International Journal of Social Science and Economic Research

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

An Exploratory Study on the Impact on Marketing Techniques and other factors in the growth of the Indian automotive industry

Arshia Aggarwal

Modern School Vasant Vihar, New Delhi

DOI: 10.46609/IJSSER.2024.v09i08.004 URL: https://doi.org/10.46609/IJSSER.2024.v09i08.004

Received: 28 July 2024 / Accepted: 11 August 2024 / Published: 15 August 2024

ABSTRACT

The Indian automobile industry has traversed a huge space since India attained independence. Since 1991 there has been a tremendous change with respect to foreign direct investment in this industry. The result of this is that the industry has become competitive for domestic demand with respect to high level of quality at affordable price. This has resulted in increase in exports as well as the industry becoming an integral part of the global value chain.

Keywords: Automotive, Electric vehicle, Commercial vehicle, Mass produce automobiles, Restriction, Tax policies, Economies and Scale, Environmental damage, Lack indicator, Profitability quotient, Cost efficiency, Price driven market, Product portfolio.

Research Question: The paper would attempt to analyze the Indian automobile sector since the 1990s.What is the growth path that this industry has followed since the 1990s? How has foreign investment impacted this sector? Has there been a growth of indigenous technology in this sector? Has there been a substantial growth in this sector in recent years? These and other questions would be attempted to be answered during the research.

Introduction

As India began to liberalize it led to an impetus to several industries including the automobile sector. The reforms of the 1990 opened the Indian economy to foreign investment as well as for imports and exports. It dismantled import control, lower custom duties and devalued the Indian currency, abolished limits by foreign investors on private investments, reduced tax rate and dismantled public sector monopolies. These reforms were introduced as the economy did not have enough foreign exchange to pay for its essential imports. This led to the growth of this industry after 1990. Before the cars were being imported the two main cars that was manufactured were Ambassador and Fiat. The automobile sector formally came into being in the

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

year 1952 when the government appointed its first tariff commission with the aim of indigenizing this industry. Manufactures like Hindustan Motors, Premier Automobiles and Standard Motors aim into limelight. This phrase continued till the 1990s when liberalization encouraged many international players to enter the Indian market. Many of them collaborated with local manufacturers to capture markets as per the needs of local customers. Prior to 1990 the Indian automotive sector was in effect a duopoly with the major players being Hindustan Motors and Fiat Company. They did not need much advertisement or any type of major marketing technology to sell their product. It is only after the 1990s when the economy opened and foreign collaboration was allowed that the car companies had to fight for the attention of their customers, subsequently given the larger number of models, variants, and companies that have entered the Indian economy. There has been a greater emphasis on marketing and showcasing the different kinds of advantages that every company claims that their car showcases.

The growth of this industry contributed to the economic growth of the country. It helped the finance and insurance sectors by the Motor Vehicles Act that was passed in 1988.

Figure1: Image of a Fiat car in India

Source: Support Scroll.in

International Journal of Social Science and Economic Research

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

Figure 2: Image of an Ambassador and a Standard Herald

Source: Support Scroll.in

Since the 1990s there has been a phenomenal increase in the number of cars as well as the amount of investment in this sector. The reasons behind the growth are:

1. Fuel economy: high rate of fuel has forced competition among the companies to deliver performance-oriented products

2. Demography: India is a huge market for the automobile industry due to the size of population

3. FDI: the government has allowed 100% foreign direct investment in this sector.

Besides the points indicated above the additional factors for increase domestic usage is rapid urbanization. As the urban area increases people who live in the suburbs or outskirts always need transport. The public transport system is neither comfortable nor easily accessible. This leads to the purchase of self-owned automobiles. The sector has been fed by an expansion of business activity; population growth enhanced connectivity that contributes that has led to a rise in the demand for commercial vehicles. Increased wages and per capita income of the population of the country has led to affordability of personal vehicles. Availability of loans at reasonable interest rates have increased the demand for cars. With the increase in the GDP of the economy incomes as well as the size of middle class has grown.

