Year on Year (YoY) Basis Growth Rate
- Compound Annual Growth Rate (CAGR)

**Figure. 1: YoY Growth Rate of Production in Two and Three Wheeler Vehicles (in %)**



Source: SIAM

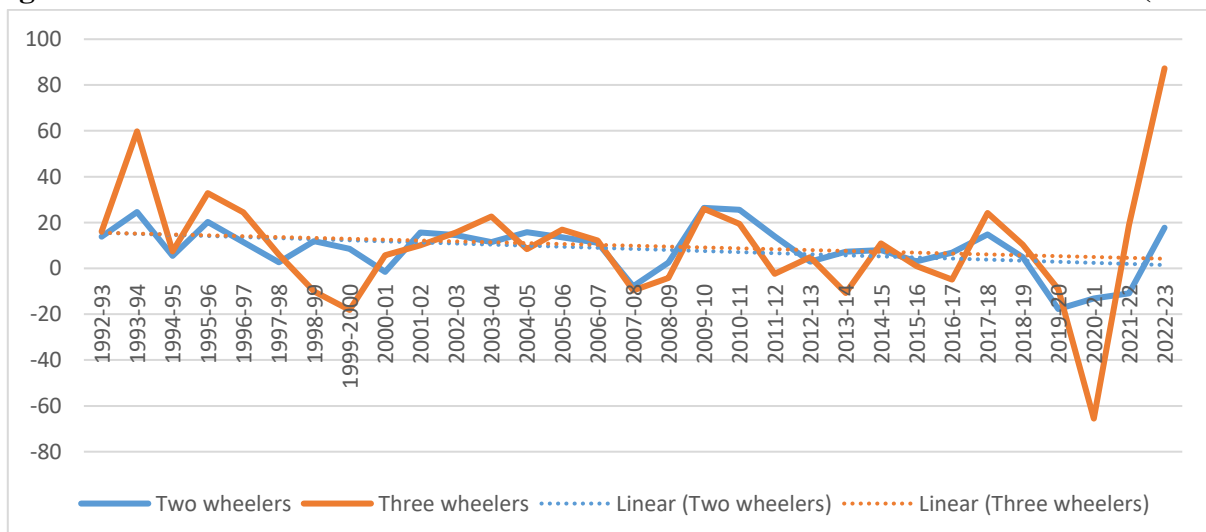
**Figure. 2: CAGR of Production in Three and Two Wheeler Vehicles (in %)**



*Source: SIAM*

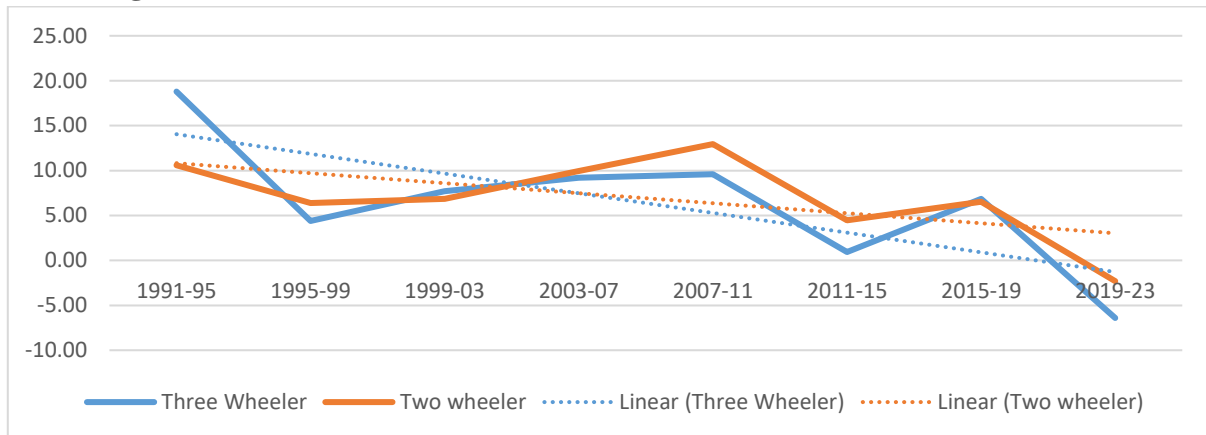
In the fig. 1 and 2, we analyze that the production of three and two wheeler vehicles growth rate is showing negative trend line which describe that on year to year basis, three and two wheeler vehicles growth has produce less than previous year production. In 32 years of analysis, there was certain crisis which could economy in negative direction and it had affected all world economy like 2008 global financial crisis, COVID -19 pandemic. In the context of India, it had also affected by these huge crises but some other policy changing effect Indian economy like Demonetisation, GST, and Bharat Stage IV and VI policy. We can clearly see in the fig. 2 the graph that after 1995, the production of three and two wheeler vehicles CAGR has increased in high level. But after 2007, we have seen some negative growth rate in this segment mainly global financial crisis and most negative growth rate that we have seen in after 2019 due to COVID-19 pandemic, because of the supply chain block at that period of time.

**Figure. 3: YoY Growth Rate of Domestic Sales in Two and Three Wheeler Vehicles (in %)**



*Source: SIAM*

**Fig. 4 CAGR of Domestic Sales in Three and Two Wheeler Vehicles (in %)**



*Source: SIAM*

Similarly, in the fig. 3 and 4, we analyse that the domestic sales of three and two wheeler vehicles growth rate is also showing negative trend line which describe that on year to year growth rate, this shows three and two wheeler vehicles sales has less than previous year sales.

## 5. Conclusion:

We have analyse in this chapter is that the production of three and two wheeler vehicles growth rate is showing negative trend line which describe that automobile sector growth has produce less than previous year production. Domestic Sales growth rate in three and two wheeler vehicles in India is also showing negative trend line which means that the domestic sales of three and two wheeler vehicles is going down in India. Production shows the supply side of the country and Domestic sales of three and two wheeler vehicles shows the demand side of the country population and decreasing trend line show that the country population is not creating the demand of three and two wheeler vehicles, this will effect on supply side also.

## 6. References:

1. Adhikary, M. and Mazumder, R. (2005), "Economic reforms and Manufacturing Sector Productivity in West Bengal: An Industry Level Study", *The Indian Journal of Regional Science*, Vol. XXXVII, Nov. 2005, pp. 82-91.
2. Bhadauriya, V. S., & Gupta, S. (2015). Automobile industry in India: an analysis. *Journal of Management Value and Ethics*, 5(2), 50-57.
3. Chitre Vikas (2003) "Global Slowdown and the Indian Economy" *Economic and political Weekly*, Vol 38 No. 21 (May 24-30, 2003) (pp. 2056-2066 )
4. Economic Survey 2019-20, 2020-21
5. Kumar, A. (2015). Growth of Automobile Industry in India. *Anusandhanika*, 7(2), 57.
6. Minal (2012), „Global Economic Meltdown and Its Impact on Indian Economy“, *International Review of Social Sciences and Humanities* Vol. 3, No. 2 (2012)
7. Rajan, Raghuram, 2019, "The Indian Economy: What Got us Here," O.P. Jindal Lecture, Brown University
8. Reserve Bank of India 'Handbook of Monetary Statistics of India', Mumbai
9. Singh, K. (2007). Predicting organizational commitment through organization culture: A study of automobile industry in India. *Journal of business economics and management*, 8(1), 29-37.