

Impact of Techonolgy and Digitalisation on Two-Wheeler Buying Behaviour

Diwakar Raj.S¹, Dr. Marie Johnson²

¹Research Scholar, Sathyabama Institute of Science and Technology, Rajiv Gandhi Road, Chennai. 600119

²Research Supervisor, Sathyabama Institute of Science and Technology, Rajiv Gandhi Road, Chennai. 600119

Email: ¹grabdiwa@gmail.com, ²drkannan.soms@sathyabama.ac.in

Abstract: With the advent of technology there are many changes which is taking place in all walks of life especially in decision making. Consumer decision making is largely influenced with the introduction of technology and increase use of them by customers. Hence all kind of organisation require to innovate new aspects to satisfy the the changing need, preference and taste of consumers. Number of automobiles keeps increasing and its buying decision unless like early generation is heavy impacted by technology as a part of product and also as decision making process.

Technology available in automobile which is for safety, Trend and convenience also play a role in buying automobile. Using technology in every part of life has become lifestyle now a days and it plays a crucial role in consumer purchasing decision. This conceptual paper discuss about various technology and services which is impacting two wheeler buying decision in this internet era.

Keywords: Buying Decision, Technology, Digital Transformation.

1. Introduction

Pandemic had a negative impact on every industry worldwide. The outbreak's wrath fell upon the automobile sector too. Due to the lack of semiconductor chips, manufacturing facilities were closed down, logistics systems reduced its efficiency hence two-wheeler sales fell.

However, Indian auto OEMs reported investing INR 98,700 crore in the year 2021. This has benefited the auto sector, allowing for the seamless configuration of digital transformation into their operations. For customers, companies turned to online dealerships, bookings digitally, convenient test drives, and delivery of vehicle; for OEMs, they used blockchain technology, Artificial Intelligence and machine learning, for better inventory management systems.

Two-wheeler automobile sector integrated lot of technologies into the product to gain competitive advantage and also digital transformation assists and elevated consumers to make they're not just by traditional decision-making process.

On time delivery and services is considered as one of the important factors for buying decision and companies are applying machine Learning and artificial intelligence to solve the supply chain issues.

Applications with AI, such as time series forecasting method, can help for better efficiency and to accurately predict or foresee the demand for two-wheelers. Forecasting is done by looking at historical data on sales, the economy, product reviews, and competitors. One of the main problems in the global supply chain crises, delayed vehicle delivery by months owing to a lack of semiconductor chips, can be resolved with the use of artificial intelligence (AI), and it can lead to a 5–10% improvement in operational efficiency. Companies like Hero MotoCorp signed a contract with Accenture in order to take advantage of the business analytics, data warehousing, AI, and Machine learning system and digitise the supply chain platform in order to gain a more comprehensive understanding of the operations.

Additionally, modern inventory management systems give manufacturers and merchants real-time access to inventory availability and incoming shipments across several channels, improving their ability to predict delivery times and increasing consumer happiness.

Consumers are not happy with the delay in two-wheeler delivery due to lengthy and time-consuming registration process. Hence in order to improve the system and process, governmnet of India launched a wesite called VAHAN for the seamless and quick delivery experience for the consumers. With this system, one can easily access the website for communication in respect to registration of vehicle, taxes and fitness etc. Digitalization

of Registration of Certificate transfer process by the Indian Government is another step that has been implemented to remove the delay in automobile registration process.

2. Review of Literature

Dr.V.Ramesh Naik, P.Sai Sreeja, T.Suresh

“Internet is no more a luxury but an essential part of life” is the prime reason for this study. People use it in numerous ways and purchasing decision based on it is one among them. This Study focuses on how technology helps in consumer’s buying decision process of mobile phones. It is stated that 51 percent of samples prefer internet as the tool to get the details of the product followed by television and newspaper. Also, consumers prefer online purchase due to vast growth in technology and increased convenience. Among the popular e-commerce companies, Flipkart was preferred on the top followed by amazon.

Dr. Shamsheer Singh, Ameet Sao

This paper focuses on impact of social media marketing in decision process of buyers in Automobile sector. Respondents from Delhi were chosen for this organized study who were clients of social media. Social Media Marketing were considered by majority of respondents in four dimensions viz., Information gathering, Opinion seeking and Sharing, Individual engagement and advertising content. Through regression analysis it was stated that social media marketing played a significant role in automobile consumer’s decision process.