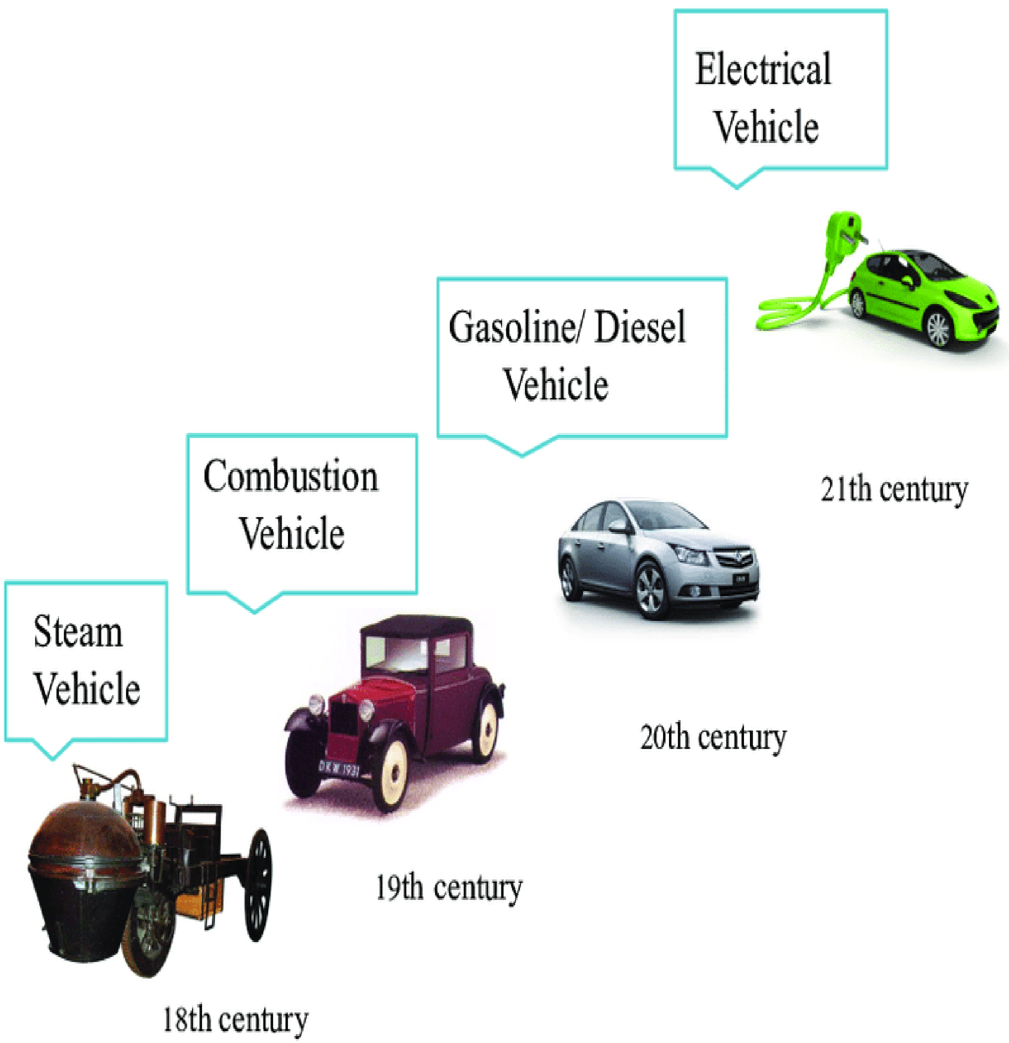
Pathway of growth of the automotive industry

An automobile is a self-propelled motor vehicle intended for passenger transportation on land. It usually has four wheels and an internal combustion engine fueled most often by gasoline, a

ISSN: 2455-8834
Volume:09, Issue:08 "August 2024"

liquid petroleum product. The automobile industry includes all those companies and activities that are involved in the manufacturing of automobiles including components such as engines and bodies. The industry principal products are passenger automobiles and light trucks, including pickups, vans, and sport utility vehicles. It also comprises of a wide range of companies and organizations that are involved in the design, development, manufacturing, selling, repairing, and modification of motor vehicles. The word *automotive* comes from the Greek *autos* (self), and Latin *motivus* (of motion), referring to any form of self-powered vehicles.

Figure3: History of automotive industry



Source: www.resaerchgate

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

This industry began in the 1860s with hundreds of manufacturers pioneering the *horseless carriage*. Early car manufacturing involved manual assembling by a human worker. The process involved from engineers working on a stationery car, to a conveyor belt system where the car past through multiple stations of more specialized engineers. Starting in the 1960s, robotic equipment was introduced to the process and today most cars are produced largely with automotive machinery.

Commercial vehicles (i.e., delivery trucks and large transport trucks) though the automobile originated in Europe in the late 19th century the United States completely dominated the world industry for the first half of the 20th century through the invention of mass production techniques. In 1929 before the Great Depression 90% of the automobile in the world were produced by the United States. In the second half of the century the situation changed when western European countries and Japan became major producers and exporters. Japan manufactured the largest number of automobiles in 2006, 2007 and 2008. China and Japan shared the top shot in 2009.

Rolls-Royce in Britin and Ford in the United States were founded by car maker by partners who combined engineering and technical skills. In the United States almost all the producers were actually 'assemblers' who put together components and parts that were manufactured by different firms. This assembly technique was advantageous in the form of financing. It was possible to begin building motor vehicles by buying cars on credit and selling the finished car by cash.

The pioneer automobile manufacturer not only had to solve the technical and financial problems of getting into production but also had to make a basic decision of what to produce. After the first success of the gasoline engine there was wide spread experimentation with steam and electricity. The next step of this industry was the technological advancement in mass production. This was an American innovation and required precision, standardization inter changeability, synchronization continuity. The mass-produced automobile is attributed to Henry Ford but he was not the only one, Ransom E. Olds made the first major bid for mass market with an Oldsmobile in 1901.

