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A study on IMPACT OF COVID-19 ON AUTOMOBILE INDUSTRY IN INDIA

Research Project submitted to Jain Online (Deemed-to-be University) in partial fulfilment of the requirements for the award of:

Master of Business Administration

Submitted by:

Tridhar Desai

USN:

(211VMB01206)

Under the guidance of:

Dr. Vishweshwar Menasumane.

(Faculty-JAIN Online)

Jain Online (Deemed-to-be University)

Bangalore

2022-23

DECLARATION

I, Tridhar desai, hereby declare that the Research Project Report titled "Impact of

covid-19 on automobile industry in India" has been prepared by me under the guidance

of the Dr. Vishweshwar Menasumane. I declare that this Project work is towards the

partial fulfilment of the University Regulations for the award of the degree of Master

of Business Administration by Jain University, Bengaluru. I have undergone a project

for a period of Eight Weeks. I further declare that this Project is based on the original

study undertaken by me and has not been submitted for the award of any

degree/diploma from any other University / Institution.

Institution.

Place: Gulbarga

Date: 18/08/2023

Tridhar desai

USN:211VMBR01206

CERTIFICATE

This is to certify that the Research Project report submitted by Mr. Tridhar desai bearing

(211VMBR01206) on the title "IMPACT OF COVID-19 ON AUTOMOBLE

INDUSTRY IN INDIA" is a record of project work done by him/ her during the

academic year 2022-23 under my guidance and supervision in partial fulfilment of

Master of Business Administration.

Place: Bangalore

Date: 18/08/2023

Dr. Vishweshwar Menasume

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individual, their collective assistance has been invaluable.

Tridhar Desai

USN:211VMBR0126

EXECUTIVE SUMMARY

This extends report offers sees on a few current and future patterns in car division. The substance is based on later writing and on what is happening within the trade world. The paper is based on auxiliary information. The paper is based on extant writing and web sources. The different articles, inquiries about, reports, daily papers, magazines, different websites and the data on web have been examined. Vehicle industry, the commerce of creating and offering self-powered vehicles, counting traveller cars, trucks, cultivate gear, and other commercial vehicles. The industry utilizes the expansive number of individuals and made it a key determinant of financial development. In 2019, India gotten to be the 4th biggest car advertise outperforming Germany and is anticipated to defeat the auto showcase of Japanese within the 2021. It'll moreover make India, the 3rd largest automobile segment within the world. Particularly for India, the auto segment is profoundly vital because it contributes 49% to the fabricating GDP and 7.5% to the by and large GDP. It watched a quick and serve effect of covid-19 widespread on the all-inclusive coordinates car industry. Due to crown infection, alike other industry, vehicle producers over the world have too confronted with a sudden slump in requests. The effect of crown infection on the automotive industry is considered a indicator of a country's economy is doubtlessly reaching to be have a major negative affect. There are progressing to be challenging and extreme times for the vehicle industry for the monetary a long time. which fair begun. There are moreover openings for the development of the auto industry upon restart. Indian industry bought to set up the endeavours and snatch these openings

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CHAPTER 1 INTRODUCTION AND BACKGROUND

INTRODUCTION AND BACKGROUND

1.1 Purpose of the Study

The Vehicle segment / Industry comprises a wide run of companies and organizations included within the plan, improvement, showcasing, and offering of engine vehicle. It is one the world's largest industry by income. May be a major mechanical and prudent devoted to the support of vehicle. This industry is major industry and financial drive around the world, in a year, it makes 60 million cars and trucks are mindful for nearly half the world's utilization of oil. This industry utilizes more than 4 million individuals straightforwardly and numerous more by implication. Car industry holds exceptionally solid impact and significance, in spite of the reality that numerous expansive companies have issue with overcapacity and moo productivity. This industry too give well-paying occupations with great benefits, has overwhelming linkages with supplier's businesses (which gives it an larger than average part within the economic development) and encompasses a solid political foundation. The car industry could be a capital-intensive and information- seriously, industry which plays a vital part within the country's socio-economic development. This industry is at boom in nearly each year, counting an increase no of nations within the cutting edge economy and the prospect for its improvement is decided by the put of engine transport within the framework of the national economy. As of now, it is troublesome to suppose the advancement of country's economy without the advancement of car industry. This study discus about the impact of lockdown in India and particularly about the huge impact it causes 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 discusses 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. Indepth 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.

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.

1.2 The Indian auto industry is found as a "SUNSHINE INDUSTRY" as over the last few years. It has appeared as one of the fastest growing sector. Currently, the Introduction to the Industry automobile industry contributes more than 7% to the total GDP and provides employment to about 31 million people directly or indirectly, with supportive government policies, strong domestic demand have led to the Indian automotive industry climbing up the ranks to be one of the global leaders. The Indian auto industry sets witness major changes in the form of electric vehicles (EVs) and intelligent transport system (ITS) just like other countries aims to alleviate existing concern including traffic congestion fuel dependency, air and noise pollution etc.

The automotive industry is pillar pf Indian economy and key driver of macroeconomic growth and technological advancement, The Indian automobile

market leads two-wheeler segment with 80% market share owning to growing middle class and a young populations Then 14% market share is followed by the passenger vehicles (PV) segment. Low car penetration, emerging, demographic dividends, increasing, rising income levels and consumption are most likely to benefit India.

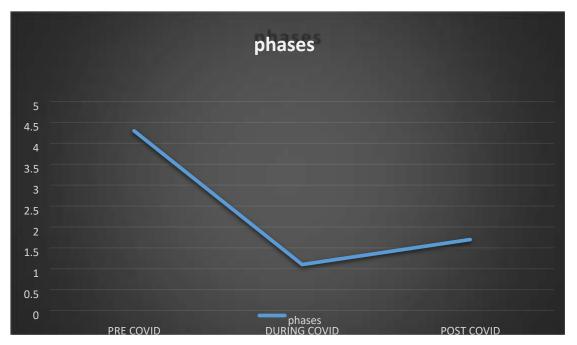


Figure 1

The over figure 1 portrays the rundown of this entire report, this entire report. The over figure uncovers the genuine story of the vehicle division some time recently amid and after covid-19 This sudden rise of this widespread was so more awful that it couldn't save anything and its affect was so tall that everything fair got so messed up some time recently anybody might able to get it anything. As the straight ruin clarifies influenced not as it were this division but each segment of the economy which hasn't seen in a long time. The circumstance got indeed but each division of the economy which hasn't seen in year. The circumstance got indeed more awful when the lockdown begun and this divisions confronted crores of misfortunes which was never been anticipated.

