Post Crises Sustainability in the Automobile Sector - A Consumer Perspective



ISBN: 978-1-943295-20-3

Jain S.

Bennett University (shruti.jain@bennett.edu.in)

The COVID-19 lock down and a work from home environment reduced need for urban commuting on one hand while the restricted availability of public transport and need for social distancing ensured that people preferred using personal transport. By 2021, the breakdown in supply chains and the shortage of electronic chipsets from China and Taiwan meant that production and sales of automobiles was badly affected.

This paper aims to bring about better understanding of the evolving relationship between crises induced change in consumer behaviour and the change in marketing and advertising practices.

Key words: COVID-19, Pandemic, Automobiles, Two-Wheelers, Consumer Behaviour

1. Introduction

The COVID-19 pandemic has been the most pervasive disruption that the world has seen post WWII (Chhibber & Gupta, 2021). Different industries and sectors have been affected in unusual ways. The lock down and a work from home environment reduced need for urban commuting (Bhatt & Varghese, 2020) on one hand while the restricted availability of public transport and need for social distancing ensured that people preferred using personal transport (CCSA, 2020).

By 2021, the breakdown in supply chains and the extreme shortage of electronic chipsets from the largest producers in China and Taiwan meant that production of electronics and automobiles were quite severely affected. Automobile sales which were beginning to see an uptick due to pent up demand were further affected due to production stoppages.

This had a snowball effect on the Indian economy given that the sector contributes 7.1% to India's overall GDP with an annual turnover of Rs. 7.5 lakh crores (Desk, 2021). The impact is further underscored by the fact that India is the fifth-largest automobile market in the world and second largest manufacturer of two-wheelers. The automobile sector comprises of four segments: two-wheelers, three-wheelers, passenger vehicles and commercial vehicles. Two-wheelers and passenger vehicles dominate the domestic market with a share of 81.2% and 14.6% respectively (IBEF, 2020). The Indian automotive industry is expected to reach US\$ 300 billion by 2026.

Despite the headwinds, the sector has tremendous growth potential. It is progressing from resilience to resurgence and towards "achhe din" (Paliwal, 2020). Personal mobility solutions have become the focal point for the industry giants to keep in mind the shifting consumer preferences (Deloitte, 2020). The second-hand two-wheeler market is also gaining traction in recent times (Nandigam, 2021) given their low maintenance and easy maneuverability (PTI, 2021). Electric vehicles, which are considered the future of travel and commuting, are being supported whole-heartedly by global policy changes (Arribas-Ibar et al., 2021). 'Green mobility,' 'digital interface' are the new buzzwords for both the industry and the modern end consumer (KPMG, 2021). Progress in AR/VR, autonomous driving, shared mobility, connected cars, etc., are anticipated to drive the future growth of the sector (Chhibber & Gupta, 2021). The evolving consumer attaches growing importance to safety, well-being, and personal hygiene in automobiles, resulting in features like complex air filters and automatic gear shift.

2. Research Objectives & Methodology

While the overall objective is to understand the relationship of the consumer with the automobile industry during times of crises, this research paper aims to understand and analyze the effect of the COVID-19 pandemic specifically on the consumer buying behaviour of two-wheelers (2W). The paper further attempts to understand the difference in the behaviour of different consumer cohorts towards the purchase of two-wheelers and thereby unearth consumer insights which could be relevant to the marketing and advertising practices of the industry.

Research methodology deployed was a quantitative method of data collection and the analysis uses descriptive and inferential statistics. Primary Research (Lowe & Zemliansky, 2010) was conducted using an Online Structured Questionnaire (Pandey, 2015) following Non-Probability Sampling technique. Sample details for research based on data saturation and sufficiency (Shaheen et al., 2019) are given below.

| Sample Type | Sample size |
|---|-------------|
| | |
| Two-wheeler buyers: Bikes, Scooties, Scooters | 200 |

Data was collected intermittently during the second half of 2022. The respondents were men (as they are primary buyers of two-wheelers) from different income (low and middle income) and age groups (young and middle-aged).

Online structured questionnaire was selected as the research tool to understand the respondents and their preferences in a more consolidated and composite manner. It is convenient for the respondent as well as for the researcher. Most questions were simple and straightforward with MCQs and Likert Scale options. The questionnaire was interspersed with subjective type questions to gain deeper and richer insights. The data was analyzed via graphs and using descriptive and inferential statistics, depending on the type of question.

