IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Indian Automobile Industry: Growth Drivers And Emerging Trends

Akhila Pai H[1] and Dr. Catherine Nirmala[2]

[1]Research Scholar, [2]Research Guide,

St. Agnes Centre for Post Graduate Studies and Research, Mangalore.

Abstract- The Automobile Sector is a significant contributor of India's GDP and employment generation. Despite of various challenges such as soaring crude oil prices, shortage of semi conductor chip and supply chain disruptions, the Indian Automobile Market is currently the fourth-largest auto market globally and on its track to secure the 3rd position by 2026, signaling a promising future. The government is also highly supportive in terms of progressive policies and regulations. Today, India is considered as one of the key part of global strategy by global vehicle manufacturers and component suppliers. Even though India's Automobile Sector is immensely potential and growing at a rapid speed, it has to be mindful of challenges that are posed by the recent developments in the global market and adapt to the changing environment. This study provides insight on the recent trends that are shaping the global market and the challenges faced by the Indian automobile sector. The study also attempts to outline the key drivers that boost the growth and the opportunities that could exist for the major players of Indian Automobile Industry in future.

Key words: GDP, Global Market, Automobile Sector, Employment

INTRODUCTION

The Indian Automobile Industry is one of the largest and fast growing sectors in the world. It is traditionally considered as a key indicator of economic growth of the country. Indian automobile industry is also one of the leading markets in two-wheelers, three-wheelers, tractors and heavily vehicles. The government has initiated Automotive Mission Plan 2016-26, Scrappage Policy and Production Linked Incentive (PLI) Scheme to maintain exponential growth and retain attractiveness of Indian Market. The government is expecting auto sector to increase India's GDP from 7% to 12%. The auto sector is also directly and indirectly responsible for creation of employment for more than 37 million people. Substantial growth in the automobile sector is likely to provide several opportunities in both rural and urban markets to industry participants as they cater to the demands of low and middle –income group of population. Rising middle class income and a huge youth population is creating strong demand for automobiles. The demand for Indian vehicles continues to grow both in the domestic and international markets.

In order to cope up with the growing demand and new trends in global market such as Electric Vehicles, Hybridization of Vehicles, rising demand for CNG Vehicles and other technological advancement, several auto makers have started investing heavily in various segments of the industry in the recent past. The support from both State and Central Government has made the EV market in India a very attractive global investment destination. Introduction of Phase II of FAME Scheme can play vital role in EV infrastructure development. With these opportunities, Indian auto companies are able to easily raise funds to invest in their R&D infrastructure, advanced technology integration, innovation testing and market expansion.

The automobile sector received cumulative equity FDI inflow of worth US$ 36.268 billion between April 2000- March 2024. India is on track to emerge as the largest EV Market by 2030, with a total investment opportunity of more than US$ 200 billion over the next decade. These emerging trends along with supportive government policies will further boost the growth of India's Auto Sector. With this background, the paper highlights the key drivers of growth and challenged faced by Indian Automobile sector in the light of recent developments in the automobile sector.

OVERVIEW OF INDIAN AUTOMOBILE INDUSTRY

The Automobile Industry in India consists of four segments viz. Two Wheelers, Three Wheelers, Passenger Vehicles and Commercial Vehicles. The Indian Automobile Sector has immense potential for driving economic growth and creation of employment. It also supports a host of other manufacturing industries like auto-components, machine tools, steel, aluminum, plastics, chemicals, electronics, etc. In addition, the auto sector also supports the services sector which includes IT and software, banking, insurance, transport and logistics including public transport etc. The Government of India had not only simplified and streamlined the regulatory policies framework for ease of doing business but also launched several schemes to give a push to the auto sector.

In India, Two wheelers and passenger vehicles dominate the domestic auto market. Two-wheelers and passenger cars accounted for 75.35% and 17.69% of total market shares respectively, in FY24. Indian auto market leads in two wheelers and 3rd largest in Passenger Vehicles in the world in 2024.

