International Journal of Commerce and Management Research
ISSN: 2455-1627, Impact Factor: RJIF 5.22
www.managejournal.com
Volume 3; Issue 8; August 2017; Page No. 06-10

Growth of automobile industry and its economic impact: An Indian perspective

Vandana Singh

Research Scholar, MMAJ, Academy of International Studies, Jamia Millia Islamia Central University, New Delhi, India

Abstract

The automobile industry is a prominent part of the manufacturing sector and considered to be an indicator of economic development of any country. It is also a technology and knowledge intensive industry because it demands high performance and quality parts. In India also the automobile industry occupies a prominent place due to its deep forward and backward linkages with many key segments of the economy. This industry has a strong multiplier effect and is capable of being the driver of economic growth. The performance of the automobile industry can be correlated to the health of the economy.
A sound transportation system, to which the automobile industry is linked, plays a pivotal role in the country's rapid economic and industrial development. The prime objective of this paper is to analyse the growth pattern and economic impact of automobile industry on Indian economy.

Keywords: automobile, India, export, production, FDI and employment

Introduction

An elementary automobile industry emerged in India in 1940's. Almost after a decade leading entrepreneurs and the government in the independent India have extended efforts to create a manufacturing industry. However, the growth was relatively slow in 1950s and 1960s due to the license raj. The Automotive firms were required to obtain licenses from Indian government for entry expansion, diversification and relocation. Total restrictions for import of vehicles were set and after 1970 the automotive industry started to grow, but the growth was mainly driven by tractors, commercial vehicles and scooters; cars were still a major luxury item. By the 1980, the automobile market was still dominated by Hindustan and premier, who sold superannuated products in fairly limited number.

During the eighties, a few competitors began to arrive on the scene, multinational automakers such as Suzuki and Toyota of Japan and Hyundai of South Korea, were allowed to invest in Indian market. Maruti Suzuki was the first and the most successful of these new entries. The partial liberalisation of 1980s and the introduction of new economic policy in 1991 have put the industry on the fast track of development. The central government reduced the intervention of government and promoted deregulation in the automobile industry. Following this, a number of foreign firms also initiated joint ventures with existing Indian companies. GM (General Motors), Ford, Daewoo were early entrants establishing local operations in India. Indigenous production of cars started since than with an eye to the domestic and international market needs.In 2002, the Indian government formulated an auto policy that aimed at promoting an integrated, phased and self-sustained growth of Indian automotive industry with higher fiscal incentives for R&D (Research and Development). In the same year the Indian government approved the 100 percent foreign ownership of manufacturing operations in India.

The top India manufactures are Tata Motors, Maruti Suzuki, Hyundai, General Motors India, Toyota Kirloskar Motors, Skoda Auto India, Ashok Leyland, Mahindra & Mahindra, Eicher, Bajaj, Honda, Ford India, Fiat India and so on. Major export markets of India's automobile include United Kingdom, the largest export market followed by Italy, Germany, Netherlands and South Africa; some other export markets are United States, Mexico, United Kingdom, Sri Lanka, Bangladesh, Turkey, Nigeria, United Arab Emirates, Colombia etc.

Objectives

- To analyse the growth of Indian automobile industry.
- To study the economic impact of growth of automobile industry on Indian economy.

Research Methodology

Data collection

Methodology was adopted in accordance to the above mentioned objectives. The present research study is conducted on the basis of primary as well as secondary sources data and information published by several governmental and private institutions namely SIAM (Society of Indian Automobile Manufactures), DIPP (Department of Industrial Policy and Promotion), IBEF (India Brand Equity Foundation), BCG (The Boston Consulting Groups), Ernst & Young etc.

Data Analysis Technique

Data can be analysed with the help of statistical tool like average, Percentage, CAGR (Compound Annual Growth Rate), AAGR (Average Annual Growth Rate), correlation, trend analysis line and bar graph etc.

India's Automobile Production

The core automotive industry supports wide range of businesses segments, both upstream and downstream, along with adjacent industries. This leads to multiplier effect for growth and economic development. Automotive contributes to several important dimensions of nations building: generating government revenue, creating economic development, encouraging people development and fostering R&D and innovation.

