

Review Analysis of Growth Dynamics of Indian Automotive Industry: A study focus on trends in Production, Sales and Exports

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Abstract— The Indian car industry is one of the world's largest and a key driver of the country's economic progress. This research paper examines the growth trends in the Indian auto industry from 2020-21 to 2024-25, with a focus on production, domestic sales, and export performance in three major vehicle categories: passenger vehicles, commercial vehicles, and two-wheelers & three-wheelers. The study uses trustworthy data from the Society of Indian Automobile Manufacturers (SIAM), India Brand Equity Foundation (IBEF), and government reports, applying methods like trend analysis and Average Annual Growth Rate (AAGR) calculations to reveal the main trends in the industry. The study revealed that the car industry has experienced constant expansion in production capacity. The overall sales trend is good, with a robust rebound after a decrease in fiscal year 2021-22. Over the past three years, this sector has shown resiliency and sustained development. In the last five years, the export pattern has altered.

Keywords— Indian Automotive industry, Production, Sales and Export Trends

I. Introduction

The Indian car industry is a significant engine of macroeconomic growth and technical innovation in the country. The automotive industry in India is an important cornerstone of the economy. It is a significant growth driver because of its strong backward and forward connections. Liberalization and deliberate governmental interventions in recent years have produced a dynamic, competitive market and attracted numerous new companies, resulting in capacity growth of the car sector and the creation of significant jobs. The sector, which ranks among the top five worldwide automobile makers, includes a wide range of vehicles, from two-wheelers and passenger cars to commercial vehicles and three-wheelers. This sector presently accounts for around 7.1% of national GDP, up from 2.77% in 1992-93. It employs nearly 19

million people, both in direct and indirect ways. The Indian passenger automobile market was valued at US\$ 32.70 billion in 2021 and is predicted to reach US\$ 54.84 billion by 2027, growing at a CAGR of more than 9% between 2022 and 2027. In 2021, the worldwide EV market was forecast to be worth over \$250 billion, and by 2028, it is expected to have grown fivefold to \$1,318 billion. In the financial year 2025, two-wheelers captured 75.04% of the overall market, while passenger automobiles accounted for 21.38%. In FY25 (April-September), the total output of passenger vehicles, commercial vehicles, three-wheelers, two-wheelers, and quadricycles was 15,622,388. India reached a notable milestone, selling 100,000 EVs in CY24 compared to 82,688 in CY23. The Indian automobile sector intends to grow car exports by five times between 2016 and 2026. In FY23, total automotive exports from India were 4,761,487. In FY23, Indian vehicle exports of two-wheelers were 3,652,122 [1].

II. Literature Review

(Singh, 2023) has studied in their research paper entitled “Analyzing the Growth Trends of the Automobile Industry: A Study of Production, Sales, and Export,” The key objective of this inquiry was to look at production, sales, and export patterns in the automobile industry over a decade. The researcher acquired data from secondary sources and sought to evaluate the complete dataset using the compound annual growth rate and the average annual growth rate. The analysis reveals that passenger vehicles experienced the largest spike in production and sales, while two-wheelers saw a huge rise in exports over this research period. At the same time, the yearly growth rate of production, domestic sales, and exports is slowing or declining for a variety of reasons, including changes in BS emission standard rules, demonetization, the COVID-19 outbreak, rising unemployment, and other economic downturns. (Dr. Vijayaragavan T., 2021) presented his study work, "An Overview of the Automobile Industry in India," in the International Journal of Creative Study Thoughts (IJCRT). This research provides a snapshot of the Indian auto sector based on production, sales, and export trends over the span of time. The researcher chose firms that manufacture passenger vehicles, commercial vehicles, three-wheelers, two-wheelers, and quadricycles for this study. The research findings show that there was a steady growing tendency over the study period, with one notable exception of the years 2019-20 and 2020-2021, and a falling tendency in sales and vehicle exports in 2019-20 and 2020-21 as a result of the COVID-19 pandemic. (Arya, 2019) has conducted the research study named "A Review of the Growing Automobile Industry in India" and observed that the car sector has evolved into a key contributor to the country's economic development. The automotive sector contributes 7.1% of the world's gross domestic product and employs 32 million people directly and indirectly. The article explores the growth and achievement of the Indian car industry, as well as the factors that contribute to its progress and the present state of FDI. The study discovered that this industry is heavily supported by factors such as the accessibility of trained labor at a cheap cost and low-cost steel manufacturing.

III. Research Methodology

- A. **Research Objective:** To examine and analyse the Production, Sales and Export trends of Indian Automobile industry from the FY 2020-21 to 2024-25.

