



THE IMPACT OF COVID-19 ON THE AUTOMOTIVE INDUSTRY IN INDIA

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ABSTRACT :

Due to decreased efficiency, the auto sector is currently experiencing a serious crisis (GDP). COVID-19 has an impact on travel, tourism, and auto shows. It uses new emerging technologies, such as image processing, practical cleverness, in-depth learning, and the shift from simple cars to smart & autonomous cars, to make transportation simple, easy, and secure. One of the first epidemics of its kind, Covid-19 is causing the automotive sector to reevaluate its operations.

The research presented in this paper aims to analyse the market using information obtained from the Department of Automotive Industry, the Department of Heavy Industry, and the Department of Public Enterprises in various regions, as well as the actions taken to combat the COVID-19-related economic downturn by examining related issues faced by passenger cars.

The focus of this study is on "How to manage present disruptions and get ready for the "new normal," as well as "What is the impact of Covid-19 on the automotive value chain."

Key words: Emerging technologies, COVID-19, new normal, market share difference, growth

CHAPTER:1

INTRODUCTION

The Automobile sector / Industry comprises a wide range of companies and organizations involved in the design, development, marketing, and selling of motor vehicle. It is one the world's largest industries by revenue. It does not include industries dedicated to the maintenance of automobiles. This industry is a major industrial and economic force worldwide. In a year, it makes 60 million cars and trucks are responsible for almost half the world's consumption of oil. This Industry employs more than 4 million people directly, and many more indirectly.

Automobile industry retains very strong influence and importance, despite the facts that many large companies have problems with overcapacity and low profitability. This industry also provide well-paying jobs with good benefits, has heavy linkages with supplier industries (which gives it an oversized role in the economic development), and has a strong political background.

The automobile industry is a capital-intensive and knowledge-intensive industry, which plays an important role in the country's socio-economic development. This industry is at boom in almost every year, including an increase no of countries in the production of cars. It plays a major and an important role in the development of the modern economy and the prospect for its development is determined by the place of motor transport in the infrastructure of the national economy. Currently, it is difficult to imagine the development of country's economy without the development of automobile industry.

1. What are the issues that consumer faces while buying or purchasing a vehicle in India?
2. What are the challenges faced in terms different factors in purchasing a vehicle?
3. How do consumers react on manufacturers actions taken to influence the consumer behavior and purchase decision?

1.1 OBJECTIVE OF THE RESEARCH Objectives for the research project can be defined as-

- The aim is to study the impact of COVID-19 pandemic on the automobile industry in India.
- To know the Covid-19 pre and post scenario of automobile companies.
- To know the influence of COVID-19 in the financial ratio of automobile industry.

1.2 SCOPE OF THE RESEARCH STUDY

This study analyze the impact of covid-19 pandemic on the automobile market and related to automotive market of India. This study is useful for the people or the companies who are willing to know or study related to automobile sector.

This report gives a clear picture related to the current automotive market scenario. Since this report is mainly based on the automotive market, it will also show the growth/ fall of the companies year by year and factors affecting this sectors. This report also helps in predicting as well as gives an idea about the post covid-19 scenario. This study gives a chance to study the

financial and the technical analysis and its various tools to understand the basics of financial statement and helps in comparing the financial ratios of various companies. This report analyze and examines the key ratios of the business to determine the companies' financial health and gives us an idea of the position of each companies in the market

