

Two-Wheelers Industry and COVID-19 in India: An Impact Study

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Abstract:- With the rising economy of India there has been major developments in the urban and rural sectors. The every rising infrastructure and roads has made it possible to decrease the travel time from one place to another. With the strong mobility demand, the Indian market is flooded with the mobility options. Two-Wheeler industry has a strong grip in the Asia's third largest country. Four-wheeler or luxury cars is still a dream of many in India but two-wheeler is cheaper and easier to buy and maintain where the median salary is 29,400 INR per month. Due to COVID-19, complete automotive sector is facing challenges. The same have affected two-wheeler. This paper discuss about the impacts of COVID-19 on two-wheeler industry.

I. INTRODUCTION-HISTORY OF TWO WHEELER INDUSTRY IN INDIA

Indian Two-wheeler automotive industry is more than a century old. Two-wheelers are used in India form the time when India was under East India Co. Scooters and mopeds start the revolution of manufacturing for two-wheeler industry. The very first scooter manufactured in 1950's after independence by Automobile products of India named '**Lambretta**' which was a 48 cc, Ld model and Li first series. For the period 1950 to 1960, only API (Automotive Products of India) produced mopeds^[1].

In 1955, The Redditch Company started a joint venture named '**Enfield India**' in partnership with Madras Motors in India. Enfield India started assembling engine in Madras by 1955.

SZUL Gwalior and Pearl Scooters Ltd. entered the market in 1964 and 1962 respectively. By 1965, Mopeds India Ltd. launched another moped named 'Suvega'. As the new models and companies were coming up competition in this sector marked it beginning. TVS Motors Company launched TVS50 in 1980's^[2]. Hero Cycles (also called Hero Group) started operations in joint venture with Honda as '**Hero Honda**' in 1984 and launched its first product '**Hero Honda CD100**' (a 100cc model). By 2018 era of electric vehicles came in India for first time with the launch of Ather 450 by Ather Energy.

The Automotive industry is one of the major employment generating core sector of India. This sector contributes around 7.5% towards the India's .

Total GDP. It is expected that by year 2022 the Indian Automotive industry will provide employment to 15 million Indian population directly. In year 2020 total sales in automotive industry was over 2.1 million vehicles where two-wheelers accounts for 80.8% of total sales. Currently Indian market is the largest in terms of sales of two-wheelers. In FY

2016-2017 India set record by selling 17.7 million two-wheelers and overtook China that sold 16.8 million units only. Currently, Hero Motocorp Ltd. dominates the two-wheeler market in India with the largest market share of around 40% followed by Honda Motorcycles and scooters Ltd. TVS and Bajaj are at 3rd and 4th position respectively as show in Figure 1 (Two Wheeler Domestic Market share distribution in FY 2021 (Source: AutoPunditz)) in the Indian two-wheeler market.

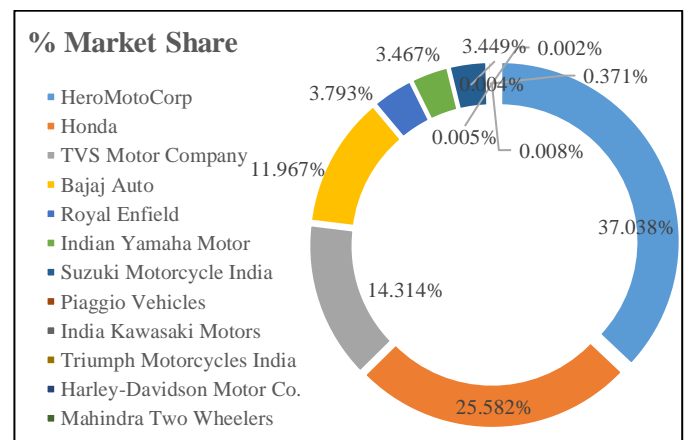


Fig 1. Two Wheeler Domestic Market share distribution in FY 2021 (Source: AutoPunditz)

II. COVID-19 AND ITS RISE IN INDIA

Covid-19 (SARS) infection started from the capital city of Hubei Province named Wuhan. On December 31, 2019, China informed the World Health Organization (WHO) about instances of pneumonia of obscure aetiology found in Wuhan city, Hubei region of China. By first week of January 2020, China announced 44 cases of the infection in Wuhan to WHO.

