

## **Evolution and Expansion: Unveiling Trends and Growth in the Indian Automobile Industry.**

**Mr. Karan G. Brahmbhatt\*,**  
Assistant Professor,  
Additional SF Division Navyug Commerce College, Surat.  
Email: [kgb@navyugcommerce.ac.in](mailto:kgb@navyugcommerce.ac.in)  
Mo.No.-9265314795

**Dr. Mehul B. Shah,**  
Assistant Professor,  
Navyug Commerce College, Suart.  
Email: [mbs@navyugcommerce.ac.in](mailto:mbs@navyugcommerce.ac.in)  
Mo.No.-9099070068



## **Abstract:**

India ranks fourth in the world for vehicle manufacture in 2022, indicating that the country's automotive industry is among the fastest-growing in the globe. This study carefully examines the trends and growth patterns within the Indian automobile sector using secondary data from the reports of the Society of Indian Automobile Manufacturers and the International Organization of Motor Vehicle Manufacturers. Throughout a six-year period from 2017–18 to 2022–23, the study makes use of statistical techniques such as simple percentage, mean, standard deviation, coefficient of variation, and compound annual growth rate. The results of the study demonstrate that, over the specified period, India's overall car output increased dramatically. Surprisingly, the growth rate for two-wheelers is higher than that.

## **1.Introduction:**

India stands among the fastest-developing nations globally. In the aftermath of independence, the Indian economy grappled with a significant challenge due to a lack of capital investments in industries. However, the 1990s witnessed a transformative shift with the introduction of liberalization, privatization, and globalization (LPG) policies. Globalization, in particular, opened avenues for foreign direct investment, attracting numerous major international investors to establish their businesses in India (Momin, 2019).

The automobile industry, which had its roots in India a few years before independence, experienced a notable transformation post-globalization. Prior to these policies, only a limited number of domestic automobile companies operated in India, with low production levels. The influx of foreign automobile companies' post-globalization led to the establishment of numerous manufacturing units in the country. Consequently, India emerged as a prominent player in the global automobile manufacturing landscape.

The Indian automobile industry plays a crucial role in the country's economy and has made important contributions to its expansion. With an industry share of 7.1 percent of the GDP in 2022, it is essential to the creation of both direct and indirect employment prospects. The industry has shown strong growth rates lately.

This paper aims to delve into the evolving trends of the automobile industry in India, tracing its trajectory from the challenges faced post-independence to its current status as a key player in the global automotive manufacturing arena.

## **1. LITERATURE REVIEW:**

"Export Performance and Trends of Automobile Industry in India" is a commendable contribution to the existing literature on the subject. (Melwani & Sitlani, 2017) have successfully presented a well-researched, multifaceted exploration of the Indian automobile industry's export dynamics. This article is recommended for scholars, policymakers, and industry practitioners seeking a robust understanding of the factors influencing the export performance of the Indian automobile sector.

(Sarangi et al., 2014) the author tries to evaluate the performance of the automobile sector with respect to Trend History of automobile sector and Trending growth investment and find that cobalt is crucial raw materials and its reserve is also very little.

(Chandrasekar & PALANIVELU, 2018) The trend in the Indian automotive sector was the main subject of this study. The purpose of the study was to evaluate how well export commercial vehicle passenger automobiles performed. The author employed statistical tools, mean coefficient, and standard deviation to assess data from a global report. It is assumed that a sizable amount of the study's increased car count was exported to foreign nations.

## **2. OBJECTIVES:**

The primary objectives of this research paper are to comprehensively analyse the current trends and growth patterns within the Indian automobile industry, shedding light on key factors influencing its trajectory. The study aims to provide a nuanced understanding of the industry's dynamics, encompassing both historical perspectives and contemporary developments. Through a combination of quantitative analysis and qualitative insights, the research seeks to identify drivers and challenges that impact the industry's growth. Additionally, the paper aims to contribute valuable insights for policymakers, industry stakeholders, and researchers, fostering a deeper comprehension of the Indian automobile sector's landscape and its implications for future strategic decisions.

## **1. METHODOLOGY:**

This study was conducted by the researcher in order to analyze the growth and trends of the Indian vehicle sector. The research employs secondary data. Secondary data were gathered from the Society of Indian Automobile Manufacturers' ([www.siamindia.com](http://www.siamindia.com)) and the International Organization of Motor Vehicle Manufacturers' (<http://www.oica.net/>) reports. The study's six-year duration ran from 2017–18 to 2022–2023 years. The statistical methods utilized by the researcher

included simple percentage, mean, standard deviation, coefficient of variation, and compound annual growth rate. The approach used in the study was chosen by the researcher from that conducted by (Chavda, 2018).

## 2. OUTCOMES AND TALK:

This section of the research report discusses and displays the findings from the trend and expansion of the Indian auto sector..