Julie Jose, in her article titled “Impact of Technology on Consumer Behaviour” stated that the vast transition of technology from pre-1800 traditional shops era till 2000s internet era has made technology an indispensable factor in our day today life and has a great influence in buying behaviour of various consumers. It is stated that the smart phone is the foremost technology and beneficial shopping aid, which helps consumers in getting details about the various brands and products available in the market. Social media is the next technology which acts as a platform for consumers and sellers. Social media sites like Facebook helps were sought advice on purchasing a product. Companies too use those platforms to influence consumer’s opinion. Mobile Apps and Mobile payments ease the buying process of Consumers.

Roy Darioshi, Eyal Lahav

in their article stated that technology is the most essential tool in decision process which has its own usages and side effects. It is stated that information overload is happening due to technology but at the same time unreliable information also hampers the decision process. Frequent exposure to the information about the products causes bias in decision making of the consumers. One of the main side effects of technological advancement is Digital amnesia, which is tendency of consumers to forget the information frequently. Usage of defaults shortens the decision process and can also cause biases on the other hand. This paper also states that influence of technology is enormous right from collection of data till a particular brand is chosen.

Sylos, in a study titled “Technological evolution and tourist decision-making: a perspective article” had stated that technology not only impacts the decision making of products but also in service sector. This paper emphasizes on role of cognitive technologies like Artificial Intelligence application in decision making behaviour of tourist. It is concluded that with the use of digital technologies and cyber physical systems, the technology has a structural role to play in tourist decision process.

Technologies Applied in two-Wheeler For Better Services

Blockchain technology

The automobile sector, seen in its entirety, is made up of intricate processes with several players. Because it can track through signals of the vehicle parts, warranties, history of the maintenance, emissions level of carbon, EV battery life, and black boxes among other things, blockchain technology can therefore assist OEMs in evaluating the safety and efficiency of the processes right from the stage of production to the post-delivery of two-wheelers.

Additionally, manufacturers can utilise blockchain technology to comprehensively handle the invoicing, contract negotiations, acquisitions, warehouse management, and receipts.

Consumers can ensure Safety, efficiency and on-time delivery with the use of block chain technology by automobile two-wheeler segment.

E-Commerce and Virtual Experience Centres

According to a statistics research by statistica, there were 850 million internet users in India as of 2022, and it is predicted that there would be 1.5 billion by 2040. The majority of the population in India is made up of

millennials and Generation Z, who are used to buying products online due to its convenience and speed. Nine out of ten people who are considering purchasing a two-wheeler begin their online search by reading reviews, viewing videos, and doing vehicle research. As a result, technological advancement has never been more rapid. An automated e-commerce platform is used to set up showrooms for the metaverse, bringing all brands together. Customers can now compare brands, experience the appearance and feel of the vehicle while sitting at home, and make an informed choice.

According to a poll, 20–25% of users want the vehicle delivered right to their door. As a result, businesses are enabling the doorstep delivery model for their system, and the buyer receives the vehicle at their doorstep. Some companies adopted an e-commerce strategy and had tremendous success; as a result, legacy companies joined the bandwagon.

Enormous growth and developments are taking place in the two-wheeler industry. India is a growing nation at high pace and is gradually accustomed to the advanced and innovative technologies onto becoming one of the strongest digital economies in the world.

Below are the five technologies that will surely influence the two wheeler market in consumer decision for ensuring safety:

- Anti-lock Braking System for better safety
- Slipper Clutch for efficiency
- Traction Control System for security
- Augmented Reality Helmets for convenience
- Ride-By-Wire

To increase bike productivity and sales, numerous innovative technologies are being launched in the two-wheeler sector. However, the price of vehicles is rising along with these new developments. In order to differentiate their products from the competition and draw in more buyers, manufacturers are turning to pricey and cutting-edge technologies. As a result, the cost of production is rising as well, raising the entire cost of automobiles.

However consumers are willing to accept the costs it ensures high safety, security, convenience and feel good experience. Unlike previous generation who purchase 2two Wheeler for regular use, current generation is also purchasing two wheeler for exhilaration, relaxation, and pleasure which the usage of technology in automobiles provide as of today.

The Impact of Technology on Transformation for Customer's Two-Wheeler Buying Behavior

Today AI enabled online auto portals are providing significant informations to the consumers to evaluate the buying decision. With the increase in use of internet search and mobile shopping for making buying decision, digital influencers are influencing consumers to a larger extent.

In this information era, decisions are derived based in the information used from various sources hence technology and digital platforms play a significant role.

FIGURE 1

Top information sources in order of impact: Buyers across generations are influenced the most by dealer websites

Percent of buyers that rated each information source highly (4 or 5) on a 5-point scale.



Source: Deloitte Global Automotive Consumer Study, 2018.