The condition gets superior with time and the division appears moderate but relentless development. The division once more begin stabilizing its working. The major figure influencing this segment and the restoration of the companies have been talked about within the up and coming areas. Let's see get its position back within the advertise 1.3 Overview of Theoretical Concepts

State of the automotive industry

Confronted with declining deals, worldwide political instability, CO2 punishments, and quickly changing clients request, most car producer have been confronting a idealize storm of challenges since 2019-which are basically driven by associated, independent, shared and electric portability. CASE. These circumstance have as it were been exacerbated by the onset of COVID-19 a worldwide widespread that's influence each perspective of the car segment-from parts providers all the way to merchants. These disturbances are causing uncommon uncertainty. Continuous changes within the showcase make it challenging the recovery direction, and particularly the affect it have on the timeline of CASE-related activities.

Challenges brought on by COVID-19

COVID-19 is disturbing the around the world car regard chain. Here are a number of the key challenges going up against the industry, as well as suggestions that can offer help quickly



address them.

1. Disrupted supply chain

Since OEMs depend heightening on just-in-time era, their supply chains were right away irritated. In China, about two-thirds of auto era was straight forwardly affected by the country's mechanical shutdown, which 2had a tremendous influence on their supplier as well1. Other than the insufficiency of Chinese-made parts has had a overpowering influence on around the world era.

How to manage now:

Assess the danger and make full straightforwardness by utilizing enormous information, brilliantly frameworks and associated environments. This communication deficiencies or other challenges to all focuses along the supply chain so they can plan, adjust or alter appropriately. Mobilize a command centre to coordinate the reaction and arrange the hazard reaction. And all the whereas works with nimbleness After the emergency, works hazards relief as normal: coordinated chance relief workflow, scenarios and (reaction) convention into every day operation to rapidly switch from typical to disturbance reaction in the event that required.



2. Shutdown of manufacturing

Whereas the circumstance in China is beginning to stabilize most of the US and European car fabrication is beneath colossal instability on when plants will continue ordinary generation. At the same time, OEMs are beginning to move building, gathering and indeed acquirement capacities to deliver and source restorative gear. In any case of whether the halts are required by wellbeing and security authorization, administrative inaction, declining request or a need of parts within the supply chain the results stay the same: work misfortunes, a anticipated drop of 16% for the car generation and hence a extreme affect to GDP.

How to manage now:

Keep in near contact together with your provider to guarantee a fast ramp-up can happen when the advertise starts to recuperate and adjust your generation levels and plans in like manner. And contracting specialized cleaning companies.

Grasp industrial concepts to extends proficiency and plan (future) mode should be actuated



3. Liquidity

Cash is king- and it gets to be indeed more basic amid times like these. A few OEMs have liquidity and with negligible working cash streams the remaining cash saves are no normal exhausted in less than two month. This has led various OEMs to arrange

higher credits lines. Moreover, the enormous drop in showcase capitalization will likely quicken industry combination and without securing extra subsidizing, a few players chance going out of commerce, this budgetary challenge will affect transformational ventures into associated, independent, shared and electric, mobility which are likely to be conceded

How to manage now:

Remain in near contact with major banks (e.g. confirm credit line) and set up working-capital emergency mode that prioritizes instalment commitments. Enter a organize of fixed-cost crisis mode. And consider the utilization of AI in treasury administration to set up real-time cash stream outline and estimates. Moreover, pay consideration to the budgetary wellbeing of providers and merchants, as well as accomplices in common. They are too beneath budgetary trouble



4. Drop in vehicle sales

China is still the world's largest market for light vehicles. The sales drop in February 2020 of more than 80 percent2 in comparison to January is a strong indicator of the direction the global market is heading, and the impact is already visible. Forecasts for global light vehicle sales in all major regions predict that the market will drop by around 12 percent3 in 2020, and it is very unlikely that these circumstances will change soon. Sales forecasts for the US estimate a decline of 9 percent4 annually that consumers are not buying new vehicles due to the pandemic. Changes in customer behaviour in response to being on "lockdown," such as less mobility and more online shopping, might remain after the crisis passes.

How to manage now:

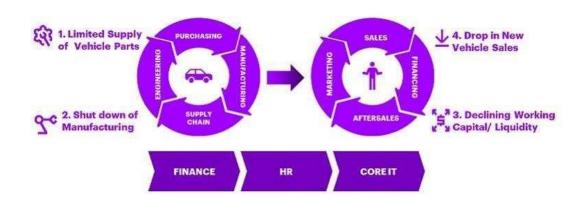
Remain associated with clients by means of online and portable channels center Endeavours on producing leads through online car customization devices utilized by planned buyers and consider utilizing virtual occasion stages to compensate for cancelled exchange appears Consider executing a contactless deals handle to meet health and cleanliness security necessities.

Reconsider your deals demonstrate for the future, embracing computerized channels, as well as considering coordinate deals models.

Within the post-crises stage costs are likely to come beneath critical weight given that dealers will thought to decrease their inventories. But assess rebat approaches to adjust volume and advertise share, productivity and brand picture.

HOW AUTOMOBILE INDUSTRY CAN REACT PRESENTLY

Automobile companies thought to create a rapid response to address current disturbances. They thought to see into fortifying operation in arrangement for potential dangers and alter to this new normal" A emergency control tower can offer assistance to facilitate these activities.



Respond

How OEMs should respond to the progressing crises: start by actualizing measures for people security. To guarantee an viable collaboration over your organization, set up a advanced working environment. Too make any doubt to form straight forwardness to empower successful choice making.

1.4 Company/ Domain / Vertical /Industry Overview INTRODUCTION TO THE COMPANY:

MARUTI SUZUKI:

Founded : 24 February, 1981

Founder : Government Of India

Head Quarter: New Delhi, India

Major plant in india: Gurgaon, Manesar, Rohtak

Products: Automobile, commercial vehicles, Automotive parts, mini truck

Area Served : India & worldwide

Segment : 4 Wheeler segment

Table:1

TATA MOTORS

Founded : 1945 Mumbai

Founder : JAMSETJI TATA

Head Quarter : Mumbai

Major plant in india: Jamshedpur, Pantnagar, Lucknow, Sanand Dharwad & Pune.