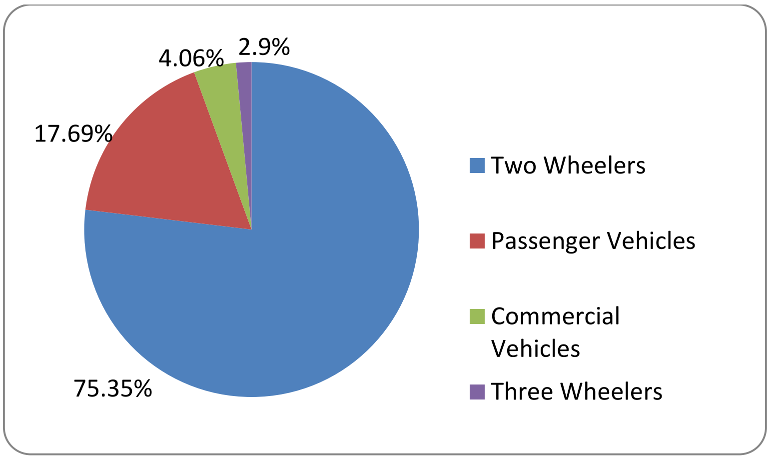

Figure 1: Segment wise Domestic Market Share in FY24

Segment	Top 5 Players in the auto market
Two Wheelers	Hero MotorCorp, Honda, TVS, Bajaj Auto, and Suzuki
Passenger Vehicles	Maruti Suzuki, Hyndai , M&M, Tata Motors, and Toyota
Commercial Vehicles	M&M, Tata Motors, Ashok Leyland, Maruti Suzuki and Force Motors
Three Wheelers	Bajaj Auto Limited, Piaggio Vehicles Pvt. Ltd., Mahindra & Mahindra Ltd., Atul Auto Limited and TVS Motor Company Limited

Table 1: Segment wise Top Players in Indian Automobile Market

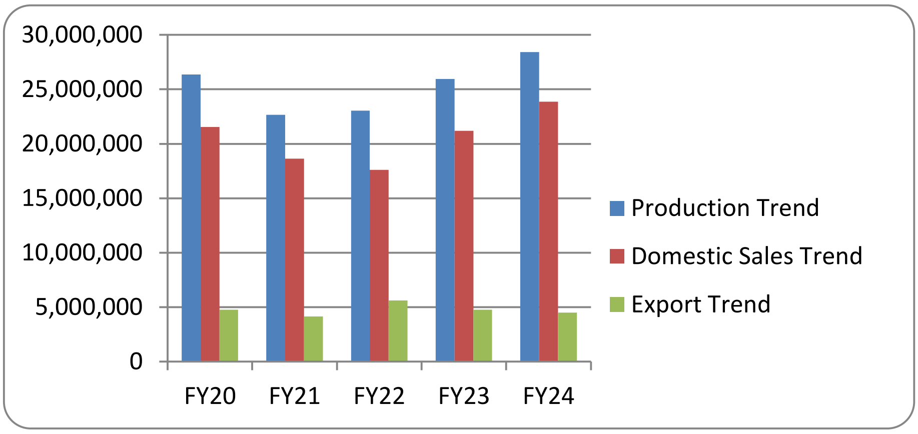

Figure 2: Indian Automobile Production, Domestic Sales and Export Trends

Source: The Society of Indian Automobile Manufacturers (SIAM)

REVIEW OF LITERATURE

Nikita Arya (2019), in her study on 'Review of Growing Automobile Industry in India" examined the performance and growth of Indian Automobile Industry. The author also focused on studying the present status of foreign investment in the automobile sector. The study stated that India is emerging as one of the largest exporters of connected and software solutions for automobiles. India has some great advantages in the changing automotive landscape such as availability of skilled labour at low cost and low cost steel production but it has to overcome some serious challenges too.

