

# **Export Performance and Trends of Automobile Industry in India**

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## **Abstract**

*Export is indispensable for the growth of economy as it leads to the earning of foreign exchange which helps in the growth of the economy. More growth of the economy leads to more prosperous nation. Exports in India have evolved a lot since independence. Export performance of a firm replicates a firm-specific performance in leveraging its resources and capabilities in an international frame at a particular point of time. Firm's export performance is regarded as one of the key indicators of the success of its operations, and as such, it has been an extensively studied phenomenon. The present paper studies the export performance of Indian Automobile Industry in the segment of Personal Vehicles, Commercial Vehicles, Two wheelers and three wheelers. The export performance has measured in terms of numbers of vehicles exported from the India in the study period. The study period for the present research is from financial year 2005-06 to 2015-16. The study tries to forecast the trend values for the exports in various segments of automobile industry.*

**Key words:** Exports, Indian Automobile Industry, Trend Analysis, Forecasting.

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## **INTRODUCTION**

Exporting has been the most popular and fastest-growing form of international market entry, favored especially by small and medium-sized firms. Exporting, compared with other international strategy, doesn't need many resources and is associated with lesser. Exporting is a crucial business activity for nations' economic health, as it significantly contributes to employment, trade balance, economic growth, and higher standard of living (**Seyed Hossein Jalali 2002**). Export performance is regarded as one of the key indicators of the success of a firm's operations. As per the study by **Papadopoulos and Martin Martin (2010)** export performance represents the outcome of a firm's activities in export markets. Export performance can also be defined as the results from the firm's international activities. From this viewpoint, export performance is the extent to which the firm achieves its objectives when exporting a product to a foreign market (**Navarro et al., 2010**).

The automobile industry is considered as one of the core industries in India. A well developed transportation system plays an important role in the development of an economy, and India is no exception to it. In the global scenario also; the Automobile industry is considered as one of the largest industries among various industries. Due to its strong forward and backward linkages with several key segments of the economy, the Automobile Sector occupies a prominent place in the fabric of Indian Economy. The Indian automobile industry is considered as core sector in India also. The industry has contribution of around 7.1 per cent in the country's Gross Domestic Product (GDP). The Two Wheelers segment with 81 per cent market share is the leader of the Indian Automobile market owing to a growing middle class and a young population. Moreover, the growing interest of the companies in exploring the rural markets further aided the growth of the sector. The overall Passenger Vehicle (PV) segment has 13 per cent market share.

India is also a prominent auto exporter and has strong export growth expectations for the near future. The Make in India programme as initiated by Hon. Prime Minister Mr. Narendra Modi,

has also consider the Indian Automobile Industry as the well-positioned for growth, servicing both domestic demand and, increasingly, export opportunities.

## **LITERATURE REVIEW**

**Surbhi Goyal (2016)** studied the shift in the trends of export in terms of commodities exported and countries of export over a period of time. The study was done for the period of 2001-2014. The study covered various sectors like Petroleum, products, Jems and Jewellery etc. The study by **Smitha Francis (2015)** studied the export performance for eight selected major manufactured Sectors, out of eight; six were India's largest manufactured import sectors. The eight manufacturing sectors includes Gems and Jewellery, Organic chemicals, Pharmaceutical products, Non-electrical machinery and parts, Electrical machinery and parts, Vehicles and parts, Iron and steel and Ores, slag and ash The study period was from 1999-00 to 2013-14. The results of the study concluded that India's current export competitiveness in these sectors, have the lack of continued momentum. The deterioration in the export performance in these major export sectors points towards the dire need to formulate strategic policies to achieve further domestic industrial upgradation. **M. Krishnaveni\* and R. Vidya (2015)**, studied the production, sales and exports in Indian automobile industry and discussed the various key challenges for the same.

