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IMPACT OF COVID-19 ON AUTOMOBILE INDUSTRY IN INDIA

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Abstract

This study discuss about the impact of lockdown in India and particularly about the huge impact it cause to automobile sector in India. Various researchers predict that during the lockdown period, the Indian economy expected to fall about 10-31% of its Gross Domestic Product and production loss is estimated to Rs 2300 Cr. Per day in automobile sector. This study discusses the impact on economy, particularly on automotive sector due to the pandemic which leads to the lockdown in our country. This paper discuss about, the influence of covid-19 on the economy, notably the automobile sector. This is a secondary research work wherein aim is to study the potential impact of the novel covid-19 on automobile sector in India. In-depth reviews and analysis of numerous reputable published journals, research works, articles, newspaper reports, and web sources were used as part of the approach. The study draw the inference that the impact of corona virus is long term and adverse. It is now the Indian automobile industry's chance to seize possibilities and thrive.

Need of the study

As due to the covid-19 the whole world was bound to implement lockdown in their respective countries, Which directly affected trade on national and international level. Automobile industry contributes in economy of our country India on a large scale. But on a ground level majority of livelihood of India fall under Middle class categories, so their major focus was on household essential goods that directly affect the sales of other non-essential or luxury items, in which cars and bikes are one of the product lines. So, that makes sales of vehicle fall down drastically and its effect reflects in the GDP of our country up to a major context. That makes study and Analysis of effect and causes important that impact growth of Automobile Industry on a major scale.

Introduction

Corona Virus was initially discovered in the Chinese city of Wuhan, and by the time the severity of the infectious disease became known to the rest of the globe, it had spread and begun to have an influence all over the world. India is now a part of the global economy and has tremendous connection with the rest of the world in terms of commodities and activities like import and export, as well as people travelling in and out for a variety of reasons. India is one of more than 200 nations affected by the epidemic. In the COVID-19 Pandemic, among the 200 plus countries, India was also on the list of one of the most impacted countries that faced economic losses.

Inadequate medical facilities, a greater population living in rural and distant regions without access to basic medical care, and due to the lack of infrastructure; the spread of infectious illness would have been more distressing than anybody could imagine. In the circumstances, the Government of India had no choice but to impose a lockdown, putting its economic health at risk for the sake of protecting its citizens. The Indian economy would be severely impacted by the epidemic and following lockdown decision. To name a few, the automobile industry, manufacturing, tourism, construction, commerce, hotels, transportation, financial services, agriculture, imports and exports, the lives of economically marginalized employees, migrant Labour, and vulnerable parts of society have all suffered. This paper discuss about the overall impact of covid-19 on economic and automobile sector.

Hypothesis Development

H_0 = Covid-19 has no effect on the performance of the automobile industry of India.

H_A = Covid-19 has affected the performance of the automobile industry of India.

OBJECTIVES

Examine the effects of the Corona virus on the Indian economy, as well as the impact of the Covid-19 shutdown on the vehicle industry, and give recommendations to improve the industry.

METHODOLOGY

The purpose of this study is to investigate the impact of Covid-19 in India, specifically the economic consequences of a drop in automotive sales. The current research is both qualitative and analytical. Review and analysis of diverse literatures, reputable published journals, working papers, articles, newspaper reports, and web sources are among the data sources.

Review Of Literature

The effects of COVID-19 on the car industry have been discussed in few research papers. Rajamohan et al. (2020) investigated how COVID-19 has affected the stock market, notably the National Stock Exchange of the car industry. The findings show that higher-value stocks were sold at their depreciation value. Furthermore, the returns of the vehicle sector index have been observed to be lower. As a consequence of the findings, it can be stated that the COVID-19 epidemic has had a significant impact on the car industry's stock exchange. proposed a hybrid model called the SEM-Logit model to investigate consumer decision-making and the factors influencing the purchase of a car during a pandemic. The suggested model was utilized to look into the impact of social-demographics, epidemic-related, and psychological latent variables on automotive purchase decisions. The findings show that the epidemic has had a negative impact on automotive purchases. Individual buying decisions have been influenced by factors such as household income, travel vulnerabilities, and epidemic severity in local areas. Furthermore, the research is being used to aid policymakers in putting in place important steps to address the current automotive buying dilemma.

(Mishra et al., 2020) claims that the global pandemic caused by Covid occurred at a time when both the Indian economy and the auto industry were expecting recovery. COVID-19 may have a 1-2 percent negative impact on typical development rates, despite the GDP growth predictions being north of 5.5 percent. The total amount of the effect is determined on the length of continuous lockdown and the impact of the epidemic. In India, the start of Covid-19 had a negative impact on the auto industry. It is estimated that the general income effect will be between \$1.5 and 2.0 billion per month throughout the firm. Even once we open, a drop in traveller car requests is to be expected, with optional spending taking a lesser priority. This will be paired with changes to BS-VI standards, which will increase the cost of ownership.

(Singh et al., 2020) concludes, the automobile industry has practically seen a 12-year and a half of standstill due to major changes such as the goods and services tax (GST), the move to shared versatility, pivot load modifications, the transition from BS 4 to BS 6 development, liquidity constraint, and so on. The COVID-19 lockout has had a multiplier effect, with the firm almost completely shut down since March 24. The lockdown has had a significant impact on automobile manufacturers' earnings and profits due to the delayed termination of customer interest.

(Gaddipati et al., 2020) Client impression is a critical aspect in whether a brand succeeds or fails. Client perception is continuously changing nowadays, and this must be addressed because it has a huge impact on any sector. According to the findings, clients in today's environment are more concerned with saving than spending. It also claims that in Covid's rough times, the influence on people's spending capacity is exactly proportionate to their cognitive process. As a result, automakers and the government must now work

together to stabilize the sector and get it back on track. The government may assist automakers in a variety of ways to help them preserve the sector, if not to the top, then at least to survive. Many households rely on this business, and their living conditions are directly linked to whether they remain constant or degrade.

(Nayak et al., 2022)The COVID-19 pandemic, which first appeared in late December 2019 in Wuhan, South China, spread fast around the world starting in March 2020. The COVID-19 crisis has not only harmed people's health throughout the world, but it has also disrupted people's social and economic activities. When the number of cases began to rise dramatically in many parts of the world, government officials in various countries announced tight lockdown measures, travel restrictions, and the closure of national and international borders to prevent the sickness from spreading. The supply chains of several nations were severely disrupted as a result of these lockdown tactics, which had a negative influence on the country's economy. We presented a detailed explanation of COVID-19's impact on six different industries, including automobiles, power and energy, electronics, travel, tourism and transportation, agriculture, and education, as well as their sub-sectors, which occurred primarily due to supply chain and transportation disruptions.

We've also detailed the methods that these industries would employ, as well as the measures and regulations put in place by the governments of the affected nations to deal with the economic upheaval. We also offered a graphical picture of a comprehensive investigation of how disruption in different industries affects the economies of the countries. In addition, an overview of how the shutdown impacted India's GDP growth and unemployment rate has been offered. Finally, this study aids researchers, policymakers, and government officials in formulating and executing effective measures such as an emergency relief plan and a wide socioeconomic strategy for each sector to address the crisis's disturbances. (Nayak et al., 2022)

Despite the industry's overall poor performance, the top value-added sectors, such as basic metals, electronics, equipment, coke and refined petroleum products, motor vehicles, and so on, rely heavily on imports. The electronics industry, for example, imports around 67 percent of electronic components from China. Due to the lockdown in china, there have been claims of price increases by Chinese suppliers on some components due to plant shutdowns and shortages. Because of the global economic recession and the lockout across countries, the manufacturing sector will also slow.

Manufacturing accounts for about 60% of India's overall exports, and the import content of India's exports is quite high. Some of the industries that make up India's top exports also make up its top imports. As a result, a ban on manufacturing imports will have a significant impact on India's exports.

