

Impact of Covid-19 Pandemic on the New Two-Wheeler Fleet in India

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ABSTRACT

India is the 2nd largest two wheeler market in the world. It stands next only to China and Japan in terms of the number of two-wheelers produced and the sales of two-wheelers respectively. In 2013, the Indian two-wheeler market accounted for 14.38 million units, CAGR (Compound Annual Growth Rate) (last three decade's) is 10.03%. Average two-wheelers per 1000 people in India are 31 and the urban market for two-wheelers is largely penetrated with nearly 57 of every 100 youths that earn an income to support the ownership of a two-wheeler. The Two-Wheeler industry's troubles began well before COVID-19 appeared on the scene. The Indian Two-Wheeler industry has been in trouble since mid-2018. The crisis started with a slowdown in production, which was aggravated by NBFC defaults. The auto industry has been hampered by a combination of demand and supply problems. The Pandemic majorly effected industries, including automotive sector. Need for social distancing and safety concerns are likely to shift the preference towards personal mobility in short to medium term, However, in medium to long term, the effect on personal choice of transport and PV sales are unlikely to see a large increase because of the following reasons: 'Work from home' trend to reduce movement for most white-collar professionals, Affordability of a four-wheeler is likely to be a constraint for majority of public transport users. Given the safety and The COVID - 19 epidemic has pushed the global economy and humanity into a disaster. In the attempt to control this pandemic, the governments of all the countries have imposed a nationwide lockdown. Although the lockdown may have assisted in limiting the spread of the disease, it has brutally affected the country, unsettling complete value - chains of most important industries affordability concerns, two wheeler sales are likely to pick up. The global economic trade impact of pandemic on automotive industry is severe, and Indian automotive sector will also get badly affected by it. This paper is a study of impact of Covid -19 pandemic on Indian two wheeler automotive sector and will suggest ways of overcoming this critical situation.

Keywords : Two wheeler industry, Covid -19 Pandemic, Growth rate, demand & supply.

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I. INTRODUCTION

The two-wheeler industry in India has to a great extent been shaped by the evolution of the industrial policy of the country. Regulatory policies like FERA and MRTP caused the growth of some segments in the industry like motorcycles to stagnate. These were later able to grow (both in terms of overall sales volumes and number of players) once foreign investments were allowed in 1981. The reforms in the eighties like 'broad banding' caused the entry of several new firms and products which caused the existing technologically outdated products to lose sales volume and/or exit the market. Finally, with liberalization in the nineties, the industry witnessed a proliferation in brands.

A description of the evolution of the two wheeler industry in India is usefully split up into four ten year periods. This division traces significant changes in economic policy making. The first time-period, 1960-1969, was one during which the growth of the two-wheeler industry was fostered through means like permitting foreign collaborations and phasing out of non-manufacturing firms in the industry. The period 1970-1980 saw state controls, through the use of the licensing system and certain regulatory acts over the economy, at their peak. During 1981-1990 significant reforms were initiated in the country. The final time-period covers the period 1991-1999 during which the reform process was deepened these reforms encompassed several areas like finance, trade, tax, industrial policy etc. We now discuss in somewhat greater detail the principal characteristics of each sub period:-

a) 1960 – 1969

The automobile industry being classified as one of importance under the Industrial Policy Resolution of 1948 was therefore controlled and regulated by the Government. In order to encourage manufacturing, besides restricting import of complete vehicles, automobile assembler firms were phased out by 1952 (Tariff Commission, 1968), and only manufacturing firms allowed to continue.

b) 1970 – 1980

This was a period during which the overall growth rate of the two-wheeler industry was high (around 15% per annum). Furthermore, the levels of restriction and control over the industry were also high. The former was the result of the steep oil price hikes in 1974 following which two-wheelers became popular modes of personal transport because they offered higher fuel efficiency over cars/jeeps. On the other hand, the introduction of regulatory policies such as MRTP and FERA resulted in a controlled industry.