CHAPTER:2

LITERATURE REVIEW

(Impact on the automobile industry: Navigating the human and business impact of covid -19, april 2020) Starting in China, suppliers around the globe placed production lines in quarantine or shut them down completely. Also, legal and trade restrictions, such as closed borders, increased the shortage of required parts and limited distribution of supplies. A limited parts supply and a just-in-time production strategy, coupled with quarantine measures and a reduced workforce, lead Original Equipment manufacturers (OEMs) to shut down their production. This is enhanced by the need to secure liquidity and reduce overproduction due to the decrease in sales. A decline in cash inflow resulted from the drop in demand while short-term liabilities and salaries still need to be paid. Cash reserves are likely to be exhausted within a few months. Politically enforced measures to contain the virus, such as implementing curfews, closing factories, offices, dealerships and the resulting dismissals of short-time workers, as well as the fear of a recession, are likely to lead to a decrease in sales numbers. The risk to supply chains has been compounded as OEMs have created global networks to leverage low-cost labor while striving for zero inventory to minimize working capital. Global auto production is strongly depending on China. Supply shortage is affecting assembly of all OEMs in NA, Europa and Asia. In China, almost 2/3 of auto production was directly affected by the shutdown with a large impact on their suppliers as well. Hubei province accounts for 9% of Chinese auto production, disrupting supply chains until operations recover. With factories operating at a fraction of capacity, and trucks not delivering, ocean carriers cancelled many routes. Effects boosted by legal and trade restrictions such as closed borders.

(Das, 2020) Nissan decided to shut down its Barcelona plant after reporting the worst profit losses in a decade. This in turn drew protests from the plant workers. Likewise, production stalled elsewhere too due to temporary shutdown of plants. Due to widespread job losses, people started saving more instead of making big transactions like vehicle purchases, which further brought down demand. Yet people have embraced digitization more during their homestay;

working from home, using online services and purchasing goods online. And because use of public transportation has declined for the fear of infection transmission, private vehicles have become preferred. However, sales have remained low.

(Hauslar, 2020) It is less likely for certain European countries that have been pushing for incentivizing the adoption of electric vehicles for a long time to ease emission laws. Companies and bank have slashes interest rates to encourage people to purchase vehicles. (Surbamanium, 2020) The Reserve Bank of India brought

down interest rates on vehicles and increased moratorium on loans by three months. In a similar move, the Bank of Canada slashed interest rates by 1.5%. (Wayland, 2020) The drive for digitization may extend to providing better digital accessibility. ' integration of tech from vehicles' on-screen controls and such digitization could extend to even touch-less gas station payments and maintenance.

(Woods, 2020)The industry is facing a heavy headwind amidst the global economic downturn and trade war between China and the US. Moreover, there are several other factors at the regional level that are affecting the industry growth rate in a particular region. For instance, factors such as raising GST on automobile vehicles and mandatory implementation of BS-VI India. The spread of coronavirus across the globe has forced plants to shut down, disrupted supply chain and quarantined workforces. Several automotive giants such as Volkswagen AG, Hyundai, Toyota, and Tesla have shut down their production plants for a definite period, causing severe impact on the global automotive industry. The report analyzes the global automotive market on the basis of sales channels, product type, propulsion technology, and geography.

(PWC United states) Countries that have been heavily impacted by the outbreak, in particular, China, Japan and South Korea, account for a significant share of global auto manufacturing. For companies in hard-hit regions, such as Italy, France and Spain, that has led to operational disruptions that delayed their ability to finalize financial statements. Additionally, some automotive companies are increasingly concerned about the possibility that the economic impact of the

pandemic may cause triggering events for goodwill and long-lived asset impairments, the recoverability of receivables, restructuring actions and/or liquidity issues. To make matters worse, key finance personnel may be directly affected by the virus or forced to shift their focus to mitigating its impact on the business. Reduced productivity of the finance team could make the significant uptick in the volume of work to get through in the coming weeks more daunting. The disruption of the auto supply chain may trap cash that could

otherwise be used to fund operations, provide employee relief or better manage third-party financial commitments. Due to the fact that this trapped cash may be idle in the market for an extended period of time, other strategies can be deployed to help mitigate the downward impact.

CHAPTER:3

CONSUMER BUYING BEHAVIOR

Consumer behavior has become one of the most troublesome issues, so it must be considered with great importance. Consumer behavior has become a very complex phenomenon now days; basically it acts like a signal in market about the several demands of the consumers. Consumer perception helps the producers to know the needs of the wanted by the consumer. Consumer behavior plays important role while buying or purchasing a product. The buying behavior of customers in the automobile industry has evolved significantly over the years, driven by various factors such as changing consumer preferences, technological advancements, environmental concerns, and economic conditions. Due to the increased focus on sustainability has led rise in demand for electric and hybrid vehicles, as well as vehicles that run on alternative fuel such as natural gas or hydrogen. Safety is being encountered as phenomena which mostly influence the consumer purchase decision it includes collision avoidance system, air bag systems, anti lock braking system, etc. Digital channels are very much used as time saving and best way to compare brands during purchase vehicles.

