Original Resear	Volume-8 Issue-1 January-2018 PRINT ISSN - 2249-555X Commerce THE PERFORMANCE OF THE INDIAN AUTOMOTIVE SECTOR - ACTUAL AND FORECAST A STATISTICAL ANALYSIS			
Suresh.R	MFT.,M.Phil.,PGDPM.,(Ph.D) Research Scholar, Department of Commerce, Chikkanna Government Arts College, Tirupur – 641602,Tamilnadu,India.			
Dr.G. Chandrasekaran	Assistant Professor of International Business, P.G and Research Department of Commerce, Chikkanna Government Arts College, Tirupur-641602, Tamilnadu, India.			
ABSTRACT The study explains the growth and development of the automotive Industry in Indian sub-continent. The best transport system is much helpful for nation development. The Indian automotive Industry provides more job opportunities to the people. This study, further explain the actual and forecast performance of the automotive Industry in India, and briefly stats some information about Foreign Direct Investment, Government policies, Infrastructures, Technological up gradation, Environmental aspects, Gross Domestic Product, peoples disposable income, current automotive sector statistics, automotive Industry key players, influencing key factors, Clusters and quality aspects.				
KEYWORI	DS : Automotive Industry, Commercial Manufacturers, FDI, Investment, Production, Forecast.			

Introduction:

Indian Automotive sector plays an essential role in Economic, Technological & Industrial Development in India. It is one of the very important growing sectors in India. The progressing automotive sector stimulated industrial sector and also the core sector. This sector contributes great volume of employment opportunities in our nation.

India's automotive sector is the most important and largest developing industries in the world. After liberalization, our automotive sector has changed tremendously. Many steps are taken by the Union Government and global automotive manufacturers in Indian market. It is expected to make India a giant in manufacturing of the two wheelers and four wheeler markets in the world by 2020. Now nearly almost every world class automotive leaders has established its counterparts in India.

The Indian automotive sector has undergone rapid changes since open economy. Many global automotive giants have entered in India and replaced the monopoly of very few producers. According to the recent statistics, there are 19 manufactures of Passenger cars and Multi-Utility vehicles, 16 manufactures of Commercial vehicles, 10 manufactures of two wheelers, 7 manufacturers of three wheelers, 14 manufactures of Tractors and also 5 manufactures of Engines.

Confederation of Indian Industry (CII) has presented a valuable information. That is, India is holding position of

- · Fifth largest bus & truck sector
- · Fifth largest Commercial vehicle market
- · Fourth largest Tractor market
- Tenth largest Passenger car market
- Second largest Two wheeler market
- · Largest Three wheeler market
- Seventh largest passenger car market

Global Scenario:

In the last few decades, the world automotive industry has changed its location preferences due to various reasons. Earlier, the automotive industry was largely confined to the triad – North America, Europe, and Japan; however with the emergence of some vibrant developing economics, like Brazil, India, and China, the global automotive industry has been considering a different growth perspective, and it has been relocating the operations. These growing economies has been as the manufacturing hub, and also the newfound markets for the global majors like Ford, General Motors, Chrysler, Toyota, Honda, Nissan, Hyundai, Benz, and BMW who are competing to enhance their market share in these markets. Increasing the growth in GDP and the growing disposable income has catapulted these emerging economies as market for automotives, while the low cost of operations and skills in design and R&D made them as destination for investment and manufacturing operations.

History of Indian Automotive Industry:

In 1897, the first car ran on an Indian surface. Through the 1930's cars

were imported from western countries but in small numbers. Hindustan Motors was launched in 1942, the long-time competitor Premier in 1944, building Chrysler, Dodge, and Fiat products respectively. Mahindra & Mahindra was established in the year 1945, and began assembly of Jeep CJ-3A utility vehicles. After independence in 1947, the Government of India and the private sector made efforts to produce an automotive components manufacturing industry to supply the automobile industry. In 1953, and import substitution programme was launched, and the import of fully built-up cars began to restrict.

Automotive Industry in India:

The Automotive sector in India is the most competitive markets with low costs, which is an attractive production base for foreign automotive manufacturers. India holds the second fastest growing market in the world next to China. Car is the major segment in the Indian automotive industry with a growth rate of more than 19% in 2015. India is also a prominent auto exporter and has a strong export growth expectations for the near future. In addition, several initiatives by the Government of India and major automobile players in the Indian market are expected to make India as a leader in the two wheelers and four wheelers segment in the world by 2020. The industry provides direct and indirect job offer over 13 million peoples.

India's Progress & Advancement in Automotive Sector:

Since the liberalization Indian automotive sector turned to growth track, receiving FDI and also technical knowhow. This step stimulated production from 5.3 million units in 2001-02 to 10.8 million units in 2007-08. The most important and unavoidable factors in automotive sector is given below.