Kanupriya, Sandeep Kumar (2018), in their study found that the Inflow of FDI in automobile industry is in increasing mode. FDI could benefit both the domestic industry as well as the consumers by providing opportunities for technological transfer and up gradation access to global managerial skills and practices making the industry internationally competitive, opening up export markets, providing backward and forward linkages and increasing employment opportunities. This study analyses the progress so far made through FDI in Indian Automobile Industry.

Menonjyoti Kalita, Golam Imran Hussain (2021) in their study reviewed the opportunities and challenges of Electric Vehicles in India. The study concluded that there had been a rapid growth of EV market in India. The changing infrastructure is one of the major concerns of EV Market. The authors opined that even though challenges are faced in raising initial investment for coping with changing infrastructure, due to the future opportunities the EV Market will expand.

OBJECTIVES OF THE STUDY

- To study the recent trends in Indian Automobile Industry.
- To identify the key drivers that boost growth of Automobile Sector in India
- To analyze the future opportunities in automobile sector.
- To critically examine the major challenges faced by Indian Automobile Industry.

RESEARCH METHODOLOGY

The present study is purely based on secondary data collected through literature survey, journals, newspapers, websites, published articles and opinion of experts on the subject matter.

EMERGING TRENDS IN INDIAN AUTOMOBILE INDUSTRY

The surge in demand for Indian vehicles is helping the auto sector to rebound in the post pandemic era. Here are a few emerging trends that will continue to influence the growth of Indian Automobile Sector -

1. **Digital Automobile Sales:** To make it convenient for customers to purchase vehicles, automobile companies are exploring ways to make the entire buying process online through virtual showrooms. Many automakers prefer virtual showrooms because they make sales easy and reduce the burden of infrastructural and overhead costs enabling retailers to offer vehicles at competitive prices.
2. **Autonomous Vehicles (AVs):** The most recent trend in the auto sector is an autonomous vehicle. An autonomous vehicle can drive itself to a destination by itself in autopilot mode using inbuilt technologies and sensors such as active steering, anti-lock breaking system, adaptive cruise control, GPS, radars and lasers. To build a self-driven vehicle, the automaker should lend expertise from various technological fields and integrate them from shifting ‘mechanical driven’ vehicle to ‘software driven vehicle’.
3. **Vehicle Connectivity:** Nowadays, vehicles are manufactured with a digital identity that differentiates them from other vehicles in the network. This technology has the ability to connect and communicate with other systems outside the vehicles. This connectivity enables easy tracking of vehicular data for various purposes such as vehicle maintenance, insurance, driver safety and fleet management.
4. **Electrical Vehicles:** The shift from traditional IC vehicles to EVs is perhaps at the top of all significant trends that are emerging recently in auto sector. Today, both the manufacturers and consumers are keen in producing and using Electric Vehicles respectively. The Indian EV market is highly supported by the government because it is the best solution to combat climate changes and also it reduces greenhouse emissions.

5. **Hybrid Vehicles:** Hybrid vehicles are gaining immense popularity these days as complete transitioning from fossil fuels to EVs is a long process. Since EV infrastructure is at a nascent stage, major automakers are betting on hybrid cars. A hybrid vehicle is a promising alternative for the traditional IC engine. The hybrid vehicle offers numerous benefits including fuel efficiency, lower carbon footprint, regenerative braking system, and of course, good resale value. The adoption of the technology has been somewhat slow so far because of high pricing but OEMs are betting high for hybrid vehicles in with new launches and attractive pricing.
6. **CNG vehicles:** Rising fuel prices and limited charging infrastructure for EVs have accelerated the demand for CNG vehicles across the country. CNG penetration in the PV segment in FY24 has increased to 38.7% from 31.4% in FY23. It costs nearly half the price of petrol which makes the cost of running a CNG vehicle much cheaper with better fuel efficiency and moreover, it is environmentally-friendly. Nowadays, more customers are looking for a passenger vehicle in the mid-price segment, several major OEMs have shifted their focus towards CNG fitted vehicles.
7. **Shared Mobility:** With the emerge of connected vehicles, a new business model has come up that focus on shared mobility as an alternative to traditional methods of vehicle ownership. This model enables mobility as a service and discourages buying new vehicles. Such solutions meet the requirements of a business without adding new vehicles, thus reducing waiting time for fleets.
8. **Digital Twins:** The Big Data and Advanced Analytics is the magic word for Indian Auto Sector in the present scenario. This technology informs the automakers various decisions throughout the lifecycle of a vehicle and enables them to build the vehicle to perform more efficient, faster and with great customer satisfaction.