Table 1: Automobile Production Trends (Number of Vehicles)

Category / Year	Passenger Vehicles	Annual Growth Rate %	Commercial Vehicle	Annual Growth Rate %	Three Wheelers	Annual Growth Rate %	Two Wheelers	Annual Growth Rate %	Grand Total	Annual Growth Rate %
2004-05	1209876	-	353703	-	374445	-	6529829	-	8467853	-
2005-06	1309300	8.21	391083	10.56	434423	16.01	7608697	16.52	9743503	15.06
2006-07	1544850	17.99	520000	32.96	556124	28.01	8444168	10.98	11065142	13.56
2007-08	1777583	15.06	549006	5.57	500660	-9.97	8026681	-4.94	10853930	-1.90
2008-09	1838593	3.43	416870	-24.06	497020	-0.72	8419792	4.89	11172275	2.93
2009-10	2357411	28.21	567556	36.14	619194	24.58	10512903	24.85	14057064	25.82
2010-11	2982772	26.52	760735	34.03	799553	29.12	13349349	26.98	17892409	27.28
2011-12	3146069	5.47	929136	22.13	879289	9.97	15427532	15.56	20382026	13.91
2012-13	3231058	2.70	823649	-10.38	839748	-4.49	15744156	2.052	20647611	1.30
2013-14	3087973	-4.42	699035	-16.04	830108	-1.14	16883049	7.23	21500165	4.12
2014-15	3232419	4.67	698298	-0.10	949019	14.32	18489311	9.51	23358047	8.64
AAGR	10.78%		9.08%		10.56%		11.36%		11.07%	
CAGR	10.32%		7.03%		9.74%		10.96%		10.67%	

Source: SIAM (compiled by researcher).

The Table 1 shows that the Indian automobile industry produced around 8.46 million vehicles in FY (Financial Year) 2004-05. During the FY 2014-15 this industry produced 23.35 million vehicles. The sector shows AAGR (Average Annual Growth Rate) of 11.7 percent and CAGR (Compound Annual Growth Rate) of 10.6 percent over FY 2004-15. Two-wheeler vehicle segment was the fastest growing segment, representing a CAGR of 10.96 percent followed by passenger vehicle segment with a CAGR of 10.32 percent between FY 2004-15. Two-wheeler market share accounts for about 79 percent of the total automobile production in the county. India's auto industry is the world's sixth largest producer of automobile in terms of volume and value. Further, India is the Asia's second largest two-wheeler manufacture, fifth largest producer of commercial vehicle, fourth largest manufacture of passenger car and the largest manufacture of tractor.

FDI (Foreign Direct Investment) in India's Automobile Sector

FDI inflows to automobile industry in India have been increasing year on year at fast rate and this sector ranked seventh among the top ten sectors attracting highest FDI inflows. FDI in this sector brings investment in the related industries and can lead the development of a broad automotive environment.

Table 2: FDI in Automobile Industry

Year	Total FDI Inflows (Cr)	FDI Inflows in automobile sector (Cr)	CAGR	Share of automobile FDI inflows in total FDI inflows %
2007-08	98642	2697	25.34	2.7
2008-09	142829	5212		3.6
2009-10	123120	5893		4.7
2010-11	97320	5864		6.0
2011-12	165146	4347		2.6
2012-13	121907	8384		6.8
2013-14	147518	9027		6.1
2014-15	189107	16760		8.8
2015-16	262322	16437		6.2
Total	1347911	74621		5.5

Source: DIPP

Total FDI inflows received during 2007-16 were Rs.1347911 Cr. (Table 2) Out of this the amount of FDI inflows in automobile industry during the same period is Rs.74621Cr., which is 5.5 percent of the total FDI inflows. During 2007-016 FDI inflows in automobile industry registered a CAGR of 25.3 percent.

Table 3: Correlation Analyses between FDI in Automobile Industry and Total Output

Year	FDI Inflows in automobile sector (Cr) X	Total production (Cr) (No. of vehicles) Y	Coefficient of correlation between X and Y
2007-08	2697	1085	r = 0.714006
2008-09	5212	1117	
2009-10	5893	1405	
2010-11	5864	1789	
2011-12	4347	2038	
2012-13	8384	2064	
2013-14	9027	2150	
2014-15	16760	2335	

In Table 3 FDI Inflows in automobile sector is taken as "X" and Total production by automobile industry is taken as "Y" during 2007-15, "r" is the Coefficient or correlation between X and Y, which is + 0.71. This shows a high degree of positive correlation between the two.