- Raising Indian per capita income.
- Large number of middle class people.
- Well qualified & trained manpower.
- Low labor cost.
- · Strong technical capabilities.
- Better Government Cooperation.

These are the factors present result as "Indian Automotive Sector – Booming Sector" This industry provides direct and indirect employment of more than 12.5 million. According to the statistical report, the whole automotive industry (Original Equipment Manufacturer [OEM], Auto Components, Ancillary and Tyre manufactures) contributes to the nation more than 7% GDP. This industry provides approximately 20% revenue to the Finance Ministry. i.e., Indirect taxes (Customs & Central Excise) to the Government of India.

Due to rapid urbanization and improvement in standard of living, along with active Government support in the form of incentives and stimulated large number of MNC's set up their manufacturing and research development facilities in India. Over the decades, the Indian auto components industry has transitioned from being a supplier for the global aftermarket to becoming a full-scale global Tier-1 supplier to many global giants in automotive industry.

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The favorable interest rate regime for vehicle finance coupled with raising disposable incomes and changes in consumer's lifestyle drive consumers to upgrade their vehicles often. Within the turn, it has development of the domestic automotive market. Consequently, over the years, several new companies have set up shops in the components market in order to cater to the rising a demand from Indian automotive industry.

Investment Scenario:

In order to keep up the growing demand, several auto makers have started investing heavily in various segments of the auto industry during the last two decades. The industry has attracted Foreign Direct Investment (FDI) worth US\$ 13.48 billion during the period of April 2000 to June 2015, according to the data released by the Department of Industrial Policy and Promotion (DIPP).

Some of the recent major investments and developments in the automotive sector in India are

- Global auto manufacturer Ford plans to manufacture in India two families of engines by 2017, a 2.2 liters diesel engine code named as panther, and a 1.2 liters petrol engine code named as Dragon, which are expected to empower 2,70,000 Ford vehicles globally.
- The world's largest air bag suppliers Autoliv Inc Takata Corp, TRW Automotive Inc and Toyota Gosei are setting up plants and increasing capacity in India.
- General Motors plans to invest US\$ 1 billion in India by 2020, mainly to increase the capacity at Talegaon plant in Maharastra from 1,30,000 units a year to 2,20,000 units by 2025.
- US based car maker Chrysler has planned to invest Rs.3,500 crores (US\$ 525 million) in Maharastra, to manufacture jeep Grand Cherokee model.
- Mercedes Benz has decided to manufacture the GLA entry SUV in India. The company has doubled its Indian assembly capacity to 20,000 units per annum.
- German based luxury car manufacturer Bayerische Motoren Werke AG's (BMW) local unit has announced to purchase components from several India-based auto-parts manufacturers.
- Mahindra Two Wheelers Limited (MTWL) acquired 51% shares in France-based Peugeot Motorcycles (PMTC).

Government Initiatives:

The Government of India encourages Foreign Direct Investment in the automotive sector and allows 100% FDI under the automatic route. Some of the major initiatives taken by the Government of India are:

- The Government of India to make automobile manufacturing the main driver of "Make in India" initiative, as it expects the passenger vehicle market to triple to 9.4 million units by 2026, as highlighted in the "Auto Mission Plan(AMP)" 2016-2026.
- 2. The plan envisages a tax holiday for the industry on investment exceeding \$2,25,000 100% tax deductions of export profits, and deduction of 50% on foreign exchange earnings. It also calls for a one-step clearance for foreign direct investment proposals in the sector and deduction of 30% net income for 10 years for new industrial undertaking.
- 3. In the Union budget 2015-16, the Government has announced plans to provide credit of Rs.8,50,000 crores (US\$ 127.5 billion) to farmers, which is expected to promote sales in the tractors segment.
- 4. The Government plans to promote eco-friendly cars in the country. i.e., CNG based vehicles, hybrid vehicles, electric vehicles and also to make mandatory 5% ethanol blending in petrol. Recently the Union Government stopped the production and sales of Bharat Stage III vehicles to restrict the air pollution.
- 5. The Government has formulated a scheme for Faster Adoption and Manufacturing of Electric and Hybrid Vehicles in India, under the National Electric Mobility Mission 2020, to encourage the progressive introduction of reliable, affordable, and efficient electric and hybrid vehicles into the country.
- 6. The Automobile Mission Plan (AMP) for the period of 2006-2016, designed by the Government was aimed at accelerating and sustaining growth in this sector, and the well established Regulatory Framework under the Ministry of Shipping. Road Transport and Highways, plays a part in providing a boost to this sector.