3.1 : Consumer perception

Consumer perception in the automobile industry is an important aspect that influences their buying behavior. Perception refers to how consumers perceive and interpret information about a particular brand or product. In the automobile industry, consumer perception is influenced by various factors, including:

Brand image: Consumers' perception of a brand's reputation and image plays a significant role in their decision-making process. A brand's image can be influenced by factors such as product quality, safety, reliability, and design.

Marketing and advertising: Automobile companies invest heavily in marketing and advertising to create a perception of their products in the mind of consumers. Consumers' perception of a brand can be influenced by the messages and visuals presented in marketing campaigns.

Word-of-mouth: Consumers' perception of a brand can also be influenced by the opinions of their friends, family, and other consumers. Positive reviews and

recommendations can create a positive perception of a brand in the minds of potential customers.

Technology and innovation: Consumers' perception of a brand's technology and innovation can be a significant factor in their decision-making process. Automobile companies that invest in cutting-edge technology and innovation may create a perception of being modern, forward-thinking, and reliable.

Environmental impact: Consumers' perception of a brand's environmental impact can also play a role in their decision-making process. Brands that prioritize sustainability and environmentally-friendly practices may create a positive perception among consumers who are concerned about the environment.

3.2 : Consumer decision making

Consumer decision making towards the automobile industry involves a complex process that is influenced by various factors. The decision-making process typically involves the following stages:

Need recognition: The first stage of the decision-making process is the recognition of a need. This may be triggered by a change in the consumer's circumstances, such as a new job or a growing family, or by a desire for a new car.

Information search: Once a need has been recognized, consumers will typically begin to search for information about the different options available to them. This may involve researching online, reading reviews, talking to friends and family, or visiting dealerships.

Evaluation of alternatives: After gathering information, consumers will typically evaluate the different options available to them. This may involve comparing prices, features, safety ratings, and other factors.

Purchase decision: Once the alternatives have been evaluated, consumers will make a purchase decision. This may be influenced by factors such as price, brand reputation, and perceived value for money.

Post-purchase evaluation: After making a purchase, consumers will typically evaluate their decision and may experience either satisfaction or dissatisfaction with their choice.

CHAPTER:4

Impact in 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. 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.

4.1 : RESEARCH METHODOLOGY

The impact of covid-19 pandemic has a significant impact on the financial status or on the profitability of the automobile companies, so the hypothesis are:

H0: There is no significant effect on the profitability of automobile sector. H1:

There is a significant effect on the profitability of automobile sector.

4.2 SUMMARY OF ANALYSIS

For conducting this research, financial statements of five companies (i.e. Maruti Suzuki and Bajaj auto motors) for last 2 years is being used. Ratio analysis and Horizontal analysis technique is being used to analyze the financial statements.

4.3 LIMITATIONS OF THE STUDY:

The study is based on the secondary data collection methodology, so the information may not be totally liable.

In this study only 2 companies out of a very large Indian automobile industry is taken into consideration.

The study frame is considered to be very limited. Since the pandemic has not yet over, it is difficult to understand and study the future trends of the entire sector of 2 years only.

4.4 RESEARCH DESIGN

I propose first conducting extensive secondary research to understand the industry's full impact and implications, as well as reviewing and critiquing industry norms and reports, from which certain issues will be chosen that I believe are important and remain unanswered or subjected to change this could be further taken to exploratory research. This stage will assist me in restricting and to choose

only the important questions and issues that concern growth and development in industry.

The following are the tasks that I have completed during the research design process,

1. Defining the information required.
2. Create an exploratory and descriptive research.

RESEARCH PROCESS

The research process has four different and correlative steps for research analysis.

