ISBN: 978-93-5526-111-3

PROCEEDINGS OF

THE NATIONAL CONFERENCE ON

LIFE IN THE 2020s: SOCIAL, CULTURAL AND ECONOMIC DIMENSIONS

25th May 2021

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August 2021

Printer: Dept. of Eco, S.H.College, Chalakudy, Kerala

ISBN: 978-93-5526-111-3

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ISBN: 978-93-5526-111-3

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ISBN: 978-93-5526-111-3

FOREWORD

Dr. Ana Mateen

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I am delighted to write the foreword for this Book titled Proceedings of the National Conference Life in 2020s: Social, Cultural and Economic Dimensions, 25th May 2021 not only because of my Compadres Dr. Chacko Jose and Mr. Nijil Jacobi but also its relevance post outbreak of COVID-19, which will leave a lasting imprint on the world economy, causing permanent changes and teaching important lessons. In a very short span of time, I have developed a very strong and cordial relation of Friendship and Trust with Dr. Chacko Jose and Mr. Nijil Jacobi, thanks to the Pandemic led Online Webinars.

The sole objective of this book is to understand how COVID-19 spread has left national economies and businesses counting the costs whereas governments struggle with new lockdown measures to tackle the spread of the second wave of the corona virus. Department of Economics, Sacred Heart College, Chalakudy has an impressive track of promoting inclusive education and research. This book is a unique result of highly committed and dedicated professionals of the Institute.

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Indian author Arundhati Roy has very well said in her book: Pandemic Is a Portal, “Historically, pandemics have forced humans to break with the past and imagine their world anew. This one is no different. It is a portal, a gateway between one world and the next.”

Remote work is likely to become more common. Initially, many companies were reluctant to embrace remote work. Now that many have tried it with good results, remote work might be here to stay. The pandemic crisis has accelerated the pace of digital transformation worldwide, with further expansion in e-commerce and increase in the rate of adoption of telemedicine, videoconferencing, online teaching, and fintech. Virus screening is likely to become part of our life, just like security measures became ubiquitous after 9/11.

Despite the development of new vaccines, many are still wondering what recovery could look like. Big shifts in stock markets, where shares in companies are bought and sold, have affected the value of pensions or individual savings accounts. COVID-19 pandemic has increased inequality, exclusion, discrimination and global unemployment in the medium and long term as seen during the 2020s.

Self-quarantine and staying indoors for longer duration has inflicted social factors and caused psychological problems and violence by creating differences among people as well as verbal and physical disputes. The impacts of crises are never gender-neutral, and COVID-19 is not an exception. While everyone is facing unprecedented challenges, women are bearing the brunt of the economic and social fallout of COVID-19. Globally, 70 per cent of health workers and first responders are women, and yet, they are not at par with their male counterparts. Women are overrepresented in many of the industries hardest hit by COVID-19, such as food service, retail and entertainment. For example, 40 per cent of all employed women – 510 million women globally – work in hard-hit sectors, compared to 36.6 per cent of employed men as reported by United Nations.

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The restrictive measures imposed by governments has led to cancellation of major arts and cultural events, including festivals and expos across the globe and has disrupted business, particularly of SMEs, and are major sources of livelihood for many young and aspiring entrepreneurs. Beyond that, revenues derived by governments from both domestic and international tourism, have completely disappeared overnight, the hospitality sector has been hit hard. With millions of jobs and many companies bankrupt as over 35 million hotel and rental worldwide have registered a fall in reservations in all the top travel destinations, reported by Transparent.

In the United States, the proportion of people out of work hit a yearly total of 8.9%, according to the International Monetary Fund (IMF). Millions of workers have also been put on government-supported job retention schemes as parts of the economy, such as tourism and hospitality; have come to a near standstill.

The IMF estimates that the global economy shrunk by 4.4% in 2020. The organisation described the decline as the worst since the Great Depression of the 1930s. The only major economy to grow in 2020 was China. It has registered a growth of 2.3% in 2020. The IMF is, however, predicting global growth of 5.2% in 2021 and will be driven primarily by countries such as India and China.

I have gone through the chapters and must admit that the researchers have chosen varied topics from different backgrounds which have relevance in today's research arena. Many of them have worked on the primary dataset and have used cutting edge methodology. The contents of the chapters are very well structured and presented in a meaningful manner. I strongly believe that this book will accomplish the requirements of the policy makers, academicians and researchers.

With Best Wishes !!!