In early January 2020, when coronavirus outbreak was starting to build up as a pandemic in the city of Wuhan in China, it seemed like very different to evolve into a worldwide pandemic that would lead to unprecedented human, social and economic disruption, leaving hardly any life untouched. However, in under five months, the virus spread to almost 200 countries, and now the number of COVID-19 confirmed cases have crossed 223 million worldwide and the death toll has reached over 4.5 million. In the last few months, the virus' epicentre shifted from China to Europe, and then to the US.

In India, the first case was revealed for COVID-19 positive in Kerala on 30 January in the year 2020. By the last week of March'21, around 100 cases were crossed. The World Health Organization proclaimed the episode as a Public Health Emergency of International Concern on 30 January 2020. On the 11 March 2020, WHO declared COVID-19 as pandemic.

History will recollect the (COVID-19) pandemic as one of the greatest unprecedented events. After the 2008 financial crisis of the US stock exchange, Coronavirus's blow to the economy has been greatest. On the evening of 24 March 2020, the Government of India under Prime Minister Narendra Modi requested a cross country lockdown for 21 days, restricting the development of the whole 1.38 billion (138 crores) populace of India as a preventive measure against the COVID-19 pandemic in India^[3].

The financial and social disturbance brought by COVID-19 is relied upon to be far more terrible than that of the 2008-09 Global Financial Crisis and has caused greater disruption to the world's economy than the Great Depression of the 1930s. Worldwide-incorporated production network models were totally upset, the pandemic will have a durable effect universally, on all fronts - social, political, specialized, modern, and financial.

III. TWO-WHEELER INDUSTRY SITUATION BEFORE COVID-19

Two-wheeler sales has been in increasing trend until FY-2019. The reasons for the same were the easier finance options, newer and fuel-efficient models; rising incomes in rural sectors and even new business models such as e-commerce also pushed the sales as shown in Figure 2 (Vehicle sales (two-wheelers) form FY 2011 to FY 2021 (Statista, 2021)). The enormous government spending in-country projects and huge infrastructure, roads, rails development projects are prompting more sales in rural sectors. In metros and larger cities the sales were aided by the large traffics, people bought the two-wheelers for shorter commute and errands, as it is difficult to move around in congested cities. Finding a parking space for a car is itself a difficult task. Even the premium segment have increased their portfolio in India.

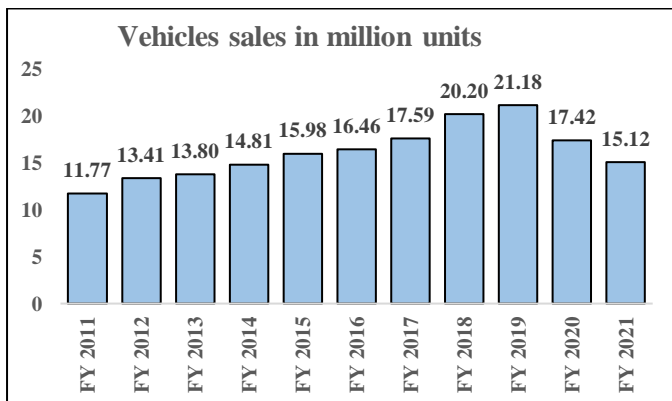


Fig 2. Vehicles sales (two-wheelers) in million units from FY 2011 to FY2021 (Source: Statista, 2021)

However, in FY-2020 and FY-2021, a decline in the sales of two-wheeler was seen due to the multiple reasons that will be explained below:

A. Indian Two-Wheeler Market Saturation:

Over the years the Indian market for two-wheelers is moving towards saturation to increase sales further. Over the last ten years the maximum sales figure hit the record of 21.18 million number in FY 2019. The same can be clearly seen in the Figure. 2 (Vehicle sales (two-wheelers) form FY 2011 to FY 2021 (Statista, 2021)).

From FY 2011 to FY 2015 total two-wheeler sale were 69.77 million units whereas total two-wheeler sales from FY 2016 to 2020 were 92.85 million units.