Export by India's Automobile Sector

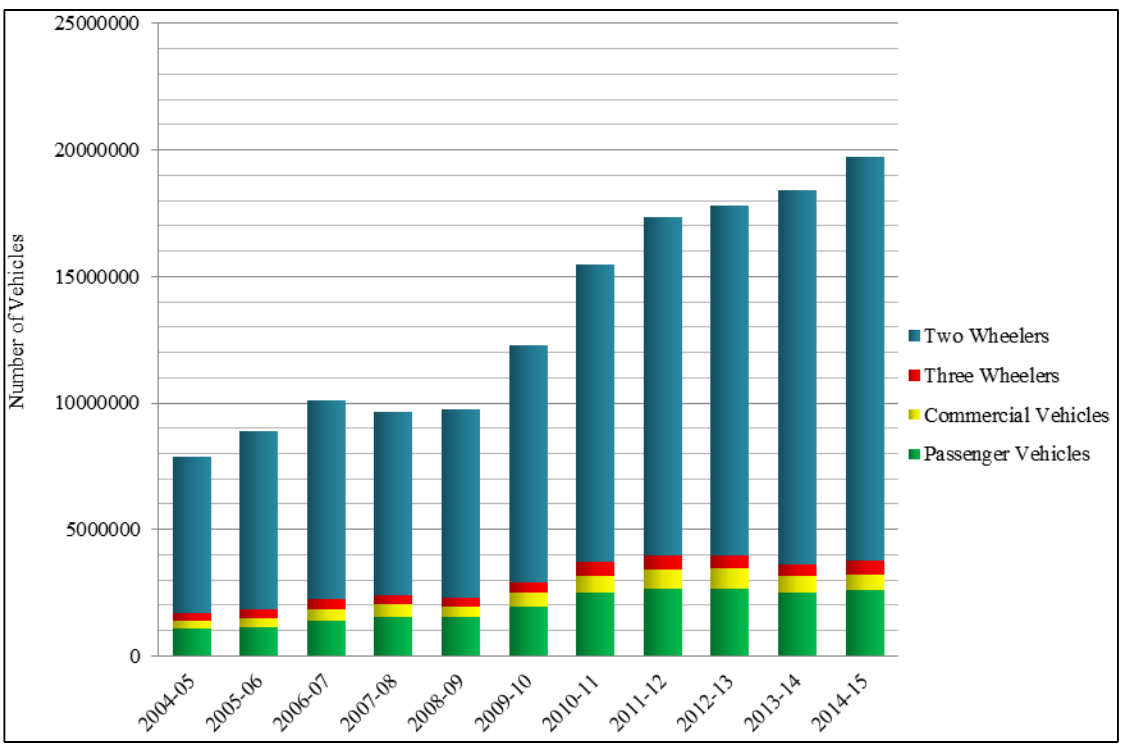
Table 4: Automobile Export Trends (Number of Vehicles)

Category / Year	Passenger Vehicles	Annual Growth Rate %	Commercial Vehicle	Annual Growth Rate %	Three Wheelers	Annual Growth Rate %	Two Wheelers	Annual Growth Rate %	Grand Total	Annual Growth Rate %
2004-05	160677	-	29940	-	66795	-	366407	-	623819	-
2005-06	170193	5.92	40600	35.60	76881	15.09	513169	40.05	800843	28.37
2006-07	189347	11.25	49766	22.57	143896	87.16	619187	20.65	1002196	25.14
2007-08	218401	15.34	58994	18.54	141225	-1.85	819713	32.38	1238333	23.56
2008-09	335729	53.72	42625	-27.74	148066	4.84	1004174	22.50	1530594	23.60
2009-10	446145	32.88	45009	5.59	173214	16.98	1140058	13.53	1804426	17.89
2010-11	444326	-0.40	74043	64.50	269968	55.85	1531619	34.34	2319956	28.57
2011-12	507414	14.17	92663	25.14	362876	34.41	1947198	27.13	2910055	25.43
2012-13	559414	10.26	80027	-13.63	303088	-16.47	1956378	0.47	2898907	-0.38
2013-14	593507	6.094	77056	-3.71	533392	75.98	2083938	6.52	3107893	7.20
2014-15	653053	10.03	86939	12.82	407600	-23.58	2457466	17.92	3573346	14.97
AAGR	15.92%		13.97%		24.84%		21.55%		19.43%	
CAGR	15.05%		11.24%		19.82%		20.96%		19.06%	

Source: SIAM (compiled by researcher)

Table 4 shows that the automobile export volume increased at a CAGR of 19.6 percent over FY 2004-15. Two- wheeler segment reported the fastest growth (20.9 percent) followed by three-wheeler (19.8 percent) Passenger Vehicle comprises of (15 percent) and commercial Vehicle (11.2 percent). If we compare AAGR and CAGR of production and export during FY 2004-15 both are higher in case of exports; it is positive sign for the Indian automobile industry. Being one of the leading steel producers in the world, India invests largely on the automobile sector and its export.