15 - 08 - 2021 **Dr. Ana Mateen**

ISBN: 978-93-5526-111-3

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REINVENTING INDIAN AUTO SECTOR IN THE POST PANDEMIC ECONOMY

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Abstract

India is in the throes of one of the darkest moments in the nation's history. A deadly pandemic is now sweeping through a country at an immense speed. Thousands are dying every day as infections continue to soar to record levels. All of a sudden an overwhelming sense of optimism has now turned into despair and anguish. India is staring at a human catastrophe of unimaginable proportions. The pandemic has been affecting the livelihoods of almost everyone and it hasn't spared the Indian automobile industry either. The automobile industry is quite possibly the main driver of monetary development and economic growth of India and one with high participation in global value chains. India is the fourth largest automobile market in the world. It is also the largest manufacturer of two-wheelers and the seventh-largest manufacturer of commercial vehicles in the world. The development of this area has been on the rear of solid government support which has assisted it with cutting a novel way among the assembling areas of India. But Indian auto industry was already struggling in 2019 as sales of almost all established players have gone down due to the far-reaching impacts of the COVID-19 pandemic. As the industry struggled with lower sales numbers during this period, so could not clear the stock of BS4 and that becomes an additional burden on the industry. This paper studies the impact of the COVID-19 pandemic on the automobile industry in India.

Keywords: *Automobiles, COVID-19, Emission, Export, Production, Sales*

Introduction

The automobile industry is quite possibly the main driver of monetary development and economic growth of India and one with high participation in global value chains. The development of this area has been on the rear of solid government support which has assisted it with cutting a novel way among the assembling areas of India. The vehicles delivered in the nation exceptionally take into account the requests of low-and middle-income groups of the population which makes this area stand apart among the other vehicle-creating nations. In 2017, India turned into the world's fourth-biggest car market, and the interest for Indian

 ISBN: 978-93-5526-111-3

vehicles keeps on filling in the homegrown and global business sectors. To meet the future requirements of clients (counting the electrical vehicles) and stay in front of rivalry, producers are presently making up for lost time with upgradation, digitization, and robotization. The section additionally dissects India's public strategy considering these turns of events.

Indian automobile industry

The auto business is a significant driver of the monetary development in India and one of the effective areas wherein the nation has a high investment in global value chains (GVCs). The Indian automobile industry – including the vehicle and the auto segment fragments – is one of the vital drivers of the monetary development of India. Being profoundly incorporated with other modern areas, it is a significant driver of the assembling total national output (Gross Domestic Product), fares, and work. India was the 6th biggest maker of cars internationally with a normal yearly creation of around 29 million vehicles in 2017–2018, of which around 4 million were exported. India is the largest tractor manufacturer, second largest two-wheeler manufacturer, second-largest bus manufacturer, fifth-largest heavy truck manufacturer, sixth largest car manufacturer, and eighth-largest commercial vehicle manufacturer.

In 2020, India was the fifth-biggest auto market, with around 3.49 million units consolidated sold in the traveler and business vehicle classes. It was the seventh biggest maker of business vehicles in 2019. The two-wheelers segment dominates the market as far as volume inferable from a developing working class and a youthful populace. Besides, the developing revenue of the organizations in investigating the provincial business sectors further supported the development of the sector. India is likewise an unmistakable auto exporter and has solid fare development assumptions for the not-so-distant future.

If we look into the current situation, India is in the throes of one of the darkest moments in the nation's history. A deadly pandemic is now sweeping through a country at an immense speed. Thousands are dying every day as infections continue to soar to record levels. All of a sudden an overwhelming sense of optimism has now turned into despair and anguish. India is staring at a human catastrophe of unimaginable proportions. Death devastation, desperation, and despair have permeated the lives of 1.3 billion people in India as the second wave of the COVID-19 pandemic hit the country with immense ferocity. India's healthcare system has buckled under pressure leaving people without life-saving hospital beds oxygen and drugs all

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over 290 000 people have died from the virus with reported infections topping 26 million. This paper focuses on how the COVID-19 pandemic affected the Indian automobile industry.

Objectives

The objectives of the study are stated as follows.

1. To analyze the Indian Automobile Production and Sales Trends before and after COVID-19 pandemic.
2. To study the Automobile Domestic Sales and Exports Trends in India.

Research Methodology

Secondary data was used for the study and the research design for this study was descriptive. Secondary data was accumulated through various sources like Government websites, commercial websites, magazines, journal articles, newspapers, etc.