Consider the automotive industry, which has been one of India's industrial success stories in the recent decade. Before COVID-19, the industry was trying to transition to the new Bharat Stage (BS) VI rules, which took effect on April 1, 2020, and is currently facing issues due to the sector's reliance on China for Original Equipment Manufacturers (OEMs). Overall, raw material and completed goods prices are likely to rise, but with weaker demand, realising increasing input costs through finished goods end prices will be challenging. The whole domestic industrial network is beset by issues and interruptions, and manufacturing will take weeks or months to return to normal. Reverse migration of employees is one such issue. The potential impact on labor-intensive businesses might come from a drop in industrial production owing to a skills deficit, since many migrant workers with specialised abilities gained over time stayed inactive during the crisis and are relocating back to their homes, possibly not returning immediately.

IMPACT OF COVID-19 IN AUTOMOBILE INDUSTRY IN INDIA

The COVID-19 pandemic has wreaked havoc on the world economy and society. The governments of all countries have instituted a countrywide lockdown in an attempt to manage the epidemic. Although the lockdown may have helped to prevent the disease's spread, it has had a devastating impact on the economy, disrupting whole value chains in the country's most essential businesses. The epidemic is having a significant impact on many aspects of industry, including the car sector, with important manufacturers either closing altogether in response to local government directives or operating with the bare minimum of workers at manufacturing sites to keep their employees safe. The automobile industry had already experienced significant delays due to structural modification openings with the goods and services tax, axle-load reforms, shift to shared mobility, liquidity crunch, and other factors, and has been essentially at a standstill since March 24 due to the COVID-19's lockdown. The prolonged curtailment of client demand as a result of the lockout is causing major concern among automakers. The majority of businesses are cutting back on R&D (research and development) to preserve key activities and maybe recoup growth in mobility technology and alternative fuels.

Impact on trade

Reverse migration of employees is one such issue. The potential impact on labor-intensive businesses might come from a drop in industrial production owing to a skills deficit, since many migrant workers with specialised abilities gained over time stayed inactive during the crisis and are relocating back to their homes, possibly not returning immediately. With two-fifths of exports and one-third of imports, India's commerce is heavily reliant on severely coronavirus-affected nations (the United States, the European Union, and China). The United States and China, in particular, contributed for one-fifth of India's exports and imports. It's worth mentioning that India's exports and imports to the EU, the US, and China account for two-fifths and one-third of the country's total exposure. When a result, there is less chance of an increase in exports as the rupee falls, as these nations may enter recession and see a major drop in aggregate demand. Furthermore, India has a bigger import exposure than exports to the rest of Asia, particularly ASEAN, thus the predicted gain is lower owing to currency depreciation.

Countries all across the world have been experiencing economic downturn over the past several years. Countries in the globalized economy are so interconnected and dependent on one another that a downturn in one economy has an influence on the performance of another. Countries were debating how to revitalize their economies and implement fundamental reforms. Covid-19, an unexpected pandemic that was originally found in China, has exacerbated the situation in over 200 nations. Many countries were forced to shut down their economy and declare a state of emergency in order to preserve their inhabitants' lives.

The pandemic wave that hit India in February made the job of government officials, administrators, and regulatory agencies difficult. In comparison to other countries throughout the world, the Indian economy is varied. It has a population of 130 billion people, with a significant concentration of people living in distant and village regions. During the early days of the pandemic, it had insufficient infrastructure, medical facilities, masks, personal protective equipment, respiratory and life support systems. The government has declared lockdown in order to preserve people's health at the expense of the economy. These actions brought the economy to a halt for more than 45 days, from March 25, 2020 to May 13, 2020, with the unlocking process beginning only on June 1, 2020.

The decision to shut down the Indian economy and several industries has had a significant impact. Even India has reported negative GDP for two quarters in a row, prompting a lockdown. The effect was visible in the market capitalisation of significant industries.

Banking, retail, and software companies that provided emergency services had their market value fall by -39%, -29 %, and -15 %, respectively Other major sectors include lending at -40%, industrial shipment at -27%, real estate at -34%, logistics at -32%, asset management at -30%, insurance at -27%, travel and hospitality at -28%, automotive at -24%, media at -19%, consumer durables at -14%, energy and utilities at -13%, business services at -10%, tech services at -8%, health services and supplies at -5%, and chemicals at -4%. Only Pharma and biotech firms, as well as telecom companies, had positive market capitalization, with 18% and 15%, respectively (Fig.1).



Effect in the Market Capitalisation

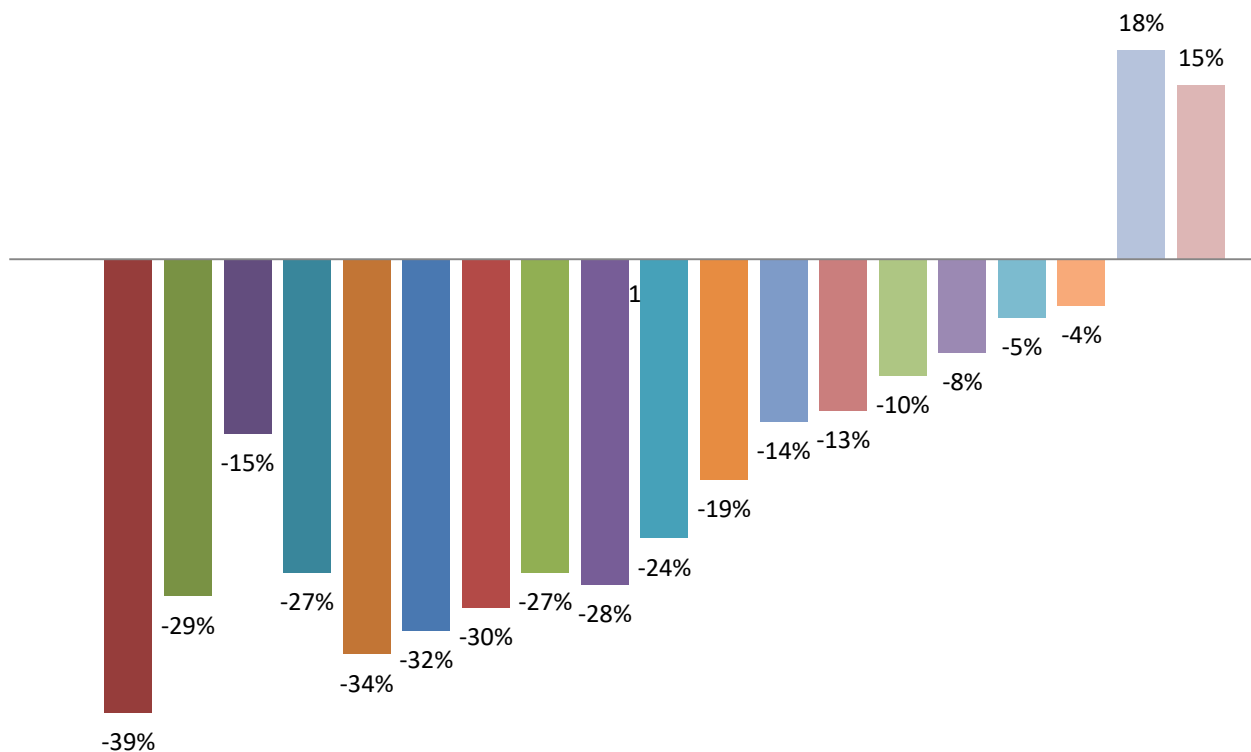
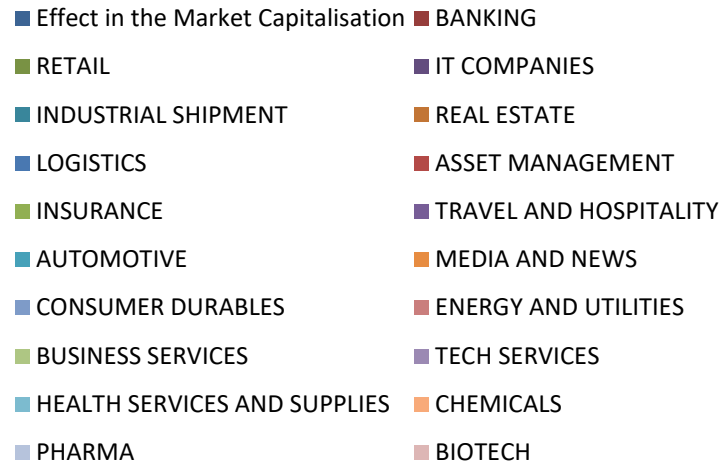