- B. Research Design:** To conduct the present study, the researcher applied a descriptive research approach. This descriptive research study explores the progress of the automotive industry in terms of production, sales, and exports.
- C. Source of the data:** The analysis relies on secondary data obtained from the reports of the Society of Indian Automobile Manufacturers (SIAM), the India Brand Equity Foundation (IBEF) and reports published by the Government.
- D. Time Duration of Study:** Data from the last five financial years, from 2020-21 to 2024-25, is comprised in this present inquiry.
- E. Statistical tools:** Obtained data has been assessed using statistical tools such as average, percentage and average annual growth rate (AAGR). Tables and graphs are also prepared by the researcher for better presentation, analysis of the data, and its interpretation.

IV. Data Analysis and Interpretation:

This portion of the study describes the major trends of production, sales, and exports of cars over the previous five fiscal years, from 2019-20 to 2023-24.

- A. Production:** In FY 2023-24, the auto industry produced 2.84 crore vehicles, including passenger vehicles, commercial vehicles, three-wheelers, two-wheelers, and quadricycles, compared to 2.59 crore in FY 2022-23.

Table 1. Production Trends of Indian Automobile Industry From FY 2019-20 To 2023-24

Years	PV	AAGR	CV	AAGR	3W	AAGR	2W	AAGR	Total	AAGR
2020-21	3062280	-	624939	-	614613	-	18349941	-	22651773	-
2021-22	3650698	19.2%	805527	28.9%	758669	23.4%	17821111	-2.9%	23036005	1.7%
2022-23	4587116	25.7%	1035626	28.6%	855696	12.8%	19459009	9.2%	25937447	12.6%
2023-24	4901844	6.9%	1066429	3.0%	992936	16.0%	21468527	10.3%	28429736	9.6%
2024-25	5061164	3.3%	1032645	-3.2%	1050020	5.7%	23883857	11.3%	31027686	9.1%

Source: <https://www.siam.in/statistics.aspx?mpgid=8&pgidtrail=13>[5]