Data Analysis

Domestic Market Share for 2019-20

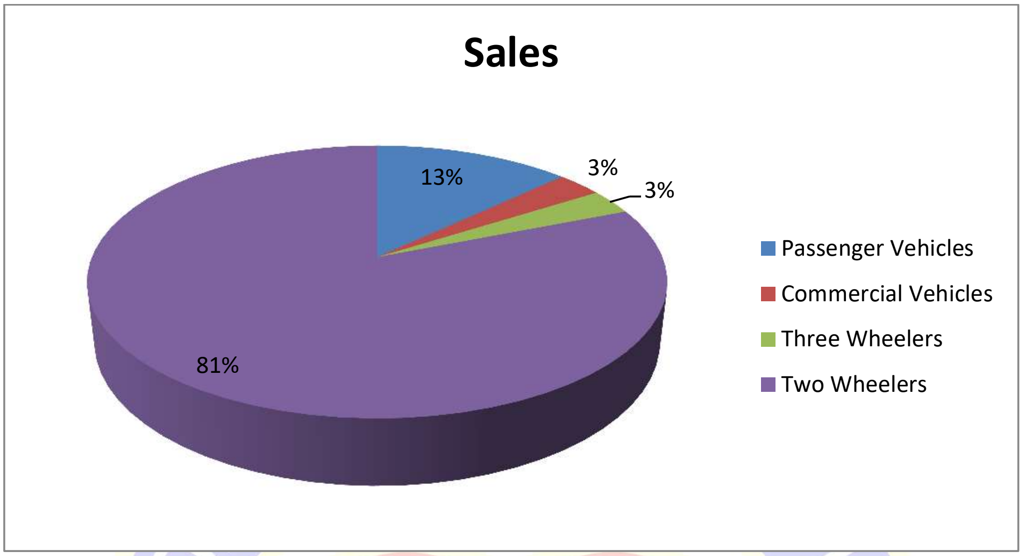
Table 1: Domestic Market Share for 2019-20

Domestic Market Share for 2019-20	
Passenger Vehicles	13%
Commercial Vehicles	3%
Three Wheelers	3%
Two Wheelers	81%
Grand Total	**100**

Source: SIAM India, 2021

The Indian automobile market can be divided into four main segments - two-wheelers (motorcycles, geared and ungeared scooters), three-wheelers, passenger vehicles (cars and utility vehicles), and commercial vehicles (light, medium and heavy). The highest domestic sales market share is in Two Wheeler production which is 81% of the total vehicle sales in the financial year 2019-20. The second domestic market share is for Passenger Vehicles followed by Commercial Vehicles and Three Wheelers.

Figure 1: Domestic Market Share for 2019-20



Source: SIAM India, 2021

Automobile Production Trends

The automobile industry produced a total 24,016,599 in 2015-16, 25,330,967 in 2016-17, 29,094,447 in 2017-18 and 30,914,874 2018-19. It indicates that automobile production in India had an increasing trend before the COVID-19 pandemic in India. But the industry faced a severe setback during the lockdown period of the pandemic and the industry delivered a total of 22,652,108, which is the lowest production since 2014-15, vehicles including Passenger Vehicles, Commercial Vehicles, Three Wheelers, Two Wheelers, and Quadricycles in April-March 2021 as against 26,353,293 in April-March 2020, registering a de-growth of (-) 14.04 percent over a similar period last year.

Table 2: Automobile Production Trends

Category	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Passenger Vehicles	3,465,045	3,801,670	4,020,267	4,028,471	3,424,564	3,062,221
Commercial Vehicles	786,692	810,253	895,448	1,112,405	756,725	624,939
Three Wheelers	934,104	783,721	1,022,181	1,268,833	1,132,982	611,171
Two Wheelers	18,830,227	19,933,739	23,154,838	24,499,777	21,032,927	18,349,941
Quadricycle	531	1,584	1,713	5,388	6,095	3,836
Grand Total	**24,016,599**	**25,330,967**	**29,094,447**	**30,914,874**	**26,353,293**	**22,652,108**