c) 1981 – 1990

The technological backwardness of the Indian two-wheeler industry was one of the reasons for the initiation of reforms in 1981. Foreign collaborations were allowed for all two-wheelers up to an engine capacity of 100 cc. This prompted a spate of new entries into the industry (Table 1) the majority of which entered the motorcycle segment, bringing with them new technology that resulted in more efficient production processes and products. The variety in products available also improved after 'broad banding' was allowed in the industry in 1985 as a part of NEP.

d) 1991 – 1999

The reforms that began in the late seventies underwent their most significant change in 1991 through the liberalization of the economy. The two-wheeler industry was completely deregulated. The two-wheeler industry in the nineties was characterized by

- a) An increase in the number of brands available in the market which caused firms to compete on the basis of product features and
- b) Increase in sales volumes in the motorcycle segment vis-à-vis the scooter segment reversing the traditional trend.

The initial impact of post-COVID-19 pandemic is expected to be affecting the public transportation sector as people are avoiding traveling anywhere due to dreading infection possibilities with an extreme number of cases being hit as of now. Due to this is more likely to select a form of individual mobility with two-

wheelers being the most preferred or favoured option due to its convenience and pricing point.

A recent survey report has highlighted the fact that Indian Auto Giants are already concentrating on the change to private mobility. This further paint a new picture of some forthcoming trends in transportation in the Indian market on a massive scale.

From the high points of the fiscal year 2016-17, auto exports are up almost 33%. However, domestic sales of automobiles have almost been at the same level as the fiscal year 2016-17. Exports have definitely given a major upliftment to the segment, but it is still not evident how exactly it will shape in a post-pandemic world. COVID-19 has nearly knocked out most of the auto marketplaces around the globe. Here is a sneak peek at domestic sales.

A scenario like this has already taken place in the past in China, where post the SARS breakout, people started avoiding public transport. Currently, in India, many of the corporates are recommending their employees to not use public transport and some are even providing sanitized private transportation to essential employees who need to travel to their workplaces due to the demand for their roles. Employees are communicated to join offices 1/3rd of the days in a week that too with options ranging to private or company provided options.

There are furthermore points to consider

With India's GDP growth rate being downgraded to -23.9% the auto sector will take a major hit. The Unlock window has overlapped with the enactment of the BS-VI norms and many OEMs are offering a great percentage of discounts to dealers and customers. Even as auto corporations are working the prices, the effect of concessions on profitability is going to be sharp. Another major challenge is associated with the excess of older inventory and deficiency/ cash capital crunch with dealers.

BS-VI price surges are similarly expected to knock down auto demand. Yet, there are encouraging changes coming from COVID-19. Make in India and Aatma Nirbhar movement has further directed the rise

of localization and shift to the business model of "for the market, in the market".

The mounting influence of COVID-19 has made it essential for industries and corporations to modify their plans for the upcoming future. This will further be revised dynamically as per the in developing consumer behaviours.

II. LITERATURE REVIEW

J. Nayak, Mishra, M. Naik, B. Naik, H. Swapnarekha, K. Cengiz, and V. Shanmuganathan (2021), According to research, the automobile industry is on the front lines as a result of the epidemic's disruption to normal commerce, which throws the financial situation into disarray. Home and significant manufacturing centres, as well as the most important connections in the entire supply chain industries, are some of the most affected locations.

D. S. Rayudu Thunga, and D. Raju (2021) - The impact of the Indian economy's lockup, notably on the automotive sector, has been demonstrated. The results show that, depending on the length of the lockdown, the Indian economy is likely to lose between 10-31 percent of its GDP, with a daily output loss of Rs 2300 crore in the car industry.

Debabrata Das et al (2011)-It indicated potential requirement of the design and development of globally competitive small electric concept vehicle for India and concluded that EVs are the best solution to reduce cities pollution with many societal and economic benefits by EVs and HEVs use. It also outlined the role Government and worldwide communities played to promote and accelerate EV program.