2.1 Data Collection and Sampling

A pre-tested questionnaire and a pilot survey were used for collecting the data. Two hundred respondents from across the country (excluding North-Eastern states) were sent an online structured questionnaire created using Google Forms and shared via email and WhatsApp. The sampling method used was a non-probability sampling method, i.e., quota sampling. This non-probability sampling technique was the most suitable as it allowed to research a representative stratum within the overall population. Only males were selected as secondary studies proved that this gender is the primary owner of two-wheelers (especially bikes and scooters). The research was thus conducted among males owning two-wheelers, belonging to the target group and having access to online platforms.

Further, the study was targeted at men from the urban population of India, who primarily fall in two age groups viz Young Adults (Age 18 to 24 years) and Young Professionals (Age 25 to 31 years). These two age groups also represent two different generations, Gen Z and Millennials, respectively. These two segments are the largest groups within the population of India, have a higher inclination towards two-wheelers, and have increasing purchasing power.

Responses were also collected across income levels, starting from less than INR 2 lakhs p.a. to more than INR 30 lakhs p.a. This was done to understand the differences in the consumption and buying patterns of men falling into different economic strata. The respondents cut across Metro cities and Tier I, II, and III towns (having representation from Delhi, Mumbai, Kolkata, Bengaluru, Hyderabad, Telangana, Pune, Gurgaon, Ahmedabad, Indore, Goa, Lucknow, Nagpur, Meerut, Ghaziabad, Ranchi, Raipur, etc.)

3. Data Analysis & Interpretation

In order to evaluate and analyze the data, an Excel spreadsheet was used to compute simple percentages of respondents answering the diverse options (and responding to 2-3 subjective questions) and presenting the data in tables and graphs. Based on the data findings and analysis, conclusions were drawn up. This section of the paper details out the data collated.

State State

Graph 3.1: Age

95% of respondents fall in the age bracket of 18-31 years, hence that becomes the age group for this study. 55% of respondents are between 18 and 24 years while 41% of them are between 25 and 31 years of age.

Graph 3.2: Household Income



Most respondents have an income of 10-20 lakh per annum, followed by 6-10 lakh per annum, and more than 30 lakhs per annum. This means that we have respondents who belong to the middle as well as upper-middle-income levels.

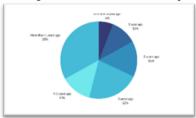
Graph 3.3: Variant & Brand Ownership



The choice of 2W ownership depicts high interest in bikes, followed by that in scooties. While only 16% of the respondents own a scooter, however, this segment has witnessed a steady recovery after the pandemic (KPMG, 2021). Note that some have more than one type of two-wheeler and have selected more than one option as well.

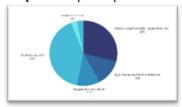
Brand Ownership: Brands like Honda, Bajaj, Hero, TVS, Royal Enfield, and Yamaha have high popularity. Honda is the most popular two-wheeler brand across bikes, scooters, and scooties.

Graph 3.4: Duration of ownership



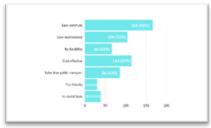
32% of the respondents have purchased a 2W in the last two years, i.e., after the pandemic had hit the nation. This shows a strong desire for having low maintenance and cost-effective vehicle during the pandemic to avoid reliance on public transport. The Graph also represents those who have had their 2W for more than 5 years. This segment individually occupies the largest chunk in the pie.

Graph 3.5: Impact of pandemic on usage



As expected, most respondents did not take immense care of their 2Ws during the pandemic and several lockdowns. However, what is interesting to note here is that a significant chunk also started using their 2W more than pre-pandemic times. Respondents have also spent more money in maintenance of their 2W and/or have gotten it upgraded.

Graph 3.6: Functional benefits



83% of respondents have highlighted "easy commute" as the main functional benefit that has become more important for them after the pandemic. Clearly, 2Ws are more convenient for shorter rides. With increasing urbanization and high traffic, 2Ws are the preferred mode of transport.

The functional benefit of low maintenance has been opted by 52% of respondents.