Morus in the 1920s produced low priced cars with designs of small engines. The problem with mass production is that a heavy investment was required in the plant, but when the plant was set up the mass producer enjoyed a cost advantage that made it difficult for small competitors to survive. General Motors ultimately became the largest automotive firm with private owned manufacturing enterprise. Ford weathered the storm in 1929 the period of the great depression and became one of the big three.

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

Till World War two mass production of motor vehicles became the norm but in certain countries they did not make adequate progress due to:

- Lower living standards
- Less purchasing powers
- Smaller national markets
- Higher restrictions in tax and tax policies

During the second World War the automotive industries were used to provide military materials example; military trucks, jeeps, machine guns, carbines, tanks, armored cars, military helmets, and aerial bombs.

After World War two there was an expansion of motor vehicle production. United States, Europe and Japan were the leading the automobile manufacturers. The trend of this industry was to move towards mergers and large-scale organization. Many Japanese owned American plants were built in response due to the limitations imposed on export of cars to the United States by the Japanese government. The decades after World War two were marked by improvement rather than innovation in this industry. The type of innovation that took place was in the development of diesel engines, power stearing, power breaks, air conditioning, etc.

South Korea began its automotive industry in 1970s. There are very few automotive firms as the economies of scale are huge, firms with deep pockets are the ones which can set up industries. Over the years stringent and costly regulations have entered to correct environmental damage. Decentralize the manufacturing operations by regional assembly plants.

Indicators of growth in this industry

The auto sale numbers are the most important indicator for this sector. But it is a lagged indicator as it is a number that reflects the sales in the past rather than current or future ones. The higher the sales the greater the earnings for the automobile industry.

There are six Key Performance Indicator for an automotive industry:

- Average Downtime; Vehicle Down Time refers to the period when a vehicle is unavailable. This unavailability can be caused by various factors including planned or unplanned maintenance, repairs, accidents, or driver/vehicle obligation. Manufacturers experience approximately 800 hours of downtime every year due to maintenance, tool

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

breaks, adjustments, etc. As so much of the business relies on technology running smoothly, the repercussions can be costly when you are unable to keep up with it.

- Utilization Rate; Vehicle utilization is the ratio of a vehicles demand to its threshold. Fleet utilization is the ratio of fleet demand to fleet capacity. Since both capacity and demand are unstable the approach to managing them keeps changing. The difference between total fleet mileage capacity and the actual mileage covered for a particular period is the vehicles utilization rate. It highlights the fleets capacity against business's logistical needs.

- Safety Incidents per Employee; The main risk of working on vehicles is from body stressing, slipping, tripping, falling, or being hit by moving vehicles and heavy machinery. Other risks are accidents and injuries from hazardous manual tasks.

- Throughput; This is equal to units produced divided by time. It is the number of cars that a manufacturer can build per hour. Meeting or missing production goals and staying ahead or falling behind the competition both rely upon throughput. It is the amount of a product or service that a company can produce and deliver to a client within a specified period.

- Inventory Turn; The average inventory turnover ratio for the automotive sector (car dealers) is in the range of 2-3. Inventories are the stock of a company that is manufacturing the product for sale components and sale that make up the product. In general auto dealers should strive for an inventory turnover ratio of 12, which means they are selling through their existing inventory every 30days or 12times per year. A good ratio means that one neither runs out of a product nor has an abundance of unsold items taking up storage space.

- EBITDA; For this first subtract the cost of sale from the revenue to obtain the gross profit. Next subtract the company's SGA (sales, general and administrative) expenses. Finally subtract research and development expenses if there are any. A good profit margin is 14.25% (gross profit margin and net profit margin of 3.96%)

- Global chip shortages and supply chain bottlenecks Ergonomic hazard

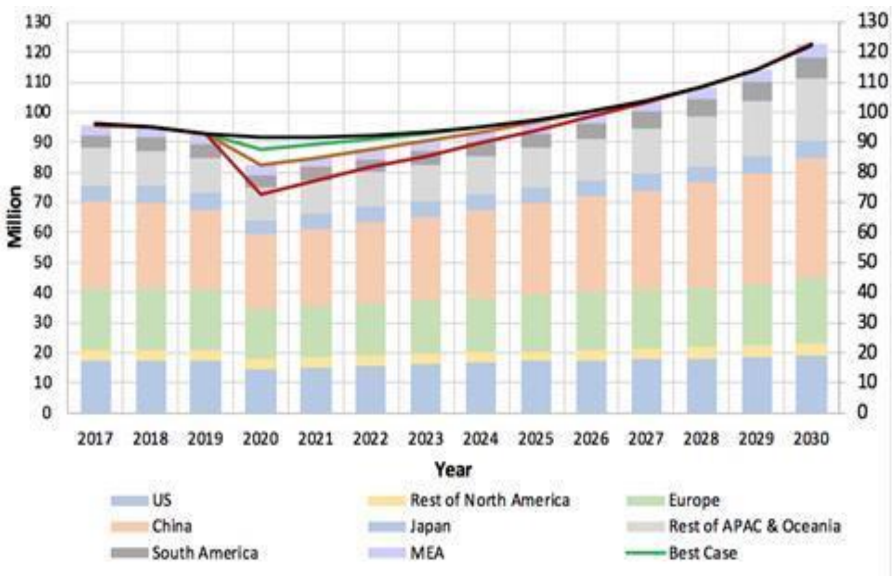
To understand the growth of the automotive industry which forms one of the main pillars in the global economy as it is one of the most profitable and feasible ventures Worldwide. The financial crisis of 2008which is also known as north Atlantic crisis led to recession in the USA. It was during this time that Enron and Lehmon Brothers closed. It was this period when certain countries like Iceland became bankrupt. Since then, it has been forecasted that they would be a