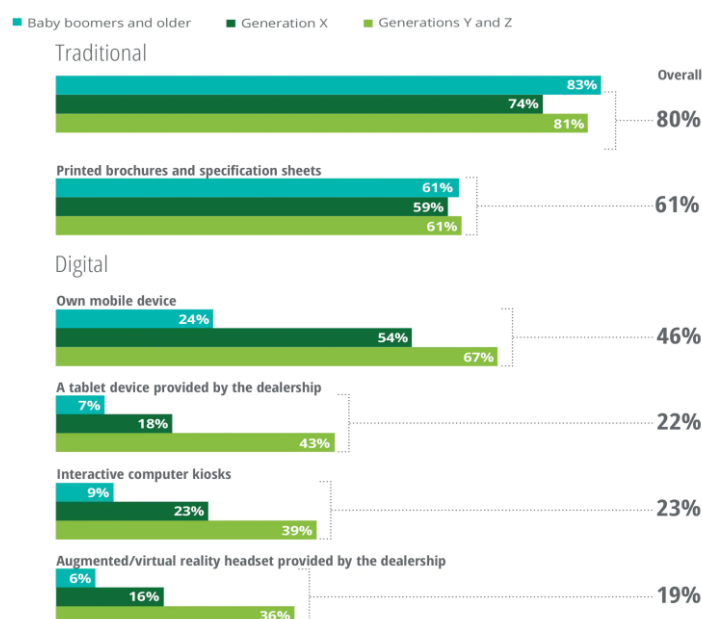
Deloitte Insights | deloitte.com/insights

Below figure shows how various sources of information is used by different generations to make buying decisions in automobile sector.

FIGURE 2

Usefulness of information channels at a dealership: Auto buyers across generations prefer traditional channels

Percent of people that rated each information source as somewhat/very useful.



Source: Deloitte Global Automotive Consumer Study, 2018.

Deloitte Insights | deloitte.com/insights

Electric vehicles

The introduction of electric vehicles is another factor that is having a high impact on the automotive sector. Electric two wheeler was not well accepted initially due to infrastructure and technical issues it is very clear that it lacked several features compared to fossil fuel automobiles. However E-vehicles and two wheelers are more prevalent than before in recent years. E vehicles are encouraged by government, companies, people with environment concern, fuel efficient minds etc., With the improved infrastructure, technology, convenience and cost savings in long run e-two wheelers are considered well in buying decision.

3. Conclusion

The findings demonstrate that from the perspective of the consumer, there will be higher satisfaction with the necessary services as well as access to new and better services with the use of technology such as block chain, machine learning and artificial intelligence..It is evident from the study that the current generation is more reliable on digital platform and online influencers and technologies that are heavily used in the product. They also believe that updated technology in two wheeler would provide more safety, convince and pleasure than the traditional products.Hence Technology and digital transformation plays a crucial role in consumer buying decision and manufacturers will benefit from investing in suitable strategies for adjusting to the digital transition in terms of increased earnings, productivity, and competitiveness.

4. References

1. <https://www2.deloitte.com/us/en/insights/industry/automotive/digital-technologies-transform-car-buying-experience.html>
2. <https://timesofindia.indiatimes.com/blogs/voices/digital-technology-transforming-the-delivery-of-two-wheelers/>
3. <https://auto.economictimes.indiatimes.com/news/passenger-vehicle/cars/view-the-impact-of-technology-on-revolutionizing-customers-buying-behaviour-for-usedcars/65735710>
4. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7543716/>
5. Dr.V.Ramesh Naik, P.Sai Sreeja, T.Suresh, 2018 "A study on impact of technology on Consumer buying behaviour towards branded mobile phones" ,5th international conference on recent advances in engineering science and management, New Delhi, ISBN:978-93-86171-97-9

6. Dr. Shamsher Singh, Ameet Sao (2021), Impact of Social Media Marketing in Consumer Buying Behavior in Automobile Industry: An Empirical Study in Delhi, Turkish Online Journal of Qualitative Inquiry (TOJQI) Volume 12, Issue 7, July 2021: 6278- 6292
7. Jose, J. (2017). Impact of Technology on Consumer Behaviour. IRA-International
8. Journal of Management & Social Sciences (ISSN 2455-2267), 6(2), 264-267.
9. Darioshi R, Lahav E The impact of technology on the human decision making process. Hum Behav & Emerg Tech. 2021;3:391-400, <https://doi.org/10.1002/hbe2.257>
10. Stylos, N. (2020), "Technological evolution and tourist decision-making: a perspective article", Tourism Review, Vol. 75 No. 1, pp. 273-278. <https://doi.org/10.1108/TR-05-2019-0167>