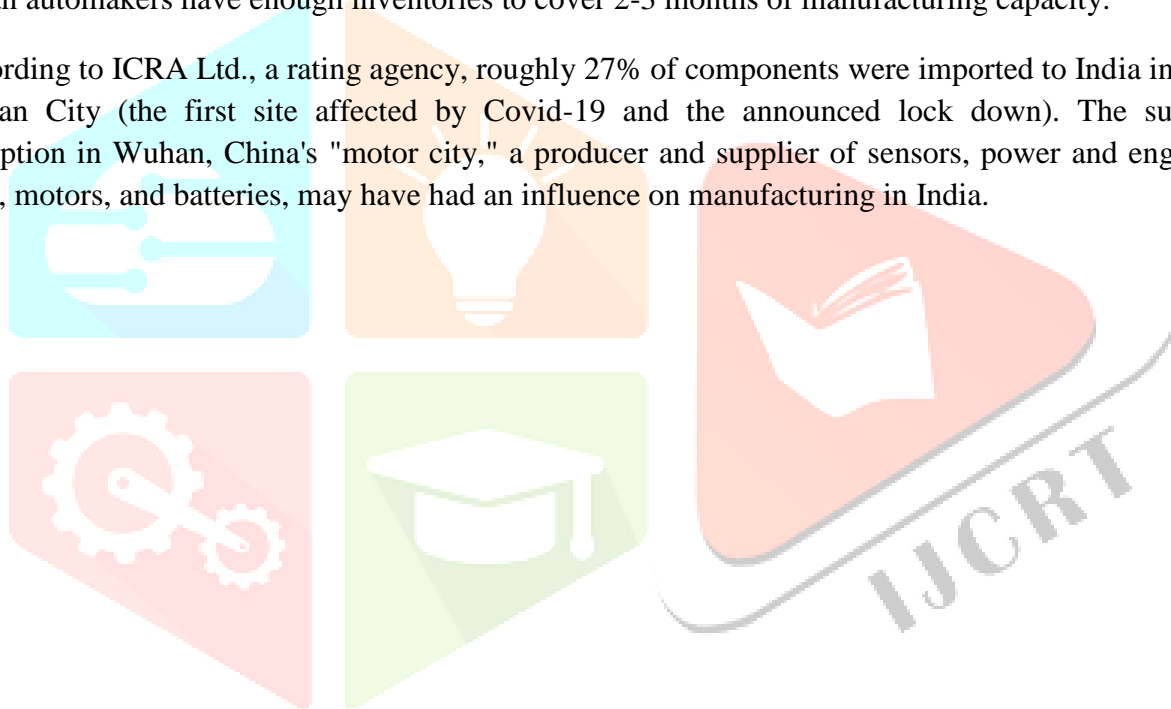
Fig.1

The Indian auto industry is a well-established and employment-generating business that contributes to the country's GDP. New requirements for auto players have been established as a result of environmental sensitivity and changing worldwide standards. In India, automakers were notified of changes in emission requirements from BS4 to BS6 and given three years to transition from 2017 to 2020. During the three years interval many players could not transform to BS6 standard and were stuck with more BS4 automobiles.

Automakers expected to clear their BS4 vehicles in the first half of 2020, and they promised steep discounts. However, the reality changed after the lockdown decision. The auto sector was totally shut down in April, with no sales reported. Even though sales began in May 2020, they were significantly lower than sales in the same time in 2019. The Society of Indian Automobile Manufacturers (SIAM) calculated that the lockdown decision resulted in a daily production loss of Rs. 2,300 crore.

Without lockdown, the Indian car industry's situation would have been disastrous. India's automakers buy parts from China, Germany, and the United States, which have been worst impacted by the pandemic. Indian automakers have enough inventories to cover 2-3 months of manufacturing capacity.

According to ICRA Ltd., a rating agency, roughly 27% of components were imported to India in 2019 from Wuhan City (the first site affected by Covid-19 and the announced lock down). The supply chain disruption in Wuhan, China's "motor city," a producer and supplier of sensors, power and engine control units, motors, and batteries, may have had an influence on manufacturing in India.



Figures Of total sales in volume or units by Automobile Companies and Heavy Fluctuation in Share price for respective Automobile Companies.

Total sales volume of Tata Motors Limited from financial year 2017 to 2021 (in 1,000 units)

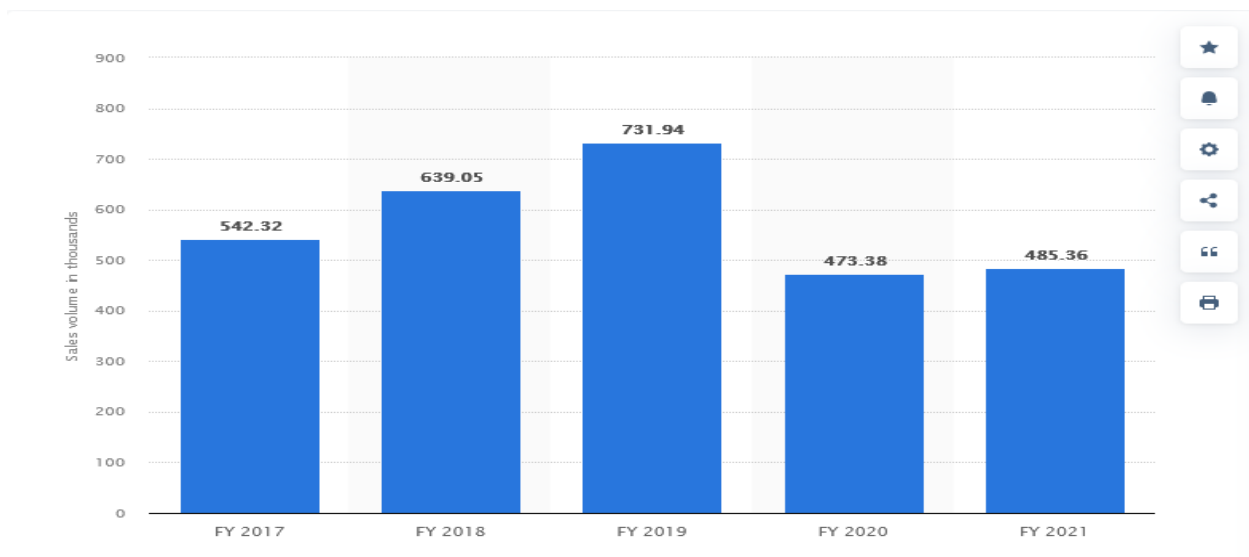


Fig.2

Tata motors Share price 5Y (2018-2022)