GROWTH DRIVERS OF AUTOMOBILE INDUSTRY

The key drivers which boost the exponential growth of Indian Automobile Sector are as follows;

1. **Policy Support**
   - **National Automotive Testing and R&D Infrastructure Project (NATRIP)**: Setting up of R&D Centres at a total cost of US$ 388.5 million to enable the industry to be on par with global standards.
   - **Production-linked Incentive (PLI) Scheme**: In September 2021, the Indian government issued notification regarding a PLI scheme for automobile and auto components worth Rs. 25,938 Crore (US$ 3.49 billion). This scheme is expected to bring investments of over Rs. 42,500 (US$ 5.74 billion) by 2026. In November 2023, under the PLI scheme, the Union Government added more than 100 advanced technologies, including alternate fuel systems such as Compressed Natural Gas (CNG), Bharat Stage VI compliant flex fuel engines, Electronic Control Units (ECU) for safety, advanced driver assist systems and e-quadricycles.

- **Automotive Mission Plan 2016-26 (AMP 2026)**: This scheme targets a four-fold growth in the automobile sector in India which include manufacturers of automobiles, auto components and tractors over the next 10 years.
- **Faster Adoption and Manufacturing of Electric Vehicles (FAME):** The Government approved FAME and plans to cover all vehicle segments of EV. FAME Phase-I was extended until March 31, 2019. In February 2019, the Government of India approved FAME Phase-II scheme with a fund requirement of Rs. 1,000 crore to develop EV charging stations for the next five years.
- **PM E-Drive Scheme**: The Central Govt. has launched PM E-Drive Scheme with a budget of US$ 1.30 billion (Rs.10,900 crore), effective from October 1, 2024 to March 31, 2026. The initiative aims to accelerate the adoption of Electric Vehicles,establish charging infrastructure and develop EV manufacturing ecosystem in India.
- **Clean Tech Scheme**: The Indian government has planned US$ 3.5 billion in incentives over a five-year period until 2026 under a revamped scheme to encourage production and export of clean technology vehicles.
- **Vehicle Scrappage Policy:** This policy of the government is expected bring significant change in the Indian auto sector. The policy will help the vehicle buyers benefit from zero registration fee, rebate on road taxes, upgraded discounts on purchase of new vehicles and low cost of maintenance which in turn will boost the sales.
- **Battery Swapping Policy:** This will allow drained batteries to be swapped with charged ones at designated charging stations, thus making EV's more viable for potential customers.

2. **Growing Demand**
   - **Rising income and growing young population**: Most firms including Kia Motors and Volkswagen have adapted themselves to cater to the large Indian middle-class population by dropping their traditional structure and designs. This has allowed them to compete directly with domestic firms, making the sector highly competitive.
   - **Greater availability of credit and financing options:** In October 2021, Maruti Suzuki India Limited (MSIL) announced that with its launch of Smart Finance, Maruti Suzuki customers can avail finance options online in an integrated platform for a one-stop solution. MSIL has integrated its 'Smart Finance' in online platform with 14 financiers to offer competitive interest rates. In November 2021, Mahindra & Mahindra Financial Services (Mahindra Finance) launched 'Quiklyz', a lease-based vehicle subscription business for urban centres.
3. **Support in building infrastructure and high investment:**
   - Mahindra & Mahindra has tied up with three electric vehicle infrastructure partners Jiobp, Statiq, and Charge+Zone to offer charging solutions for its range of passenger electric vehicles in November 2023.
   - India inaugurated the National Automotive Test Tracks (NATRAX) in July 2021, which is Asia's longest high-speed track to facilitate automotive testing.