It has a logical and hierarchical ordering:

1. Determination of information research problem.
2. Development of appropriate research design.
3. Execution of research design.
4. Communication of result.

These steps involve the separate process that includes a combination of task, step and specific procedure. The steps undertake are logical, objective, systematic, reliable, and ongoing.

4.1.2 : EXPLORATORY RESEARCH

There are two methods that is used in exploratory research are-

1. **Primary data**
2. **Secondary data**

Primary Data

Primary data which is collected by the various ways which are discussed below –

- **Surveys:** Surveys are a common method for gathering primary research data on consumer behavior. A survey could be conducted online, by phone, or in person to gather information on consumer preferences, decision-making processes, and other relevant factors.
- **Focus groups:** Focus groups are another method for gathering primary research data. These groups typically involve a small number of participants who are brought together to discuss a specific topic or issue related to consumer behavior in the automobile industry. Focus groups can provide insights into consumer attitudes, opinions, and behaviors that might not be captured in a survey.
- **Interviews:** Interviews with consumers can be another useful method for gathering primary research data. These interviews could be conducted in person, over the phone, or online and could be structured or unstructured. Interviews can be particularly useful for exploring in-depth issues or understanding the reasoning behind specific consumer behaviors.

SECONDARY DATA

In this research secondary data is a type of data which is collected through the various platforms and the information which is already posted earlier, some of the ways are –

- **Market research reports:** There are many market research firms that provide reports on consumer behavior in the automobile industry. These reports may include data on market trends, consumer preferences, and buying behavior.

- Industry associations: Industry associations such as the National Automobile Dealers Association (NADA) and the Alliance of Automobile Manufacturers (AAM) may provide data on consumer buying behavior in the automobile industry.
- Government agencies: Government agencies such as the National Highway Traffic Safety Administration (NHTSA) and the Department of Transportation (DOT) may provide data on consumer buying behavior related to safety features and vehicle recalls.
- Academic research: Academic researchers often conduct studies on consumer behavior in the automobile industry, and their findings may be published in academic journals or conference proceedings.
- Online reviews: Online review websites such as Edmunds, Kelley Blue Book, and Consumer Reports may provide data on consumer preferences and buying behavior.

4.1.3 : DESCRIPTIVE RESEARCH

Steps in the descriptive research are as follows -

- Identify the research problem.
- Define the research objective.
- Develop a research design.
- Develop the questionnaire.
- Collect the data.
- Analyze the data.
- Interpret the findings.
- Report the result.

CHAPTER:5

DATA AND INTERPRETATION AND ANALYSIS INTERPRETATION

INTERPRETATION:

The automobile sector is one the largest revenue earning industry which contributes almost 8 to 10% to the overall GDP of the Economy, which is the highest revenue generated industry, specially Maruti Suzuki and Bajaj Auto which are the largest companies in the 4 and 2 wheeler segment shows a great

performance in the year 2019 as always. It is been clearly visible how high these automotive companies are able generated profits and its sales whether its domestic or international with great market share as show in Table 1: Comparison of the companies on the basis of their Overall performance in the year 2019

Profitability ratios specially determines the ability of the company to generate profits and against sales, operating costs, assets and shareholder's equity. This means such ratios reveals how well a company makes use of its assets to generate profitability and create value of shareholders.

Gross Profit Ratio:

The main objective of computing gross profit ratio is to determine the efficiency of the business. No matter how high a company's revenue is, having a low GP ratio means that there isn't much room for errors in its activities. Overall financial performance is likely to be adversely effected owing to ongoing covid-19 crisis with gross profit margin coming under pressure. The percentage of GP ratio of the 2 companies shows a drastic downfall, which indicates lower efficiency of the companies due to this pandemic.

Operating Profit Ratio:

Operating profit margin reflects the percentage of profit a company produces from its operations, prior to subtracting taxes and interest charges. Due to less

availability of equipment and high prices which leads to high operating costs which results in low operating profit which reveals how fails to efficiently manages its companies expenses due to this whole pandemic scenario.

