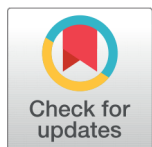


RESEARCH ARTICLE



The Role of Digital Touchpoints in Car Purchasing - An Empirical Research Concerning the Indian Market

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Abstract

Objectives: The present research aims to study how digital touchpoints impact the exploration of purchase opportunities for customers in car purchases. Another purpose is to explore how customers use digital touchpoints to gather information and how it influences their purchase decisions. It also aims to explore the potential mediation effect of "exciting pursuit" on the relationship between using digital touchpoints and exploring purchase opportunities.

Methods: The study employed a descriptive approach. A structured online questionnaire was framed that encompassed digital touchpoint usage, information search experience, and purchase opportunities. Stratified and purposive sampling techniques were used to collect data from 605 car owners and prospective buyers across five high-selling states in India. Data analysis via SPSS & SMART-PLS confirmed construct validity, revealed the direct and indirect effects of the model. **Findings:** Websites and non-official websites emerged as preferred digital touchpoints for information search. Most customers were male (61.4%), aged between 30 and 35 (35.4%). Customers' age is associated with the official websites ($p=0.001$, $\chi^2=14.21$) and YouTube ($p=0.007$, $\chi^2=18.698$) usage. Enabling digital content search (EDCS; $\beta=0.311$, $t=7.331$), appropriateness of digital information (AOI; $\beta=0.594$, $t=11.556$) positively impact Exciting Pursuit (EP; $\beta=0.629$, $t=27.610$) and the customer's interest in exploring various purchase opportunities (EPO). EP ($t=28.525$) significantly influences EPO and act as a mediator between EDCS/AOI ($t=11.834/t=7.399$) and EPO. **Novelty:** This research focuses on the role of digital touchpoints in the car purchase journey in India. It focuses on the customer's emotional response to the digital touchpoints, which are used to gather information for their purchase, and it is creating a mediating effect of exciting pursuit in the relationship between digital touchpoints and purchase opportunities. By leveraging the S-O-R model, this study contributes to the current discussion regarding the changing role of digital touchpoints in the automobile industry.

Keywords: Digital Touchpoints; Digital Marketing; StimuliOrganismResponse Model; Car Buyer Behaviour; Automobile Industry; Structural Equation Modelling

1 Introduction

The process of converting analogue into digital is known as digitization. Consumers today use technology and prefer internet sources of information as their major decision-making tool. The updated online information allows customers to explore their options about car models. Online touchpoints such as corporate websites, search engines, social media, web display banners, and electronic word-of-mouth communication can provide quality and supportive information to customers about the products and services⁽¹⁾. Rich online information improves consumers' knowledge and confidence when purchasing items in physical shops. It influences their purchasing intentions and also decreases their interaction with salespeople⁽²⁾. Purchasers use several online websites to gather information about product features and market value. Most of the buyers became more knowledgeable before making a purchase as a consequence of the products and their pricing comparisons on various websites⁽³⁾. The consumers were focused more on the desirability of a product in the digital channels and the feasibility of a product in the physical stores. The digital channels drew consumers attention to gather information about the products⁽⁴⁾.

Touchpoints are interactions that occur when customers come into contact with a brand or organization via digital or physical channels along their purchasing journey⁽⁵⁾. Nowadays, companies communicate and interact with customers over an extensive range of digital touchpoints, such as official and non-official websites, social media sites, email campaigns, and search engines. In particular, websites and applications accessible through smartphones or tablets were known as mobile touchpoints⁽⁶⁾. The customers use these touchpoints for the desired product comparison and interact with the customer service representatives for their purchase⁽⁷⁾. This digital revolution has reshaped the Indian car market and its revenue is projected to reach \$512 billion by 2026. India will have the second-largest number of internet users, extending to a significant milestone by 2024, and it will be in second place after China⁽⁸⁾. In the traditional days, customers visited brick-and-mortar showrooms to gather information before their purchase; however, today's car buyers, armed with smartphones, research, compare, and even make purchase decisions from the comfort of their homes. Indian consumers show a significant departure from previous habits of visiting the showroom, interacting with dealers, and gathering details about the product⁽⁹⁾. A survey gathered responses from more than 5,500 new car owners who bought vehicles. A noteworthy number of people used online resources to research their car purchases before heading to a showroom⁽²⁾.