Krishnaveni.M (2015) this paper explained the sales and export pattern of Indian automobile industry .It is reflected that there is remarkable increase in the passenger vehicle and three wheeler division. The exports of India in automobile sectors are showing continuous increasing trend .India is emerging as an export hub for sports utility vehicles (SUVs)

Jatinder Singh (2014) Policy changes impacts the advantages through their effects on economic environment in which the industry operates. Passenger vehicles segment seems to be the segment which has high growth and has improved a lot in exports.

Ankur Rashtogi (2013) explained the changes in the structure of Indian automobile industry in the context of liberalization and globalization. Earlier there were less innovation in the field but it is one of the fastest growing manufacturing industry in India. The situation starts improving from 2013, and keeps on improving day by day.

Nikita Arya (2019) Automotive industry is one of the key drivers of the macroeconomic growth in India and also for the technological advancement. India is one of the largest manufacturer of two wheelers, threewheelers, and tractors in the world and the fifth largest manufacturer overall. It is estimated that by 2030 the Indian automobile industry will be third largest after China and USA.

III. OBJECTIVES OF THE STUDY

- To examine the impact of 19 on Two- Wheeler Market.
- To examine the factor infusing Consumer Purchase of Two-Wheeler.
- To Investigate the Electric Vehicle Trends & Sales Goals country wise.
- To Understand the Indian Electric Vehicle Market Challenges and Opportunities

IV. LIMITATIONS OF THE STUDY

- Due to practical constraints, this paper cannot provide a comprehensive review of all vehicles in the market; only present and future of two wheeler including electric vehicle scenario is considered for study; hence other automobiles are excluded from the study.

- Another potential problem is that scope of the study may be too broad. A full discussion of other aspects of vehicle lies beyond the scope of this study.

V. SCOPE FOR FURTHER STUDY

More detailed analysis is possible, if it can be done through the primary data collected by the interview method conducted on senior executives of automobile industry. But this process can be highly complicated and needs lots of time and considerations. Also the data are taken based on the current scenarios and the situation is still prevailing so it has ample scope of studying further. The review of two wheeler market in automobile sectors and analysis of the measures and policies taken by policy makers and government authorities to cope up with economy can be considered as further scope of this paper.

VI. IMPACT OF COVID -19 ON TWO WHEELER AUTOMOBILE INDUSTRY

One of the biggest impacts has been the reduction in passenger transport demand, due to a combination of government lockdowns and fears of contracting and spreading the virus when using mass transport modes. Crises can result in long-lasting reductions in transport demand, especially where transport is not considered essential.

In addition to direct demand reductions for particular modes of transport, previous crises also show that people often adopt new transport practices during and immediately following a crisis, which can sometimes become permanent, depending on a range of factors.

Governments can influence which transport behaviours are more permanent after the crisis. Support for energy efficient transport behaviours can deliver multiple short- and long-term benefits.

Two wheelers and passenger vehicles dominate the domestic Indian auto market. Passenger car sales are dominated by small and mid-sized cars. Two wheelers

and passenger cars accounted for 81.21% and 14.56% market share, respectively, accounting for a combined sale of over 17.8 million vehicles in FY21.