Products : Automobile, Commercial vehicles, automotive parts, trucks

Area Served : India

Segment : 4 wheeler upto 12 wheeler trucks

Table:2

MAHINDRA & MAHINDRA

Founded : 2 October 1945, Ludhiana

Founder : Malik Ghulam Muhammad, Jagdish Chandra Mahindra

Kailash Chandra Mahindra

Head Quarter: Mumbai

Major plant in India: Pune, Kandivli Mumbai, Haridwar, Nashik

Products: SUVs, pickups, lightweight commercial vehicles, heavy weight

Commercial vehicles

Area Served : India

Segment : 4 wheeler Segment

Table:3

HYUNDAI MOTORS LIMITED

Founded : 29 DECEMBER 1967 Korean Domestic Market.

Founder : Chung Ju- Yung

Head Quarter: Gurugram, India

Major plant in India: Irungattukottai, Sriperumbudur in Tamil Nadu.

Products: Sedans, Hatchback, SUVs, Vans, pickups, Heavy trucks & Buses

Area Served : India & Worldwide

Segment : 4 wheelers

Table:4

TOYOTA MOTORS:

Founded : 28 August 1937 Japan

Founder : Toyoda Klichiro

Head Quarter : Bangalore

Major plant in India: Bidadi, Karnataka

Products: SUVs, Hatchback, Sedan, Truck

Area Served : India & Worldwide

Segment : 4 Wheelers

Table:5

1.5 Environmental Analysis (PESTEL Analysis)

AUTOMOBILE INDUSTRY PESTEL ANALYSIS

The PESTEL examination of the automobile industry appears how distinctive outside components can influence their commerce. As the way of life of individuals is changing the issues that they can confront within the future. Hence, permitting companies to discover out the ways to illuminate them.

POLITICAL FACRTORS:

The legislative issues of a nation features a coordinate impact on the trade working inside its fringe. The PESTEL examination of the vehicle industry appears how political issues can affect the automobile industry. In most nations government have issued direction with respect to the generation of automobile parts to guarantee the security of travelers. If any company should spend noteworthy on test running some time recently

dispatch which can be exorbitant at time. The administrations are moreover sharp to confine the plentiful utilization of fossile file which particular run to proceed with their trade.

ECONOMICAL FACTOR:

The wage of individuals from steady and rising financial zones are expanding day by day subsequently their investing capacity is additionally on the rise. It is the reason request for automobile is going up. Numerous nations have forced charges on extravagance things which have expanded day by day. Subsequently a particular segment of buyers may not select to purchase one. It may result in diminishing request for extravagance automobile in few nations, be that as in the event that in case the cost of vehicle parts increment. It can be a reason for the diminish in request for automobiles.

SOCIAL FACTOR:

The socio-cultural conditions work on the business of a arrive a Social patterns gravely affect the generation of automobile. The PESTEL Analysis of the automobile industry can discover the sociological conditions, which can toll upon the automobile industry. Automobile are not as it were vehicle but are mold articulations consequently the companies have to be considered as the choice of individual whereas fabricating unused vehicle something else it may go out of mold and not get a great deal. Population dispersion of a nation moreover impact the deals of vehicle A state with a thick populace and huge families tends to have a great deals of huge vehicle like SUVs.

TECHNOLOGICAL FACTORS:

Technological factors colossally impact the sales of vehicle companies. Here are few specialized issues which can work on the trade of the vehicle industry. The automobile industry is colossally subordinate on inventive innovation to guarantee the security of the people companies thought to overhaul their technologies to create their cars as secure as conceivable

.

The companies got to concentrate on the reduction of emanations. They can use cutting edge advances to keep the emanation rate in check. Self-driven cars are as of now out within the advertise. Consequently within the future they may get tall requests. The company has to advance these self -driven cars and electric which may pick up them more clients.

ENVIRONMENTAL FACTOR:

The vehicle industry can get profoundly by biological issues. As the concern over contamination is expanding, the condition may toll upon their business. The PESTEL Analysis of the vehicle industry can distinguish the natural issues, which can affect automobile industry. As outflow form the vehicle could be a concern of the naturalists and government. The companies can utilize their most recent innovation to make battery- driven or electric cars, which can offer assistance in diminishing the rate of outflows. The governments the nation are more willing to required up natural approaches to diminish the contamination level, and the car producer has to tolerate by the rules. It may lower the benefit edge for vehicle fabricating companies. The analysis unit of the vehicle companies must be strict the testing. They thought to make a big appearance a unit within the advertise in case as it were it can pass the strict contamination tests.

LEGAL FACTOR:

The laws and control of the nations can influence the commerce o the vehicle industry. The most of the nation have laws for vehicle companies. Hence are few legal issues which can work on the trade of the vehicle industry. Numerous nation have strict laws to decrease the number of vehicle on the road, which can help them to lower the discuss contamination level. During the legal test of an mishap in the event that it is demonstrated that there was any issue with the defective parts or airbags, the company may have to be confront legitimate procedures. In case a vehicle company works in an universal showcase the company must beware of the assess laws and natural laws. In

the event that they come up short to do so the company may get prohibited within the nation .

CHAPTER 2 REVIEW OF LITERATURE

REVIEW OF LITERATURE

The impact of covid-19 on the car industry have been talked about in few inquire

The car industry. The discoveries appears that higher-value stocks were sold their deterioration esteem. about papers Rajamohan at al (2020) examined how covid-19 has influenced the stock advertise, eminently the national stock trade of Moreover the return of the vehicle division record have been watched to be lower. As result of the discoveries, it can be expressed that covid-19 scourge has had a critical on the car industry's Stock trade proposed a half demonstrate called the SEM-logit show to explore shopper decision making and the components affecting the buy of a car amid a widespread. The recommended show was utilized to see into affect of socialdemographic epidemic-related and mental idle factor on the car buy choices. The discoveries appear that the scourge has a negative affect on the car buys. Person buying choices have been affected by components such as family pay. Travel vulnerabilities, and plague seriousness in nearby region. Moreover, the inquire about is when both the when economy and automobile industry were anticipating recuperation. Covid-19 may at the time when both the Indian economy and the auto industry were anticipating recuperation covid-19 may have a 1.2% negative affect on normal advancement rates, spite of the GDP development expectiations being north of 5.5 %. The full sum of the impact is decided on the length of ceaseless lockdown and the affect of the scourge. In the India, the begin of covid-19 had a negative affect on the auto industry. It is evaluated that the common pay impact will be between \$1.5 and 2.0 Billon per month all through the firm indeed.