Existing research mainly focuses on broad trends and usage of digital touchpoints in different fields such as e-service, digital advertising, e-commerce, education, and the use of particular digital channels in buying a car. However, there is a gap regarding the customer's emotional response to the digital touchpoints that are used to gather information about their car brand and models. This study aims to fill the research gap by studying the customers emotional responses after using digital touchpoints and their influence on their exploration of purchase opportunities in the Indian context. To address this gap, the following research questions were formulated: What are the demographic factors of customers who use and prefer digital touchpoints for information search for their car purchase? 2) How do digital touchpoints influence customers' car purchase opportunities in India? 3) What are the factors that have a direct and indirect effect on the customer's car purchase options?

This study primarily deals with the impact of digital touchpoints on customers exploring purchase opportunities for passenger cars. It also analyses the digital

touchpoints that are often used to collect information about cars. The research is conducted with three objectives. The first is to identify the demographic profile of customers using digital channels while purchasing a car. The second objective is to study how digital touchpoints impact the exploration of purchase opportunities for customers concerning car purchases. The final objective is to find the indirect effect of exciting pursuits when using digital touchpoints.

1.1 Literature Review

Few significant studies say that customers use social media to share their purchasing experiences. Customers use online sources to identify the psychographic variables of the products but purchase them in the physical store. This process is known as Research Online Purchase Offline (ROPO). These customers have been named as social media enthusiasts. Conversely, another customer group is segmented as Internet-focused, which exploits social media, mobile stores, and internal channels for buying activity⁽³⁾. The research conducted on the effect of online and offline channels on consumer decisions stated that digital channels increased the psychological distance of customers and made them pay attention to collecting information about the product based on their desires⁽⁴⁾. Another research on e-service touchpoints using two different modes, such as smartphones and terminals, available in brick-and-mortar retail stores highlighted that customers preferred smartphones over terminals to avail of e-services at retail stores⁽¹⁰⁾. A study reveals that customers need comprehensive information to buy any product. The customers' needs made them search for information using digital sources and buy offline (webrooming). Due to the availability of data on digital channels, customers were able to access them for comparisons, collect product features, and research the product's entire information that they desired to purchase. Corporate websites were the most significant digital touchpoint for consumers to gather information and compare their desired products with alternatives. The main digital touchpoints, such as official and non-official websites, mobile applications, live chat, email, social networking sites, and blogs, were much focused in this research. The results revealed that customers relied on digital touchpoints throughout their buying journey⁽¹¹⁾. One of the studies highlighted that the omnichannel touchpoints had influenced the customer's decision to purchase any products in the retail industry. Social media was one of the touchpoints and most recognized factors by the customers that played a crucial role in their decisions during their purchases in retail stores⁽¹²⁾. Easily accessible browsers and search engine websites have created unprecedented changes in customer mentalities. Further, technology at anytime and anywhere has contributed to bulk purchases and market creation. One research finding from previous studies showed that most respondents who bought cars using digital channels. Easy interaction, being highly informative, and availability were said to be the reasons by the customers. They also believed that digital media reduced the time to visit the showroom⁽¹³⁾.

In all the studies reviewed here, it is recognized that digital touchpoints are more convenient than traditional sources for purchasing a product. Most of the research has focused on the digital channels used by customers. Hence, the present study investigates how far digital touchpoints are used during car purchases, where demographic variables are more associated with digital touchpoint usage, and to know the customer's emotional response to the digital touchpoints while gathering information for their car purchase.

1.2 Stimulus-Organism-Response Model

The theoretical model and hypotheses developed for this research were based on the stimulus-organization-response (S-O-R) model proposed by Mehrabian and Russell. This model is used to explore the relationship between S (stimulus) and R (response) and how the mediator (Organism) affects it. This model was developed to understand the psychological changes and responses due to external factors. Pavlov used the classical theory of the SOR model to understand consumer buying behaviour. The stimulus-organism-response (S-O-R) model is used to examine the association between stimulus and response and how the organisms mediate these relationships. In a consumer decision context, "stimulus" (S) refers to the external factor influencing the customer to decide the purchase. "Organism" (O) refers to customers' feelings and thought processes. The last term, "response" (R), denoted the behavioural activities of the customers and the outcome of their external factors. Several studies were done in different contexts, such as virtual tourism, online shopping platforms, eCommerce applications, Instagram shop features, mobile technology users' virtual experiences, etc.