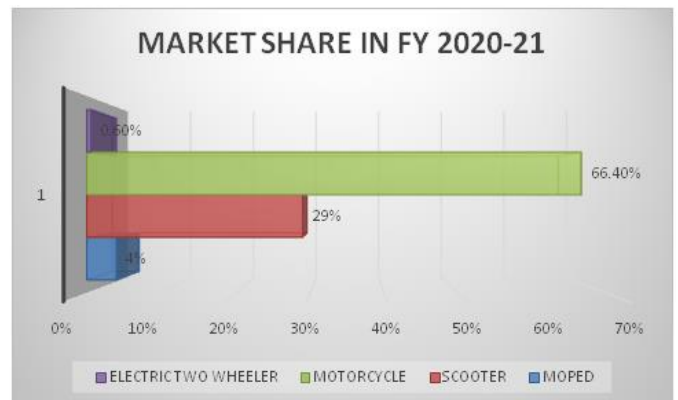
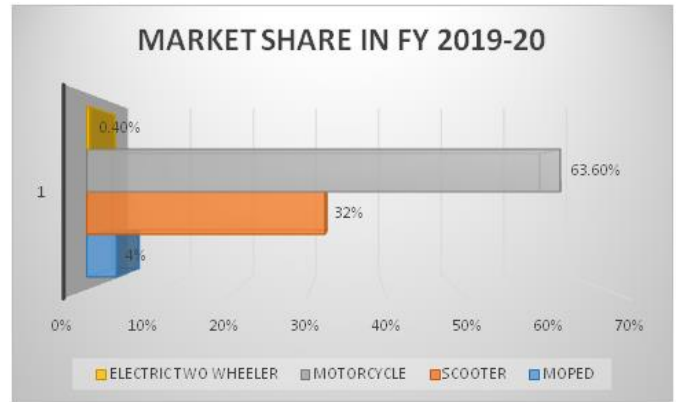
100% of the respondents agreed that that main benefit/advantage of electric vehicle was that they were environment friendly due to their zero emissions characteristics. However, 70% of the respondents considered Electric vehicles were much quieter than other vehicles and the cost to charge an electric vehicle is much less than the fuel costs for a petrol or diesel vehicle.

VII. DATA AND METHODOLOGY

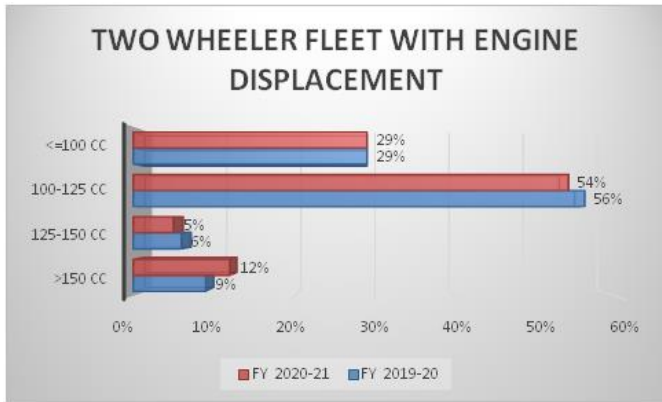
For this paper the secondary data has been examined from various Two-Wheeler Companies Websites i.e. Suzuki Motorcycling India Pvt Ltd., Mahindra and Mahindra (M&M) and News Paper Article i.e. The Economics Time. The examination data set includes over past 3 years. The study involves the data collected from the secondary sources. The secondary data has been collected from journals, Research paper, Newspapers, Literature review, Websites. An Exploratory research was chosen in order to develop a profound understanding of the research topic and obtain in depth data about the research objectives.

Market overview

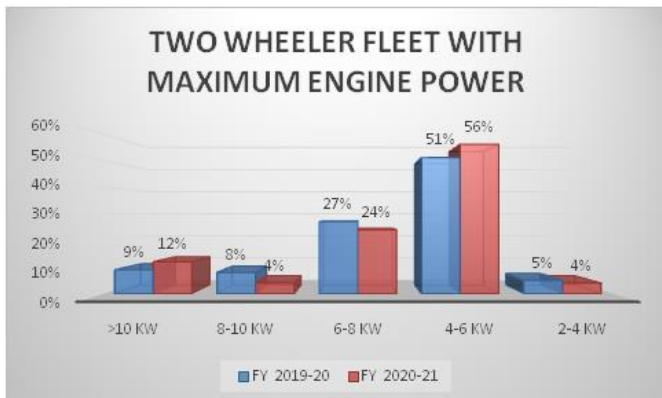
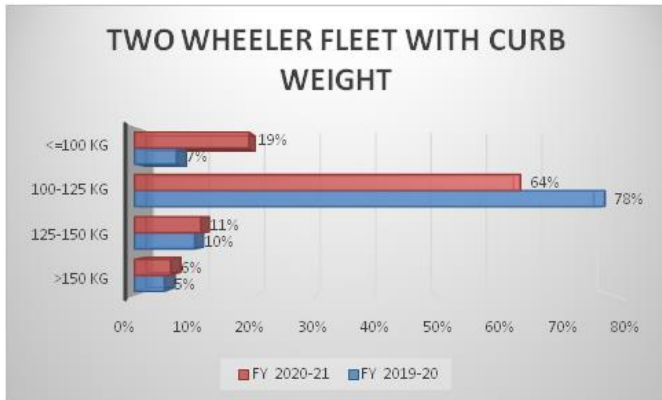
Sales of new two-wheelers decreased by nearly 14% in FY 2020–21 compared to FY2019–20, according to the Society of Indian Automobile Manufacturers (SIAM).⁴ the composition of sales shows that, motorcycles were approximately 66% of new two-wheeler sales in FY 2020–21. The next largest segment was scooters, with nearly 29%, and mopeds were 4% of sales. The market share of electric two wheelers was just 0.6% in FY 2020–21.