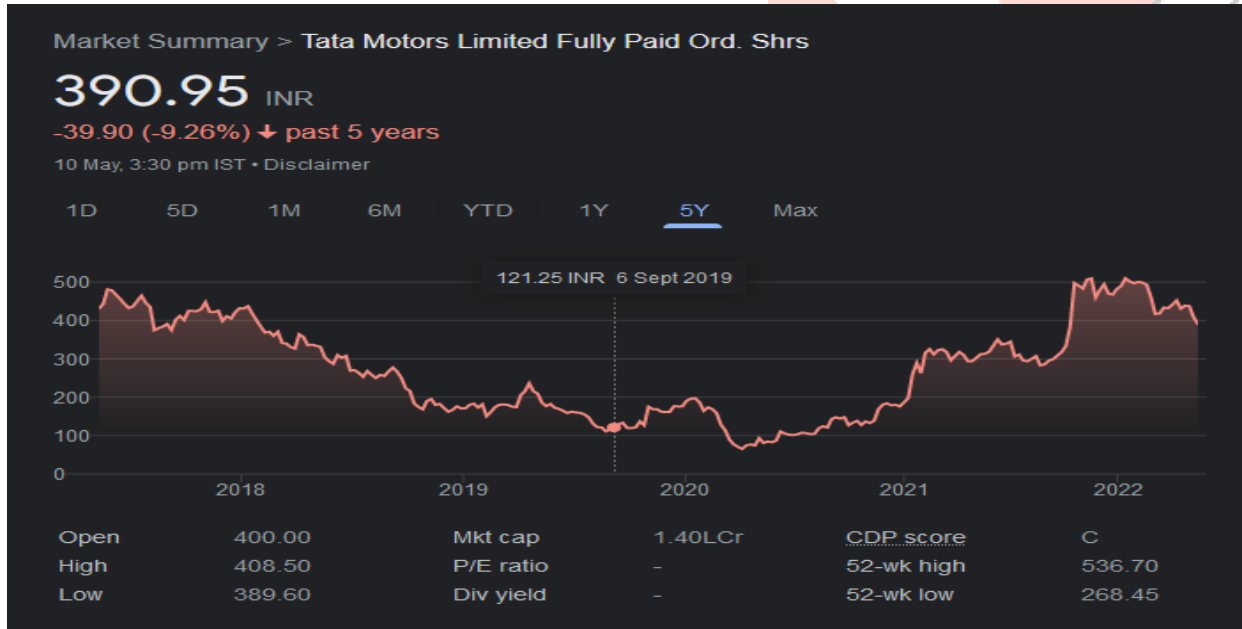


Fig.3

Sales volume of Maruti Suzuki Limited vehicles across India from financial year 2007 to 2021, by segment (in 1,000s)

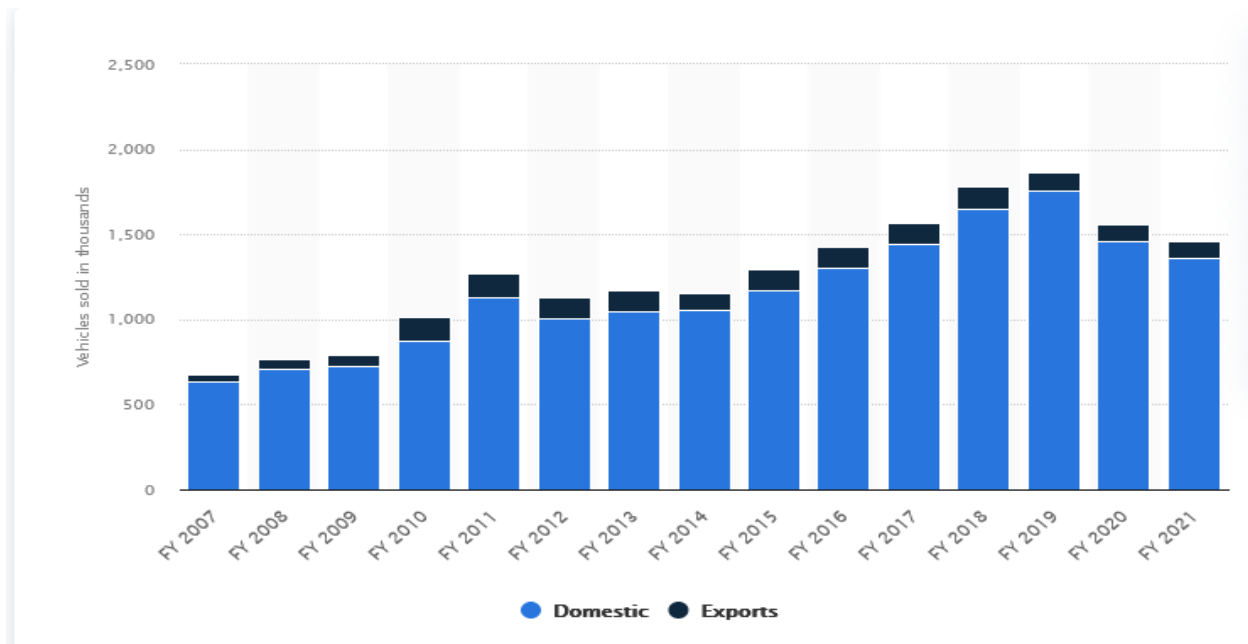


Fig.4

Maruti Suzuki Share Price 5Y (2018-2022)



Fig.5

Sales volume of utility vehicles for Mahindra and Mahindra Limited from financial year 2013 to 2021 with estimates until 2022 (in 1,000s)

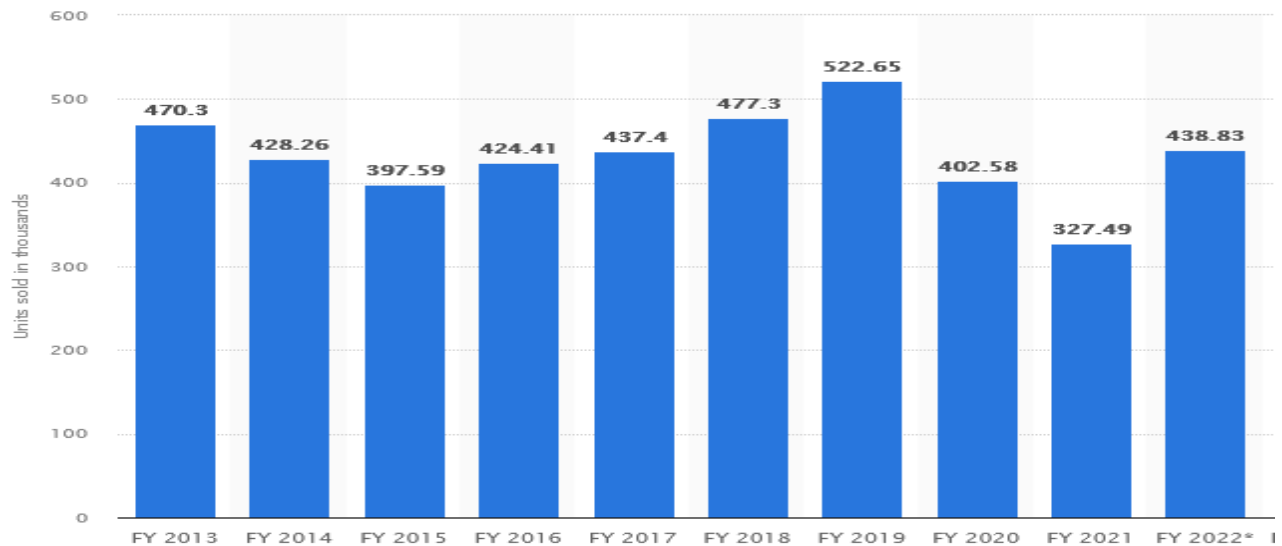


Fig.6

Mahindra and Mahindra Limited Share Price 5Y (2018-2022)



Fig.7

Sales volume of Ashok Leyland vehicles from financial year 2012 to 2021 (in 1,000s)

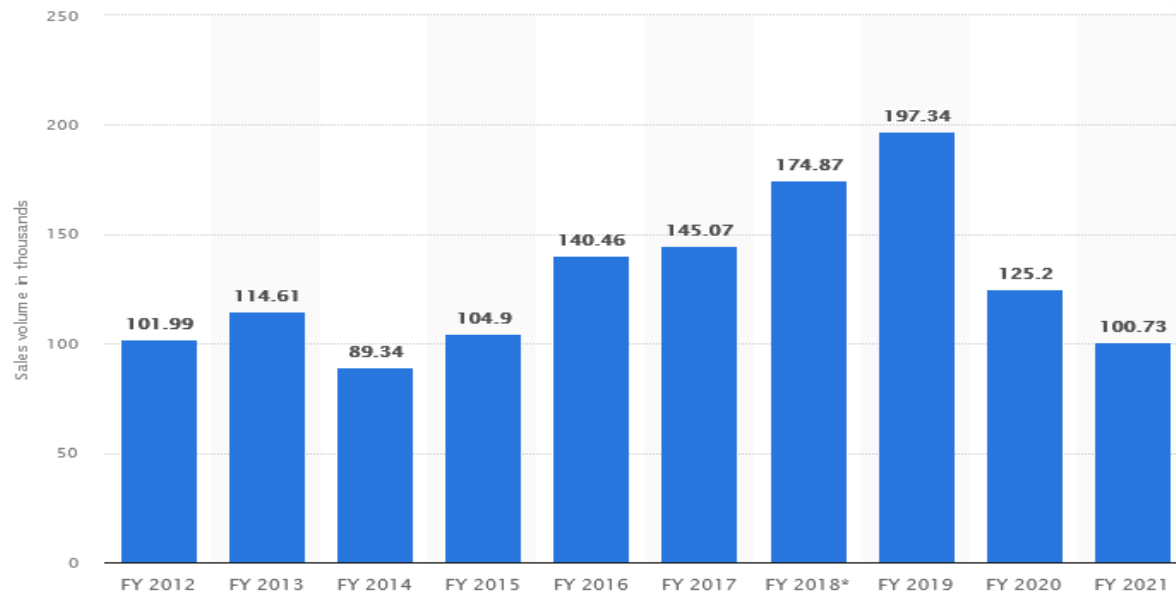


Fig.8

Ashok Leyland Share Price 5Y (2018-2022)