In this study, the enabling digital content search (EDCS) factor helps customers understand digital touchpoints and how it is beneficial to search for information and access the same regarding car brands and models. Therefore, EDCS is one of the stimulus factors for customers. The appropriateness of information (AOI) describes whether customers obtain high-quality information from digital touchpoints and the usefulness of digital touchpoints for information searches; hence, it is another stimulus factor. The exciting pursuit (EP) factor explains how exciting digital touchpoints are, when it comes to operating by customers, it also observed the customers use them without assistance, and how interactive they are with customers while searching for information. Hence, the exciting pursuit is an organism factor. Exploring purchase opportunities (EPO) describes

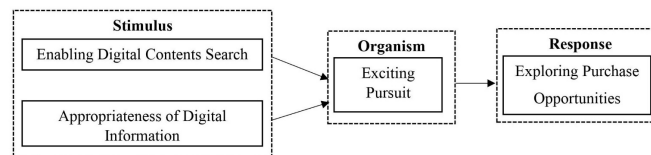
Table 1. Literature Review – Stimulus-Organism-Response Model & Mediating Variables

Authors	Year	Theory/ Model	Application	Mediator
(14)	2022	SOR	Instagram Shop Features	Trust, Satisfaction
(15)	2022	SOR	Virtual mountain walking tourism	Emotional Involvement, Presence, Flow State, Enjoyment
(16)	2021	SOR	Virtual experience of users using mobile technology	Perceived usefulness, satisfaction, flow, involvement, telepresence
(17)	2021	SOR	IKEA Place (Ecommerce application)	Enjoyment, Immersion, choice confidence, Usefulness,
(18)	2022	SOR	Sustainable Cosmetics	Brand Evaluation and Brand Attractiveness
(19)	2020	SOR	Omnichannel Behavior	Internal Sales
(20)	2022	SOR	Hot spring resorts	Customer emotions, Behavioral intentions, Service climate, and employee engagement.

whether digital touchpoints encourage customers to respond, like booking a test drive, visiting the official website for purchase, and visiting a showroom to purchase after searching for information about their preferred car brands and models. Therefore, it is a response factor.

1.3 Conceptual Framework

The Figure 1 shows the proposed conceptual frame work

**Fig 1. Conceptual Framework**

1.4 Hypothesis

In this study, researchers used this model to examine the impact of digital touchpoints that stimulate customers to purchase and to analyze the mediation effect of the organism. The hypotheses were developed as

H₁ – There is an association between age and digital touchpoints used by the respondents.

H₂ – Enabling Digital Contents Search (EDCS) has a positive impact on exciting pursuit

H₃ – Appropriateness of Information (AOI) has a positive impact on exciting pursuit

H₄ – Exciting Pursuit (EP) has a positive impact on exploring purchase opportunities

H₅ – Exciting Pursuit has a mediating effect on Enabling Digital Contents Search (EDCS) and exploring purchase opportunities.

2 Methodology

The research design employed in this study is descriptive in nature, which aims to provide a comprehensive understanding of how digital touchpoints factors impact the purchase opportunities for customers in car purchases in India and also explore the direct and indirect effect of exciting pursuit on exploring purchasing opportunities. Only gathering information using digital touchpoints on non-commercial car purchases is considered for this study. The samples are selected based on the state-wise report on four-wheeler vehicle registrations in India⁽²¹⁾. The top five cities are selected for the study, namely Uttar Pradesh, Maharashtra, Tamil Nadu, Karnataka, and Gujarat, the states have shown substantial contribution to car sales until June 2022. There were two stages used in the sampling process. In the first stage, stratified sampling was used to sort the respondents based on the state-wise number of four-wheelers sold. Purposive sampling was employed in the second stage to collect responses from the respondents. The sample size was determined from the five-city four-wheeler registration count using Slovin's formula,

with a 4 percent error of margin which is considered adequate for this study. A well-structured and closed-ended questionnaire using a Likert (5-point) scale was framed for the buyers of specified types of cars, such as hatchbacks, multiple-purpose vehicles (MPVs), sports utility vehicles (SUVs), crossovers, and sedans. The questionnaire consisted of four constructs: enabling digital content search (EDCS, 4 items), appropriateness of digital information (AOI, 3 items), exciting pursuit (EP, 4 items), and exploring purchase opportunities (EPO, 4 items).

A total of 645 questionnaires were circulated to non-commercial car owners and prospective buyers, and 605 samples were received with complete responses. The chi-square test was performed to test the association between the age and digital touchpoints used by the respondents. The exploratory factor analysis (EFA) was employed to assess the validity of the constructs used in this study, which helped to identify the underlying factors within a set of measured (observed) variables. Data analysis was carried out using descriptive analysis and factor analysis using SPSS 24 and partial least squares-based structural equation modelling (PLS-SEM) using SMART PLS software. PLS-SEM is predominantly well-suited for analyzing complex relationships and handling formative and reflective models with a small sample set. Furthermore, PLS-SEM accommodates non-normal data commonly encountered in social science research and navigates direct and indirect relationships in complex models⁽²²⁾. Subsequently, the amalgamation of EFA in SPSS 24 and PLS-SEM using Smart PLS software provided a powerful means to validate the constructs in the model and test the hypotheses formulated.