Once we open a drop inyager car demands is to be anticipated, with discretionary investing taking a leaser need. This will ne paired with changes to BS-VI measures, which able increment the fetched of the proprietorship.

(Singh at al,2020) concludes, the vehicle industry has essentially seen a 12-years and half of stop due to major changes such as the products and administration charge (GST) the move to shared flexibility, rotate stack adjustment, the move from BS 4 to BS 6

advancement, liquidity imperative, and so on the covid-19 lockout has had a multiplier impact, the firm nearly totally closed down since walk 24. The lockdown has had a noteworthy after on vehicle manufacture' profit and benefit due to the deferred end of client intrigued.

(Gaddipati at al.2020) client impression could be a basic angle in whether a brand succeeds or falls flat. Client recognition is ceaselessly changing these day and the this must be tended to since it has tremendous affect on any segment. Agreeing to the discoveries, clients in today's environment are more concerned with sparing than investing. It moreover claims that in covid's harsh times, the impact on people's investing capacity is precisely proportionate to their cognitive handle. As a result automakers and the government must presently work Together to stabilize the division and get it back on the track. The government may help automakers in a assortment of ways to assist them project the division, on the off chance that not the top then at slightest to outlive. Numerous families depend on this trade. Their living condition to whether they stay consistent or debase.

2.1 Domain/Topic Specific Review:

The moreover point the stragies that these businesses would utilized, as well as the measures and controls put in put by the government of the influenced countries to bargain with the financial changes. We moreover advertised a graphical picture of a comprehensive examination of how disturbance in several business influences the economics of the nation in expansion an diagram of how the shutdown affected India's GDP. Development and unemployment rate has been advertised. At last, this think about helps analysis policymakers, and government authorities in defining and executing compelling measures such as crisis help arrange and a wide financial procedure for each segment to address the Cries's unsettling influences. (Nayak at al,2022)

(Nayak at al.2022) the covid-19 widespread. Which to begin with showed up in late December 2019 in Wuhan, South China, Spread quick around the world, but it has moreover distributed people, social and financial exercise. When the number of cases

different naton reported tight lockdown measures, travel limitation, and the closure of national and worldwide border to avoid the affliction from spreading. The supply chains of a new countries were seriously distributed as a result of these lockdown strategies, which had a negative, impact on the country's economy. we displayed a nitty gritty clarification of covid-19's impact on six distinctive business counting automobile automobiles, control and vitality, hardware, travel, tourism and transportation, farming and instruction as well as their sub-sector, which happed essentially due to supply chain and transportation distribution. In spit of the industry's by and large destitute execution, the beat value-added segments such a essential metals,, Gadgets, gear, coke and refined petroleum items, engine vehicles, and so on, depend intensely on imports. The gadgets industry, for illustration, import around 67% of electronic components from China. Due to the lockdown in China, there have been claims of cost increment by Chinese subsidence and the lockout over nation, the fabricating division will too moderate, Fabricating accounts for almost 60% of India's in general trades, and the moment substance of India's trades is very tall of the business that make up India's in general trades' and the movement substance of India's trades is very tall. A few of the business that make up India's best out too make up its best imports. As a result a boycott on fabricating imports will have a critical affect on India's sends outs. Consider the car industry. Which has been one of the India 's mechanical victory stories within the later decade before Covid-19 the industry was attempting to move to the modern Bharat Arrange (BS) VI rules, which took impact on April 1,2020. And it is right now confronting issues due to the sector's dependence on China for Unique Hardware Producers (OEMs). In general, crude fabric and completed merchandise cost are likely

started to rise significantly in numerous parts of the world, government authorities in

to rise but with weaker request, figuring it out expanding is assail by issues and interference, and fabricating will take weeks or month to return to ordinary. Invert movement of representatives is one such issue. The potential affect on labor-intensive businesses might come from a drop in mechanical generation owing to a abilities shortage, since numerous vagrant laborers with particular capacities picked up over

time – remained insert amid the emergency and are moving back to their homes, conceivably not returning quickly.

The Covid-19 widespred has wreaked destruction on the world economy and society. The government of all nation have made a difference to anticipate the disease's spread, it has had a obliterating affect on the economy disturbing entirety chains within the country's most fundamental businesses. The scourge is having a critical affects on numerous viewpoint of industry, counting the car division with critical producers is having a critical affect on numerous viewpoint of industry, co unting the car divison. With critical producer either closing inside and out in reaction to neighborhood government mandates or working with the uncovered least of specialists at fabricating to keep their secure. The vehicle industry had as of experienced noteworthy delays due to auxiliary adjustment opening with the products and administration charge axle-load changes move to shared versatility liquidity crunch and other components and has been basically at a stop since walk 24 due to the covid19 lockdown. The drawn out reduction of client request as a result of the lockdown is causing major concern among automakers. The lion's share of business are cutting back on R&D (inquire about improvement) to protect key exercises and possibly recover development in portability innovation and elective fall affect on exchange invert movement of representatives in one such issue. The potential affect on labor-intensive business.

Impact of Sales in Covid-19 Crisis.

Maruti Suzuki

Truly influenced by across the nation lockdown and broken smoothly chain, India's greatest vehicle creator, Maruti Suzuki On Tuesday uncovered a diminish of 97.5 % underway at at 3714 units in may 2020. The organization had created 151188 units a comparable period a year back, the organization taught in an authoritative recording.

The creation of negligible parcel vehicle (Wagon R, Celerio, ignis, Quick, Baleno, and Dzire) remained at 1950 units as against 84705 units in may 2019, some place close to 97.69%. wherever the creation of utility vehicle that joins Vitrara Brezza, Ertiga, XL-6, S-Cross remained at 928 units as against as, some place around 96.2% In industry pros acknowledge the carmakers are feeling the crush a destroyed nimbly chain and work lack Since of which amassing of vehicle at full scale is unfathomable. Other than, extreme commands and SOPs by state government are distinctive reasons.

The carmaker known for its small vehicle conveyed fair 401 segment level vehicle like Alto and Coffee whereas it seem fair make 62 units of light commerce vehicle super carry . With respect to nearby bargains, Maruti Suzuki saw a diminish of 89% at 13865 units in may 2020 inferable form across the country lockdown. The bargains remained at 125552 units bargains around the same time a year period. The organization all out bargains also watched a drive of 86.2 % to 18539 units in the month beneath study when differentiated with 134,641 units sold in may 2019.