**Elena Beleska-Spasova (2014)** reviewed the previous research for export performance of the firm and provided the better understanding of the export performance. The study undertook a comprehensive literature review and studies the current state of the export performance. The study conducted to provide better understanding of the firm specific factors and behaviors that make the exporting a successful venture. **Satyanarayana Rentala and Dr. Byram Anand (2014)** studied the determinants of export performance for pharmaceutical company in India during the period of 2005-2013. This study has taken various independent variables as Firm Size, Import of Capital Goods, R&D Expenditure, Firm's Age, Import Of Raw Materials, Advertising Expenditure, Capital Intensity, Profitability, Foreign Equity, Capital-Output Ratio, Equity (FDI) and royalties paid whereas, the dependent variable were Export Sales and Export Intensity and

Export Growth. The multiple regression analysis was applied for the data analysis. The results of the study showed that there was significant impact of firms' internal resources on their export performance and its success. **Jatinder Singh (2014)** studied the growth and export potential for Indian Automobile as a whole and its sub-segments also. The study took secondary data and analyzed the growth and export potential through graphs and tabulation. The study found that the export intensity has improved.

**Pradeepta K. Sarangi Shahin Bano Megha Pant (2014)** studied the growth of Indian automobile industry and to reported the forecasted values for the 3 financial years from 2013-14 to 2015-16 using statistical technique. Two segments of automobile industry covered in the study were passenger and commercial vehicles. A conceptual research by **Tarun sharti and Jyoti Pradhan (2013)**, gave an overview of Indian foreign trade with emphasis on automobile industry. The study was confined to auto vehicles only. The study also discusses the growth drivers of Indian Automobile industry. A study by **Seyed Hossein Jalali (2012)** examined the relationship between export barriers and the export performance of Greek firms targeting the Iranian market. Six dimensions of variables taken in the study were: environmental dimension, financial dimension, operational dimension, legal dimension, logistic dimension and resource dimension. The study collected data through structured questionnaire and developed a structural equation model to understand that which dimension has greater effect on export performance. The results of the study showed that the most important barrier to Greek firms exporting to Iran is the operational dimension.

The study by Falk, **M., Hake, M. (2008)** empirically investigated the relation between exports and the outward FDI stock using a panel of industries and seven EU countries for the period 1973-2004. The study used Holtz- Eakin panel causality tests for finding the relationship between exports and FDI. The results of the study showed that exports have a strong positive effect on the outward FDI stock. The study by **Ma. Teresa S. Dueñas-Caparas (2006)** determined the factors affecting the export performance of firms in Philippines for manufacturing sector. The study had objective to identify the firm-level characteristics and their effect on firms' capabilities to export. Firm size, firm age, human capital, capacity utilization,

skill, training and foreign affiliation were identified as firm level characteristics and determined statistically whether it affects a firm's capability to export. The study used econometrics model and concluded that foreign affiliation has the most prominent influence on firms' export performance.

## **OBJECTIVE**

The present study has the key objective to study the export performance of Indian automobile Industry for the stipulated time period.

## **RESEARCH METHODOLOGY**

### **The Study**

The present study is empirical in nature and has attempted to analyze the segment-wise export performance of vehicles of Indian automobile industry. The study applied the time series-Least square method and attempted to forecast trend values of exports in various segments of Indian Automobile Industry.

### **The Sample**

The time period considered to collect the relevant data for the study is from year 2005-06 to 2015-16.

### **Tool for Data Collection**

The study used the secondary data which was collected through the websites of Society of Indian Automobile Manufacturers (SIAM), Indiastat.com, various research journals, government websites and newspapers.

### **Tool for Data Analysis**

In the method of Least Square, time (Years) has been considered as independent variable and exports (segment wise) has been considered as dependent variable. The trend values were calculated through MS Excel. The study analyzed the trends in exports of each segment of Indian automobile industry for the period of 2005-06 to 2015-16. The various segments of the

automobile industry considered for the study are Commercial vehicles, personal vehicles, two wheelers and three wheelers.