In year 2015 and 2020 India's Population was 1310 million 1380 million^[4]. Indian population demographics is better in for the 15-64 years age. In year 2015 and 2020 approximately 65.95% and 67.27% of the population lie under the age group of 15-64 years^[5].

Table 1: Indian Population to Two-wheelers Ratio

Indian Population to Two-Wheelers Ratio					
Year	Population (million)	%Population in 15-64 yrs age	Population in 15-64 yrs age	5 years cumulative 2 wheeler sales	Ratio of no of people to no of 2 wheelers in market
2015	1310	65.94%	863.814	69.77	12.38
2020	1380	67.27%	928.326	92.85	10.00

Population in 15-64 years age = Population %population in 15-64 years age

** Ratio of no of people to no of 2 wheelers in market = population in 15-64 years age/ 5 years cumulative 2 wheeler sales

As shown in Table 1 over the years (in a discrete period of 5 years) the ratio of no of people to no of two-wheeler in market have decreased form 12 to 10 moving to saturation state. Hence, the demand have been decreasing leading to low sales.

B. Increase in Insurance cost:

The Hon'ble Supreme Court of India, has, vide its order dated 20th July, 2018 that the third party insurance cover for new two-wheelers, it should mandatorily be for a period of five years and the law came into force form 1st September, 2018. As shown in the below graph the hike in insurance premium was observed. The maximum hike up to 25 percent was observed in two-wheeler having engine capacity of more than 150cc as shown in Figure 3 (Percentage increase in insurance premium according to Engine capacity).

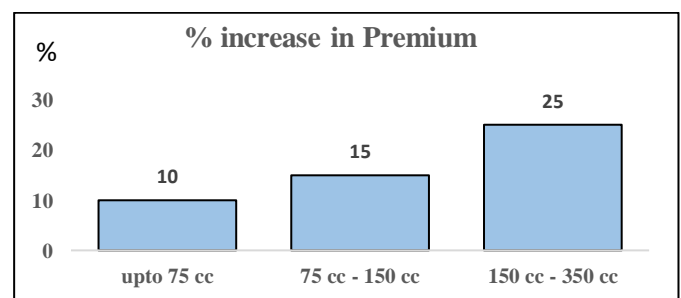


Fig 3. Percentage increase in insurance premium according to Engine capacity.

C. Increase in petrol and diesel prices:

The rise in Fuel prices over the years have affected the sales and sales has been sluggish. It has also added the inflationary pressure. Cost of mobility has increased due to the same reason. High fuel prices and non-easy availability of fuel fulling stations in rural areas have hit the sales and demand. Figure 4 (YoY Petrol & Diesel Prices in India (in Rs/ltr) (Car Helpline, 2022)) shows the increasing trend in prices of fuel.

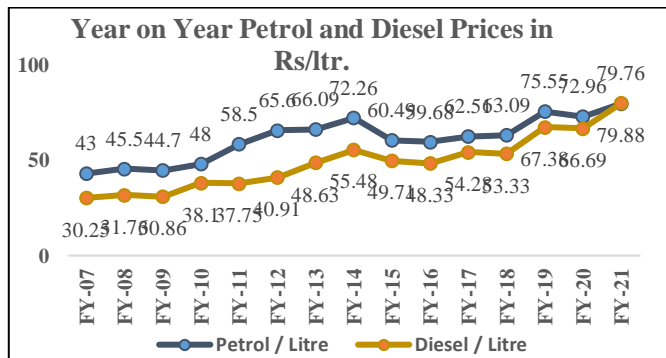


Fig 4. YoY Petrol & Diesel Prices in India (in Rs/ltr) (Source: Car Helpline)

D. BS4 to BS6 transition impact on prices:

The implementation of BS6 emission standards has forced automobile manufacturers to adopt significant engine manufacturing technology changes. Precisely, they will now have to let go of affordable carburetors and instead use more expensive fuel injection systems for their products. As a result, the on-road prices of BS6 bikes and scooters have gone up by at least 10 to 15%. Figure 6 (BS4 vs BS6 Price Comparison) shows the price comparison of same model in BS4 and BS6. The two-wheelers in the affordable segment are the most affected due to this change, whereas bikes that already have fuel injection systems are the least affected.