MAHINDRA & MAHINDRA

Mahindra and Mahindra reported that with the uncontrolled spread of the moment wave of covid-19 and lockdown implemented in different states / /Parts of the nation coupled with disturbance within the supply of oxygen for mechanical utilize, request and supply for vehicle and tractor is anticipated to be affected incidentally. In expansion on the supply side, worldwide deficiency of micro-processors (semi conductors) utilized in electronic control Unit (ECUs) fitted in numerous plan.

In see of this the company is carefully looking into the request & / supply circumstance and re-calibrating its operation appropriately whereas ensuring the intrigued of its client, merchants and provides, the try is to guarantee ideal level of stock at plants and dealership in arrange to be arranged for a bounce back once the circumstance return to regularity.

Mahindra was the 4th best-selling automaker in India in Dec 2022 after Maruti Suzuki., Tata and Hyundai Engines. The company saw its deals increment saw its deals increment 62% on a YoY premise but plumge 6.4% minutes share expanded by 3.4% to 10.3% in Dec 2022 The company has broad plans to boost generation as long up proceed to influenced company deals. Indeed as organization is right now running at most extreme capacities, well known Mahindra cars come with gigantic up periods Mahindra bolero and Scorpio were the two best-selling models within the company lineup. The recently propelled Scorpio N and Scorpio classic contributed intensely to these whereas buyers moreover energetically looked for the XUV300 Turbosport, Thar and XUV700. Mahindra deals in dec2022 stood at 28,333 units, up 62% from 17,476 units sold in Dec 2021. MoM deals plunged 6% from 30,266 units sold I Nov 2022. Mahindra Bolerio was the best-selling show within the company lineup in Dec 2022. Deals stood at 7,311 units, up 38% from 5.314 units sold in dec 2021. MoM deals be that as it may, fell 8% from 7,984 units sold in Nov 2022.

HYUNDAI

Among the car producer within the nation, Hyundai engine India has been one of the major donor towards as the covid-19 alleviation endeavors. It has made money related commitment of Rs 7 Core and Rs 5 Core to the PM-Cares Fund and Tamil Nadu and Maharashtra Hyundai engines India has given covid -19 progressed Symptomatic test units worth Rs 4 Core to the Indian Chamber of the Therapeutic inquire about. The packs have been imported from south korea with ICU ventilator producer Discuss Liquide Therapeutic Frameworks to ramp-up the generation of the basic life sparing gadgets.

The across the country lockdown to check the spread of the covid-19 widespread has about in 0 houseld deals for Hyundai Engine India in April 2020. Match vehicle producer Maruti Suzuki India has too detailed nil household deals amid the month.

The end out figures of Hyundai Engine India stood at 1,341 units in April 2020, whereas Maruti Suzuki India sent out 632 units in that period. The send out shipping were conducted by following to all rules set by the government and send out controlling specialist whereas guaranteeing satisfactory security and assurance for everybody, Hyundai India said in a explanation . Hyundai Engine India's BS6 portfolio as now comprises of Santro, Fantastic i10, Amazing i10 Nios, first class i20, Air, Verna facelift, Elantra, scene and Creta.

TATA MOTORS:

The Company reacted rapidly to the current emergency by executing a brief lockdown of all its plants and organization through fetched and venture control to preserve cash much as conceivable. With constrained deals within the quarter so distant the company anticipates deals to begin recuperating from June onwards and is adapting up its supply chain in like manner The company will center on moderating cash by thoroughly overseeing taken a toll and ventures spends to ensure liquidity. The company has called out a taken a toll investment funds program of Rs.1500Cr and cash enhancement program of Rs.6000Cr. As portion of this, company has conceded or cancelled lower edge and non-critical venture and is focusing on capex investing of Circa Rs.1.5kCr in FY21, significantly lower than Rs.5.3kCr in FY20 and FY19. With crest lockdown within the first quarter company anticipates essentially lower deals within the quarter and negative free cash stream of almost Rs.5000Cr in FY21 in Q1FY21, around Rs.3500 of which is related to one time working capital outpourings. Whereas the viewpoint remains questionable the company anticipates a continuous recuperation of deals and progression cash streams for the leftover portion of the year and anticipates to conclusion the FY21 with positive free cash streams.

TATA NEXON

Tata compact SUV, the Nexon topped the company's deals charts in October 2022 The vehicle enlisted 13,767 units deals final month compared to 10,096 unit deals in October 2021 subsequently enlisting a solid development of 36%. The Indian automakers proceeds to witness solid request for both the ICE and electric adaptors of the nexon compact SUV.

TATA PUNCH

Tata punch was the moment blockbuster for the company final month. The sub-compact SUV enlisted 10,982 units last month compared to 8,453 units deals within the same period final year recording a development of 30%. Final month, Tata motors introduced the punch camo version which assist boosted its deals within the nation.

TATA TIAGO

The Tiago hatchback secured the third rank with a sold development of 78% the vehicle enlisted 7,187 units deals final month compared to 4.040 units deals in October 2021. The as of last propelled Tiago EV has developed as the foremost reasonable electric vehicle within the nation.

TOYOTA MOTORS:

Toyota's April global sales fall 11% due to chip crunch pandemic disruptions.

Toyota Kirloskar Engine reported that the company sold 15,085 cars in India within the month of April 2022. This figures saw as 57% development over final year's when the Japanese carmaker sold 9,622 units within the nation in April 2021, This news figures, when the Japanese carmakers sold 9,622 units within the nation in April 2021, this news takes after final month's reports, where the company detailed a 58% development in FY2020-2021 the month-on-month figures be that as it may, saw a decrease of nearly 12% as the deals dropped from 17,131 units final month. The Fortuner Legender is Toyota's lead SUV within the nation, and the fortuner remains unchallenged for the crown of its fragment.

Atul Sood, relate bad habit president, sales and Vital showcasing, Toyota Kirloskar Engine said Request proceeds to crest within the modern Budgetary year, we close the month of April with an generally development of 57% over wholesales in April 2021.In conjunction with the Crysta, Fortuner, and the legender, the Camry, the cross breed as well has gotten exceptionally empowering booking order". The reaction to the cool unused Glanza' has moreover been great and has done exceptionally well since the starting of its conveyances beginning walk this years right from Level.

2.2 GAP ANALYSIS:

Key challenging affecting Indian Automobile Sector.