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

continuous increase in car sales from 75million in 2010 to 207million in 2050. (Associates and Horizon, 2013)

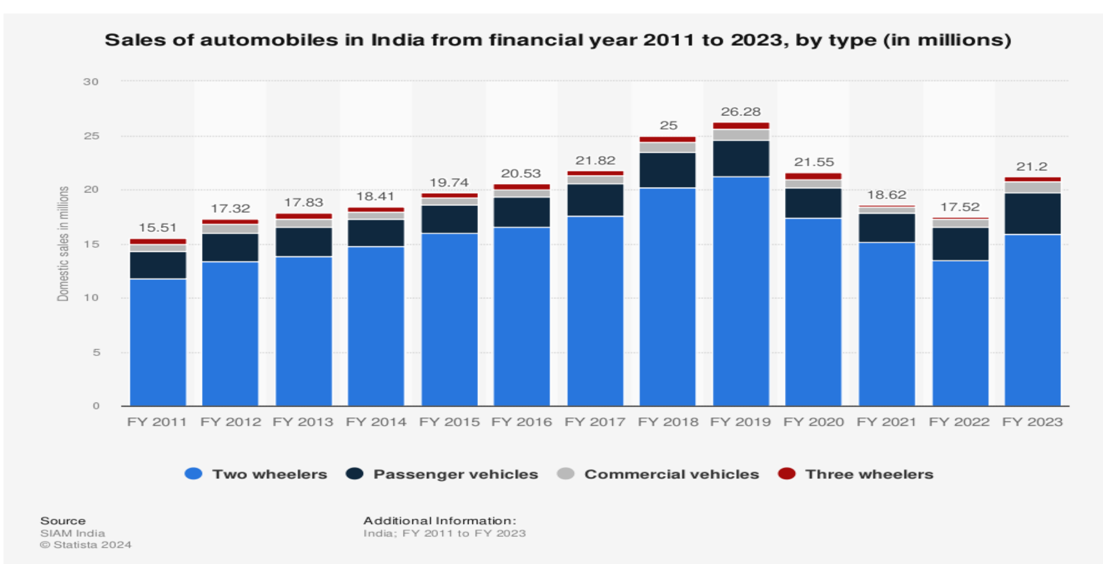
Figure 4: projected growth of global automotive industry



Source: www.automotive logistics.com

India sales of the automotive industries

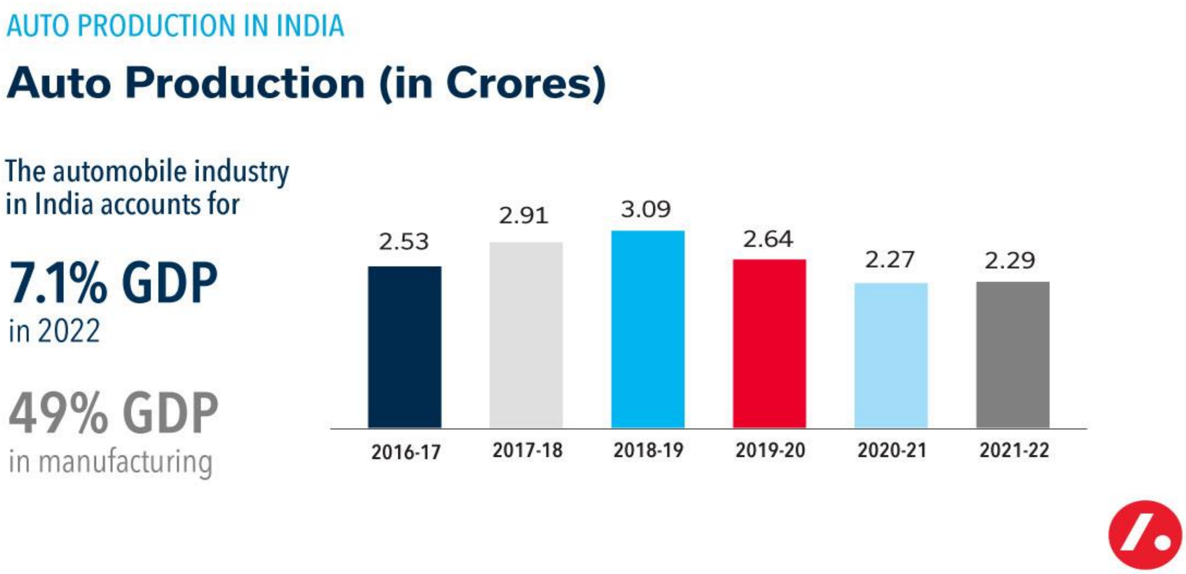
Figure 5; Indian sales of the automotive sector