Source: SIAM India, 2021

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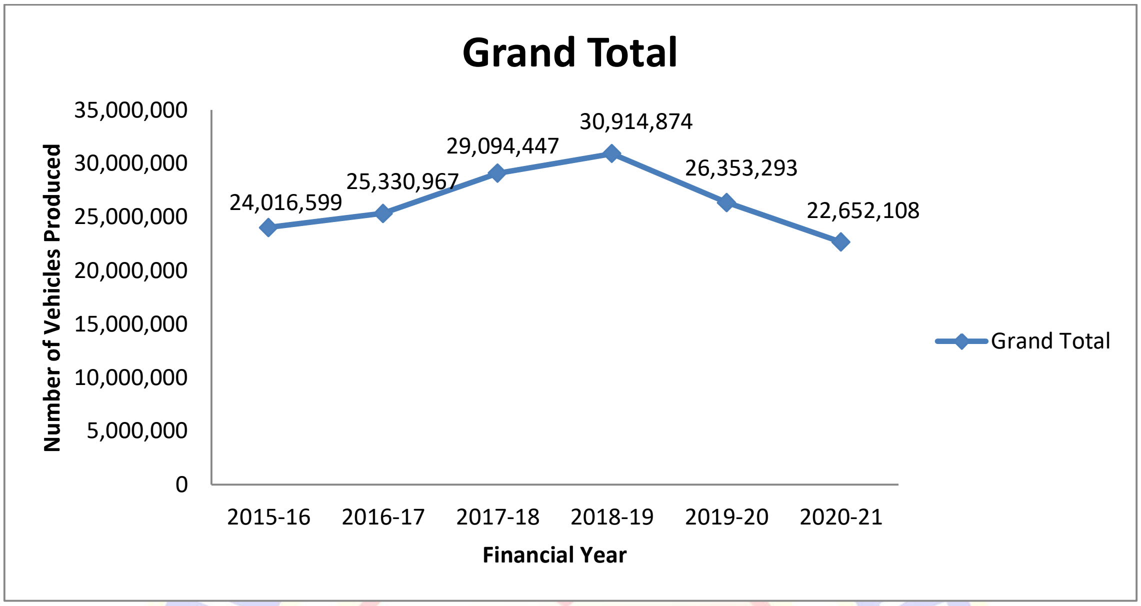
Figure 2: Automobile Production Trends



Source: SIAM India, 2021

Automobile Domestic Sales Trends

The automobile domestic sales in India had an increasing trend over the years before the lockdown. The automobile domestic sale was 20,468,971 in 2015-16, 21,863,281 in 20116-17, 24,981,312 in 2017-18 and 26,266,179 in 2018-19. But after the lockdown measures, the domestic automobile sales in India came down to 21,545,551 in 2019-20 and to 18,615,588 in 2020-21 which is the worst in the last eight years.

The sale of Passenger Vehicles declined by (-) 2.24 percent in April-March 2021 over a similar period last year. Within the Passenger Vehicles, the sales of Passenger Cars and Vans declined by (-) 9.06, percent and (-) 17.62 percent respectively while sales of Utility Vehicles expanded by 12.13 percent in April-March 2021 over the same period last year.

The general Commercial Vehicles fragment enlisted a de-growth of (-) 20.77 percent in April-March 2021 when contrasted with a similar period last year. Within the Commercial Vehicles, Medium & Heavy Commercial Vehicles (M&HCVs) and Light Commercial Vehicles (LCVs) decreased by (-) 28.40 percent and (-) 17.30 percent individually in April-March 2021 over the same period last year.

The sale of Three Wheelers declined by (-) 66.06 percent in April-March 2021 over the same period last year. Within the Three Wheelers, Passenger Carrier and Goods Carrier declined by (-) 74.49 percent and (-) 26.38 percent respectively in April-March 2021 over April-March 2020.

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Two Wheelers sales registered a de-growth of (-) 13.19 percent in April-March 2021 over April-March 2020. Within the Two Wheelers segment, Scooters, Motorcycles, and Mopeds declined by (-) 19.51 percent, (-) 10.65 percent, and (-) 3.07 percent respectively in April-March 2021 over April-March 2020.

Table 3: Automobile Domestic Sales Trends

Category	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Passenger Vehicles	2,789,208	3,047,582	3,288,581	3,377,389	2,773,519	2,711,457
Commercial Vehicles	685,704	714,082	856,916	10,07,311	717,593	568,559
Three Wheelers	538,208	511,879	635,698	7,01,005	637,065	216197
Two Wheelers	16,455,851	17,589,738	20,200,117	21,179,847	17,416,432	15,119,387
Quadricycle	0	0	0	627	942	-12
Grand Total	20,468,971	21,863,281	24,981,312	26,266,179	21,545,551	18,615,588

Source: SIAM India, 2021

Automobile Exports Trends

The automobile export has a fluctuating trend in India even before the COVID-19 lockdown. It was 36,43,828 in 2015-16 and came down to 34,80,725 in 2016-17. Again the export rose to 40,42,841 in 2017-18, 46,29,049 in 2018-19 and to 47,48,738 in 2019-20. But it had a sharp decline to 41,28,928 in the year 2020-21. In April-March 2021, overall automobile exports declined by (-) 13.05 percent. Passenger Vehicles, Commercial Vehicles, Three Wheelers, and Two Wheelers exports also declined by (-) 38.92 percent, (-) 16.64 percent, (-) 21.67 percent, and (-) 6.87 percent respectively.