3 Results and Discussion

3.1 Demographic Profile

Table 2. Demographic profile of the respondents

Particulars	Levels & Percentage				
Gender	Male 61.4%		Female 38.6%		
Age	21-25 years 10.3%		26-30 years 27.0%	31-35 years 35.4%	35-40 years 16.8% Above 40 10.5%
Education	Higher secondary 8.6%	Diploma 6.5%	Graduate 29.9%	Post graduate 36.5%	Doctorate 19.5%
Income slab	Below 5 lakhs 16.4%	5 to 10 lakhs 34.9%	10 to 15 29.7%	15 to 20 lakhs 9.2%	> 20 lakhs 9.9%

The Table 2 illustrates the demographic characteristics of the respondents like age, gender, education, and income of the respondents. The predominant age limit of the respondents (35.4%) was from 30 to 35 years. Among which, the male samples (61.4%) were higher than the female samples. Almost 36.5 percent of samples were postgraduates, and the average income of respondents was between 10 and 15 lakhs.

3.2 Chi-square

- **Age and digital touchpoints used by the respondents**
 - **Hypothesis**

A hypothesis was framed to find the association between the age and digital touch points used by the respondents.

H₁ – There is an association between age and digital touchpoints used by the respondents.

Table 3. Chi-Square Results-Age and digital touchpoints used by the respondents

Digital touchpoints	You tube	Social network sites	Official websites	Smart phone applications (App.)	Non-Official sites	web-sites
Pearson Chi-Square	14.21	2.34	18.698	0.484	0.560	
Likelihood Ratio	14.31	2.35	19.271	0.478	0.572	
Linear-by-Linear Association	8.96	1.609	10.720	0.074	0.088	
Sig. Value	0.007	0.672	0.001	0.975	0.967	
No. of Valid Cases	605	605	605	605	605	

The chi-square test was performed at a 5% level of significance. This Table 3 displays the significant values of YouTube (0.007), social sites (0.672), official websites (0.001), smartphone applications (0.975), and non-official sites (0.967). This result

suggests that the significant values of all the digital touchpoints are greater than the p-value (0.05), except the official website and YouTube. So, the alternative hypothesis is rejected. Thus, it proves that the age of the customers is not associated with the digital touchpoints used. On the other hand, the customers' age has an association with their usage of the official website and YouTube digital touchpoints.

3.3 Factor Analysis

Table 4. Rotated Component Matrix for Digital Touchpoints

Items	Particulars *DT-Digital touchpoints	Component			
		1	2	3	4
EDCS-1	DT give adequate information about car models.	.859			
EDCS-2	DT minimize the time for gathering essential information.	.698			
EDCS-3	The customer reviews help me in accessing the best brand.	.833			
EDCS-4	I spend less amount of money on information searches on DT.	.656			
AOI-1	DT help me to pick the best variant in a particular car model.		.759		
AOI-2	DT deliver a good-quality of information about a car		.822		
AOI-3	Access car info. on devices like smartphones, tablets, etc.		.671		
EP-1	I can purchase my car insurance on DT easily.			.674	
EP-2	The information search on DT is more interesting.			.820	
EP-3	I feel DT are more interactive (photos, AR, videos, etc.).			.736	
EP-4	I can use DT without any assistance for information searches.			.842	
EPO-1	I can book a car test drive before my purchase				.844
EPO-2	I will purchase a car directly from the official website				.871
EPO-3	I will visit showroom for purchase after information search				.785

Exploratory factor analysis (EFA) was performed to identify the factors that the respondents emphasized while searching for information about cars using digital touchpoints. The PCA (principal component factor analysis) with varimax rotation was executed, and 14 scales were finalized. The significant value of 0.840 indicates that this analysis is useful for the present data, which is more than 0.6; therefore, it is accepted⁽²³⁾. The factors were strongly manifested (loadings were above 0.6) and named as: 1) Enabling Digital Contents Search (EDCS) holds four items 2) Appropriateness of Digital Information (AOI) has 3 items. 3) Exciting Pursuit (EP) retains four items. 4) Exploring Purchase Opportunities (EPO) keeps three items.