Net Profit Ratio:

The net profit ratio signifies remaining profit after all costs of production,

administration and financing have been deducted from sales, and income taxes recognized. Due to this pandemic, the automobile companies suffered an estimated revenue loss of more than 13 to 15 crore, the companies shows a low margin of net profit ratio which indicates ineffective cost structure and poor pricing strategies and which results in inefficient management, high cost and weak pricing strategies.

Inventory Turnover Ratio:

It shows how many times a company has sold and replaced inventory during a given period. As by the above calculation and graphs, it is clearly visible that both the companies reveals low inventory turnover ratio in 2020 as well as in 2021 which implies weak sales and possibly excess inventory or overstocking due to the sudden shut down of covid-19.

Debtors/ Receivable Turnover Ratio:

It measures how effective a company is in extending credit as well as collecting debts. However, this ratio does not tell much about the position of the company but tells about the efficiency of management and as the figures of both the companies degrades with time i.e. in the year 2020 and 2021 which clearly implies that the company's collection of accounts receivable is not efficient because of this pandemic.

Working Capital Turnover Ratio:

It measures how well a company is utilizing its working capital to support a given level of sales. Both the companies indicates low working capital turnover ratio which clearly indicates that a business is investing in too many accounts, receivable and inventory assets to support its sales, as the sales were nil in the

period of high urge of this pandemic which could eventually leads to an excessive amount of bad debts and obsolete inventory write-offs.

Current Ratio:

It measures a company's ability to pay short-term obligations or those dues within one year. It tells investors and analysts how a company can maximize the current assets on its balance sheet to satisfy its current debts and other payables. Initially both the companies have current ratio more than 1, but its degrades as this pandemic emerges and with time it becomes less than 1 in the year 2020 and 2021 when this pandemic on its urge which clearly indicates that both the companies may have difficulty in meeting its current obligations.

Quick Ratio:

It indicates that the company is fully equipped with exactly enough assets to be instantly liquidated to pay off its current liabilities. As due to this pandemic, the companies were not able to generated its sales and profit, every production units got shut down which ultimately results in low quick ratio which signifies that both the companies struggles in paying of its debts.

So, from the above analysis, it is analyzed that the companies' ratios are severely and significantly affected by this pandemic and also the study shows that how this covid-19 has drastically affected the companies' sale and profit in 2020 Figure 3 and also upto what margin of impact when compared by the previous year i.e. 2019 Figure 4, So, it can be said that the Null Hypothesis H0 is rejected as there is a significant effect on the profitability of automobile sector as proved in this report.

ANALYSIS:

In the above graph Figure 8, the weekly performance of the automobile companies after the lockdown period is shown. In the lockdown period, the companies already faced crores of loses and in order to recover that loss and to get back their position in the market is really a big and tuff task for every automobile company. But this act as a challenge as well opportunities for many companies and immediately after the lockdown the companies rush towards selling more and more vehicles. As shown in the above figures slowly but the companies are able to generate profit.

MAJOR OF IMPACT OF COVID-19 ON AUTOMOBILE INDUSTRY DURING THE PERIOD OF LOCKDOWN:

DECLINE IN SALES:

The emergence of covid-19 has severely impact the sales of automobile industry.

The Indian Automotive industry suffered Rs 2,300 loss crore per day. The production by OEM's have cut down by 18-20% due to low demand and decline sales of vehicles. Auto manufacture's revenue and cash flow has significantly affected the prolonged truncation of consumer demand due to lockdown.

INFLATION:

The automobile sector is expected to face commodity cost inflation which will be offsetting the same through price increase (of 1-6% in 2 W's, tractors and PV's), lower discounts (100-400bp across segment), and cost cutting (80-100bp), and operating leverage (150-170bp). Most reports said that spot prices of base commodities saw a sharp increase (15-40%) over FY21-22.

GDP PROFIT:

More cautious spending on everything from shampoo to cars and travel threaten to weaken what's been the backbone of the economy, contributing about three-fifth of gross domestic product? The pullback has acted as a drag on growth, which is predicted to have slowed for a fourth consecutive quarter to 6.5% in the three-months to march, the weakest pace since mid- 2017 and almost on par with china.