ISSN: 2455-8834

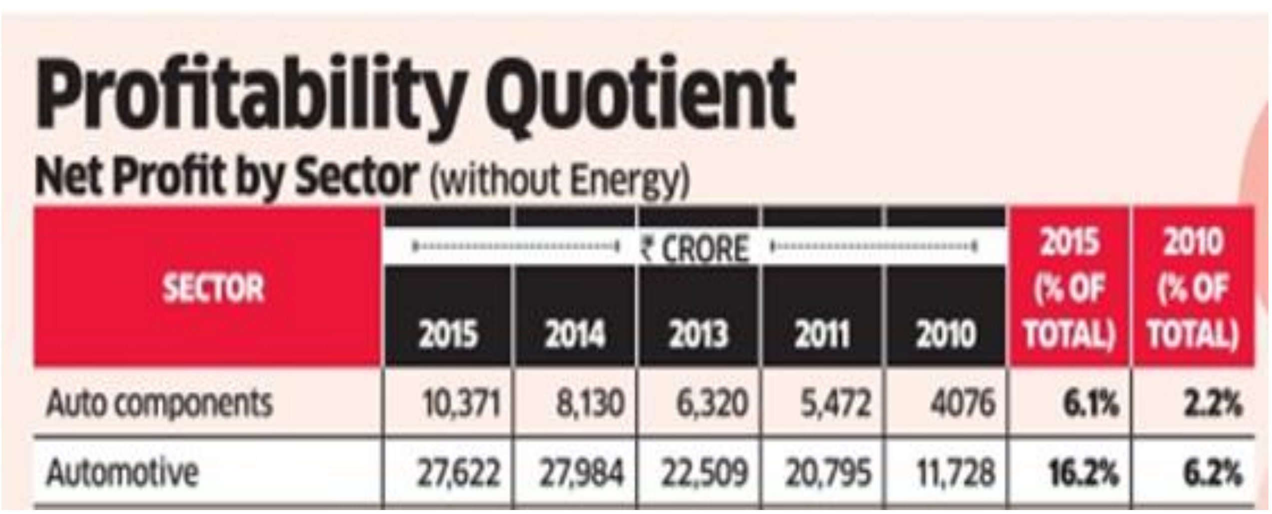
Volume:09, Issue:08 "August 2024"

In figure5 the Indian automotive industry was cruising very fast till 2019 (Pandemic years), The decline continued till 2022 and 2023 has shown an increase. The levels have not reached the 2019 levels yet.



Source: Acara Solutions

Figure 6: The profitability quotient of automotive sector as a proportion of the total India Inc's profit from 2010-2015.



Profitability Quotient

Net Profit by Sector (without Energy)

SECTOR	₹ CRORE 2015	2014	2013	2011	2010	2015 (% OF TOTAL)	2010 (% OF TOTAL)
Auto components	10,371	8,130	6,320	5,472	4076	6.1%	2.2%
Automotive	27,622	27,984	22,509	20,795	11,728	16.2%	6.2%

Source: The Economic Times

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

Figure 7: Segment-wise revenue and growth for automotive component sector

Forecast of segment-wise revenue and growth for automotive component sector

	FY19		FY20		FY21 E		FY22 E	
Revenue (in '000 crore)	**Volume**	**Growth**	**Volume**	**Growth**	**Volume**	**Growth**	**Volume**	**Growth**
OEM	241	15%	195	-19%	180	-8%	234	30%
Replacement	56	9%	59	7%	56	-6%	60	8%
Exports	69	22%	65	-6%	59	-8%	65	10%
Total revenue	366	15%	319	-13%	295	-8%	359	22%

Source: CRISIL Research, CRISIL; Ratings Note: E=estimated, P=projected

Figure7 also indicates that there was a dip in this sector after 2019 and there has correspondingly been a bounce back in 1922

The automotive industry seems extremely robust as the figures above indicate. Beside other factors marketing plays a crucial role in driving sales and fueling growths. Effective marketing strategies not only help businesses reach their target audience but also create a strong brand presence, increase customer engagement, and eventually improve sales.