3.4 Measurement Model

The literature survey was appropriately collected to establish the conceptual model in this research. SEM (structural equation modelling) was used to identify how much the underlying variables are internally dependent. The reliability and validity of the indicators were tested. The scale's reliability was tested with item loadings. It has ranged from 0.660 to 0.890. The items' loadings were anticipated to be above 0.6. However, the formative model indicators do not need to correlate, and the reliability needs to be more reasonable⁽²³⁾. The table depicts Cronbach's value for appropriateness of digital information (ADI-0.756), enabling digital contents search (EDCS-0.748), exciting pursuit (EP-0.803), and exploring purchase opportunities (EPO-0.731). All the values are above the threshold of 0.70 specified by⁽²³⁾.

Table 5. Measurement Model Assessment

Dimensions	Cronbach's Alpha	Composite Reliability	AVE
ADI	0.756	0.860	0.673
EDCS	0.748	0.842	0.572
EP	0.803	0.871	0.629
EPO	0.731	0.850	0.657

The values confirm the reliability of the indicators. The composite reliability values are used to measure the consistency among the constructs internally. The table shows the range of values from 0.842 to 0.871, which is above the boundary of 0.7

stated by⁽²³⁾. These values indicate the items were reliable in computing internal consistency. The squared root of the average variance extracted value helps to achieve the discriminant validity of latent variables (LA). Each LA value should be greater than the correlation values of other variables. For the valid model, the AVE value should be equal to 0.5 and above⁽²³⁾. The table shows that the off-diagonal correlation values are less than the squared root of the AVE values, which denotes the adequate level. Hence, discriminant validity has been achieved in the model.

3.5 Structural Model

Figure 2 depicts the effect of enabling digital content search, appropriateness of digital information, and exciting pursuit on exporting purchase opportunities construct. The report extracted from the bootstrapping using Smart PLS is shown in the table, and it explicates the acceptance and non-acceptance of the developed hypothesis.

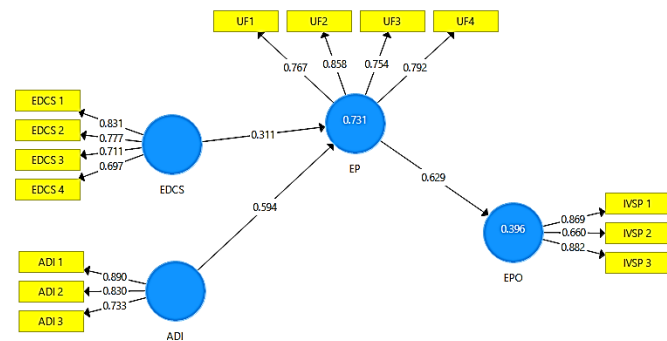


Fig 2. PLS-SEM – Output -The direct and mediation effect

Explains that enabling digital contents search ($\beta=0.311$, $t=7.331$) and appropriateness of digital information ($\beta=0.594$, $t=11.556$) both had a positive relationship with exciting pursuit with an R square value of 0.73. Also, it explains that EP ($\beta=0.629$, $t=27.610$) had a positive and direct impact on exploring purchase opportunities. The results showed that EDCS and API had a significant and positive effect on the exciting pursuit, and also EP had a positive and significant effect on exploring purchase opportunities.

Table 6. Structural model

	Original Sample (O)	Sample Mean (M)	Standard (STDEV)	Deviation	T Statistics (O/STDEV)
ADI -> EP	0.594	0.591	0.051		11.556
EDCS -> EP	0.311	0.314	0.042		7.331
EP -> EPO	0.629	0.631	0.023		27.610

3.6 Mediation Effect Estimation

Conditional mediation happens when a variable affects independent and dependent variables and their direct relationship. After introducing the mediator variables, the direct path should become insignificant compared to the indirect path⁽²⁴⁾. In the proposed model, the exciting pursuit construct acts as a mediator between independent variables enabling digital contents search and appropriateness of digital information and dependent variable exporting purchase opportunities. The table shows the t-statistics and acceptance of hypotheses.

The result clearly shows that both appropriateness of digital information ($t=11.834$, $p<0.05$) and enabling digital contents search ($t=7.399$, $p<0.05$) had a positive impact on the exciting pursuit and EP also positively impacted the exploring purchase opportunities ($t=28.525$, $p<0.05$). These values demonstrated that the independent variables had a positive impact on EPO,

Table 7. Mediation & Acceptance and non-acceptance of hypothesis

Hypothesis	Construct	T Statistics (O/STDEV)	Effect	P Values	Acceptance
H ₁	ADI -> EP	11.834	Direct	0.000	Accepted
H ₂	EDCS -> EP	7.399	Direct	0.000	Accepted
H ₃	EP -> EPO	28.525	Direct	0.000	Accepted
H ₄	ADI -> EP -> EPO	10.433	Mediation	0.000	Accepted
H ₅	EDCS -> EP -> EPO	7.112	Mediation	0.000	Accepted

thus the hypotheses H₂, H₃ and H₄ accepted. Last two hypotheses explain the mediation effect between ADI, EDCS, EP and EPO. The indirect paths of ADI, EP and EPO and EDCS, EP and EPO were significant and proved ($t=10.433$, $p<0.05$) the full mediation, thus the hypotheses H₄ and H₅ accepted.