### INDIA AND GLOBAL AUTOMOBILE INDUSTRY:

Many countries in the world are producing and exporting automobile products in the world. Among them few countries are contributing more on total production in the world. The following table brings out the results of top automobile manufacturing in the world along with percentage share of each country and their respective ranks.

**TABLE:A**Top Ten Worldwide Auto Production List (2022)

SR No.	Country	Cars	Commercial Vehicles	Total	Share (Perc.)	Rank
1	China	23836083	3184532	27020615	31.78	1
2	USA	1751736	8308603	10060339	11.83	2
3	Japan	6566356	1269163	7835519	9.22	3
4	India	4439039	1017818	5456857	6.42	4
5	South Korea	3438355	318694	3757049	4.42	5
6	Germany	3480357	197463	3677820	4.33	6
7	Mexico	658001	2851071	3509072	4.13	7
8	Brazil	1824833	544936	2369769	2.79	8
9	Spain	1785432	434030	2219462	2.61	9
10	Thailand	594057	1289458	1883515	2.22	10
	Rest of the countries	24430140	4473990	28904130	66	
	Total	61598650	23418078	85016728	100	

Source: Reports of International Organization of Motor Vehicle Manufacturers, <http://www.oica.net/>

China (Rank 1): China leads the global automobile production with a substantial total of 27,020,615 vehicles, constituting 31.78% of the global share. The majority of this production comprises cars, reflecting China's dominance in the automotive market.

USA (Rank 2): The United States follows closely with a total production of 10,060,339 vehicles. While the production of cars is notable, commercial vehicles significantly contribute to the overall output, with a 11.83% global share.



Japan (Rank 3): Japan holds the third position, producing 7,835,519 vehicles, with cars and commercial vehicles contributing to a 9.22% global share.

India (Rank 4): India secures the fourth position with a total production of 5,456,857 vehicles, representing 6.42% of the global share. The production of cars and commercial vehicles in India continues to contribute significantly to the global automotive landscape.

South Korea (Rank 5): South Korea produces 3,757,049 vehicles, with a notable emphasis on cars. The country holds a 4.42% share globally, securing the fifth position.

Germany (Rank 6): Germany's production of 3,677,820 vehicles positions it at the sixth rank, with a 4.33% global share. The country's reputation for high-quality automobiles is reflected in its production figures.

Mexico (Rank 7): Mexico's production of 3,509,072 vehicles places it at the seventh rank, with a 4.13% global share. The country has become a significant player in the global automotive supply chain.

Brazil (Rank 8): Brazil's production of 2,369,769 vehicles contributes to a 2.79% global share, securing the eighth position. The country's focus on both cars and commercial vehicles is evident.

Spain (Rank 9): Spain produces 2,219,462 vehicles, with cars dominating the production. The country secures the ninth position with a 2.61% global share.

Thailand (Rank 10): Thailand's production of 1,883,515 vehicles places it at the tenth rank, contributing to a 2.22% global share.

The "Rest of the countries" collectively produce 28,904,130 vehicles, representing a substantial 66% of the global share. This highlights the distributed nature of automobile production worldwide.

In conclusion, the analysis provides a comprehensive overview of the top 10 automobile-producing countries, showcasing their individual contributions to the global automotive industry in terms of both cars and commercial vehicles.

**Table B: Trend of Automobile production in India (Units)**

Category	Passenger vehicles	Commercial Vehicles	Three Wheelers	Two Wheelers	Total	Growth %
2017-18	4020267	895448	1022181	23154838	27175105	-----
2018-19	4028471	1112405	1268833	24499777	28528248	4.98
2019-20	3424564	756725	1132982	21032927	24457491	14.27
2020-21	3062280	624939	614613	18349941	21412221	12.45
2021-22	3650698	805527	758669	17821111	21471809	0.28

2022-23	4578639	1035626	855696	19459009	24037648	11.95
MEAN	4783373.5	1068052.333	1164797	26398006.17	31181379.67	
SD	531839	181032	244116	2680444	2908667	
CV	11.12	16.95	20.96	10.15	9%	
CAGR	2.19%	2.45%	-2.92%	-2.86%	-2.2%	

Over the previous six years, India's total car production has experienced numerous ups and downs. Production grows at an average annual growth rate of -2.86 percent for the first year, then drops in the subsequent years. Additionally, the country's total car manufacturing increased at a relatively high rate between 2019 and 2020—14.27 percent over the previous year—and 4.98 percent between 2018 and 2019. The number of passenger-wheelers produced rose from 4020267 in 2017–18 to 4578639 in 2022–23; this rise represented 2.19 percent of the average annual growth rate for the study period. Three-wheeler output grew at a slower rate than the rise of other vehicle categories. Over the previous six years, India's manufacture of commercial vehicles has experienced numerous ups and downs. With an average annual growth rate of 2.45 percent, production rises in one year before declining in the next. Over the previous six years, there have been numerous ups and downs in India's three-wheeler production. With an average annual growth rate of -2.92 percent, production rises in one year before declining in the next. Over the period, passenger vehicles have had the greatest average number. For all vehicle types, the standard deviation and coefficient of variation values indicated a modest degree of variance from the mean value.