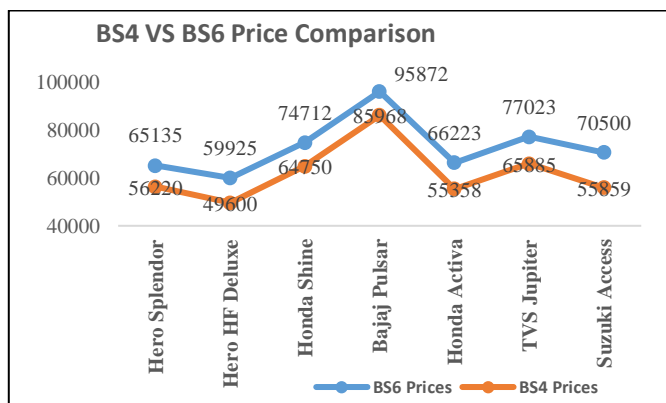


Fig 5. BS4 vs BS6 Price Comparison.

IV. IMPACT ON TWO-WHEELER INDUSTRY DUE TO COVID-19

Covid-19 has brought the two-wheeler industry to a major halt. Governments throughout the world were forced to put lockdowns on personal and commercial life for more than 2 months in year 2020. The two-wheeler industry faced a major blunt, as the supply chain across the world had to come to a

halt. As customers were not purchasing new vehicles, the two-wheeler industry faced a major blow to the business and sales.

A. Impact on domestic sales:

The Indian government decided to curb the spread of covid-19 through lockdowns. On the evening of 24th March, 2020 the Prime Minister Narendra Modi decided to implement a countrywide lockdown. All the economy stopped at once. For two-wheeler industry, all factories, vendors, suppliers, dealers etc. were closed for approximately two months.

The sales from Table 1 (Two-Wheeler Domestic sales comparison YOY) clearly shows the impact on the industry due to covid-19 in FY 20-21 as compared to sales in FY 19-20. The major market players such as Hero Motocorp and HMSI suffered huge losses in sales figures. Hero Motocorp suffered more than 10% loss in sales where as HMSI suffered a loss of 17%. The sales of overall two-wheeler market was decreased by 13%.

B. Impact on export sales:

The impact on export sales was similar to the impact on domestic. The overall growth was negative in export market too Negative growth of 7% was seen in export market majorly due to supply chain disruption. Bajaj Sales fell by 4% and HMSI sales fell by more than 35%. Yamaha and Suzuki also saw a decline in 35%. as shown in Table 3 (Two-Wheeler Export sales comparison YOY (Auto Car India, 2021)).

Table 2: Two-Wheeler Domestic sales comparison YOY (Source: Auto Economic times)

Companies	FY2020-21	FY2019-20	% change YoY in annual sales
Hero MotoCorp	55,99,859	62,31,458	-10.14%
Honda	3867874	47,06,589	-17.82%
TVS Motor Company	21,64,228	24,10,550	-10.22%
Bajaj Auto	18,09,375	20,78,348	-12.94%
Royal Enfield	5,73,438	6,56,651	-12.67%
Indian Yamaha Motor	5,24,186	5,78,226	-9.35%
Suzuki Motorcycle India	5,21,474	6,85,219	-23.90%
Piaggio Vehicles	56,069	62,638	-10.49%
India Kawasaki Motors	1,284	2,628	-51.14%
Triumph Motorcycles India	725	591	22.67%
Harley-Davidson Motor Co.	680	2,495	-72.75%

Mahindra Two Wheelers	252	1,039	-75.75%
Total	1,51,19,387	1,74,16,432	-13.19%

Table 3: Two-Wheeler Export sales comparison YOY (Source: Auto Car India)

Companies	FY2020-21	FY2019-20	% change YoY in annual sales
Hero MotoCorp	1,86,515	1,78,261	4.63%
Honda	209789	3,26,369	-35.72%
TVS Motor Company	7,64,039	6,78,841	12.55%
Bajaj Auto	17,96,518	18,69,220	-3.89%
Royal Enfield	38,622	29,188	32.32%
Indian Yamaha Motor	1,89,177	2,97,346	-36.38%
Suzuki Motorcycle India	70,369	1,05,164	-33.09%
Piaggio Vehicles	21,650	22,745	-4.81%
India Kawasaki Motors	0	0	-
Triumph Motorcycles India	0	0	-
Harley-Davidson Motor Co.	921	1,859	-50.46%
Mahindra Two Wheelers	124	412	-69.90%
Total	32,77,724	35,09,405	-6.60%