This current study sets out to identify the existing inclination towards gathering digital information while acquiring noncommercial passenger cars. It also examined the customers preferred touchpoints and the impact of them on exploring purchase opportunities. It was discovered that the customers preferred both official and non-official websites through digital touchpoints to gather information about passenger cars. Non-official websites were also used by them to compare their preferred brand of cars with others. The majority of respondents who used digital touchpoints were young customers who were more familiar with the way to use the latest technology for information search on their desired model cars and compare them with other brands, and their touchpoint decisions changed now and then. This similar result coincided with the studies researched by⁽⁵⁾. In addition, the result indicates that the majority of the customers' felt websites were an easy and less cost-effective digital touchpoint. This result further supports the idea of the research studied by⁽⁶⁾. The AOI and EDCS had a positive impact on exciting pursuit. The information gathered from the digital touchpoints was interesting and time-saving, and they spent less money gathering information. The reviews and quality information supported the customers' enjoyment and excitement and moved them to the next level. The customers were convenient with the accessibility of the information from numerous devices. All these features urged the customers to feel excited and encouraged them to explore various purchasing opportunities. This similar result agreed with the studies studied by various researchers^(14–20) in the stimulus factor. The exciting pursuit (EP) had a positive and significant impact on exploring purchase opportunities (EPO). After getting excited by the digital information search, it is significant to notice that the customer will book a car for a test drive. After gathering information digitally, visiting the showroom to book a test drive in the second stage of the purchase is essential. The showroom visit experience enables customers to interact with sales executives, evaluate a car's performance and comfort, and provide valuable insights that will help in their purchase decisions. Ultimately, combining digital information searches and showroom visits ensures that customers make informed, confident, and satisfactory purchase decisions. This similar result agreed with the studies investigated by various authors^(14–16,20) in the organism factor.

The exciting pursuit construct was a mediator between AOI, EDCS, and EPO and indirectly affected EPO. This similar result coincided with the researchers investigated by several investigators^(15,16,19,20) and also not coincided with the studies conducted by various authors^(14,17,18) in the response factor. Excitement pursuit made the customers reach the offline showroom and the subsequent level. It clearly shows that all customers may merely enter the subsequent level once they perceive excitement after the information search on digital touchpoints. Gone are the days of people without smartphones and internet connections⁽¹¹⁾. At present, the internet facility has become less expensive and easier to reach. This has brought about a paradigm shift in gathering information through customers' digital touchpoints. Therefore, automobile marketing industries are encouraged to maximize the exploitation of digital content that supports the interactive feature. In addition, the companies' digital touchpoints should be compatible and pliant enough to be used on all digital devices⁽¹³⁾. The present study only focused on the digital touchpoints' usage in the pre- and post-purchase stages and not on post-purchase, and hence this study has established the groundwork for future research in the field of digital touchpoints. In general, this study strengthens the marketing ideas of car companies by enriching digital touchpoint options.

The study gains more inclusive understanding of the complicated interaction between technology, customers experience and exploring purchase opportunities⁽¹⁶⁾. The findings of this study highlight the importance of digital touchpoints and enhance the customer experience while gathering information about cars. It provides a new standpoint on how businesses can successfully use digital touchpoints to cultivate the best customer experience and attain sustainable growth in the digital landscape⁽²⁰⁾. This study contributes to the theoretical and methodological developments in investigating mediation effects within the digital landscape, presenting valuable insights for businesses directing to optimize their digital strategies to explore customer purchasing opportunities in the automobile industry.

The research on the impact of digital touchpoints on automobile purchase decisions might lead to the creation of more informed and transparent online car sales platforms. The digital touchpoints may not immediately lead the potential customers to gain better negotiation; however, they empower and deliver knowledge to the customers by providing information such as features and price comparisons on their preferred car models, and they also create awareness about the current market trend and identify offers. This knowledge helps customers prepare for discussions with dealers, ultimately leading to more effective negotiation outcomes. Consumers can gain more influence through digital touchpoints since they have better access to information and comparisons than conventional dealership contacts. This may result in more competitive pricing and improved customer care during the car-buying process. Understanding how digital touchpoints impact automobile purchase choices can assist automakers in developing focused and effective marketing strategies. This may result in more personalized and relevant contact with prospective purchasers.