A have of variable are challenging the development rate of the Indian car segment, just like the modern natural security direction, fuel cost climbs, liquidity crunch, amongst others. Few of the For most significant isses that all vehicle producers are right confronting incorporate. **Global shortage of semiconductor** the around the world deficiency of semiconductor has altogether influenced the deals of automobile in the India. The semiconductor chips are pivotal vehicle component that controls a wide cluster of capacities like rout infotainment and footing control. India's request for by 2025. Thus with the worldwide supply deficiency of semiconductor, India's traveler vehicle generation is seriously influenced. In reality the deals of traveler vehicle generation is seriously influenced. In reality the deals of traveler vehicle are diminished 11 to 13% within the current budgetary year.

Rising Commodity Price

Rising costs of crude materials and basic commodities for generation too influenced the development of the India's car division, the case, as per SIAM's information, the copper costs are still around 66% more than a year back. Too most vehicle companies are confronting trouble due to the tall steel cost. Which proceed to rise indeed in rise indeed in FY21. As a result they are presently expanding the cost of the car model, which in turn is influencing buyers request.

UPCOMING BSVI FACE REGULATION

The BSVI Stage 2 Directions, petrol vehicle must have a 25% diminishment within the nitrogen oxide emanation. Also, diesel-power vehicle will thought to decrease the Hydrocarbon + Nitrogen Oxide emanation by 43%. Moreover, the normal passable CO2 level for any car thought to be decreased from 130g/km to 113g/km.

SOME WAYS TO RECOVER FROM SUCH CHALLENGES.

In arrange to overcome these barricades, collective endeavors of both the Indian government and contributing firms is basic. In reality, collaborating with a solid car segment counselling firm in India for nitty gritty knowledge and comprehensive can essentially advantage.

The Global Major in automobile industry in India

Company	Foreign partners	Years establishment
Maruti	Suzuki	1983
Hyundai	Hyundai (Korea)	1998
Tata	Daimler Chrysler	1998
Honda	Honda	1997
Ford	Ford	1996
Mercedes Benz	Daimler Chrysler	1995
Skoda	Volkswagen	2002
Toyota	Kirloskar	1997

Table: 6

Now more and more foreign manufactures are coming to India and existing companies are coming up with new models. The India's automotive industry is now \$34 billion worth and expected to grow \$145 in another 10 years.

SWOT ANALYSIS OF THE INDIAN AUTOMOTIVE INDUSTRY

STRENGHT	WEAKNESS
Investment by foreign car manufactures	Low quality compared to other automotive countries
Increase in the export levels	Low labour productivity
Low cost and cheap labour	High intrest rate and overhead level
Rise in the working and middle class income	Production costs are generally higher than some other Asian states such as China
Increasing demand for European quality	Low investment in R&D area
Expert skills in producing small cars goods for environment	Low demand is still toward low cost vehicle due to low income levels.
Large pool engineers	

OPPORTUNITIES	THREATS
Growing population in the country	Less skilled labour
Focus from the government in the improving the road infrastructure	Lack of technologies for Indian companies
Rising living standards	Increasing in the import tariff and technology cost
Increasing in income level	Imports of two wheelers from the Chinese market in India
Better car technology is demanded	Smaller players that do not fulfill international standards
Rising rural demand	Increased congestion in the urban area
The car is a status symbol	

Symbol drives have increased	

Table:7

CHAPTER 3 RESEARCH METHODOLOGY

RESEARCH METHODOLOGY

3.1 Objectives of the Study

- The point is to study the affect of COVID-19 widespread on the vehicle 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 automobile industry

3.2 Scope of the Study

This study analyses the affect of covid-19 widespread on the vehicle showcase and related to car showcase of India. The think about is valuable for the individuals or the companies who are related to car division. The report gives a clear picture related to the current car showcase situation. The since this report is primarily based on the car showcase, it too appears the development /drop of the companies year by year and components influence this divisions. This report moreover makes a difference in foreseeing as well as give an thought around the post-covid-19 situation. This consider gives a chance to think about the monetary and the specialized examination and its different apparatuses to get it the nuts and bolts the monetary and the specialized examination and its different apparatuses to get it the nuts and bolts of money of this report amplifies to the think about of 2 key players of the Indian vehicle division. It moreover makes a different to predict where these companies really stand within the showcase

3.3 Methodology

The impact of covid-19 pandemic has a significant impact on the financial status or on the profitability of the automobile companies. The reason of this consider is to explore the affect of covid-19 India, particularly the financial results of a drop in the car deals. The current investigate is both subjective and explanatory, Audit and investigate of assorted literary works, legitimate distributed diaries paper, articles, daily paper report and web sources.

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.

3.3.1 Research Design

SALES VOLUME OF CARS ACROSS, INDIA IN 2022, BY ORIGINAL EQUIPMENT MANUFATURE.



FIGURE 2

3.3.2 Data Collection

1. In 2022, Maruti Suzuki sold approximately 1.6 million cars. India this made it leading car manufacturer in term of cars sales in India, followed distantly by Hyundai and TaTa. The automobile sector India witnessed a further slowdown due to the coronavirus (COVID-19) pandemic in the same year. There were more than 295 million vehicle enrolled India within the monetary year. 2019. Vehicle enlistment development at a compound yearly development rate of over 10% between 2017 and 2019, and the effect of the coronavirus widespread, the residential as long time, this was expected to proceed within this monetary year 2022.

3.3.3 Data Analysis Tools

DATA ANAYSIS IN AUTOMOBILE INDUSTRY:

Particularly in later a long time, with the fast progression of innovation, progressively specialty and higher client desires, supply chain enhancement, and worldwide direction, automakers have begun to rethink how they utilized information insight and innovation to progress the viability effectiveness of how they work. As the car industry proceeds to confront challenges from competitors, a soaked advertised customer shifts and instability, its critical that they have straightforward and point by point data to form vital commerce choices.

How are data analysis used in the automotive industry?

The key players within the car industry utilized information analysis to make strides execution, screen connection with provides, create client connection, and decrease operational costs.

All through the car lifecycle, numerous forms and individuals collaborate to plan and convey items and administration that are sold and taken a toll effective and have the highlight that clients need to see. These forms include create more intelligent more associated cars for clients and increment deals and promoting to progress the clients travel and increment company benefits and operation.

- >Development and production
- >Sales and marketing

• How big data can be used in automotive?

Huge information portrays, complex, huge datasets that persistently develop exponentially over time over the car industry, huge information exists in supply chain administration, financing prescient, and plan generation.

• Why is data important in the automotive industry?