This paper analyses the following two-wheeler parameters: engine displacement, engine power, curb weight, transmission, fuel type, fuel consumption under the World Motorcycle Test Cycle (WMTC), and carbon dioxide (CO₂) emissions. The fuel consumption values of the two-wheeler models after FY 2018–19 have not yet been declared by the SIAM. Hence, for that parameter, the data used here was compiled from a variety of sources, including Segment Y’s India two-wheeler database for FY 2019–20 and FY 2020–21 and the websites carandbike.com, bikedekho.com, and bikewale.com. As depicted in Figure 2 (a), two-wheeler models with engine size less than 150 cc were approximately 88% of sales in FY 2020–21. As compared to the market share in FY2019–20, the sales of motorcycles larger than 150 cc increased by 2% in FY 2020–21. Additionally, in both years, 85% of the two-wheelers sold had engines smaller than 125 cc.



Nearly 82% of the two-wheelers sold in FY 2020–21 weighed less than 125 kg and around 11% weighed between 125 kg and 150 kg. In the case of the parameter of maximum engine power, shown in Figure 2(c), 51% of the models had engines in the range 4 kW to 6 kW, and 26% were in the range of 6 kW to 8 kW.



Electric two-wheelers markets

The market share of electric two-wheelers increased from 0.1% in FY 2017–18 to 0.2% in FY 2019–20 and 0.6% in FY 2020–21. The model with the maximum battery capacity, 3.3kWh, is the Okinawa praise. The Hero Electric Photon was the top-selling model in FY2017–18 and continued to be the top-selling model in both FY 2019–20 and FY 2020–21. The market share

of this model was only 0.04% in the overall two-wheeler market in FY2020–21. Hero Electric and Okinawa make only electric two-wheelers and they are the top selling manufacturers, with market shares of 49.4% and 40.9%, respectively, in the electric two-wheeler market.

VIII. FINDINGS & DISCUSSIONS OF THE STUDY

The car sector had its worst quarter in the past two decades in the first quarter of fiscal year 2020-21. Industry analysts predict a steady rebound in the second quarter of 2020, beginning in July, and a better build-up until the approaching holiday season. The two-wheeler category, according to statistics provided by the Society of Indian Automobile Manufacturers (SIAM) for the first quarter, was observed rebounding at a rapid rate.

Impact of COVID -19 pandemic on automakers worldwide is huge ,and the sales have drop down to a considerable extent .It is expected that it is going to continue in next three years ,and therefore certain deep strong steps need to be taken by the automobile industry ,remarkably in India.

This study summarizes the characteristics of the two-wheeler market in India using data about models sold in FY 2019–20 and FY 2020–21. This is an update of a prior study of the new two-wheeler fleet in FY 2017–18. The key two-wheeler parameters of engine displacement, engine power, curb weight, transmission, fuel type, fuel consumption under WMTC, and CO2 emissions were analysed. There are currently no fuel consumption standards for this vehicle segment. However, based on ICCT’s earlier estimation of feasible fuel consumption targets for 2025 and 2030, this study explored how the two wheeler market would fare in terms of fuel consumption, if such targets are adopted.