Fig.9

Net revenue of Force Motors Limited from financial year 2018 to 2021 (in billion Indian rupees)

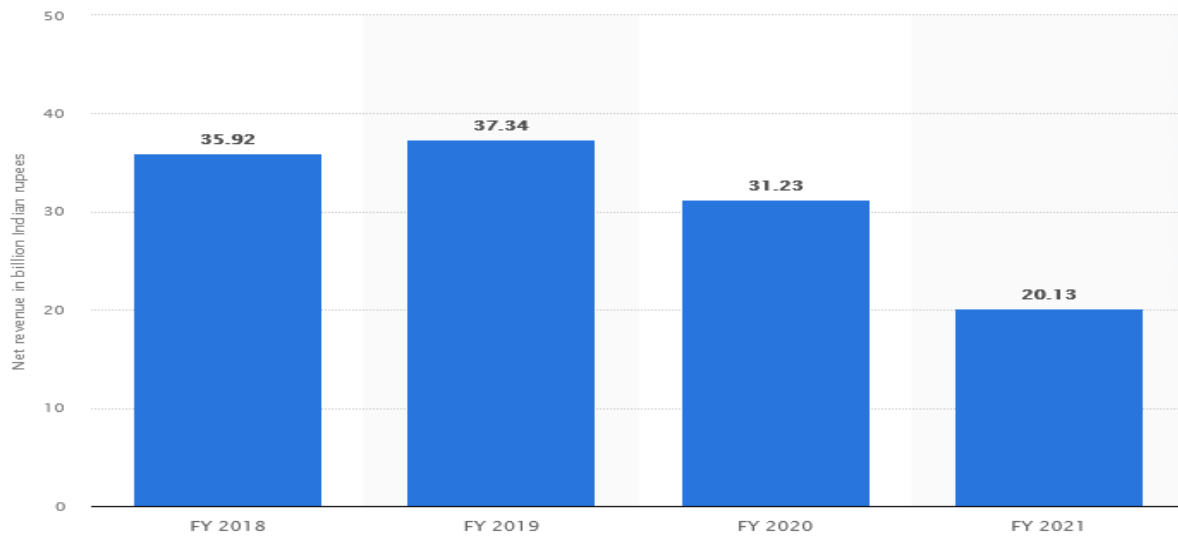


Fig.10

Force Motors Share Price 5Y (2018-2022)



Fig.11

Net sales of Eicher Motors Limited in India between FY 2018 and FY 2022 (in billion Indian rupees)

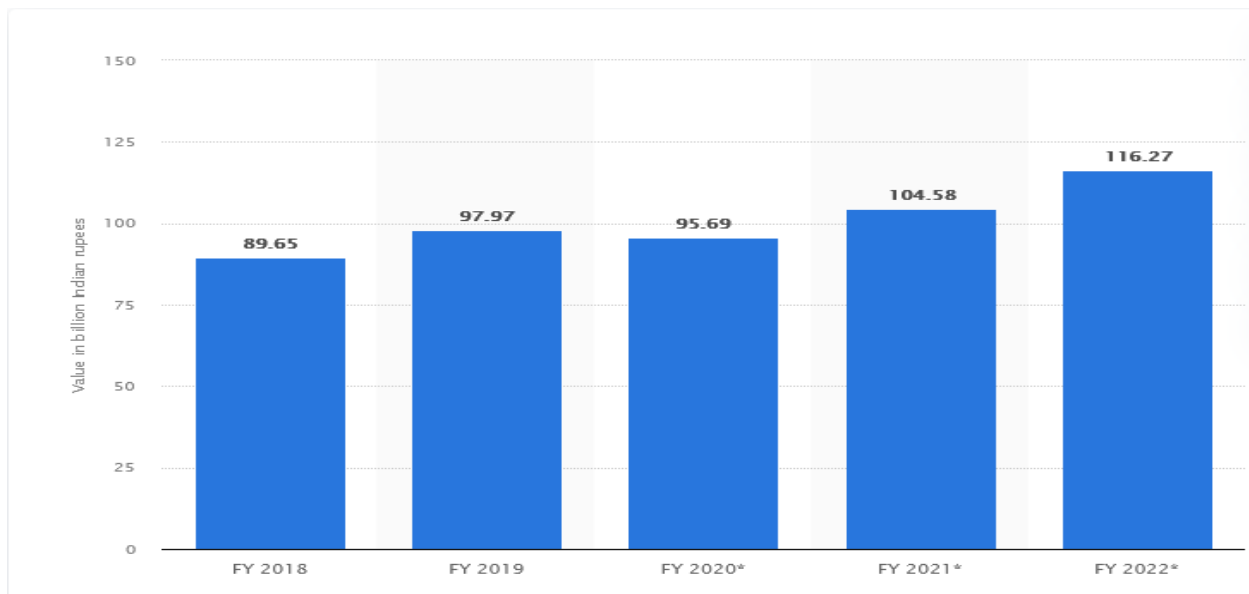


Fig.12

Eicher Motors Limited Share Price 5Y (2018-2022)



Fig.13

Bajaj Auto's motorcycle sales from FY 2006 to FY 2021 (in 1,000 units)

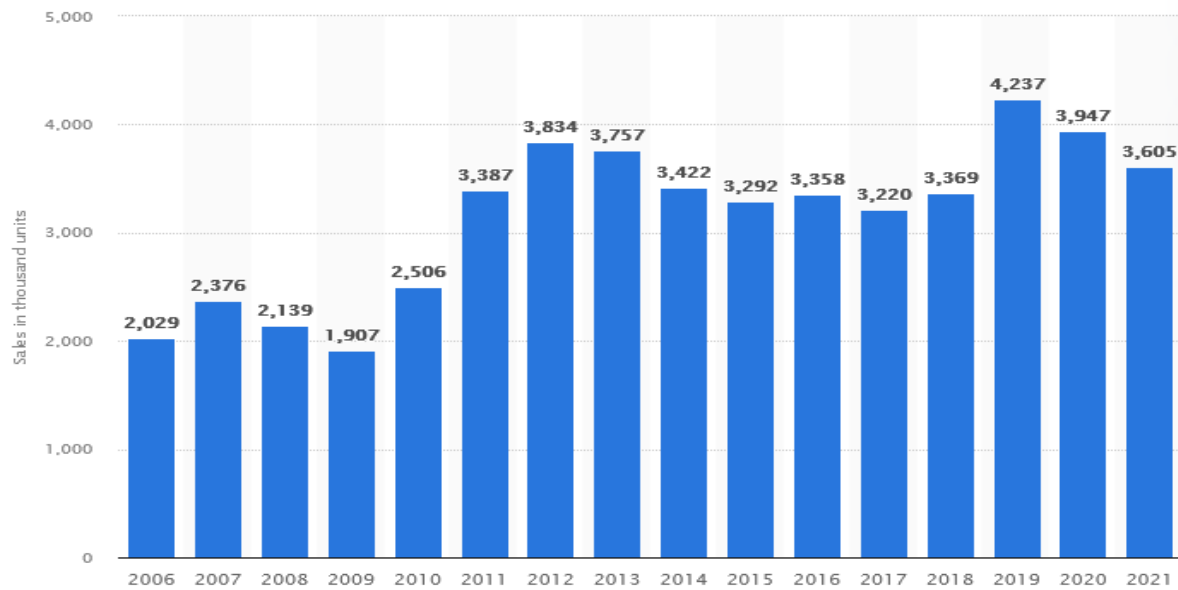


Fig.14

Bajaj Auto's motorcycle Share Price 5Y (2018-2022)