Marketing in automobile industry

Automotive marketing encompasses a wide range of activities that include;

- Traditional advertising
- Digital marketing/ Internet marketing
- Social media campaigns
- Content creation
- Events
- Sponsorship
- Promotional efforts

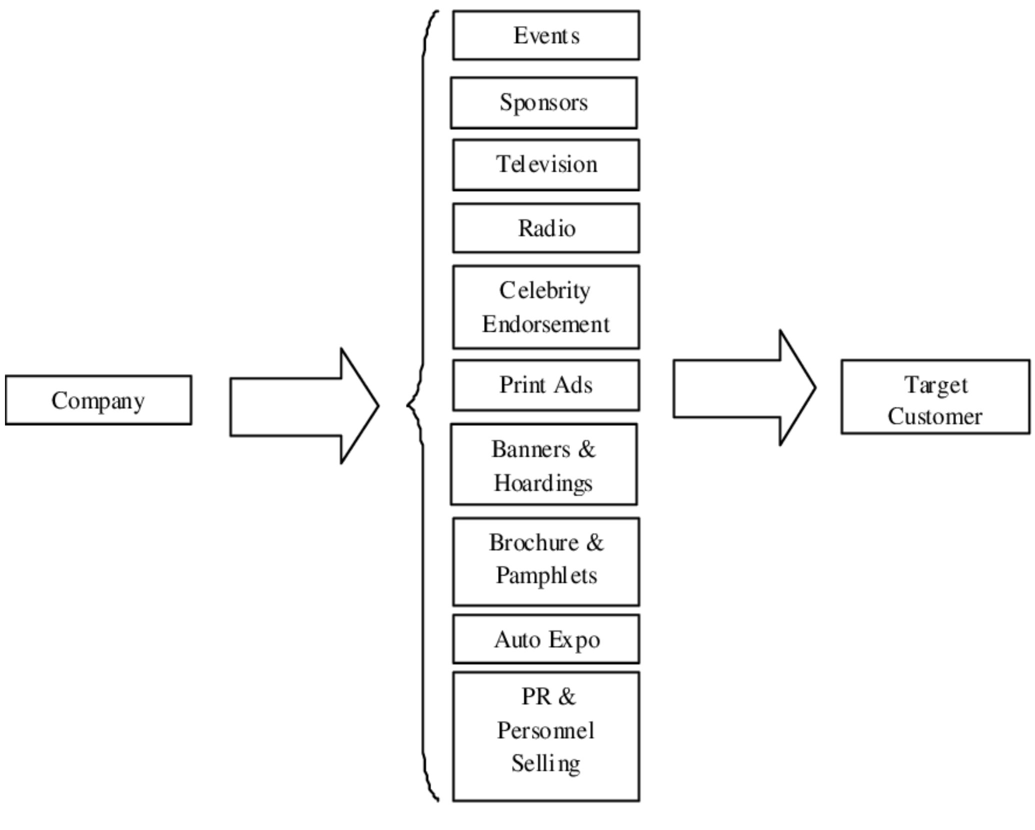
ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

All of the above are tailored to target specific demographics and to meet the need of consumers who are interested in buying automobiles.

Before the internet age buying an automobile meant several visits to dealers and showrooms a comparison of features through complicated brochures on the one hand and deciding on the type of vehicle one wanted to buy. Choosing a vehicle was a simple process that involved family members and colleagues. To buy the car recommendations were taken from friends then a drive to the showroom to review the vehicle with respect to specifications, pricings, etc. This type of marketing involved promotion and advertising and connecting to its customers through print advertisement, newsletters, billboards, flyers, pamphlets, newspaper, print advertisements, television commercials, ratio jingles, etc.

Figure 8: Traditional forms of marketing



Source: Semantic Scholar

There has been a c change in the market world as customer behavior changes and moves more and more towards an online mode. Car purchasers are utilizing the internet to research their options and make the best choice. This industry is special where offline purchases are preceded