## ANALYSIS AND INTREPRETATION

The present study is based on the trend analysis of various segments of Indian atuomobile industry viz personal Vehicles, commercial vehicles, two wheelers and three whelers. The table1. shown below is compared the actual values and trend values for a period of 11 years, from 2005-06 to 2015-16.

**Table1:Export Performance : Category Wise**

Year	Passenger Vehicles		Commercial Vehicles		Two wheelers		Three Wheelers		Total	
	Actual	Trend	Actual	Trend	Actual	Trend	Actual	Trend	Actual	Trend
2005-06	175000	176176	41000	40667	513000	442341	77000	82330	806000	741514
2006-07	198000	226491	50000	45995	620000	652000	144000	115845	1012000	1040331
2007-08	218000	276807	59000	51323	820000	861659	141000	149359	1238000	1339148
2008-09	336000	327122	43000	56651	1004000	1071318	148000	182874	1531000	1637965
2009-10	446000	377438	45000	61979	1140000	1280977	173000	216388	1804000	1936782
2010-11	444000	427753	74000	67306	1532000	1490637	270000	249903	2320000	2235599
2011-12	507000	478069	93000	72634	1947000	1700296	363000	283417	2910000	2534416
2012-13	559414	528384	80027	77962	1956378	1909955	303088	316932	2898907	2833233
2013-14	593507	578700	77056	83290	2083938	2119614	353392	350447	3107893	3132051
2014-15	574478	629015	76599	88618	2299493	2329273	372011	383961	3322581	3430868
2015-16	653889	679331	101689	93946	2481193	2538932	404441	417476	3641212	3729685
2016-17		729647		99273		2748591		450990		4028502
2017-18		779962		104601		2958250		484505		4327319
2018-19		830278		109929		3167909		518019		4626136

The study forecast the exports (in numbers) in the various segment for the next three financial years i.e for 2016-17, 2017-18 and 2018-19 in the segment of pessenger vehilces, commercial

vehicles, two wheelers and three wheeler. The trend values were calculated through Time Series Analysis where the time (in years) was taken as independent variable and exports as dependent variable.

### Personal Vehicle Segment

The personal vehicle segment of automobile industry comprises of personal cars and multiutility vehicles. This segment showed that the exports in the study period are increasing with little variations. The actual data shows that the exports were minimum in the year 2007-08 and maximum in the year 2015-16. According to the trend line the exports in this segment will be increased in future. The forecast data for the next three consecutive years will be 729647, 779962 and 830278 in numbers with little variation.

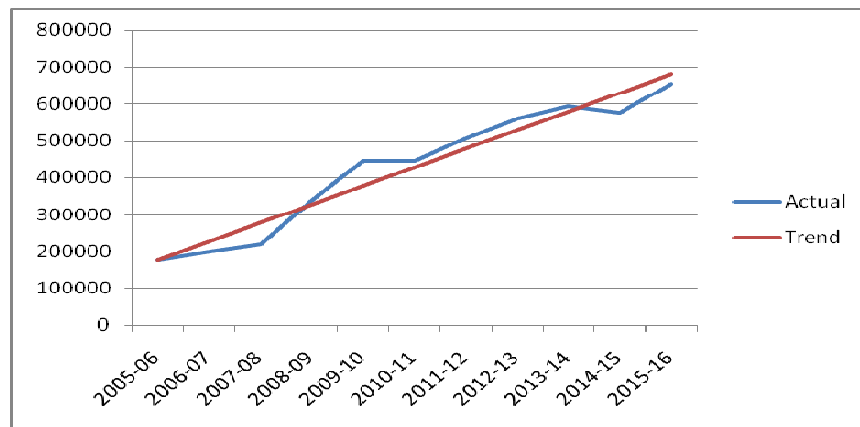
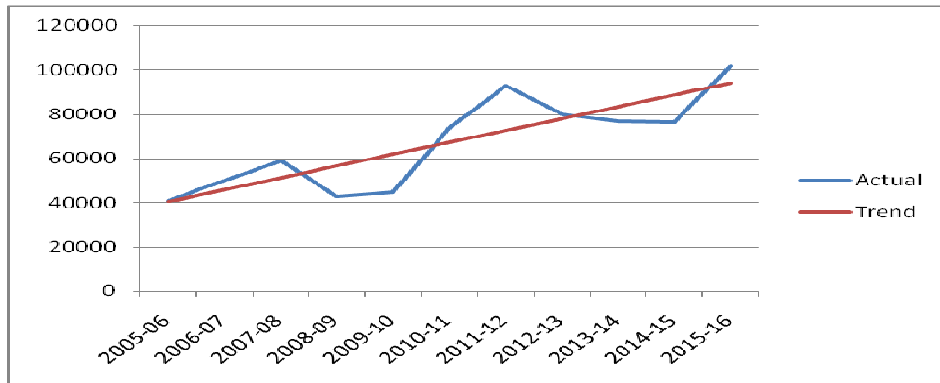