Graph 3.7: Emotional benefits

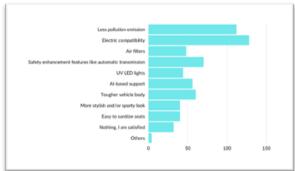
56% of respondents have highlighted "makes me feel self-reliant" as the emotional benefit of their 2W that has become more important for them after the pandemic.

52% of the respondents have also identified another similar thought of "gives me a sense of freedom".

Additionally, 42% have memories associated with their 2Ws that make them develop an emotional connection with it.

39% also have an emotional bond with their 2W because it supports them and their loved ones.

Graph 3.8: Changes desired



Respondents were asked to choose from several options, responding with certain changes they would like to see in their 2Ws.

64% want electric compatibility and 56% want less pollution emission from their 2Ws.

Safety enhancement features like automatic transmission and traction control are also given weightage by 35% of respondents and 20% of them desire an easy to sanitize seat.

28% of respondents would also want to have Artificial Intelligence based 2Ws.

3.1 Evolution of relationship with 2W since the pandemic

When asked to write about their evolved relationship with their 2W, the most common response (66% respondents) was that they started using it more - "helped me relieve stress as I would just take my bike out for a ride", "if you are scared of driving a car, your bike becomes your partner in every nag and discomfort", "since the traffic has reduced, it feels safer to commute and saves time and cost as compared to local transport", "The new normal has urged us to use it more often due to the behaviour of avoiding public transport and crowded commute for safety purposes and health measures", "Jai aur Veeru", and more similar responses...

However, 34% of respondents have stated that their relationship with their 2W has either remained the same or has reduced since the pre-pandemic times – "hasn't changed in particular", "it has always been special, and it remains that way", "usage has gone down, since most of the stuff needed was home delivered", "Forgotten how to ride one", and similar responses.

Strongly agree *Agree *Neutral *Disagree *Strongly disagree

*Strongly agree *Agree *Neutral *Disagree *Strongly disagree

*Strongly agree *Agree *Neutral *Disagree *Strongly disagree

I think in the coming months, I will be needing my two-wheeler even more

I am looking to shift towards electric two-wheelers

0 50 100 150 200

Graph 3.9: 2W Dependence

The first part of this question reconfirms that people are using their 2W more than they used to before the pandemic (32% agree with the statement).

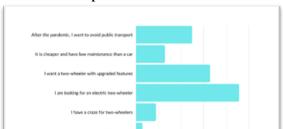
37% of them have agreed that they think in the coming months, they will be needing their 2W even more. This is in sync with the secondary research that shows an increase in the sales of 2Ws. Additionally, most respondents (37%) "strongly agree" that they are looking to shift towards electric 2Ws.

Graph 3.10: Repeat purchase



29% of respondents are looking to buy another 2W.

38% of them are at a 'maybe' stage with this decision. Therefore, 67% are likely to buy another 2W soon.

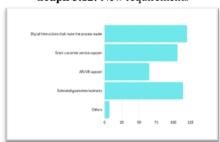


Graph 3.11: Reasons thereof

Out of those who want to buy another 2W (29% or 58 respondents), 57% want to buy it because they are looking for an electric 2W.

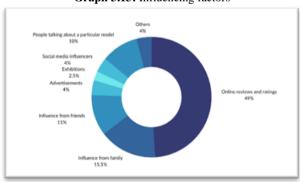
Around 40% want a 2W with upgraded features and 31% would want to buy because they want to minimize public transport usage.

Upgraded features are other unique requirements post pandemic. Interestingly, some percentage of respondents want to buy a 2W as it is cheaper and has low maintenance than a 4W.



Graph 3.12: New requirements

Digital is the way forward for repeat purchase. 60% seek digital interactions that make the buying process seamless. Almost an equal percentage of respondents (57%) want an extended guarantee/warranty, and 53% emphasized the need for great customer service.



Graph 3.13: Influencing factors

50% of respondents have earmarked 'online reviews' affecting their purchase decision. Clearly, online feedback is a trustworthy ally in consumers' decision-making process.

The rest of the factors like influence from friends and family are less important with less than 20% of respondents selecting those options.

3.2 Aspirational brands

Most aspired brands by the respondents are Royal Enfield and Honda because they trust these brands. These brands give them better mileage and are stylish. One respondent considers Royal Enfield to have an amazing style, sound, and comfort to even take it to the mountains – "hathi palna sabko nai ata." Most respondents who selected Honda did so as they are impressed by its excellence in delivering its promise.