DIFFICULTY WITH UNSOLD INVENTORY:

During the Lockdown phase, Auto dealers have been unable to deliver vehicles and have reported 30-45 days of finished goods inventory, likely to be heavily discounted post-lockdown. Dealers face a significant burden to liquidate unsold BS 4 inventory, worth Rs 6,300 crore.

DIFFICULTY WITH MAN POWER:

Auto suppliers have a high dependence on migrant labour, whose absenteeism is expected to further delay revival post-lockdown, resulting in the domino effect on the entire value chain. Suppliers facing liquidity issue may succumb to deteriorating market condition, causing widespread disruption across the entire manufacturing ecosystem.

2021:

AFTER- EFFECT OF COVID-19 ON AUTOMOBILE INDUSTRY:

☐ PRICE HIKING:

For new vehicle buyers, the New Year may not be too kind as major automakers of the country has announced a price hike due to rising commodity costs. For Example, Maruti Suzuki, the country's largest automaker was among the first to announce the hike and has increased its price 3 times till date.

MORE PURCHASE OF PERSONAL VEHICLE:

Coronavirus related concerns might lead to an increase in car sales in India as more and more Indians prefer to have a personal car, according to a survey, at least 40% people said they are more likely to buy a new car or used car after coronavirus crisis and 13% said their buying pattern will no change due to the coronavirus pandemic.

LESS OPENING OF MANUFACTURING UNITS AND SHOWROOMS: All the auto companies are grappling with getting suppliers back online and also ensuring that their retail showrooms are able to open once again. Also there are booking which are already delayed due to pandemic, and due to the sudden shut down of manufacturing units no companies will be able to avail many equipment which further delayed in supplying the vehicles to their owners.

EFFECT OF AUTO ANCILLARY ON AUTO MOBILE SECTOR:

Auto components makers are facing a double whammy of subdued demand covid-19 induced production restriction. Automotive Component Manufacturers Association of India (ACMA) pegged the industry revenue fall at 11.7% last fiscal

year. According to the Society of Indian Automobile Manufacturers (SIAM), automobile production dropped 14.7% in FY20. With automobile industry sales estimated to fall by about one-fifth in the current fiscal year, revenue of the auto component industry may also shrink.

FEAR OF COVID:

Since this covid-19 pandemic is not yet over, the fear still prevails in the minds of the people. And the situation is again becoming worse, weekends are locked down, people start avoiding to visit any showrooms or any social gathering. Also due to the so much fear of this pandemic, people again

start moving to their native places which leads to again fall in sales of vehicles and that earlier situation of extreme fear of covid-19 emerged again.

PREFERENCE TOWARDS ONLINE PLATFORMS:

Against the backdrop of the covid-19 pandemic, online platforms have emerged as a preferred marketplace to buy vehicle digitally. According to a survey by auto research platform, it is to be found that 60% of its respondents showed a willingness to buy their vehicle online, with the good deal and convenience being the key drivers.

FUEL PRICE HIKING:

Due to continue price hike in crude oil, many countries halt the production of crude oil for

some time which leads to price hike of crude oil in global market which resulted in continuing fuel price hike.

EMERGENCE OF ELECTRIC VEHICLES (EV'S):

Post pandemic measures will establish the direction of various economic sector for the future. The EV (Electronic Vehicle's) sector has only just started to move towards its potential in India. It's a great initiative by the government which is beneficial to provide short-term incentives or higher subsidies to increase the use of EV two-wheeler and four-wheeler.

Government Incentives:

To boost electric mobility, the government aims to support through subsidies about 62,000 electric passenger cars and buses, besides 15 lakh electric three- and two-wheeler, parliament was informed on Thursday. Highway Minister Nitin Gad Kari told in the Lok Sabha that phase- 2 of faster adoption and manufacturing of (hybrid) electric vehicle scheme is being implemented with a total budgetary support of Rs 10,000 crore.

Tax exemption:

State Government announces 100% tax redemption for battery-operated vehicles for more than 2 years. The exemption is also being extended to even transport vehicles. The tax redemption will apply to all battery-operated vehicles, including transport and non-transport types, till December 31, 2022.