Manufacturing Facilities:

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The majority of India's car manufacturing industry is divided into three *"Clusters"*. Around Chennai is the Southernmost and largest, with a 35-40% revenue share, accounting for 60% of the country's automotive exports and home of the India operations of Ford, Hyundai, Renault, Mitsubishi, Nissan, BMW, Hindustan Motors, Daimler, Caparo, Mini, Datsun and Ashok Leyland.

Near Mumbai, Maharastra, along the Chakan corridor near Pune, is the western cluster, with a 33% share of the market. Audi, Volkswagen, and Skoda are located in Aurangabad. Mahindra & Mahindra have an SUV and engine assembly plant at Nashik. General Motors, Mercedes Benz, Land Rover, Jaguar, Fiat, and Force motors have assembly plant in the area.

The Northern cluster is around the National Capital Region (NCR), and contributes approximately 30%. Gurgaon and Manesar in Haryana, are the country's largest car manufacture, of Maruti Suzuki is based.

An emerging cluster is the state of Gujarat, with a manufacturing facility of General Motors in Halol, and a facility for Tata Nano at their plant in Sanard. Ford, Maruti Suzuki, and Peugeot-Citroen plants are also planned for Gujarat. Compared to the three cluster the eastern cluster, (i.e., Calcutta cluster) is very small.

Key Factors influencing Automotive Industry:

- Consumers Sentiment Index
- Domestic goods price metal / iron and steel
- Import and Export Taxes (Duties) / Motor Vehicle Tariffs
- Availability of easy finance
- Increasing family income
- Developed infrastructure
- Increasing family income
- Unsatisfied Government transport system
- Exchange of cars
- Changes in life style
- Rapid urbanization
- World price of energy / crude oil

Industry Structure:

Over the past decades, the Indian automotive companies and components industry has transformed itself from a low-volume, highly fragmented industry into globally competitive one. The industry can broadly be classified into the organized and unorganized sector, with more than 600 companies in the organized sector and over 10,000 firms in the unorganized sector. While the organized sector is engaged in manufacturing the high value-added precision engineering products, the large unorganized sector largely produced, less value-added products on the basis of production as well as the job work basis.

While the organized sector caters mainly to the Original Equipment Manufacturers (OEMs), the unorganized manufacturers mainly serve the replacement market or aftermarket. The industry is classified into three tier structure.

Tier -1: Integrated Systems to OEMs

Tier-2: Finished components to Tier-1 suppliers

Tier-3: Raw materials and basic components to Tier-2 firms.

Currently, the Indian auto components industry manufactures has a wide range of products for consumption and exports. The industry manufactures are around 20,000 to 30,000 auto components.

Need for the study:

The present state of the international business is highly competitive. The foreign exchange earnings are made through the export and more over on automotive exports. The continuous increase in the fuel price, exchange rate and the tax structure has significantly affected the price of the automotives (after the GST systems two wheeler segment moves better position, but SUV & luxury sector struggles). This study is on analyzing the automotive production, domestic and exports from India to the global market.

Objectives of the study:

The objective of the study is to explain the current production and forecast automotive sector in India. To show the forecasted values for the next 8 years from financial year 2017-2018 to financial year 2024-2025 with the help of graphs.

Scope of the Study:

This is the right time to discuss on Indian Automotive Industry. Nowadays, the automotive industry has a vital role in stimulating economic activity. As per the various statistics, the automotive industry contributes more than 7% in Indian GDP. Day by day the field is getting expanded, and having technical up gradation. Southern and Western sector had a predominant role in automotive sector. For the wealth of the nation, it is necessary to discuss on various cluster and technical as well as environment regime in Indian automotive sector. At The same time, we can study further in the area of BOT, BOP, Impact on GST in Automotive sector which is also vital area for the betterment of the society.

Sources of Data:

The valuable data were collected from different secondary sources, related to the domestic sales, export and production of automotive industry. Profile of the Indian Automobile Industry and Statistical profile on Indian Automobile Industry are two annual publications of the Society of Indian Automobile Manufacturing (SIAM), supplemented by production related sources from Profile of Automobile Industry published by the Association of Indian Automobile Manufacturers that gave information related to the previous years.

Documents on Automotive Mission Plan 2006-2016 released by the Department of Heavy Industry (DHI), Ministry of Heavy Industries and Public Enterprises, Government of India was also used to collect relevant information.

Automotive Industry – Statistical Profile:

Production from financial year 2010 -2011 to financial year 2016-2017: Passenger vehicles, Commercial vehicles, Two wheeler vehicles, Three wheeler vehicles.