Some bike lovers have also mentioned Harley Davidson as their aspired brand. They like that the company has a rich history of making excellent motorcycles with great body quality. They would also enjoy being associated with the brand because of its image and status.

4. Key Findings & Discussions

4.1 The SIESTA Factor:

- <u>Self-Reliance</u> is the key: The largest impact of the pandemic was felt on a day-to-day basis by consumers. Be it the lack of mobility, or the lack of house helps, people realized the best way to sustain oneself was to be self-reliant. And when it came to automobiles, consumers understood the importance of safer and more convenient personal vehicles. Two-wheelers emerged as the most desired option since the pandemic necessitated social distancing. Thus, public transport became a non-option and consumers opted for a two-wheeler of their own, even if it was a second-hand bike.
- <u>Image</u> is paramount: While functionality is a given, brand image is important to develop trust and reassure on reliability. That it helps the reflected image of the user is a bonus. Most respondents have chosen Honda as their aspired brand. It is also the brand that is owned by most of them. Hence, the pandemic has not created a massive shift in brand preferences.
- Environment needs attention/protection: The COVID-19 pandemic was a resounding affirmer of the importance of environment at a global level. Consumers are increasingly conscious of the role of each individual in conserving and protecting the environment. From personal hygiene habits to fuel consumption to carbon emissions and sustainability are all becoming a focus area for the educated and aware consumer. Driving an eco-friendly 2W is a definite desire amongst the targeted audience.
- <u>Seeking more ...and ever more:</u> Consumers Seek Dual Benefits of Easy Commute and Self-Reliance. What consumers are most grateful about their two-wheelers is that it provides them with both functional and emotional benefits. Functional advantage of helping them with easy commute to places and emotional benefit of making them feel self-reliant. These two benefits are actually the most realized ones during the pandemic. This is because the pandemic took these away from us and hence, people now seek them more than ever.
- Tech is King: As in life in general post pandemic, people now demand digitalization and new product features from their preferred brand of the two-wheeler. These include electric compatibility, less pollution emission, safety enhancements features, like automatic transmission, tougher vehicle body, and air filters. Some are even looking to buy another 2W just for upgraded features.
 - When it comes to FMCG, digital plays a very significant role today. Even with automobiles, we have understood that most respondents are wanting digital interactions that make the buying process seamless. These include online guidance, carousels, transactions, customer care, etc. This point is further endorsed by a response to another question where around 50% of respondents have stated that online ratings and reviews influence their 2W buying decision the most. Hence, companies should focus and invest in this space.
- <u>Automobiles are like family members:</u> Most respondents have experienced a changed relationship with their 2W. They have started using and valuing it more. While some claim it to be a *Jai & Veeru* kind of a relationship, most have realized it to be safer, cheaper, and reliant conveyance, helping them avoid local public transport.

 More than 50% of respondents have agreed or strongly agreed that they will be needing their two-wheeler even more in the coming months. This clearly depicts the increasing importance and dependence on it in their lives. Around 30% are also looking to buy another 2W soon.

4.2 The Evolving Cohorts:

- Enthu Newbies: Buying patterns are depicting that consumers are seeking innovation in two-wheelers. It has now become a category that needs to be equipped with superlative safety enhancement features like automatic transmission and traction control, quality indicators, UV LED lights, electric compatibility, AR/VR support, etc. Since two-wheelers are now becoming a reflection of lifestyles, consumers are wanting stylish and tough vehicle bodies. They gravitate towards brands that have a robust portfolio and a well-defined and well-delivered brand promise.
- **Ghumakkads:** Research and consumer behaviour studies are demonstrating that being independent and mobile was becoming increasingly important in the scheme of affairs. Being locked down, propelled consumers to find outlets to get out, even if it meant to run an errand or to get some fresh air. Within the prescribed government restrictions, short rides and trips to nearby markets or outlets was a reprieve sought by many. And two-wheelers came extremely handy for the same.