Information gives basic data permits automakers to benchmark their execution and make key trade choice information analytics offer assistance arrange for conveying superior client engagement activities, fetched lessening endeavours, depending car plans, higher client maintenance and deftness and versality in a competitive showcase. It structures the prove that automakers got to get it the viability of their choices and operations

3.4 Period of Study

their income statements, balance sheets, and cash flow statements will be analysed. The purpose of this analysis is to examine the financial performance and position of these companies. In the past 2 years, Maruti Suzuki, Toyota, Hyundai, Mahindra, and Tata Motors have been using ratio analysis and horizontal analysis techniques to study their financial statements.

3.5 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 5 companies out of very large Indian automobile industry are 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 5 years only.

3.6 Utility of Research

The Indian automobile industry has been through a rollercoaster ride since the first lockdown due to covid-19 the pandemic brought the industry to a standstill, with factories shutting down and sales plummeting. However, the industry as shown remarkable resilience and has bounced back stronger than ever.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

DATA ANALYSIS AND INTERPRETATION

Data analysis is a process of inspecting, cleaning, transforming, and modelling data with the goal of discovering useful information conclusion and the supporting decision – making

Data interpretation is the process of giving meaning to the processed and analysed data. It enables us to develop informed and meaningful conclusion, infer the significance of variable correlation, and interpret data patterns.

Maruti Suzuki becomes number one player in Rs 10 lakh to Rs 20 lakh vehicle category.

Maruti Suzuki has announced that it holds a 19% market share in the Rs 10 lakh to 20 lakh vehicle categories for the financial year 2022-2023. The company has reportedly become the number one player in the segment. As reported by Autocar India, the

company's market share rose to 22% in the first quarter of FY24 (April-June 2023), thank to demand for its premium SUVs.

The India most selling car Maruti Suzuki has announced a remarkable milestone of selling 40 lakh units of popular small car ALTO in India. The Maruti Suzuki alto in India. The Maruti Suzuki it as their first car. The alto was first launched in 2000 and has been on sales for the past 20 years

Speaking on the success, Mr. Shashank Srivastav, Executive director (Marketing & Sales), Maruti Suzuki India Limited, said, "said, "alto has been ranked as the No.1 selling car in India for 16th year in row and we are immensely proud to announce remarkable milestone of 40 lakh cumulative sales. This has become a sales record never achieved of any other Indian car."

PERCENTAGE ANALYSIS

RESPONDENTS ON BASIC OF TYPE OF MARUTI SUZUKI CAR:

S.NO	TYPE OF CARS	NO. OF	PERCANTAGE%
		RESPONDENTS	
1	Sedan	34	23
2	MUV	24	16
3	SUV	47	31
4	Luxury	35	23
5	Hatch Back	10	11

TOTAL	150	100

Table:9 Interpretation

Form the above table shows that out of the total number of respondents 23% of respondent were using cars and 16% of respondent using cars and 31% of respondent were using SUV cars and 23% of respondent were using Luxury cars and 11% of respondent were using Hatch back cars.

Respondents on basis of type of Maruti car

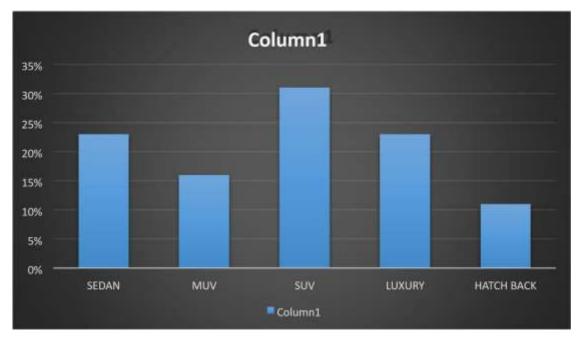


FIGURE 3 CHI SQUARE TEST

Hypothesis

There is no significant relationship between type of Maruti cars and gender **OBSERVED FREQUENCY**

	MALE	FEMALE	TOTAL
SEDAN	24	32	56
MUV	15	12	27
SUV	5	11	16
LUXURY	6	21	27
HATCH BACK	16	8	24

TOTAL	66	84	150

Chi-square result test analysis

Calculated value (x)	Degree of freedom	Table value at 5%	Hypothesis
12.71	4	9.488	Rejected

Table:10 INTERETAION

Since the calculated value is more than table the table value the hypothesis is rejected starting that there is relationship between type of Maruti cars and gender of respondents.

CHAPTER 5 FINDINGS, RECOMMENDATIONS AND CONCLUSION

FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Findings Based on Observations

According to Automotive sector Reports the Indian automotive industry is ready suffering from a lack of growth that will be 18 % in FY 2020 since February 2020 both marketing/sales and production have been dealing with a decrease. To add fuel to the fire, COVID-19 has developed its own end-of-the world strategy The Indian automobile industry's condition industry's condition will continue unfavourable for the following three reason and beyond FY2021, as the international monetary fund (IMF) anticipates a negative growth standard for the entire world in FY 2021 (Coronavirus crisis).

1. potential decline in car sales: Due of the current world problem, which is solely caused by human proximity which is solely caused by human proximity, the

four-wheel drive market may experience a sharp spike in sales following lockdown. As "work from Home" becomes more popular among employ demand could further fall.

- 2. limited financial support for customer to purchase electric vehicle (EVs): Lack of largescale e-vehicle purchase and fall a fall in the top selling automobile model are the cause of decreased demand. The top Indian communication and information form, which claimed that after seven years of operation lowering battery prices would make regular passenger cars more expensive than electric once. The same causes led to an overall growth in EV sales
- 3. The tourism and travel industry at halt according to the tourism and travel industry the tourism sector contribution roughly 10% of India's GDP. As a result, the Indian tourist sector is participated to see a net loss of \$1.25 trillion (2020). The tourism business can take up to 2-3 years to normalized due to the reality of the situation and worries about social isolation for the same reason, it is reasonable to anticipate a direct impact on the Indian auto business.

5.2 Findings Based on analysis of Data

Key challenges in automobile industry

Manufacturing Shutdown

The widespread showed within the shape of gigantic generation end, since of social separating convention & across the nation lockdown, government had given major steps to maintain a strategic distance from covid viruses spread within the world like upheld wellbeing & security direction making fabricating shutdown which most are still battling to urge back to normal vehicle generation. Later thinks about portray that in April-2020 vehicle deals in Europe fell by 84% as restricted to April-2019.

Manufacturing it driven to enormous financial losses directly affecting GDP.