4 Conclusion

The rapid development of digital media and internet facilities leads to the development of digital touchpoints and social media in the marketing world. This evolution has shaped the purchase habits of customers. The present study was designed to identify the inclination of Indian customers towards digital platforms to explore purchase opportunities for cars. The demographic profile of the customers stated that they were young and in the age group of 30 to 35 years (35.4%), with a notable percentage (61.4%) of male customers. Websites and non-official websites emerge as preferred digital touchpoints for gathering information about cars. Customers' age is associated with the official website's ($p=0.001$, $\chi^2=14.21$) and YouTube's ($p=0.007$, $\chi^2=18.698$) usage. The EDCS ($\beta=0.311$, $t=7.331$) and AOT ($\beta=0.594$, $t=11.556$) both had a positive impact on exciting pursuit (EP; $\beta=0.629$, $t=27.610$). The digital information make the customers feel excited and also enabled them think about the next level of their buying journey. The exciting pursuit ($t=28.525$) had a significant positive effect, and it was a strong mediator between the variables enabling digital contents search ($t=11.834$), appropriateness of digital information ($t=7.399$), and exploring purchase opportunities (EPO). Thus, these results suggest that the easy availability of the 4G network in India and the 5G launch soon will result in a hike in Indian customers using digital touchpoints to search for information about passenger cars.

4.1 Limitations & Scope for Future Research

Though this study reviewed the considerable and accessible literature, it has limitations. The research was restricted to the metropolitan cities (Lucknow, Mumbai, Chennai, Bangalore, and Ahmedabad) in the top five cities based on the four-wheeler vehicle registration report, and its results cannot be generalized in other metropolitan cities of selected states and other states in India as a result of economic differences and social cultures. As the responses were collected from only non-commercial vehicle customers and prospective buyers, commercial vehicle customers were not taken into consideration. The responses gathered may have some bias as the data were collected through the online questionnaire.

This study provides scope to develop future investigations to explore the role of emerging technologies like virtual reality, augmented reality, and artificial intelligence in shaping car purchase decisions through digital touchpoints. It also helps to focus on how the impact of digital touchpoints varies across different segments of car buyers, such as socioeconomic status and repeat buyers. This study will provide the platform for the investigation to conduct longitudinal studies to track how the influence of digital touchpoints on car purchase decisions evolves over time, particularly in the rapidly changing digital landscape.

References

- 1) Lütjens H, Eisenbeiss M, Fiedler M, Bijmolt T. Determinants of consumers' attitudes towards digital advertising - A meta-analytic comparison across time and touchpoints. *Journal of Business Research*. 2022;153:445–66. Available from: <https://doi.org/10.1016/j.jbusres.2022.07.039>.
- 2) 85% car buyers do web research, 20% want online experience: JD Power survey. Business Today. 2022. . Available from: <https://www.businesstoday.in/latest/trends/story/85-car-buyers-do-web-research-20-want-online-experience-jd-power-survey-327197-2022-03-24>.
- 3) You L, Geng L, Chang Y, Ning P, Research. The disruptive impact of consumers' online information on offline sales interaction. 2023. Available from: <https://onlinelibrary.wiley.com/doi/10.1002/mar.21902>.
- 4) Xu C, Park J, Lee JC, Xu C, Park J. The effect of shopping channel (online vs offline) on consumer decision process and firm's marketing strategy 2022. *Internet Research*;32(3):971–987. Available from: <https://doi.org/10.1108/INTR-11-2020-0660>.
- 5) Cotarelo M, Fayos T, Calderón H, Mollá A. Omni-Channel Intensity and Shopping Value as Key Drivers of Customer Satisfaction and Loyalty. 2021. Available from: <https://doi.org/10.3390/su13115961>.
- 6) Rodrigues FS, Coelho AI. Omnichannel in FMCG: Digitally Enhancing Retail Consumer Journey. 2021. Available from: https://doi.org/10.1007/978-981-33-4183-8_30.
- 7) Vatanasakdakul S, Aoun C, Defiandry F. Social Commerce Adoption: A Consumer's Perspective to an Emergent Frontier. vol. 2023. 2023;p. 1–18. Available from: <https://doi.org/10.1155/2023/3239491>.