- Silent Worriers: A large segment of respondents have outlined and underscored the fears of the larger population as being prone to infection and disease due to unnecessary exposure in public transport. They have also discussed the impact of rising fuel costs compounded by higher acquisition costs of automobiles (resulting from higher sourcing and manufacturing costs, etc.). This segment chose two-wheelers as an alternate mode of transport under the duress of the pandemic related restrictions, but quickly realized the advantages from the health and economic perspectives.
- Tech Experts: Responses across questions have highlighted the fascination with Artificial Intelligence, Augmented Reality and/or Virtual Reality in two-wheelers. Most respondents would like the inclusion of these features to enhance the functioning and social status of their two-wheelers. While it cannot be said that these are only pandemic-induced desires, but the pandemic surely has made consumers learn about them more.
- Cocooners: The COVID-19 pandemic brought with it waves of lockdowns and work from home session. This brough about a mindset change in the behaviour of several consumers. They realized the benefits of reducing their carbon footprint (due to reduced commuting and travel), they enjoyed the benefits of being around family and having more time for personal activities or hobbies, they figured out an alternate working pattern which was more productive and wholesome. These cocooners soon traded their expensive four wheelers for two-wheelers to capitalize on the reduced demand of commuting.

4.3 Limitations:

- The generalizability of the research is limited by the sample size of 200. Although it is representative of the population, there could be variations in the results, if the research would have had a larger sample size
- Due to time constraints and the attention span of respondents, the questionnaire is kept compact and concise to gather only important consumer data.
- This research tries to examine consumer behaviour impacted by the pandemic, but it does not study the impact on other entities like auto dealers, marketers, etc. Future research could cover that spectrum
- This research is part of an overall and ongoing research on automobiles which covers four-wheelers as well. It is thus
 a partial representation of the overall world view on automobiles marketing and advertising and its impact on
 consumers.

5. Conclusion

Consumers are keen on buying a safer and more convenient personal vehicle. A two-wheeler is the most desired option. This is because the pandemic has created an innate need to stay away from public transport and opt for a two-wheeler of your own, even if it is a second-hand bike.

Purchase behaviour of searching online and buying offline has extended to two-wheelers (and automobiles, in general) as well. Both, secondary and primary research have proven this point. Thorough online research and comparison of various brands and models have become consumer habits. This is also going to increase the relevance of third-party sites reviewing automobiles.

This changing consumer behaviour is being heard by brands. Top two-wheeler players in the market like Bajaj, Yamaha, and Hero have launched new models with upgraded features preferred by consumers and are also associating with partnerships that will lead to easy manufacturing, scalability, sales, after-sales, and help garner government support. A slew of digital practices should also be explored along with discussion around the new consumer mores to be reflected in the advertising and promotion activities in the future.

6. References

- 1. Anand, N. (2020, July 7). *Two-wheeler revival may be slow: TVS Motor CMD*. The Hindu. https://www.thehindu.com/business/Industry/two-wheeler-revival-may-be-slow-tvs-motor-cmd/article32015754.ece
- 2. Arora, A. (2021, December 21). *Understanding the Indian consumer behaviour for buying vehicles in 2022*. The Financial Express. https://www.financialexpress.com/auto/industry/understanding-the-indian-consumer-behaviour-for-buying-vehicles-in-2022/2385182/
- 3. Arribas-Ibar, M., Nylund, P., & Brem, A. (2021). The Risk of Dissolution of Sustainable Innovation Ecosystems in Times of Crisis: The Electric Vehicle during the COVID-19 Pandemic. *Sustainability*, *13*(3), 1319. https://doi.org/10.3390/su13031319
- 4. Auto, E. T. (2021, August 25). *Government aims to raise auto sector contribution to GDP*, *job creation: Nitin Gadkari*. ETAuto.Com. https://auto.economictimes.indiatimes.com/news/industry/government-aims-to-raise-auto-sector-contribution-to-gdp-job-creation-nitin-gadkari/85633167
- 5. Bhatia, N. (2020, May 16). *COVID-19 impact: Research online, buy offline to gain momentum finds Autocar India PremonAsia survey*. Autocar India. https://www.autocarindia.com/car-news/survey-covid-19-impact-on-vehicle-use-417309