Fig1: Trend line for Passenger Vehicle segment

### Commercial Vehicle Segment

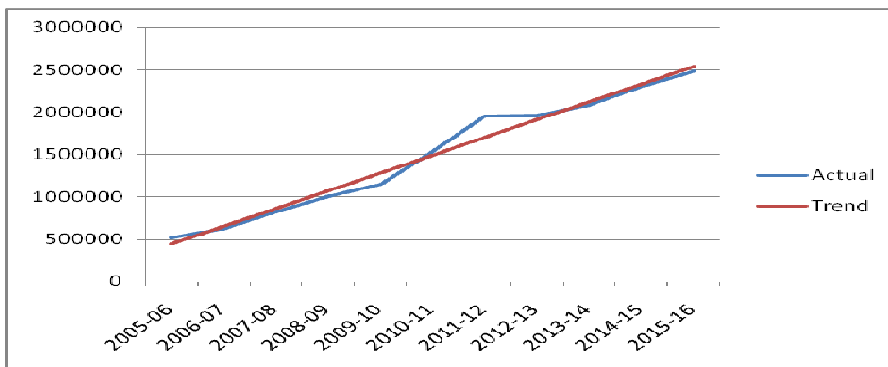
The commercial vehicle segments comprises of medium and heavy commercial vehicles and light commercial vehicles. The actual data for exports vary year by year. The variation in this sector is high. The exports in commercial vehicle segment was minimum in the year 2008-09 and maximum in year 2015-16. The trend line depicted that the future exports (in numbers) will be 99273, 104601 and 109929 for next three consecutive years. The exports in this segment will show variations in future also.



**Fig 2 : Trend line for commercial Vehicle segment**

### Two Wheelers Segment

The two wheelers segment comprises of Scooters, Motor Cycles, Mopeds and electric two wheelers. This segment is showing upward trend. The forecast values for this segment for the next three consecutive years will be 2748591, 2958250 and 3167909 respectively in numbers. This segment may not show much variations in near future as according to trend line given in figure below.



**Fig 3 : Trend line for two wheelers segment**



### Three Wheelers Segment

The exports in this segment of Indian Automobile industry is having ups and downs. The exports were minimum in year 2005-06 and maximum in year 2015-16. The trend line showed that in near future the exports may increase with little variation.