The key findings are:

- The fleet average CO2 emission level of two-wheelers in India was 38.2 g/km in FY 2020–21.

Compared to the fleet average in FY 2017–18, this is 7% less.

- The penetration of electric two-wheelers increased marginally from 0.2% in FY2017–18 to 0.4% in FY 2019–20 and then to 0.6% in FY 2020–21.
- Curb weight can be considered as a utility parameter option for fuel consumption standards for the new two-wheeler fleet. A slope reduction that is 40% of the weighted average trend line can be chosen to give advantage to the models which are light and reasonably fuel efficient.
- Adoption of ICCT’s proposed fuel consumption targets for 2025 and 2030, namely 25.3 g CO₂/km and 20.5 gCO₂/km, would result in 33.7% (2025) and 46.3% (2030) fuel consumption reduction from the fleet average fuel consumption level of FY2020–21.
- The comparison of best-in-class models with the other models in each category shows there a great deal of room for improvement in the fuel consumption level in each of these categories.
- A fuel efficiency labelling program could be designed for the two-wheeler fleet and the star rating bands of the two-wheeler models would allow for comparison of the various models in the market.

Factors Influencing Purchase Decision of Two Wheeler

Here are the factors that influence most consumers when taking two-wheeler loans. If you are looking for two wheeler finance, keep them in mind:

Interest Rate: It is one of the essential factors that you should consider while taking a two-wheeler loan. When purchasing a two-wheeler, getting the lowest two-wheeler loan interest rate becomes crucial.

Convenience – Another feature that two-wheeler purchasers seek is a smooth and convenient procedure for securing a two-wheeler. For many, getting a loan can prove a challenging task involving complicated procedures.

Resale Value: Another crucial aspect that most buyers seriously consider is the resale value of the vehicle. Most buyers only plan to use the vehicle for a limited period. They plan to sell it, later on, so, the product’s resale value is another aspect to be considered while choosing the right two-wheeler for yourself.

Cultural Factors: The collection of beliefs, ideas, and attitudes that are accepted by a homogeneous group of people and passed down to the next generation is referred to as culture. What is acceptable in terms of product promotion is also determined by culture. What individuals dress, eat, live in, and travel depends on their culture. Cultural influences have the greatest and most profound impact on consumer behaviour.

Personal Factors: Personal qualities such as the buyer's age and life cycle stage, employment, economic position, lifestyle, personality, and self-concept also affect their purchasing decisions. Self-confidence, dominance, autonomy, sociability, defensiveness, and adaptability are all words used to define personality and self-concept. It is regarded as a beneficial behaviour in the study of consumer behaviour. A person's self-concept is formed by personality qualities and product or brand selections that are connected to personality.

Social Factors: Social considerations have a considerable impact on consumer purchasing decisions. Reference groups, family, and position and status are all essential social variables. Every person is impacted by the environment in which he or she lives. Every customer is unique, but they all belong to a group. People are impacted by groups in a variety of ways, such as when they expose an individual to new behaviours and lifestyles, or when they generate a sense of conformity, which may influence the person's real product and brand selections.

IX. CONCLUSIONS

The COVID 19 pandemic has heavily impacted Indian two wheeler automobile industry. The situation is hinting that it will exaggerate the numerous challenges

faced by two wheeler automobile industry including tougher CO₂ emissions and higher investments in new technologies. But companies are gearing up to face the challenge as posed by pandemic not only in India and but all over the world. In a period of falling domestic sales, two-wheeler exports have remained strong and have shown consistent increase over the last three years. Electric vehicles are a means of worldwide sustainable transportation and its usage is increasing rapidly and Indian automobile policymakers must act on it to take advantage of growth in this sector as a lot of national fuel can be conserved by using these electric vehicles along with reduced emissions.

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