- 6. Bhatt, P., & Varghese, S. (2020). Strategizing Under Economic Uncertainties: Lessons from the COVID-19 Pandemic for the Indian Auto Sector. *Journal of Operations and Strategic Planning*, *3*(2), 194–225. https://doi.org/10.1177/2516600x20967813
- 7. Bryman, A. (2012). Social Research Methods: International Edition (Fourth ed., First Impression). Oxford University Press
- 8. CCSA. (2020). How COVID_19 is changing the world: a statistical perspective.
- 9. https://unstats.un.org/unsd/ccsa/documents/covid19-report-ccsa.pdfChhibber, B., & Gupta, N. (2021, March 4). *The Indian automotive industry: From resilience to resurgence?* McKinsey & Company. https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/the-indian-automotive-industry-from-resilience-to-resurgence
- 10. Chowdhury, J. R. (2021, May 24). *Covid-19: How the Indian auto sector got impacted*. The Financial Express. https://www.financialexpress.com/auto/industry/covid-19-how-the-indian-auto-sector-got-impacted/2256999/
- 11. Deloitte. (2020, February). Future of Mobility in India.
- 12. Desk, O. W. (2021, August 25). Govt Plans To Make Auto Sector Contribute More In GDP And Job Creation: Nitin Gadkari. Https://www.Outlookindia.Com/. https://www.outlookindia.com/website/story/business-news-govt-aims-to-raise-auto-sector-contribution-to-gdp-job-creation-gadkari/392646
- 13. Economic Times. (2021, June 14). *Higher incentives on electric 2-wheelers to reduce price gap with conventional vehicles: ICRA*. ETAuto.Com. https://auto.economictimes.indiatimes.com/news/two-wheelers/scooters-mopeds/higher-incentives-on-electric-2-wheelers-to-reduce-price-gap-with-conventional-vehicles-icra/83512163
- 14. ETAuto. (2022, January 24). *Union Budget 2022: Auto sector wants fiscal and policy support to battle the odds for resilience and survival.* ETAuto.Com. https://auto.economictimes.indiatimes.com/news/industry/union-budget-2022-auto-sector-wants-fiscal-and-policy-support-to-battle-the-odds-for-resilience-and-survival/89088735
- FE Bureau. (2021, May 24). Covid-19: How the Indian auto sector got impacted. The Financial Express. https://www.financialexpress.com/auto/industry/covid-19-how-the-indian-auto-sector-got-impacted/2256999/
- 16. Furcher, T., Holland-Letz, D., Rupalla, F., & Tschiesner, A. (2021, September 2). *Car buying is on again, and mobility is picking up*. McKinsey & Company. https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/how-consumers-behavior-in-car-buying-and-mobility-changes-amid-covid-19">https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/how-consumers-behavior-in-car-buying-and-mobility-changes-amid-covid-19
- 17. Hensley, R., Maurer, I., & Padhi, A. (2021, July 19). *How the automotive industry is accelerating out of the turn*. McKinsey & Company. https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/how-the-automotive-industry-is-accelerating-out-of-the-turn
- 18. IBEF. (2021, August). Automobiles
- 19. India Brand Equity Foundation. (2021, November 1). *Automobile Industry in India*. https://www.ibef.org/industry/india-automobiles.aspx
- 20. Jayasingh, S., Girija, T., & Arunkumar, S. (2021a). Factors Influencing Consumers' Purchase Intention towards Electric Two-Wheelers. *Sustainability*, *13*(22), 12851. https://doi.org/10.3390/su132212851
- 21. Johntson, M. P. (2014). Secondary data analysis: A method of which time has come. Qualitative and Quantitative Methods in Libraries (QQML), 3(1), 619-626.
- Kidambi, R., Bhattacharyya, S. B., & Mishra, R. (2020, April 30). COVID-19: Altered consumer behaviour to redefine demand, shape automotive industry. The Financial Express.
 https://www.financialexpress.com/auto/industry/coronavirus-car-sales-boom-bike-sales-boom-job-losses-pay-cuts-covid19-kearney/1941800/
- 23. Kiran Raj, K.M., & K. G., Nandha Kumar. (2021, February). *Impact of Covid-19 Pandemic in the Automobile Industry: A Case Study*. International Journal of Case Studies in Business, IT, and Education (IJCSBE). (5(1), 36–49). https://doi.org/10.5281/zenodo.4505772
- 24. KPMG. (2021, September). The future of mobility in post-COVID-19 India.
- 25. Lowe, C., & Zemliansky, P. (2010). Writing Spaces I [E-book]. Amsterdam University Press.
- 26. Miller, M. (2021, February 2). *Younger Generations Propel Auto Industry Changes*. Experian Insights. https://www.experian.com/blogs/insights/2021/02/younger-generations-propel-auto-industry-changes/
- 27. Nandigam, S. (2021, April 9). *Used bikes sales up by 27 percent during COVID-19 pandemic: Here's why*. The Financial Express. https://www.financialexpress.com/auto/industry/used-bikes-sales-covid-19-pandemic-used-honda-bikes-used-sajaj-bikes-used-scooters-exchange/2229872/
- 28. Nayak, J., Mishra, M., Naik, B., Swapnarekha, H., Cengiz, K., & Shanmuganathan, V. (2021). An impact study of COVID -19 on six different industries: Automobile, energy and power, agriculture, education, travel and tourism and consumer electronics. *Expert Systems*. https://doi.org/10.1111/exsy.12677
- 29. Paliwal, A. (2020, November 3). *Indian economy sees uptick, auto sector shifts into higher gear*. India Today. https://www.indiatoday.in/business/story/indian-economy-automobile-sector-uptick-1737750-2020-11-03
- 30. Pandemic-induced consumer behaviours are here to stay: Marketer's Toolkit 2022. (2021, November 12). WARC. https://www.warc.com/newsandopinion/news/pandemic-induced-consumer-behaviours-are-here-to-stay-marketers-toolkit-2022/en-gb/46718
- 31. Pandey, M. M. (2015). Research Methodology. Bridge Center.