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

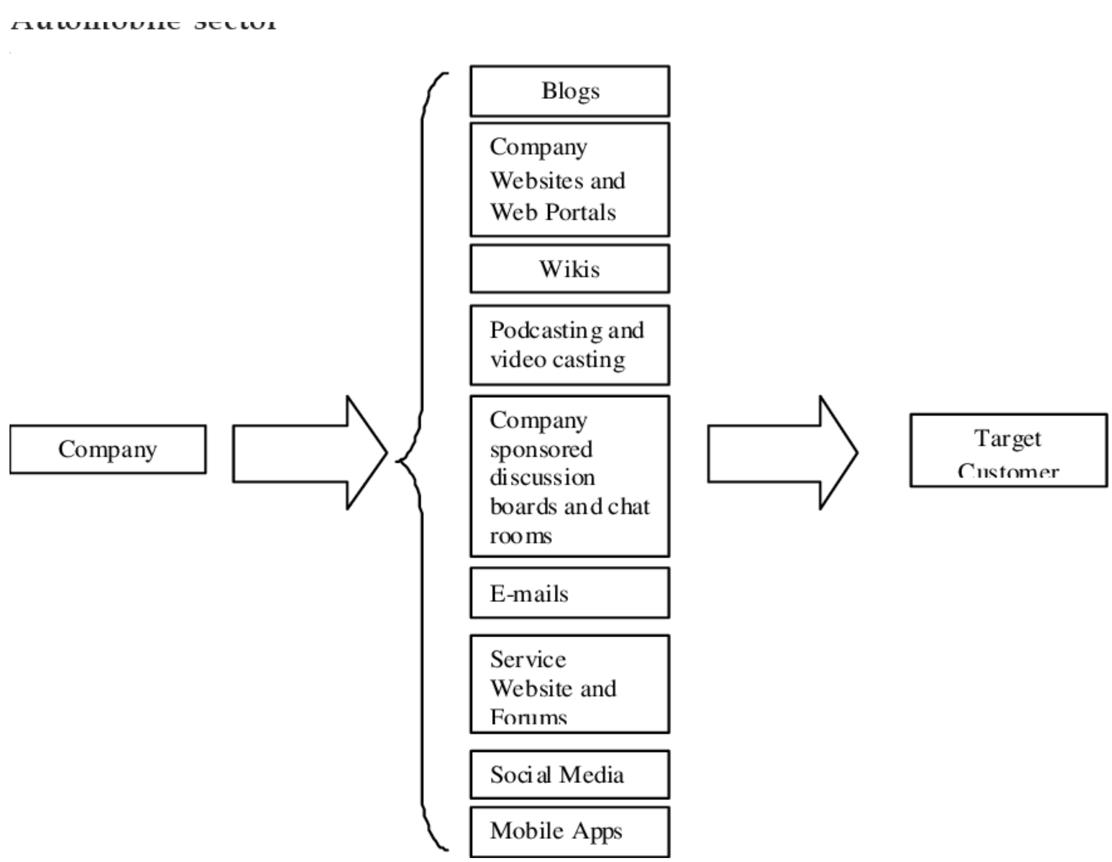
by online research which includes reading of reviews. There is data which indicates that a very miniscule number of buyers based their decisions exclusively on the recommendations of the sales people that were prevalent at the dealership. More than 90% were significantly impacted by that data they read and discovered online.

The stages of a car customer can be divided into the following timeline:

- 1-3 months before buying, list potential vehicles and brands
- Shortlist potential targets finally do a test drive
- Decision on a car 1-3 weeks before buying

This provides valuable information on the interaction and touchpoint that the customer has throughout their purchase.

Figure 9: Digital form of marketing



Source: Semantic Scholar

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

Marketing in this industry is essentially based on the following factors;

- Place
- Price
- Product
- Promotion
- People
- Process
- Physical evidence

Automotive marketing industry is a mix of all the P's that are specified above. As far as automotive industries in India are concerned and if we take the example of Tata motors which is India's largest and only original equipment management, we find that it has a diverse portfolio that includes an extensive range of cars, sport utility and defense. Their strategy is to develop a range of exciting and contenting products both as public and commercial vehicles, that surpass customers expectation along with the domestic market their aim is to sell in the international market which they identify based on:

- Regulatory landscape
- Geopolitical landscape
- Competitive landscape

Beside the above three they focus on cost efficiency as well as realistic planning of volumes in recognition in market realities.

All car companies including the indigenous one's emphasis on a good and hassle free. Sales and customer service for their customers. All car companies increase the service centers as well as distribution ship in rural areas.

As India is a price driven market all companies need to get the correct cost structure to deliver best products at competitive prices and maximizing returns on a continuous basis.

Other car companies like Mahendras have a marketing strategy which entails offering products as solutions and delivering experiences to their customers along with the product itself becoming

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

an enabler. This manufacturer focuses on strengthening the *product portfolio*. They have diversified into Passenger vehicles, Small commercial vehicles, Medium and heavy commercial vehicles, Electric vehicles, and Farm equipment sector.

Maruti Suzuki who started their company with the partnership of Suzuki motors in Japan. They started their company in 1982 and entered the Indian market at a time when they could match up to the raising income, changing lifestyle, increased exposure to the external world of the Indian citizens. They introduced exciting products and they are working on strengthening the quality of business, introducing proper technology, harnessing partnerships, and building capabilities. Their emphasis is on new products as well as strengthening road safety. They have also developed and focused on hybrid vehicles.

The Indian government has allowed various foreign manufacturers to set up base in India by offering them a low-cost manufacturing opportunity, a huge government support resulting in this industry being an important driver of economic growth and 1 with high participation is global values changed.

The automobiles produced in india uniquely catered to the demands of the low- and medium-income groups which makes this sector stand out amongst the automobile producing companies. The reason for this as been primarily the role of government policies, infrastructure and other enabling factors that have led to the phenomenal growth part of this sector.