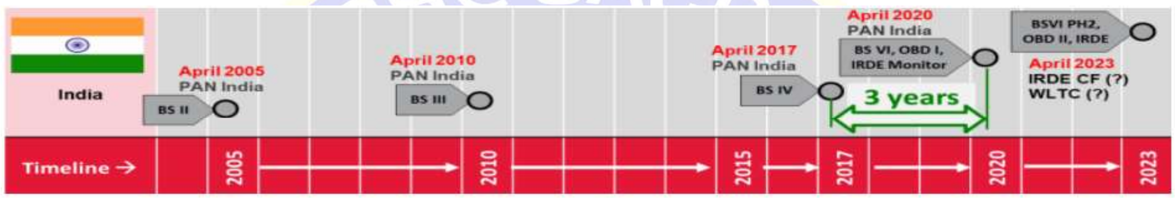
Table 4: Automobile Exports Trends

Category	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Passenger Vehicles	6,53,053	7,58,727	7,48,366	6,76,192	662,118	404,400
Commercial Vehicles	1,03,124	1,08,271	96,865	99,933	60,379	50,334
Three Wheelers	4,04,441	2,71,894	3,81,002	5,67,683	5,01,651	392,941
Two Wheelers	24,82,876	23,40,277	28,15,003	32,80,841	3,519,405	3,277,724
Quadricycle	334	1,556	1,605	4,400	5,185	3,529
Grand Total	**36,43,828**	**34,80,725**	**40,42,841**	**46,29,049**	**4,748,738**	**4,128,928**

Source: SIAM India, 2021

Change in Emission Norms by the Indian Government

The policy changes in the emission standards in India was well planned and informed to Indian manufacturers in advance, industry was given time of 3 years (2017-2020) to shift from BS4 to BS6. Unfortunately, the Indian auto players could not switch to 100% BS6 vehicles, within the given span of time and got left with considerable BS4 stock. In 2019 sales have dropped by 30%, Industry was hoping comeback in first quarter of march by selling the remaining stock of BS4 versions by offering huge discounts however due to lockdown all dealership has closed and people are not buying vehicles. ₹6,400 crore worth BS4 vehicles remain unsold due to Coronavirus.



Source: SIAM India, 2019

Findings

- Two-wheelers and passenger vehicles dominate the domestic Indian automobile market and account for 81% and 13% of total unit sales, respectively. Passenger car sales are dominated by small and mid-sized cars.
- After the COVID-19 lockdown, the Indian automobile domestic sales had a major setback and the total sales came down to the lowest since 2014-15.
- The automobile domestic sales in India had an increasing trend over the years before the lockdown but it declined to the worst in 2020-21, registering a de-growth of (-) 14.04 percent over a similar period last year 2019-20.
- The automobile export has a fluctuating trend in India even before the COVID-19 lockdown. Moreover, in April-March 2021, overall automobile exports declined by (-) 13.05 percent.
- ₹6,400 crore worth BS4 vehicles remain unsold due to COVID-19 pandemic and the new emission policy changes.

Conclusion

The impact of the COVID-19 pandemic on all industries was detrimental and the automobile industry was not an exception. The impact on the automobile sector was so severe that many of the companies had to hold back launch of new variants and vehicles. The pandemic occurred at a time when the automobile industry was in a transition from fossil-based fuels to EVs. Another transformation was taking place in the automobile sector with updates in technology and design. The decline in credit availability led to slowing down of demand for the automobile sector. Discretionary spending by the public also contributed to the low demand. The low demand had a spiralling impact by hindering the interweaved supply chain mechanism of the automobile sector.

The automobile industry cannot and will not come to a standstill as it is the lifeline of the nation. For any industry in crisis due to the pandemic, the only option is to move forward for which growth is essential. Expansion of market base and product base is one way out. Other options could be product and process diversification. In a huge and diverse market like India there is always scope for increased demand. For instance, the Indian car market which was dominated by first time buyers till the last decade is now dominated by repeat buyers who will be interested in personalized features. Digital platforms could be used by the companies for the customisation process. On the marketing front, attractive buy-back schemes can attract repeat buyer.

The recent policy announcement of Government of India to scrap vehicles after 15 – 20 years of usage will undoubtedly give the automotive industry never before impetus to growth. According to the statistics, there are around 51 lakh light motor vehicles or LMVs older than 20 years in India. Around 34 vehicles are LMVs older than 15 years, while the number of medium and heavy commercial vehicles less than 15-year-old stands at 17 Lakh. Once these vehicles are denied permission for renewal of registration based on vehicle inspection, there will be huge demand for new vehicles in India. This could be seen as an opportunity for the Indian automotive industry to surpass past performance.

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