C. Impact on Supply Chain:

Both India and the rest of the world took a negative hit that has caused long-term effects on consumer business segment. The two-wheeler industry is one of those segments. There was disruption in OEMs supply chain management due to supply chain break down emanating from China, South Korea, USA, UK, France etc. Two wheelers faced an imminent raw material and component shortage especially from China. This has hampered the production schedules of companies. According to an article of financial times, the total impact of a 2 percent slowdown in Chinese production is estimated to be close to US \$350 million for Indian industries, of which the automotive industry will take a hit of \$34 million. The import dependency is higher in the two-wheelers segment as more than four-fifths of the imported components in two-wheelers are from China. About 20% of auto sector and 30% of tyre industry are dependent on China for their parts, raw materials. Wuhan is itself a auto hub and many OEMs and suppliers are directly dependent on Wuhan for their production [6]. OME suppliers have faced liquidity crunch during the lockdown periods. A news report of Economic times says that Hero Motocorp, Honda Motorcycle & Scooter India, Suzuki Motorcycle India, Yamaha, Bajaj Auto and Royal Enfield ensures payments to suppliers amid lockdown occurring huge losses because of no sale and paying up for the operational cost. Due to BS4 and BS6 inventory stays still in market with Supreme Court refusing the extension of deadline on BS4 vehicles.

D. Impact on Share Market segment of two-wheelers:

The share valuation of all companies fall as the covid-19 hits the Indian market in March 2020. The Stock prices of the top major companies are shown below and the dip in year 2020 is clearly visible. For Hero Motocorp the share price on 1st Feb 2020 was Rs. 2426 whereas on 27th March 2020 the share fell to its 5 years minimum price of Rs. 1661 as shown in Figure 6 (Hero Motocorp Ltd. Share Price from FY 2018 to FY 2022 (Trading view, 2022)). Bajaj Auto Ltd. share price on 1st Feb 2020 was Rs 2140 and the share touched the 5 years lowest value of Rs 2033 on 3rd Apr 2020 as shown in Figure 8 (Bajaj Auto Ltd. Share Price from FY 2018 to FY 2022 (Trading view, 2022)). TVS Motors Co. share price registered at Rs. 461 on 1st Feb 2020 and the same share registered the 5 years lowest at Rs 253 on 3rd Apr 2020 as shown in Figure 8 (TVS Motors Co. Share Price from FY 2018 to FY 2022 (Trading view, 2022)).



Fig 6. Hero Motocorp Ltd. Share Price from FY 2018 to FY 2022 (Source: Trading View)



Fig 7. Bajaj Auto Ltd. Share Price from FY 2018 to FY 2022 (Source: Trading View)



Fig 8. TVS Motors Co. Share Price from FY 2018 to FY 2022 (Source: Trading View)

V. CONCLUSION

Over the last decade the Indian two-wheeler industry have shown positive response. From 2011 to 2019, the sales have increased on a regular basis yearly. However, the market after 2019 is coming towards saturation with more than expected two-wheelers present on Indian roads. COVID-19 has been worst on the industry with the long lockdowns, work from homes, liquidity crunch the industry suffered from decreased sales and demand. Domestic major players such as Hero, Bajaj, TVS, and Honda have shown major dip sales. Overall, domestic market shrank by approximately 14% in FY 21 as compared to previous year. Export sales have been worst for Honda, TVS and Bajaj who are major player in export market. Export market shrank by 7% in FY 21 as compared to previous year. The supply chain has been disrupt for the whole world including Indian, automotive segment & two-wheeler segment. Dependency on china made Indian companies suffer but this also made the leaders rethink about the same. The OEMs started cultivating the local suppliers for the parts that were received from overseas. Not only this, the share market has fallen for all the automotive segment including two-wheelers. Nearly the valuation of shares comes to lowest of last five years between March-21 and April-21.

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