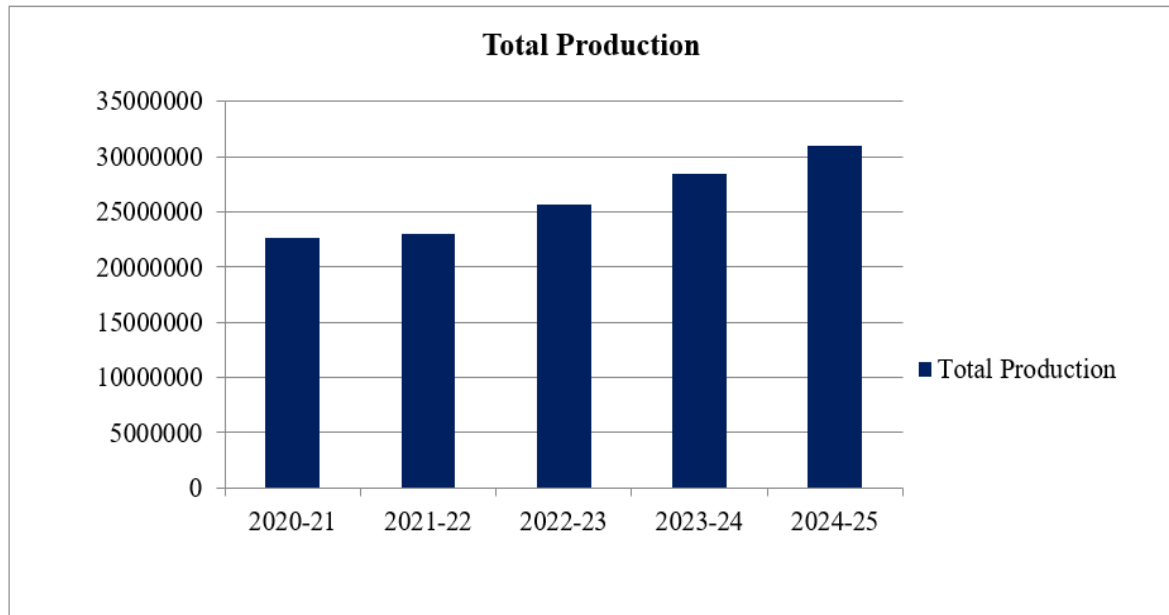


Fig: 1 Production trend of Indian Automotive industry

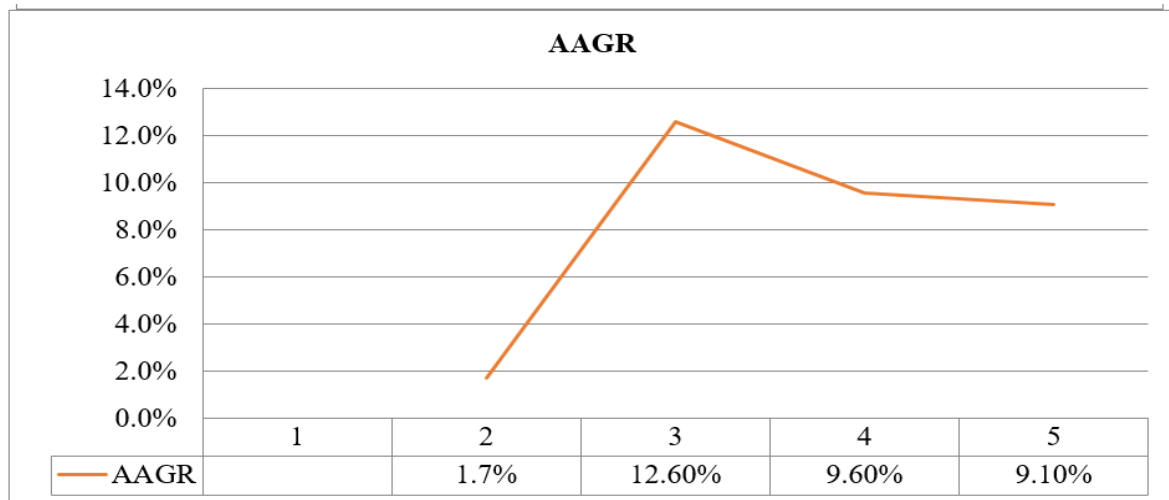


Fig: 2 AAGR of Production of Indian Automotive industry

From 2020-21 to 2024-25, India's overall automotive production increased steadily. In 2020-21, automotive production began at 22.65 million units, but in 2021-22, it experienced only a modest increase of 1.7%. A major resurgence occurred in 2022-23, with a 12.6% growth rate, followed by steady rises of 9.6% and 9.1% during the next two years. This demonstrates a post-pandemic rebound, increased demand, and industrial resilience. Ultimately, the industry has witnessed consistent development and solid momentum.

B. Domestic Sales:

- Total passenger vehicle sales rose from 38.90 lakh in FY 2022-23 to 42.19 lakh units in FY 2023-24. While passenger car sales fell from 17.47 lakh to 15.49 lakh units in FY 2023-24 compared to the previous year.
- The aggregate sales of commercial vehicles climbed from 9.62 lakh to 9.68 lakh units. In FY 2023-24, sales of medium and heavy commercial vehicles climbed from 3.59 lakh to 3.73 lakh units, while sales of light commercial vehicles declined from 6.03 lakh to 5.95 lakh units compared to the previous year.
- Sales of three-wheelers grew from 4.89 lakh to 6.92 lakh units in FY 2023-24 as compared to the previous year.
- Two-wheeler sales climbed from 1.59 crore to 1.80 crore units in FY 2023-24, compared to the previous year.

Table 2. Domestic Sales Trends of Indian Automobile Industry From FY 2019-20 To 2023-24

Years	PV	AAGR	CV	AAGR	3W	AAGR	2W	AAGR	Total	AAGR
2020-21	2711457	-	568559	-	219446	-	15120783	-	18620245	
2021-22	3069523	13.2%	716566	26.0%	261385	19.1%	13570008	-10.3%	17617482	-5.4%
2022-23	3890114	26.7%	962468	34.3%	488768	87.0%	15862771	16.9%	21204121	20.4%
2023-24	4218750	8.4%	968770	0.7%	694801	42.2%	17974365	13.3%	23856686	12.5%
2024-25	4301848	2.0%	956671	-1.2%	741420	6.7%	19607332	9.1%	25607271	7.3%

- Source: <https://www.siam.in/statistics.aspx?mpgid=8&pgidtrail=14>^[6]