Table C: Trend of export of automobile items in India (Units)

Category	Passenger vehicles	Commercial Vehicles	Three Wheelers	Two Wheelers	Total	Growth (Perc.)
2017-18	748366	96865	381002	2815003	3563369	--
2018-19	676192	99933	567683	3280841	3957033	11%
2019-20	662118	60379	501651	3519405	4181523	5.7%
2020-21	404397	50334	393001	3282786	3687183	-11.8%
2021-22	577875	92297	499730	4443131	5021006	36.2%
2022-23	662891	78645	365549	3652122	4315013	-14.1%
MEAN	858847.83	109972.50	441926.83	3423690.00	4282537.83	
SD	11956985	2049127	8260677	54358803	53149257	
CV	13.92	18.63	18.69	15.88	12.41	
CAGR	-2.00%	-3.41%	-0.69%	4.43%	3.24%	

Source:([www.siamindia.com](http://www.siamindia.com)).

Table C demonstrates that India's overall car exports rose significantly during the course of the study. Between 2017 and 2022, the total number of automobiles sold went from 3563369

to 4315013, representing an average annual growth rate of 53.24 percent. India's overall car exports increased at a relatively rapid pace in 2021–2022 from the previous year, reaching 36.2%; the highest percentage increase was recorded in 2018–19, at 11%. In the years 2019–20, 2020–21, and 2022–23, the overall number of automobiles exported fell. India's export of passenger wheelers fell from 748366 in 2017–18 to 662891 vehicles in 2022–2023; this increase was responsible for the research period's -2.00 percent annual average growth rate. India's export of commercial cars fell from 96865 in 2017–18 to 78645 in 2022–2023; this increase represented an average annual growth rate of -3.41 percent over the study period. From 2815003 vehicles in 2017–18 to 3652122 vehicles in 2022–23, India's export of two-wheelers rose. This expansion represented an average annual growth rate of 4.43 percent for the study period. The findings of the standard deviation and the coefficient of variation indicated that there was a minimal degree of departure in the export of all kinds of automobiles from the mean value.

## **CONCLUSION**

One of the sectors in India that is growing the fastest is the automotive sector. In terms of vehicle production, India ranked fourth in the world in 2022. The report examined the development and trends in India's automotive sector. In conclusion, the sales of two- and three-wheelers have decreased, which has led to an overall negative growth rate for the Indian automobile sector, even if the passenger vehicle and commercial vehicle segments have showed reasonably constant and small development. The present analysis highlights the necessity of conducting additional research on the variables that impact consumer demand, industry laws, and market dynamics. This will enable the industry to effectively tackle obstacles and leverage growth prospects. While the two-wheeler market has grown steadily, the passenger, commercial, and three-wheeler markets have experienced varied degrees of contraction or stagnation. The two-wheeler segment has been the primary driver of the industry's favourable growth overall. Variability in every segment suggests that the reasons affecting the dynamics of sales within each category require more investigation.

## **REFERENCE**

- Chandrasekar, N., & PALANIVELU, D. (2018). Automobile Industry in India: Its Trend and Growth. *IJRAR-International Journal of Research and Analytical Reviews (IJRAR)*, 5(4), 686–691.
- Chavda, M. S. K. (2018). A Financial Ratio Analysis of National Fertilizers Limited. *IJCRT*, 6(1), 625–631.

Melwani, R., & Sitlani, M. (2017). Export performance and trends of automobile industry in india. *Prestige E-Journal of Management and Research*, 4(1), 1–12.

Momin, A. M. R. M. M. (2019). Does E-Commerce A Roadblock for Automobile Industry. *E-Commerce & Retail Marketing Management*, 1(1), 9–22.

[https://scholar.google.com/citations?view\\_op=view\\_citation&hl=en&user=lvZlAQ4AAAJ&citation\\_for\\_view=lvZlAQ4AAAJ:2osOgNQ5qMEC](https://scholar.google.com/citations?view_op=view_citation&hl=en&user=lvZlAQ4AAAJ&citation_for_view=lvZlAQ4AAAJ:2osOgNQ5qMEC)

Sarangi, P. K., Bano, S., & Pant, M. (2014). Future trend in Indian automobile industry: A statistical approach. *Apeejay-Journal of Management Sciences and Technology*, 1(2), 28–32.

Reports of International Organization of Motor Vehicle Manufacturers

(<http://www.oica.net/>)

The reports of Society of Indian Automobile Manufacturers

([www.siamindia.com](http://www.siamindia.com)).