Fig.15

Worldwide number of automobiles sold by Honda Group from FY 2002 to FY 2021 (in 1,000 units)

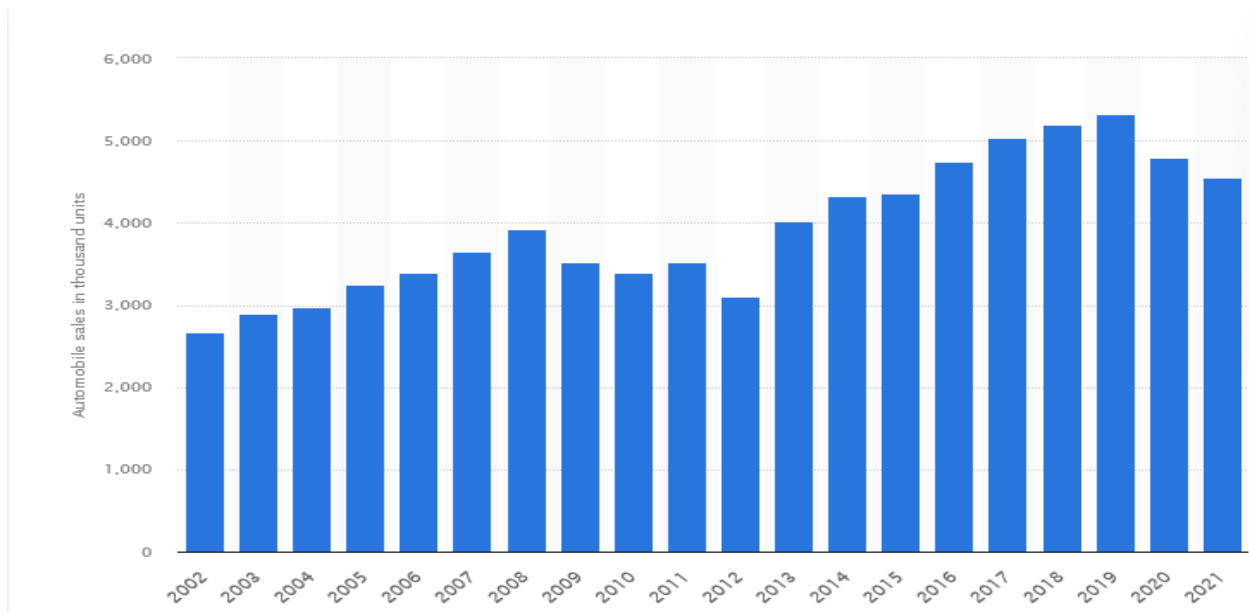


Fig.16

Honda Motor Co Ltd Share price 5Y(2018-2022)



Fig.17

Volkswagen's Worldwide Vehicles deliveries from 2012-2022 (in Million)

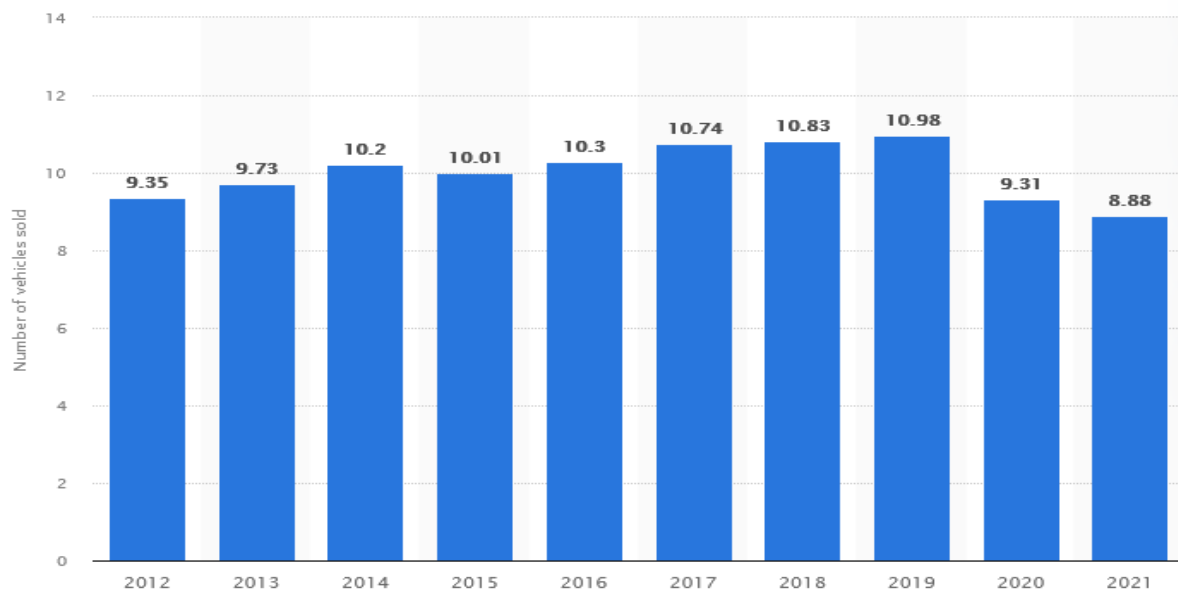


Fig.18

Volkswagen Share price 5Y (2018-2022)



Fig.19

Total income of TVS Motor Company Limited from financial year 2016 to 2021 (in billion Indian rupees)

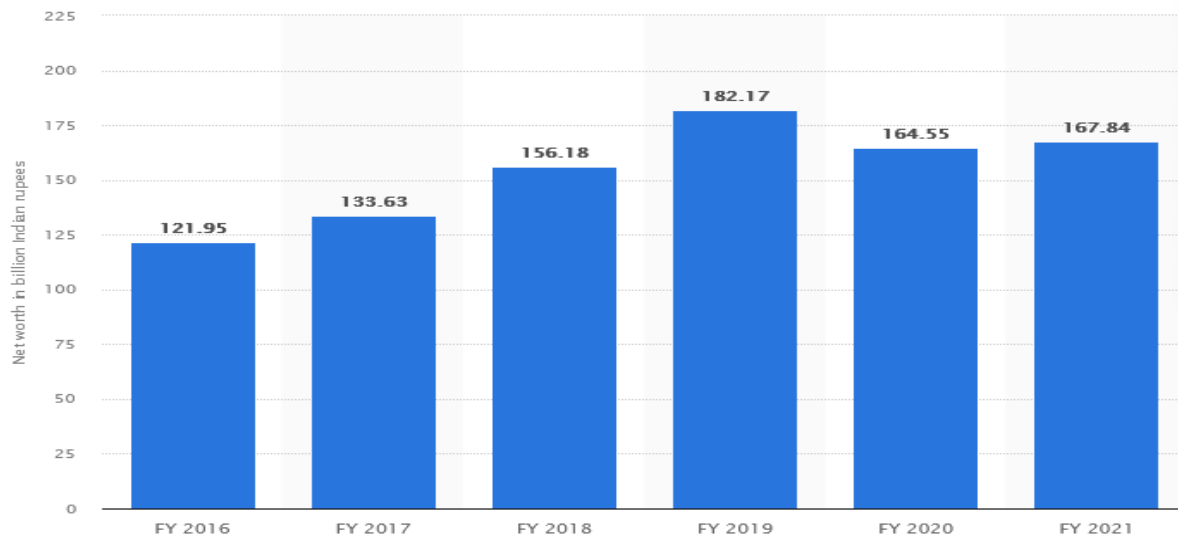


Fig.20

TVS Motors Share price 5Y (2018-2022)



Fig.21

Yamaha Corporation's net sales worldwide from 2006 to 2021 (in billion U.S. dollars)