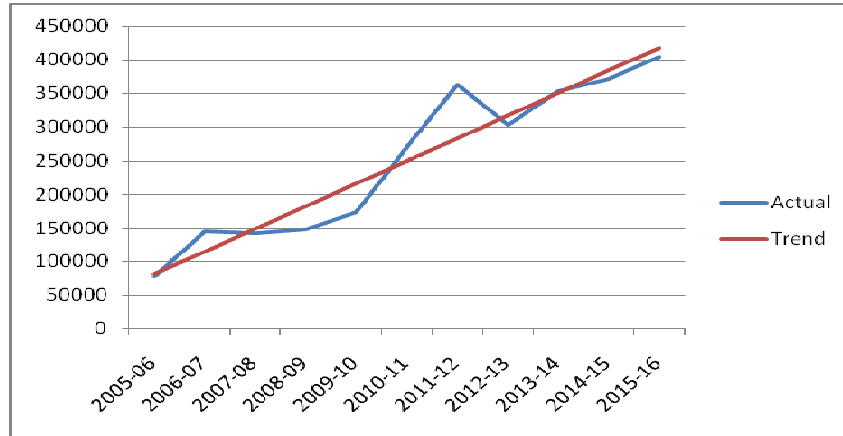


Fig 4 : Trend line for three wheelers segment

### Overall Export Performance of Indian Automobile Industry

The various segments of Indian Automobile Industry viz. personal vehicles, commercial vehicles, two wheelers and three wheelers are combinedly represents the Indian Automobile Industry. The overall exports for Indian Automobile Industry from year 2005-06 shows upward trend whereas exports were increasing year by year in all the segments. It was high during the year 2011-12 but decreases slightly in year 2013-14. From year 2015-16 the exports are again increases. The overall performance of Indian Automobile industry in terms of volume is increasing year after year.

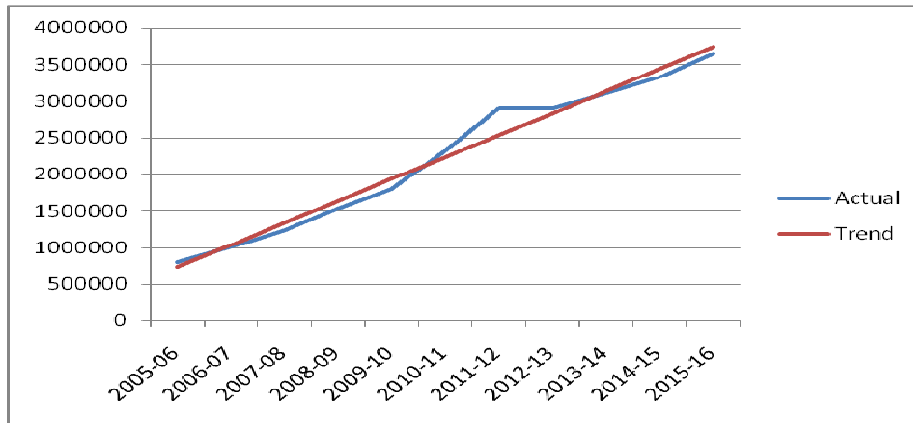


Fig 5 : Trend for total exports (including all segments)

## IMPLICATION

The present study analyzed the export performance of Indian Automobile Industry in various segments viz. personal vehicles, commercial vehicles, two wheelers and three wheelers , for the study period and forecast the trend values for the next three financial years. The study showed only the forecast values and had not covered the reasons for increment or decline in the exports of various segments. The study is useful for Automobile Industry as whole as the exports have major contribution towards the economy of India. The future studies may cover the factors responsible for this behaviour.

## CONCLUSION

The present study analyzed the export performance of Indian Automobile Industry in various segments for the study period and forecast the trend values for the next three financial years. The forecast trend values showed that the exports in the all the segments viz, personal vehicles, commercial vehicles, two wheelers and three wheelers will increasing in future. According to trend line the passenger vehicles growth will be 7.41%, 6.45% and 6.06 % in the next three financial years. The exports in the commercial vehicle segment will have the growth of 7.41%,

6.45% and 6.06% respectively, the two wheelers segment will have the growth of 8.3%, 7.6% and 7.1% for the next three financial years respectively. The four wheeler segment will have growth of 8.03%, 7.43% and 6.92 % respectively. The data shows that the overall exports will be increase with the growth of 8.01%, 7.42% and 6.91% for the next three financial years. The trend values forecast for the exports in all the segments.

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