Less Vehicle Sales

Lessening in deals rising as one of basic challenges confronting the car business amid covid-19. Due to this auto deals within the joined together States alone was figures to be between 16-17 million units in 2020. Due lockdown there was a spate of money related misfortunes due to social separating control and shutdown of fabricating units.

Massive layoffs

Misfortune of labour is an over effect of fabricating shutdown. As the crown infection spread most of the companies were shut down due the vehicle businesses.

Disrupted supply chain

Covid-19 brought almost a prompt end in current generation, disturbing supply chain the world over. China that affected due to the country lockdown, which seriously affected the supply chain.

Liquidity

It's a greatest challenge confronted by the car businesses form final a long-time generation shutdown and drooping deals steadily driven to overwhelming budgetary misfortunes.

Change in customer behaviour

The collapse of the economy, rise in cost, and the all-round critical state of open wellbeing and financials brought approximately an impressive alter within the buying design of buyers

5.3 General findings

The automotive industry in India is the third-largest by production in the world as per 2023 statistics. As of 2023, Indian is the 3rd largest automobile market in the world in terms on of sale. In 2022, India became the fourth largest country in the world by the valuation of its automotive industry.

5.4 Recommendation based on findings

The Automobile companies must improve their process and should be efficient in order to implement their strategies quicker than competitors in time of economic downturns. The national level Automotive institute for training on the automobile at international Training Institutes (ITIs) and automotive training institute (ATIs) have to be set up. The government of India should promote manufacturing and encourage exports of small cars multi-utility vehicles, Two and three Wheelers, tractors and components which infuse necessary foreign currencies to India, Specific measures should be taken for expansion domestic market. Government should hike its spending to create more jobs and boost the manufacturing sectors in the country.

5.5 Suggestions for areas of improvement

We need a clear plan from the government to help people and the economy recover from the negative effects of the pandemic, and we need it quickly. Even before the pandemic, the government should seize the chance to prioritize and pay attention to the sectors that have been falling behind. The electric vehicle industry offers advantages such as cleaner transportation, and this gives the government a chance to help the economy recover. The government can also use this opportunity to invest in training and developing skills. Building and making electric vehicles and the necessary systems will help restart the economy. The government can speed up the shift to clean transportation in India by investing in the sector. This is a great opportunity for the government to train workers for jobs in the green sector, like electric vehicles. This will not just help people who lost their jobs due to the pandemic but also give them a more steady and safer career path. Additionally, it is important to concentrate the stimulus for recovery on supporting innovation and small businesses as it allows for a more grassroots and inclusive approach in promoting the electric vehicle industry in India. We must also invest in building better relationships with nearby countries that are beginning their own electric vehicle industry. The main goal is to promote overall growth in the electric vehicle industry and establish a strong network of electric vehicle production and distribution

in the country. This will help the government's goal of making the country able to produce things on its own.

5.6 Scope for future research

Automobile contributes nearly 6% to India's GDP and 35% of manufacturing GDP. The EV market is expecting to grow at CAGR pf Rs 49% between 2022-2030 and is expected to hit 10 Mn-unit annual sales by 2030. The EV industry will create 50 Mn direct and indirect jobs 2030.

5.7 Conclusion

The virus outbreak has had a clear impact on the Indian automotive industry, affecting everything from car dealerships to support services. The closing of many factories has made things difficult for the workers, who need financial help to take care of their families. This has caused a lot of damage to the Indian automobile industry. Production has decreased in every part. It has gone back to the level it was in 2016. However, now there is a problem again in certain plants and some dealers are working in areas that are not affected as much. We can see some activities happening in the sector. The car industry in India has recently faced many challenges, and the lockdown caused by the pandemic came at a very bad time. However, if we have a wellthought-out and cooperative plan of action, with both short-term and long-term measures, we can expect a quick recovery that resembles a V shape. According to current predictions, the market might improve in the third quarter of 2021. Given the current situation, it is doubtful that the automobile industry in India will return to its pre-covid-19 state in the near future. Consumers will have big changes in what they like and how they buy things. After the

Covid-19 pandemic, we will face both difficult situations and chances for growth. The companies will now heavily depend on digital showrooms to attract more customers and sell more electric products. The vehicle will definitely become popular in the Indian market.

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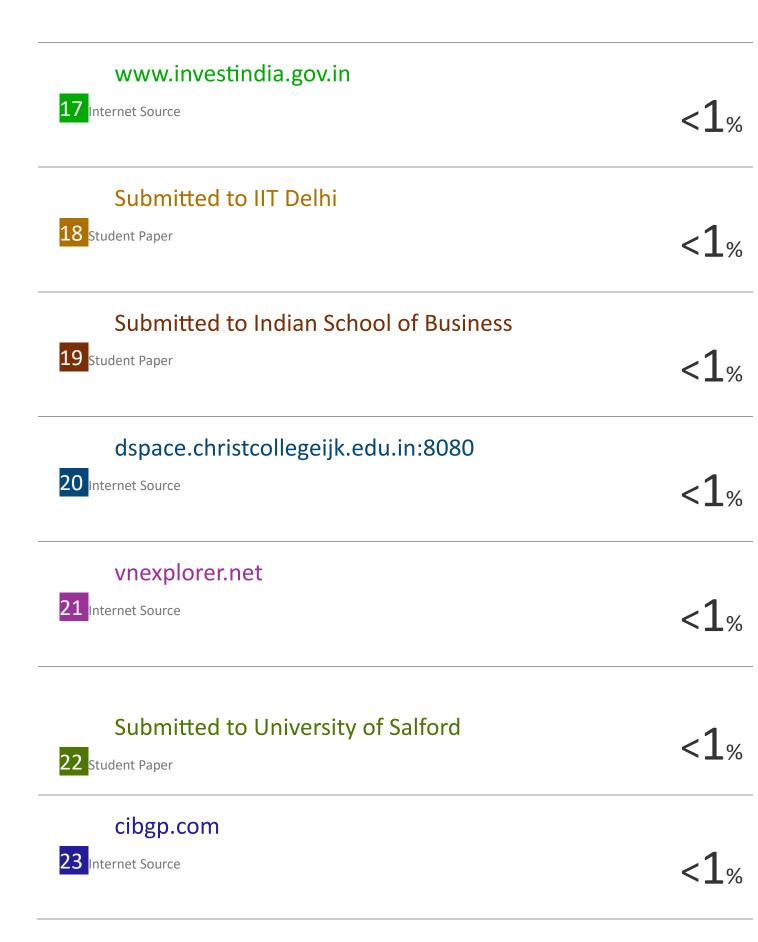
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