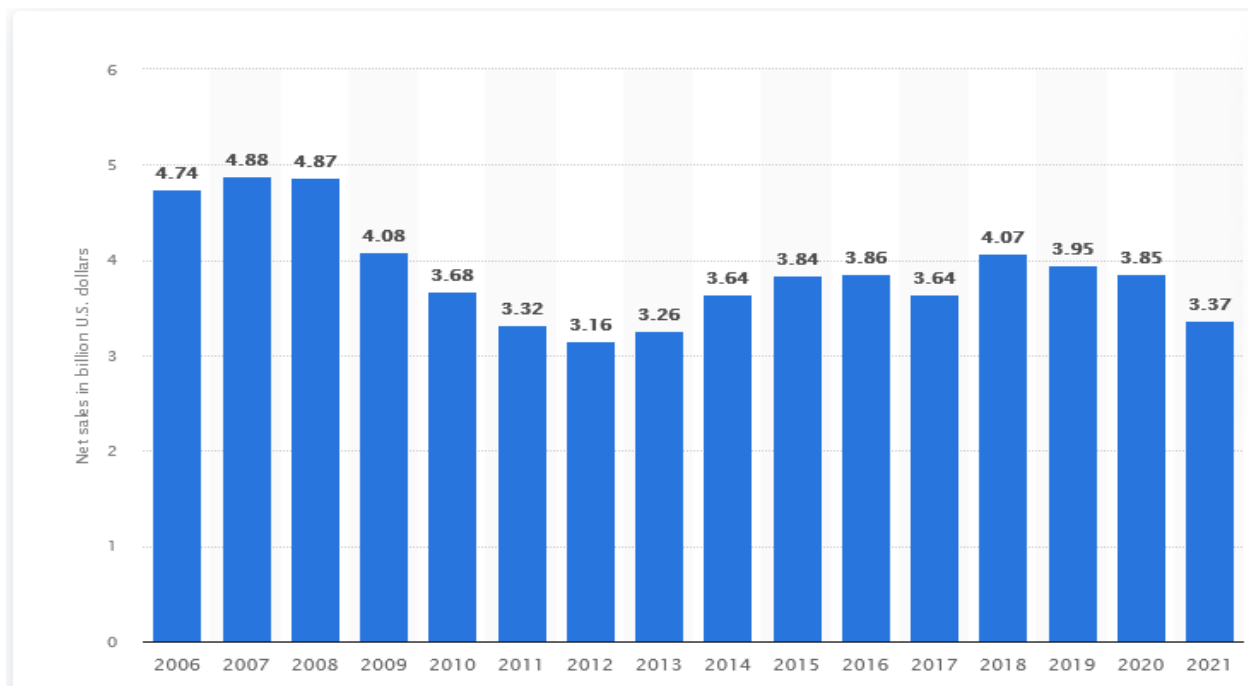


Fig.22

Yamaha Motor Co., Ltd. Share 5Y (2018-2022)

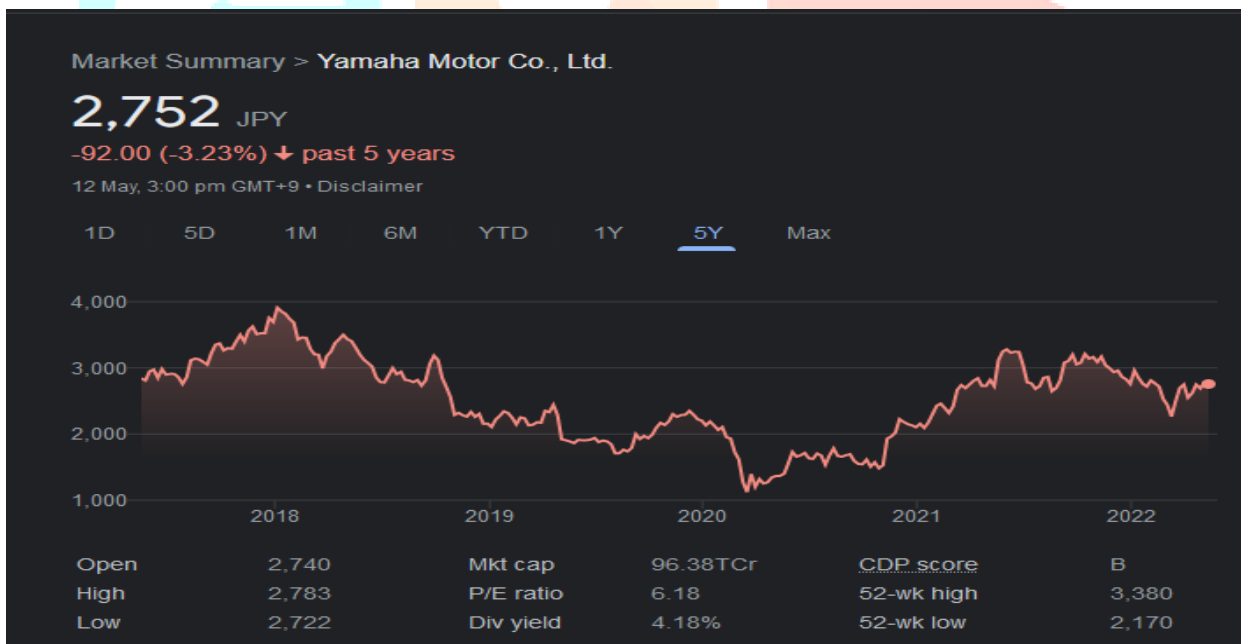


Fig.23

Number of vehicles sold by Hero MotoCorp Limited from financial year 2015 to 2021 (in millions)

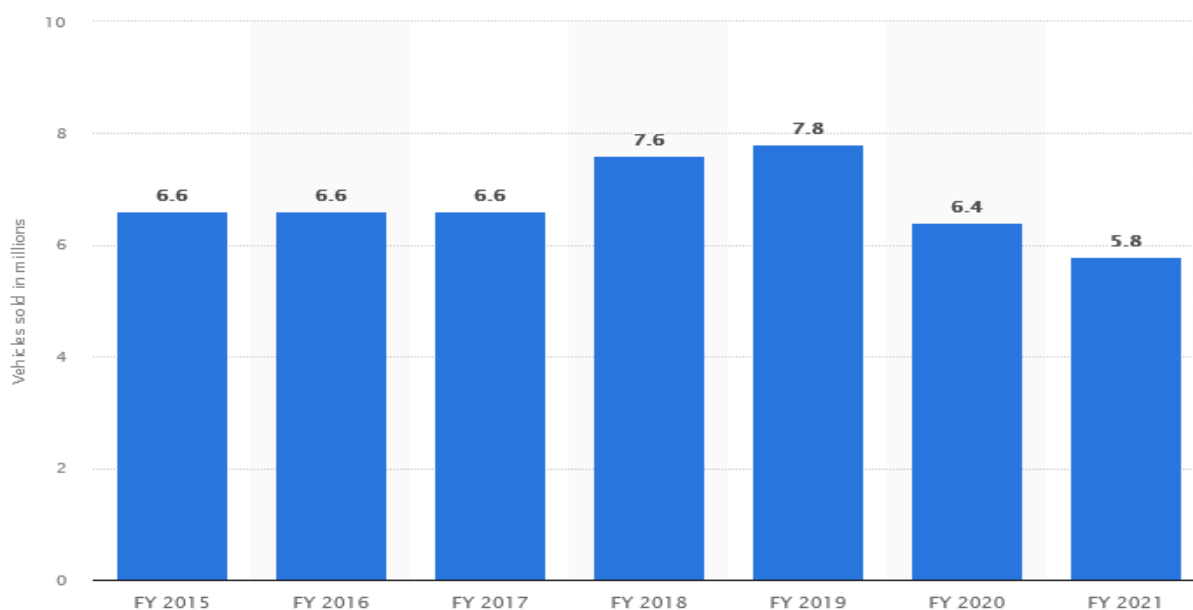


Fig.24

Hero MotoCorp Share price 5Y (2018-2022)