Domestic Sales Pattern



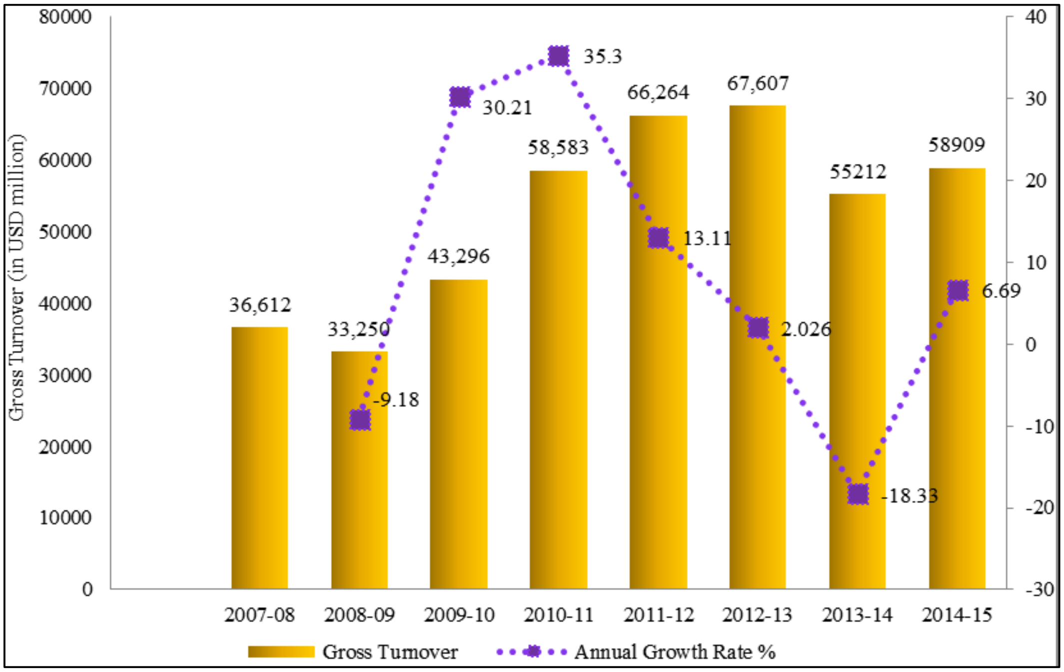
Source: SIAM (compiled by researcher)

Fig 1: Automobile Domestic Sales Trends

The sale of passenger vehicle was 10.6 million in FY 2004-05 it raises to 26 million in FY 2014-15 as per SIAM. From the graph depicted above (fig.1) it can be easily analyse that there is not any drastic change registered by commercial vehicle and three-wheeler vehicle segment. The commercial vehicle sale was 6.14 lac and three-wheeler sale was 5.3 lac for the FY 2014-15; while the two-wheeler sale was 62 million in FY 2004-05 reaches to 15.97 crore in FY 2014-15 registering a dramatic growth.

Gross Turnover Trends

The gross turnover of the automobile manufactures in India expended at a CAGR of 7.03 percent with AAGR 8 of.54 percent over FY 2007-15.



Source: SIAM (compiled by researcher)

Fig 2: Gross Turnover of the Automobile Manufactures

The graph (fig. 2) shows that gross turnover was recorded $ 36.6 million in 2007-08, by 2014-15 it rise to US $ 58.9 million. During 2007-15 many fluctuations can be easily analysed. It was low in 2008-09 because of the global economic crisis. According to the report of CRISIL, weak global demand, especially in Europe, one of the largest export markets, had impacted demand in 2011-12. In 2013-14, sluggish demand in Europe and in import and excise duty rates in Sri Lanka, which accounts for nearly 5 percent of the total exports of player like MSIL (Maruti Suzuki India Ltd.), restricted growth to single digits. However, industry turnover picks up its growth again in 2014-15, with annual growth rate of 6.6 percent.

Employment in India's Automobile Sector

Employment in India's automobile sector offers an insight into the growth of this significant industrial sector of the economy. The rapid development of Indian automobile industry is evident from the fact that this industry employs more than 30 million people (including direct and indirect) as per SIAM. Employment in India's automobile sector is divided into organised category, which is 33 percent and the unorganised category, which is 67 percent of the total.

The expansion of the domestic and exports markets, the liberal policies of the government, increase in FDI (Foreign Direct Investment) and rise in the production have opened up new avenues in the job sector of Indian automobile industry. This industry is responsible for 7to 8 percent of India's total employed population.