Financial	Passenger	Commercial	Two	Three
Year	venicles	venicies	w neelers vehicles	w neelers vehicles
2010-2011	2982772	760735	13349349	799553
2011-2012	3146069	929136	15427532	879289
2012-2013	3231058	832649	15744156	839748
2013-2014	3087973	699035	16883049	830108
2014-2015	3221419	698298	18489311	949019
2015-2016	3465045	786692	18830227	934104
2016-2017	3791540	810286	19929485	783149
CAGR	3.49	0.91	5.89	-0.30
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Domestic Sales from financial year 2010 -2011 to financial year 2016-2017: Passenger vehicles, Commercial vehicles, Two wheeler vehicles and Three wheeler vehicles.

Financial	Passenger	Commercial	Two Wheelers	Three	
Year	vehicles	vehicles	vehicles	Wheelers	
				vehicles	
2010-2011	2501542	684905	11768910	526024	
2011-2012	2529839	809499	13409150	513281	
2012-2013	2665015	793211	13797185	538290	
2013-2014	2503509	632851	14806778	480085	
2014-2015	2601236	614948	15975561	532626	
2015-2016	2789208	685704	16455851	538208	
2016-2017	3046727	714232	17589511	511658	
CAGR	2.86	0.60	5.91	-0.39	
20000000					
1500000 Passenger Vehicles					
5000000 Commercial Vehicles					
0 Two Wheelers					
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Export from financial year 2010-2011 to financial year 2016-2017: Passenger vehicles, Commercial vehicles, Two wheeler vehicles and Three wheeler vehicles.

Financial	Passenger	Commercial	Two Wheelers	Three
Year	vehicles	vehicles	vehicles	Wheelers
				vehicles
2010-2011	444326	74043	1531619	269968
2011-2012	508783	92258	1975111	361753
2012-2013	559414	80027	1956378	303088
2013-2014	596142	77050	2084000	353392
2014-2015	621341	86939	2457466	407600
2015-2016	653053	103124	2482876	404441
2016-2017	758830	108271	2339273	271894
CAGR	7.95	5.58	6.24	0.10



Production forecast from financial year 2017 -2018 to financial year 2024-2025: Passenger vehicles, Commercial vehicles, Two wheeler vehicles, Three wheeler vehicles.

Financial	Passenger	Commercial	Two	Three
Year	Vehicles	Vehicles	Wheelers	Wheelers
2017-2018	3711499	749464	21134866	883523
2018-2019	3820592	739800	22180971	889583
2019-2020	3929686	730136	23227077	895643
2020-2021	4038779	720472	24273182	901704
2021-2022	4147873	710808	25319288	907764
2022-2023	4256966	701145	26365393	913824
2023-2024	4366060	691481	27411499	919885
2024-2025	4475153	681817	28457604	925945
CAGR	2.37	-1.18	3.79	0.59





Financial	Passenger	Commercial	Two	Three
Year	Vehicles	Vehicles	Wheelers	Wheelers
2017-2018	2946799	656783	18505218	520181
2018-2019	3014317	644716	19424275	520220
2019-2020	3081835	632649	20343331	520259
2020-2021	3149354	620582	21262388	520298
2021-2022	3216872	608515	22181444	520337
2022-2023	3284390	596448	23100500	520376
2023-2024	3351909	584381	24019557	520415
2024-2025	3419427	572315	24938613	520454
CAGR	1.88	-1.71	3.8	0.01



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Export forecast from financial year 2017 -2018 to financial year 2024-2025: Passenger vehicles, Commercial vehicles, Two wheeler vehicles, Three wheeler vehicles.

Financial Year	Passenger Vehicles	Commercial Vehicles	Two Wheelers	Three Wheelers	
2017-2018	776553	107577	2680900	366829	
2018-2019	822766	112267	2821600	373817	
2019-2020	868980	116958	2962299	380805	
2020-2021	915193	121648	3102998	387793	
2021-2022	961407	126338	3243698	394781	
2022-2023	1007620	131029	3384397	401769	
2023-2024	1053834	135719	3525096	408757	
2024-2025	1100047	140409	3665795	415745	
CAGR	4.45	3.39	3.99	1.58	
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The global economic slowdown had adversely affected the demand for automotive OEM and auto components in financial year 2009. Major automotive companies cancelled or postponed their orders due to lack of sales owing to the economic uncertainty. As a result, the sector's growth slowed down, after posting double digit growth in the preceding years.

Conclusion:

The Automotive sector has recorded remarkable development during the last two decades. The market trend is growing at a speedy rate. According to the CAGR, the market will further grow in many years. Now India is holding a remarkable position in the Automotive Industry. The Indian automotive sector is having very strong base. In future Indian automotive sector will become a challenge for global automotive players. Our Government has taken various initiatives and has very strong infrastructures. Finally, it is concluded that, "Indian automotive sector will grow very well and flourish. India will become automotive hub in very near future".

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