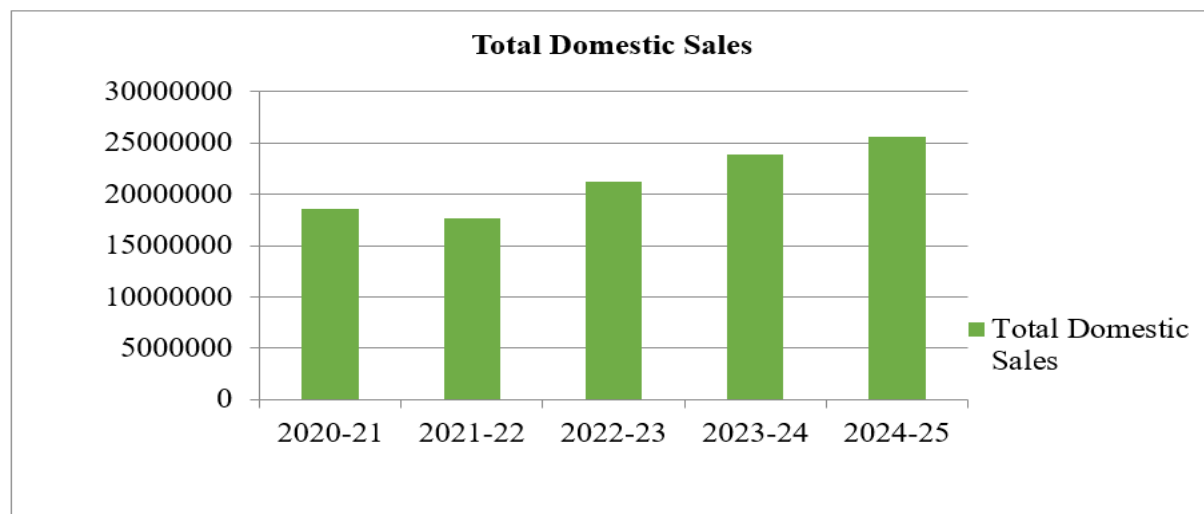


Fig: 3 Domestic Sales trend of Indian Automotive industry

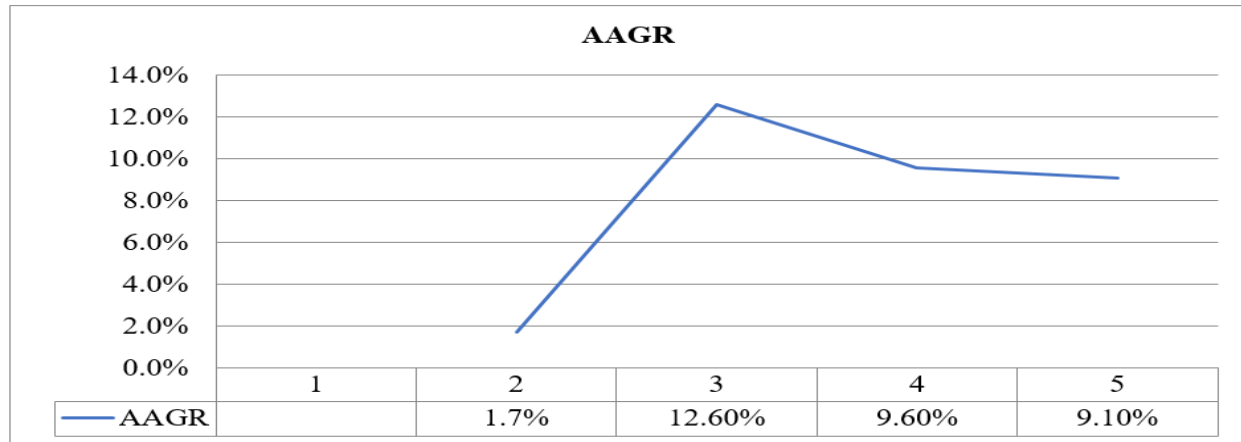


Fig: 4 AAGR of Domestic Sales of Indian Automotive industry

Aggregate sales of cars throughout India first fell from 18.62 million units in 2020-21 to 17.61 million in 2021-22, representing a 5.4% reduction, most likely due to pandemic-related interruptions. However, the industry recovered rapidly in 2022-23, with a 20.4% growth rate. This trend maintained in 2023-24 and 2024-25, with increments of 12.5% and 7.3%, respectively, bringing total sales to 25.6 million units. The statistics show a substantial comeback and sustained increasing trend in the years after the epidemic, indicating stronger consumer demand and a better economy.

C. Export:

- In fiscal year 2023-24, passenger car exports rose from 6.63 lakh to 6.72 lakh units, while commercial vehicle exports dropped from 0.79 lakh to 0.66 lakh units.
- Three- wheeler exports plummeted from 3.66 lakh to 3.00 lakh units. Two-wheeler exports also fell from 36.52 lakh to 34.58 lakh units during the same time the previous year.