- As of December, 2022, under the FAME India Scheme I & II, a total of 5,151 EV charging stations have been installed by oil companies under the Ministry of Petroleum and Natural Gas (MoPNG).
- In September 2021, eBikeGo announced that they would install 1 lakh IoT-enabled charging stations in India. According to the company, the charging station named 'eBikeGo Charge' will be providing the most economical IoT-enabled smart charging solution.

MAJOR CHALLENGES AND FUTURE OPPORTUNITIES OF INDIAN AUTOMOBILE SECTOR

In order to address the issues such as rising number of road fatalities, alarmingly high population levels, increasing oil import bill, high dependence on fossil fuels, the Indian Government has been actively designing regulations and policies. The major regulatory landscapes announced recently include New Road Transport and Safety Bill and Implementation of BS VI Emission norms. These regulatory norms have to be strictly complied by the automakers while manufacturing the vehicles. In addition, the vehicle manufacturers have to deal with other challenges like frequent changes in technology, lack of proper infrastructure for EVs, price sensitivity of customers, shortage of semi conductor chip, delay in process of supply chain, hike in prices of various auto components etc. Despite of all these challenges, the auto sector is blooming from past few months. Even in the auto sector, the future is not only rosy. The rising security norms of the government and a potential economic slowdown pose a major risk to the auto sector. The automakers will have to build appropriate strategies to overcome these challenges for staying ahead in the competition.

The Indian Automobile Sector can explore the opportunity of creating sizeable market segments, small car manufacturing hub and also become global R&D hub in future. The government is also focussing on electrification of public transport with the expectation of public opting for electric modes of transport over traditional IC vehicles. The government of India which has the vision of 100% green mobility and carbon neutral is taking all active measures towards its goal.

CONCLUSION

In the coming decade, automobile players may have to invent new technologies and trends, driven by changing customer demands as well as government regulations regarding safety and environmental concerns. In the Indian auto market, the price-sensitivity of the consumer could drive crucial changes in the industry and may require innovations in both products and processes. This transformation may not only need an active collaboration between all the existing players of the value chain, but also require leveraging synergies of non-automobile industries. The government too would have to be in sync with the needs of the industry and play an active role in the transformation and growth of the industry.

REFERENCES:

[1] Nikita Arya(2019). *A Review of Growing Automobile Industry in India*. - International Journal of Research and Analytical Reviews. e ISSN 2348 –1269, Print ISSN 2349-5138, VOL. 6, ISSUE 1, JAN. – MARCH 2019

[2] Reena Balani, Dr. Kamlesh Pritwani(2023). *Emerging Trends & Technologies in Automotive Sector in India(With Special Focus on Electric Vehicles.* International Journal for Multidisciplinary Research. E-ISSN: 2582-2160,Vol. 5,Issue 1, Jan-Feb 2023

[3] Kanupriya, Sandeep Kumar(2018). *A Study on Automobile Industry in India.* ABS International Journal of Management. Vol.6, Issue-1, June-2018.

[4] Menonjyoti Kalita, Golam Imran Hussain(2021). *Opportunities and Challenges of Electric Vehicles in India.* International Journal of Engineering Research & Technology. Volume 9, Issue 11, Special Issue - 2021

[5] Dr. T. Vijayaragavan(2021). *An Overview of Automobile Industry in India*. International Journal of Creative Research Thought. Vol.9, Issue8, Aug-2021

[6] Automobile Industry Report, Nov-2024. India Brand of Equity Foundation (IBEF)

[7] Automobile Industry Report, March-2024. Society of Indian Automobile Manufacturers (SIAM)