And according to the recent news, JLR (Jaguar-Range Rover), a subsidiary of Tata Group has now decided that it will now only produce EV's for this segment in the upcoming future. TRUMP EXIT, BIDEN ENTRY:

A central piece of democratic presidential candidate Joe Biden's bid for the white house is a drastic change in U.S environmental policy. Biden's climate plan includes the promise to reinstate and advance more stringent fuel economy standards. He had made boosting Electric Vehicle (EV) a top priority and pledged to spend billions to add 550,000 EV charging stations. He also support new tax credits for EV purchases and retrofitting factories for EV production.

RESULT AND DISCUSSION

The aim is to study the impact of COVID-19 pandemic on the automobile industry in India:

In this report, it is studied that how this covid-19 has impacted the automobile sector in every aspect. The overall performance of both the companies have severely been impacted whether its sales, profit generated by the companies or its market capture. It is seen that how the companies faced crores of losses during this pandemic, and the position of the companies has so drastically been effected that it has never expected in years. And the various factors affecting is also been studied, so it is not wrong to say that this pandemic has shown a situation that no one has ever expected but also gives the strength to cope in such kind of conditions. So, in this way, the objective and aim to study the impact of covid-19 pandemic on the automobile industry in India has fulfilled.

To know the Covid-19 pre and post scenario of automobile companies:

In this report, it is also been studied the pre and post scenario of the automobile companies. In Table 1: Comparison of the companies on the basis of their Overall performance in the year 2019 Table 2: Comparison of performance of companies in pre and post covid-19 Table 3: Comparison of the companies on the basis of their performance in 2020, the margin of impact is clearly been visible in the pre and post scenario in the graph that at what extent this pandemic has affected and hampered the overall growth and performance of both the companies. By seeing both the pre and post situation, it is easily been analyzed that pre covid-19 figures (Figure 2) differs a lot in comparison with the post figures (Figure 3) and Figure 4 reveals the clear picture of the whole report. So, in this way, the 2nd objective to know the Covid-19 pre and post scenario of automobile companies is also fulfilled.


To know the influence of COVID-19 in the financial ratio of automobile industry: In Table 4: Ratio Analysis of the Companies: all the key

financial ratios of both the companies for the year 2019, 2020 and 2021 is being studied and it is seen that this pandemic has a high influence on the financial ratios of both the companies with a high margin. In Figure 5, Figure 6 and Figure 7, the figures of the graph clearly reveals the financial status of both the companies in pre and post covid-19. The impact is not only limited to the year 2020, but the effect of this pandemic has the worse impact in the year 2021 also. Since this pandemic is not over yet, it can't presume that what impact it will leave on this sector in the upcoming future. And by this, the 3rd objective to know the influence of COVID-19 in the financial ratio of automobile industry is also got fulfilled.


CONCLUSION

The Indian Automotive industry has definitely been affected by the virus outbreak, from the dealership front right up to supporting ancillaries. The mass shutting of factories has put a strain on the workforce, which requires financial aid to support their families during this difficult scenario. Demand slowdown. New emission norms, and coronavirus pandemic have delivered a fatal blow to the Indian automobile industry. Production has reduced in each segment, pushed it back to the level of 2016. But as production has started again in some plants and some dealers started operating in less affected areas, we can see some activities returning to the sector. The Indian automotive industry has already seen difficult past few quarters and this pandemic led lockdown couldn't have been more ill-timed. However, a planned and concerted response, both immediate and medium to long term will ensure a V shape recovery soon. Overall the market is going to remain lukewarm for carmakers. It is expected to plummet further by 15-20% going by the current predictions and may see some revivals only in the third-quarter of 2021. So considering the present scenario, it is unlikely that the automobile sector of India will go back to its pre-covid-19 situation anytime soon. There will be significant change in the consumer preference and buying behavior of the consumers. The post covid-19 era will bring in many challenges as well as many opportunities. The companies will now rely intensively on the digital showrooms for increasing their customer base and the Electric Vehicle will surely make a place in the Indian market.

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