Table 3. Export Trends of Indian Automobile Industry From FY 2019-20 To 2023-24

Years	PV	AAGR	CV	AAGR	3W	AAGR	2W	AAGR	Total	AAGR
2020-21	404397	-	50334	-	393001	-	3282786	-	4130518	-
2021-22	577875	42.9%	92297	83.4%	499730	27.2%	4443131	35.3%	5613033	35.9%
2022-23	662891	14.7%	78645	-14.8%	365549	-26.9%	3652122	-17.8%	4759207	-15.2%
2023-24	672105	1.4%	65818	-16.3%	299977	-17.9%	3458416	-5.3%	4496316	-5.5%
2024-25	770364	14.6%	80986	23.0%	306914	2.3%	4198403	21.4%	5356667	19.1%

Source: <https://www.siam.in/statistics.aspx?mpgid=8&pgidtrail=15>^[7]



Fig: 5 Export trend of Indian Automotive industry

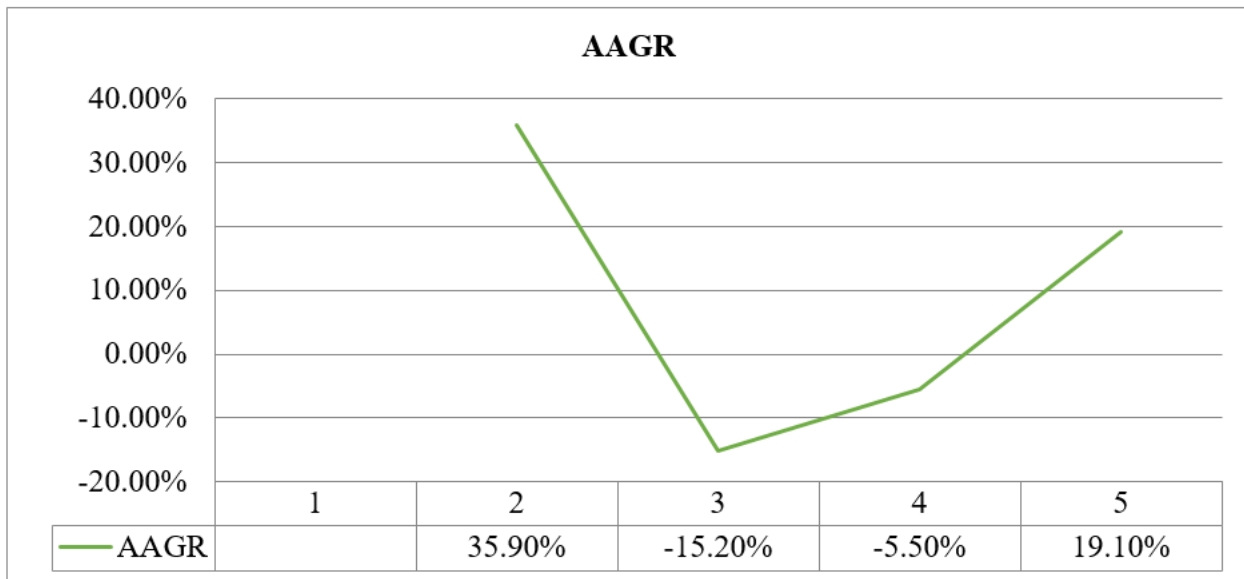


Fig: 6 AAGR of Export of Indian Automotive industry

The total vehicle exports from India fluctuated between 2020-21 and 2024-25. Exports increased rapidly from 4.13 million units in 2020-21 to 5.61 million in 2021-22, representing a 35.9% gain. However, subsequent years witnessed a fall of 15.2% in 2022-23 and 5.5% in 2023-24, showing issues in worldwide consumer demand and trade circumstances. In 2024-25, exports increased by 19.1% to 5.36 million units. Overall, the export industry had some volatility but closed the term on a good growth note.

V. Limitations of the Study

- The present study covers only five financial years. i.e. FY 2020-21 to FY 2024–25.
- The study relied heavily on secondary sources, which has its own set of limitations.

VI. Major Findings and Conclusion

The current study examined the Indian vehicle industry's growth pattern in terms of production, sales, and exports. The study discovered that the vehicle industry's capacity to produce has improved constantly over the last five years, with a steadily increasing trend. The overall sales trend is good, with a robust comeback following a fall in fiscal year 2021-22. The sector has shown endurance and a sustained growth trend over the previous three years. Over the last five years, the export pattern has fluctuated, with two large upswings in the years 2021-22 and 2024-25 and two successive downturns in the years 2022-23 and 2023-24.

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