- 8) The Transformative Role of Digitization in the Car Buying Journey | NETSOL Technologies Inc. NETSOL Technologies. . Available from: <https://netsoltech.com/article/the-transformative-role-of-digitization-in-the-car-buying-journey>.
- 9) Shah S. Impact of Digital Tools & Digital Marketing on Dealers & Customers in Indian Auto Industry. 2021. Available from: <http://dx.doi.org/10.2139/ssrn.3955529>.
- 10) Barann B, Betzing JH, Niemann M, Hoffmeister B, Becker J. Exploring customers' likeliness to use e-service touchpoints in brick and mortar retail. 2020. Available from: <https://doi.org/10.1007/s12525-020-00445-0>.
- 11) Livas C, Skarparis E, Skotis A. Consumer Reliance on Alternative Digital Touchpoints throughout the Buying Process. *Expert Journal of Marketing*. 2022;10(1). Available from: <https://marketing.expertjournals.com/23446773-1001/>.
- 12) Zimmermann R, Weitzl W, Auinger A. Identifying Sales-Influencing Touchpoints along the Omnichannel Customer Journey. *Procedia Computer Science*. 2022;196:52–60. Available from: <https://doi.org/10.1016/j.procs.2021.11.072>.
- 13) Dahiya R, Sachar D. Discriminant analysis application to understand the usage of digital channels while buying a car. *South Asian Journal of Marketing*. 2021;2(1):51–71. Available from: <https://doi.org/10.1108/SAJM-01-2021-0010>.
- 14) Jayadi EI, Murwani IA. The Implementation of SOR Framework (Stimulus, Organism, and Response) in User Behavior Analysis of Instagram Shop Features on Purchase Intention. *Scholars Journal of Engineering and Technology*. 2022;4:42–53. Available from: https://saspublishers.com/media/articles/SJET_104_42-53_FT.pdf.
- 15) Wu X, Lai IK. The use of 360-degree virtual tours to promote mountain walking tourism: stimulus-organism-response model. *Information Technology & Tourism*. 2022;24(1):85–107. Available from: <https://doi.org/10.1007/s40558-021-00218-1>.
- 16) Ma Y, Cao Y, Li L, Zhang J, Clement AP. Following the flow: Exploring the impact of mobile technology environment on user's virtual experience and behavioral response. 2021. Available from: <https://doi.org/10.4067/S0718-18762021000200112>.
- 17) Söderström C. Augmented Reality and Artificial Intelligence: The Influence on Behavioral Consumer Responses in E-Commerce. . Available from: <https://hdl.handle.net/11250/2987169>.
- 18) Grădinaru C, Obadă DR, Grădinaru IA, Dabija DC. Enhancing Sustainable Cosmetics Brand Purchase: A Comprehensive Approach Based on the SOR Model and the Triple Bottom Line. 2022. Available from: <https://doi.org/10.3390/su142114118>.
- 19) Paz MD, Delgado FJ. Consumer experience and omnichannel behavior in various sales atmospheres. *Frontiers in Psychology*. 1972;11. Available from: <https://doi.org/10.3389/fpsyg.2020.01972>.
- 20) Guo Z, Yao Y, Chang YC. Research on customer behavioral intention of hot spring resorts based on SOR model: The multiple mediation effects of service climate and employee engagement. 2022. Available from: <https://doi.org/10.3390/su14148869>.
- 21) All India State-wise Comparison of Vehicle RTO Or Registration For JUNE-2022. Auto news 2024 - Best Auto industry insights, Analytics 2024. . Available from: <https://www.autofans.in/2022/07/all-india-state-wise-comparison-of.html?m=1>.
- 22) Afthanorhan A, Awang Z, Aimran N. Five common mistakes for using partial least squares path modeling (PLS-PM) in management research. 2020. Available from: <https://doi.org/10.7903/cmr.20247>.
- 23) Husain H, Aziz H. exploratory factor analysis (efa) and confirmatory factor analysis (cfa) to measure the validity and reliability constructs of historical thinking skills, tpack and application of historical thinking skills. *International Journal of Education*. 2022;7(46):608–631. Available from: <http://www.ijepc.com/PDF/IJEPC-2022-46-06-50.pdf>.
- 24) Iqbal S, Martins JM, Mata MN, Naz S, Akhtar S, Abreu A. Linking Entrepreneurial Orientation with Innovation Performance in SMEs; the Role of Organizational Commitment and Transformational Leadership Using Smart PLS-SEM. *Sustainability*. 2021;13(8):4361–4361. Available from: <https://dx.doi.org/10.3390/su13084361>.