- 32. Press Trust of India. (2021, December 19). *Majority of consumers have strong intent to buy vehicle in next 12 months, finds survey*. The Economic Times. https://economictimes.indiatimes.com/industry/auto/auto-news/majority-of-consumers-have-strong-intent-to-buy-vehicle-in-next-12-months-survey/articleshow/88369918.cms
- 33. Press Trust of India. (2021, June 14). *Higher incentives on electric 2-wheelers to reduce price gap with conventional vehicles: ICRA*. ETAuto.Com. https://auto.economictimes.indiatimes.com/news/two-wheelers/scooters-mopeds/higher-incentives-on-electric-2-wheelers-to-reduce-price-gap-with-conventional-vehicles-icra/83512163
- 34. Press Trust of India. (2021b, June 20). Yamaha looks to capitalise on preference for personal mobility post-COVID; to press ahead with retail expansion. The Economic Times. <a href="https://economictimes.indiatimes.com/industry/auto/two-wheelers-three-wheelers/yamaha-looks-to-capitalise-on-preference-for-personal-mobility-post-covid-to-press-ahead-with-retail-expansion/articleshow/83683020.cms?from=mdr
- 35. Rajora, R. (2021). Consumer Buying Behavior In Automobile Sector And How It Will Get Impact After Covid-19 (8(2)). European Journal of Molecular & Clinical Medicine.
- 36. Second wave impact on hinterland to restrict two wheelers volume growth at 10–12%. (2021a, July 16). CRISIL. https://www.crisil.com/en/home/newsroom/press-releases/2021/07/second-wave-impact-on-hinterland-to-restrict-two-wheelers-volume-growth-at-10-12-percent.html
- 37. Shaheen, M., Pradhan, S., & Ranajee, R. (2019). Sampling in Qualitative Research. *Advances in Business Information Systems and Analytics*, 25–51. https://doi.org/10.4018/978-1-5225-5366-3.ch002
- 38. Sharma, A., & D. (2021, August). *Impact of Covid-19 on Two -Wheeler Market in India* (6(8)). International Journal of Innovative Science and Research Technology.
- 39. Shifting gears: COVID-19 and the fast-changing automotive consumer. (2021, January 27). Capgemini India. https://www.capgemini.com/in-en/news/87-of-global-consumers-prefer-to-use-a-personal-vehicle-to-ensure-safe-travel-up-from-57-in-april-2020/
- 40. Sinha, D. (2021, September 29). *A festival to remember: How India will celebrate this year*. WARC. https://www.warc.com/newsandopinion/opinion/a-festival-to-remember-how-india-will-celebrate-this-year/en-gb/4413
- 41. Society of Indian Automobile Manufacturers, & Banerjee, P. K. (2021, June). Indian Two-Wheeler Industry.
- 42. Susairaj, D. A. X., Salaijayamani, A., & Premkumar, A. (2021). Impact of Covid-19 on Automobile Industries in India. *Emperor Journal of Economics and Social Science Research*, 03(05), 40–50. https://doi.org/10.35338/ejessr.2021.3505