The Indian automobile industry comprises of automobile as well as the automotive component segment. This sector has growth on account of India’s traditional strength in casting, forging precision machining and abundant low-cost skill labor and significant foreign direct investment. (FDIs)

Due to these factors India is the 6th largest producer of automobile globally. There has been an increasing amount of FDIs that have come from Japan, Italy, USA, Musaceous and Netherlands. Production in this sector has been concentrated around 4 large manufacturing hubs. These are;

- Delhi, Gurgaon, Faridabad in the north
- Mumbai, Pune, Nashik, Aurangabad in the west
- Chennai, Bengaluru, Hosur in the south
- Jamshedpur, Kolkata in the east

Problems faced by this industry

ISSN: 2455-8834
Volume:09, Issue:08 "August 2024"

The major problems that are faced by this industry is:

- Changing consumer preferences; there has been a shift in consumer preferences to electric and hybrid vehicles which is a challenge for this industry.
- Economic slowdowns; when the economy slows down it impacts consumer spending leading to companies struggling to maintain their sales volumes and profits.
- High taxes and tariffs; an increase in taxes by the government leads to a reduction in demand for vehicles and thus affecting the industries profitability.
- The need for skilled labor; as technology increases assembling of cars requires skilled labor which is in short supply in India. Further increasing costs for the industry, eventually impacting the sales and revenues of the firms.
- Infrastructure challenges; the recent trend of the development of electric vehicles to take advantage of the government subsidies with respect to following sustainable goals has led to pressure on the infrastructure. The problem is the charging stations for electric batteries
- Regulatory changes; the Indian automobile industry is subject to government policies with respect to a range of regulations regarding safety, emissions, and fuel efficiency. Compliance to them is a costly exercise for the manufacturers
- Increasing competition; the Indian automobile industry has been extremely competitive both domestically and internationally which puts pressure on the companies to innovate and improve their products and services which is a huge challenge for the manufacturer.
- Raising input cost; the prices of raw materials such as steel and aluminum has been increasing globally which have led to higher input cost for the companies putting pressure on them to either increase prices or absorb the cost which would impact their profitability.
- IT challenges; despite adoption of IT to drive innovation, improve efficiency and enhance consumer experience the problems are in effectively analyzing data to extract meaningful insights and improve business performance
- The industry is vulnerable to cyber attacks
- Due to the shortage of skilled professionals specially in the IT sector, attracting and retaining talent is a significant challenge for the industry.

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

- Supply change disruption, the covid19 pandemic led to significant disruption in the supply change of the automobile industry because of which many auto manufacturers face a problem in sourcing critical components which led to delay in production and increase cost.

The passenger vehicle segment is the largest segment of the Indian automobile industry followed by two wheelers. The demand for passenger vehicle has been increasing in recent years due to raising incomes and changing lifestyles.

Conclusion and the Way Ahead

The automotive industry in India has become one of the major industries which has exhibited a large linkage impact in the economy. It has helped the Indian economy to address the issues of unemployment and GDP growth. Indian states have laid out the red-carpet treatment to foreign investment in the automotive sector because of which the GDP levels of the state as well as the unemployment has increased dramatically. This industry has become an important part of the global value chain in the automotive sector, resulting in export of various vehicles from Indian soil. To continue to take advantage the government must continue to formulate policies that encourage foreign direct investment.

Bibliography

1. Implementation of Sustainable Reforms in the Indian Automotive Industry: From Vehicle Emissions Perspective Revati Borkhade,Subrahmanya Bhat KORCID Icon > MaheshaORCID Icon |Swapnil L. Fegade (Reviewing editor) Article: 2014024 | Received 15 Jun 2021, Accepted 17 Nov 2021, Published online: 24 Jan 2022. (2022). *Taylor & Francis Online*.

2. Jadhav, J.R., Mantha, S.S. & Rane, S.B. Roadmap for Lean implementation in Indian automotive component manufacturing industry: comparative study of UNIDO Model and ISM Model. *J Ind Eng Int* **11**, 179–198 (2015). https://doi.org/10.1007/s40092-014-0074-6

3. Kumar Rastogi, A. (2013). An Analysis of Indian Automobile Industry: Slowdown as an Opportunity for New Development October 2013 Authors: Ankur Kumar Rastogi Avantika University. *Ankur Kumar Rastogi*

4. Latukha, M. (2014). Cultural Differences and Problems with Quality: Challenges for Human Resource Management in the Automobile Industry. In *Graduate School of Management, St. Petersburg State University eBooks*.

ISSN: 2455-8834

Volume:09, Issue:08 "August 2024"

5. Mani, S. (2011), ‘The Indian Automotive Industry: Enhancing Innovation Capability with External and Internal Resources’, in Intarakumnerd, P. (ed.), How to Enhance Innovation Capability with Internal and External Sources. ERIA Research Project Report 2010-9, pp.1-39. Jakarta: ERIA

6. Miglani, S. (2019). he Growth of the Indian Automobile Industry: Analysis of the Roles of Government Policy and Other Enabling Factors September 2019 DOI:10.1007/978-981-13-8102-7_19 LicenseCC BY 4.0 In book: Innovation, Economic Development, and Intellectual Property in India and China (pp.439-463) Authors: Smita Miglani. *Research Gate*.

7. Orsato, R. J. (2007). Journal of Cleaner Production Volume 15, Issues 11–12, 2007, Pages 989-993 Journal of Cleaner Production Introduction The Automobile Industry & Sustainability. *R.J. Orsato*.

8. Saxena, A. (n.d.). Automobile Centre sanctions INR 800 Cr under FAME Scheme Phase II for 7432 public fast charging stations Arishna Saxena Sector Expert Arishna Saxena. *Arishna Saxena*.