Table 5: Number of Workers Employed in Automobile Industry

Year	All employees *
2006	408444
2007	466666
2008	509742
2009	619608
2010	715550
2011	791639
Total	3511649
CAGR	14.15%

Source: Ministry of Labour and Employment, Annual Survey of Industries

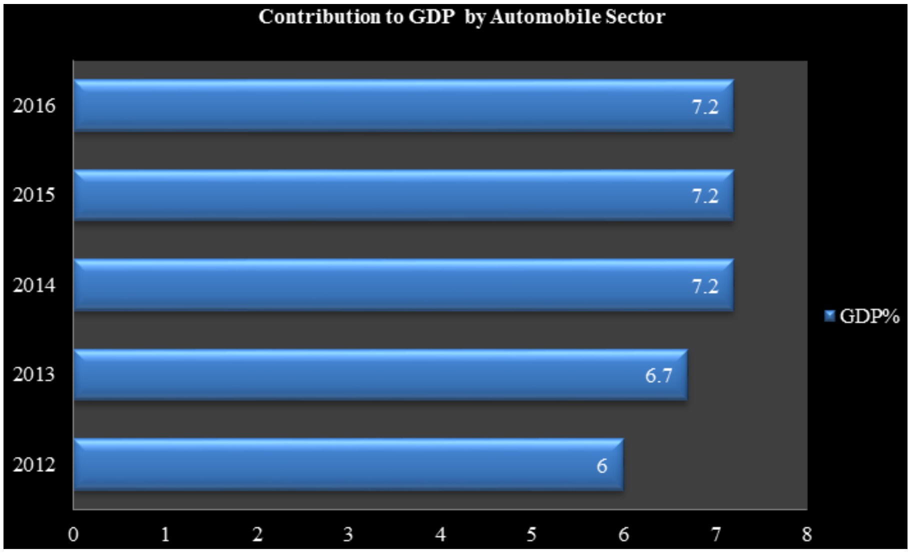
Compiled from various year reports.(*overall division 341+342+343)

As per Ministry of Labour and Employment report, number of workers employed in automobile industry (only manufactures of motor vehicle, bodies for motor vehicles, trailers and semi trailers, parts and accessories for motor vehicle and their engines) during 2006-11 were 3511649, rise with the CAGR of 14.1 percent.

GDP and Automobile Industry

The role of automobile industry in India GDP has been phenomenon. It is one of the fastest growing sectors in India. It can be easily analysed the significance of a single industry which is contributing more than 7 percent of the Gross

Domestic Product of a country. As of 2014 to16, the India automobile industry had contributed almost 7.2 percent (fig. 3) of the India's GDP. Its contribution to country's manufacturing GDP is approx. 22 percent.



Source: SIAM

Fig 3: Automobile Industry Contribution to India's GDP

The above mentioned statistics have undoubtedly taken the country's economy forward in the last decade. This industry has indeed taken its people forward by creating millions of job in both direct and indirect way. With its rising contribution to the GDP is considered as a sunrise sector for the Indian economy.

Conclusion

The automobile industry is among the most significant industrial sectors on the modern economy. It is a symbol of technical marvel by mankind. Many other manufacturing industries depend upon this industry including steel, rubber, glass, machine tools, robots, electronics, software and many more.

This paper tries to examine the trends in the automobile industry and its impact on the economy in terms of GDP, Exports, FDI, Employment etc.; all these factors are positively impacted by the growth of Indian automobile industry. As a major employment and export generator, GDP contributor, FDI earner, the automobile industry is instrumental in shaping the country's economy. As per AMP (Automotive Mission Plan) 2016-26 the Indian automotive sector has the potential to generate up to US$ 300 billion annual revenue by end of 2026, create 65 million additional jobs and contribute over 12 percent to India's Gross Domestic Product. The amp 2016 -26 seeks to make this industry the engine of "Make in India" initiative.

References

1. CRISIL CRB Customised Research Bulletin. CRISIL Research. 2013, 8.
2. http://dipp.nic.in/foreign-direct-investment/fdi-statistics.pdf.
3. http://labourbureau.nic.in.
4. http://www.economywatch.com/Indian-automobile-industry/employment.html.
5. http://www.siamindia.com/statistics.aspx?mpgid=8&pgidtrail=9.
6. http://www.trade.gov/td/otm/assets/auto/India, 2009.
7. Jacob, Tom, Thomas Paul Kattokaran. Impact of Foreign Direct Investment on Automobile Industry: An Indian Perspective, International Journal of Commerce and Management Research. 2017; 3(1):34.
8. Parhi, Mamata. Indian Automobile Industry: Innovation and Growth. India Science and Technology.2008, 2-3.
9. Revving up. India Automotive Industry- A Perspective. 2009, 7.
10. The Boston Consulting Group and Society of Indian Automobile manufacturers Report. Perspective on Importance of Automotive Industry. 2013, 3.