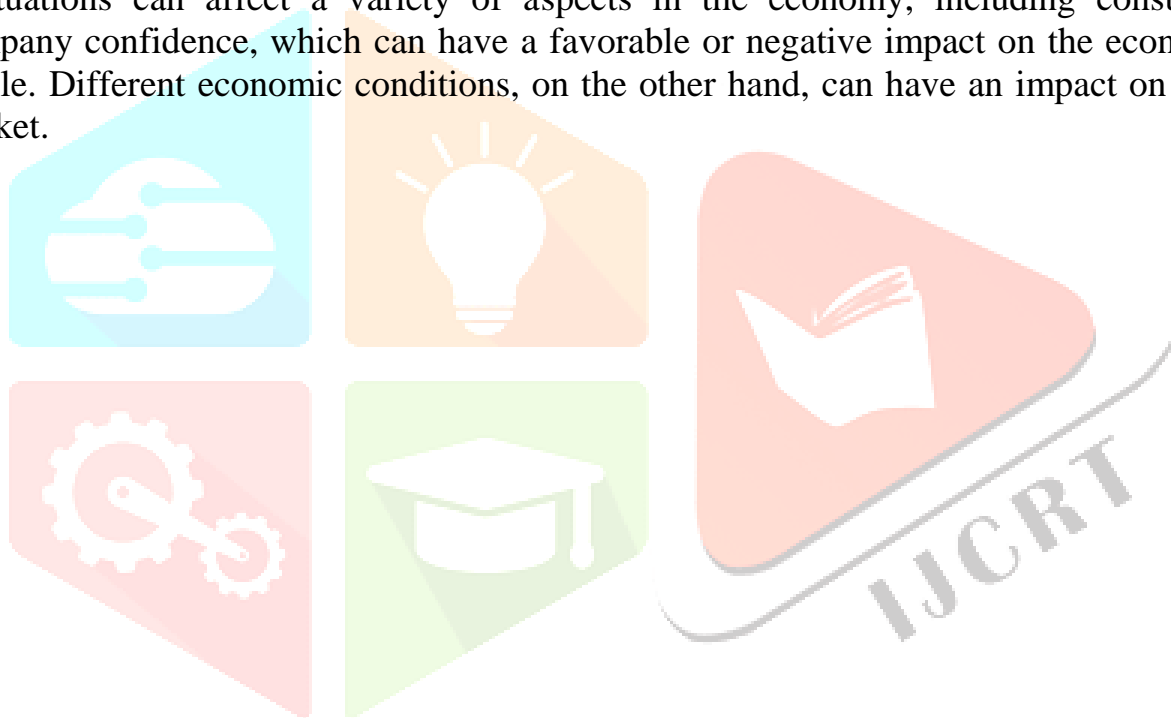


Fig.25

Figure Analysis

As from the above figures it is very easy for us to analysis each and every Company had faced huge fall in their sales of their respective units as well as in revenue. Which predicts that contribution of this automobile companies was not quite good in building economy of our country as well as in other services also as compared to in previous years before the covid-19 pandemic hit our country. That leads to the lockdown for many days in whole nation.

The Covid-19 Lockdown truly affected the Share market for all the industries in whole world and especially in India. As we can analyse from above figures share price fall down for in year 2020 for each and every Automobile companies ,that leads a huge loss for the companies and national as well as International Investors that likely use to invest in companies that are directly and indirectly linked to the Automobile Industry . Stock price fluctuations can affect a variety of aspects in the economy, including consumer and company confidence, which can have a favorable or negative impact on the economy as a whole. Different economic conditions, on the other hand, can have an impact on the stock market.



How Share Market Effect Economy

The stock market is characterized by the volatility of individual stock values. Stock price volatility can have a beneficial or negative influence on consumers and businesses as prices rise and fall. The general confidence in the economy grows when there is a bull market or a rise in stock prices. People's spending increases as their confidence in the economy grows. More investors enter the market, resulting in increased economic development in the country. A bear market occurs when stock values decline for an extended period of time, having a negative impact on the economy. People are worried about the economy, and news headlines about dropping stock prices can sometimes induce panic. Fewer investors are entering the market, and those that do choose to invest in lower-risk products, further depressing the economy.

People become more confidence in market circumstances and boost their investment when stock prices rise and there is a bull market. They are more likely to spend more on costly products such as homes and automobiles. This is also known as the wealth effect, which describes how a change in a person's income influences their spending patterns, resulting in economic growth.

There is a negative wealth effect when there is a bear market or a drop in stock prices. It generates a climate of apprehension among consumers, and a drop in the value of their investment portfolios reduces consumer expenditure on goods and services. This has an impact on economic growth since consumer spending accounts for a large portion of GDP. The wealth effect was seen often during the 2008 US housing market meltdown, which had a significant negative impact on consumer wealth.

Business investment, in addition to consumer expenditure, is a crucial indicator of economic growth. Due to high market values, firms are more inclined to undertake capital investments when stock prices are high. Many firms do initial public offerings (IPOs) during this period because market optimism is strong and it is a favorable time to generate funds through stock sales. During a bull market, there are also more mergers and acquisitions, since corporations may utilize the value of their shares to acquire other businesses. Greater economic growth results from increasing investment. When the stock market is bearish, it affects investing in the opposite way. Businesses are less willing to invest in the economy when confidence in the economy declines. Companies find it more difficult to raise capital on the stock market when share prices fall.

Bonds and pension funds are also affected by the stock market. A major portion of pension funds are invested in the stock market and a drop in stock prices lowers the fund's value, affecting future pension payments. This may slow economic development because those who rely on pension income are more likely to save, which reduces expenditure and, eventually, GDP. A drop in stock prices has a detrimental influence on a country's economic development and GDP, but it has a beneficial impact on the bond market. When the stock market is in a slump, investors search for other assets to invest in, such as bonds

or gold. They frequently generate a higher return on investment than stock market investments.

Analysis and Discussion

Over the last several years, countries all over the world have been facing economic downturns. A slowdown in one economy has an impact on the performance of another in the globalized economy since countries are so linked and dependent on one another. Countries debated how to revitalize their economies and institute significant changes. Covid-19, an unanticipated epidemic that began in China and has already spread to over 200 countries, has aggravated the issue. In order to save their citizens' lives, several countries were obliged to shut down their economies and proclaim states of emergency.

The pandemic wave that hit India in February made the job of the government, administrators, and regulatory agencies difficult. When compared to other countries throughout the world, the Indian economy is varied. It has a population of 130 billion people, with a high population density in rural and isolated places. During the opening days of the pandemic, it lacked proper infrastructure, medical facilities, masks, PPE, respiratory, and life support systems. The government has declared a state of emergency in order to preserve the public's health at the expense of the economy.

The launch of Covid-19 in India had a mixed impact on the car industry. It is estimated that the overall compensation impact will be in the range of \$1.5 to 2.0 billion throughout the company. Even once we open, demand for explorer vehicles is expected to decline as discretionary spending accepts a lesser requirement. This will be combined with a move to BS-VI principles, which will bring the total cost of ownership down. Covid has had a wide range of both bad and beneficial effects on the automobile sector; the industry has suffered significant losses, but it has also gained opportunities to explore renewable energy sources. Additionally, the circular economy notion was not fully realised.

Conclusion

The first impression a customer has of a brand is crucial to its success. Client perceptions are constantly shifting nowadays, and this is something that must be handled because it has a significant influence on any industry. Clients in today's atmosphere, according to the data, are more concerned with saving than spending. It also states that throughout Covid's difficult times, people's spending capability is proportional to their cognitive process. As a result, automakers and the government must now work together to restore stability to the industry. The government may aid automakers in a number of ways to help them keep the industry alive, if not to the top, then at least to survive. Many households rely on this industry, and their living conditions are strongly related to whether it stays stable or deteriorates.

The car business in India is one of the most well-established and profitable. It employs over 35 million people in both permanent and temporary positions. It accounts for roughly half of India's industrial output. For the past few years, the Indian automobile sector has faced numerous obstacles. On the one hand, the main global auto markets are experiencing flattened performance curves and supply chain disruptions, which are affecting Indian vehicle sector sales.

Environmental worries about emission requirements from BS4 to BS6 are, on the other hand, already providing a difficulty to passing BS4 cars before 2020. With production losses, lower sales, staff terminations, and pay cutbacks, Covid 19 has made the situation in the car sector much worse. The bailout package proposed by the Indian government was unable to support the sector in real time. The government might offer a specific rescue package tailored to the car industry, including a temporary decrease in GST and the implementation of a vehicle scrappage programme. These efforts have the potential to revitalize the Indian car sector while also strengthening the economy.

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