A Research Paper on Digital Transformation in Car Buying Process: Understanding Usage Intentions with the Technology Acceptance Models

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Abstract: Digital interventions have affected every business and product category. Consumers are making use of digital channels and platforms to research, explore, review and buy the routine items like grocery to speciality and high involvement products involving significant outlay such as Car. However, it remains yet to be researched adequately by the researchers in an emerging economy context, whether the purchase of a product like car has been affected in same way as that of routine items by the digital channels. This study compares the most popular intentions-based models namely technology acceptance model (TAM) with the decomposed theory of planned behaviour (DTPB) to predict the intentions of Indian car buyers to employ digital marketing communication while making a car buying decision. The study is of great relevance to the academicians because it provides a peep into the role of consumer's intention in shaping consumer behaviour. Not many studies have applied the intention based models in Indian passenger car market especially in technology mediated environment. The study has not only seen the application of intention-based models in a relatively unexplored category, but also puts forwards the most suitable model that could be used by the marketers to predict the usage intentions and actual usage of digital marketing communication thereafter, while taking a car buying decision. Primary data was obtained from 500 car buyers consisting of both actual and potential buyers from Delhi. Structural equation modeling was used to evaluate and compare both the models in terms of overall fit, explanatory power and significance. The results of the study revealed that digital channels have transformed the car buying process and DTPB was more successful model in predicting Indian car buyers' intentions to use digital marketing communication while buying a car.

Keywords*:*Digital Marketing Communication, Indian Passenger Car market, Technology Acceptance Model, Decomposed Theory of Planned Behaviour, Usage Intentions

Introduction

Businesses around the globe are accepting digital marketing communication as a superior, cost effective and more relevant alternative to its traditional counterpart i.e. conventional marketing (Corniani, 2006; Hemann & Burbary, 2013). Consumers have also become accustomed to digital technologies and exercising their control over content along with dictating the terms for time and place of purchase (Bird, 2007). However, issues of trust, compatibility, technicality, privacy have not yet been fully resolved (Jarvenpaa, Tractinsky and Vitale, 2000). Consumers across product categories ranging from books, electronics, fashion, furtniture to big ticket items like house and cars, are making use of digital marketing communication that guides them in their buying decision process worldwide (Gay, 2007).

Indian passenger car market is no exception in which digital's 'Midas' touch is affecting both the customers and marketers (Google, 2011). According to the Assocham report, globally luxury sales were expected to reach US$40 trillion by 2020, with India and China being the leading emerging markets. The Indian luxury market, growing by double digits, will reach US$14.7 billion and increase by 25% annually by 2015. India would account for 10% rise in the global luxury market by 2025 considering car a luxurious item (Jain, 2019).

Digital marketing spend was doubled by several automakers and more than Rs. 2600 crores were spent on the digital platforms by the top five Indian automakers in the year 2016 (Khan, 2017). There are few industry reports by marketing research firms over the years that state that buying a car for customers also is no longer a unidirectional process (KPMG, 2013; Nielsen, 2014; Cardekho.com, 2015). One of the study also highlights that marketer should be conscious of the difference between the age of the consumers i,e. old and young consumers and their attitudes as well towards usage of mobile apps (Vahdat , 2020). Digital channels dominate the purchasing journey of the car buyers worldwide. Internet has become one of the top information sources for taking automotive buying decisions (J.D. Power, 2015). More than 50% consumers in business also prefer online channels (You tube) for collecting information regarding car purchase. It also showed that males were more influenced by their peers, and females tend to listen to their parents while making a car purchase (Agarwal , 2020).

During their purchasing journey consumers use digital channels to look for the information about various car brands, evaluate them and decide about the timing of the purchase, dealer, model and type of the vehicle. They also join the car clubs and online forums, participate in online discussion and give their feedback about their car buying experience (Charan, 2015).

Technology related consumer behaviour to a great extent depends upon the usage intentions of the consumers. One doesn't face dearth of studies when it comes to understand the usage intentions in product categories like books (Chen, 2008), music (Dhar, 2009), fashion accessories (Dauriz , 2014), clothing (Khare, 2012), banking and

services (Sakkthivel, 2006) online gaming (Lee, 2009), internet and social networking sites usage (Fusilier, 2005), green marketing (Manaktola, 2007), online trading (Gopi, 2007), personal health (Parmar, 2008), road safety (Quine, , 1998), mobile data services (Kim, 2010) etc. But, one can observe a definite paucity of researches when it comes to understand the usage intentions in technology mediated environment for an extended problem solving product category like car. The usage intentions in technological realms have been significantly explained by models like TRA (Theory of Reasoned Actions), TAM (Technology Acceptance Model), TPB (Theory of Planned Behaviour) and DTPB (Decomposed Theory of Planned Behaviour). However application of such intention-based models in Indian passenger car market has largely been an unexplored area.

TAM was chosen because it is considered a robust and parsimonious model in the case of Internet and mobile technologies in diverse perspectives (Wang, Lin & Luarn, 2006). TAM is built on a strong theoretical base in the field of information technology and is a well-researched, empirically tested model with validated inventory of measurement scales across different contexts (Kuo & Yen, 2009). The model has been able to produce successful results with various control and subject factors (Schierz, 2010). Mathieson (1991), Chau and Hu (2002) and Gentry and Calantone (2002) in their studies have demonstrated the superiority of TAM over other contemporary models.

DTPB was selected for the study as this is one of the most contemporary models used in predicting technology usage intentions in case of planned behaviour. DTPB works well over the drawbacks of other prevalent models like TRA, TAM and TPB. Unlike TRA, DTPB handles the situation really well when behaviour of the person is not 100% volitional and subjected to few restraints. Decomposed Theory of Planned Behaviour Model has been able to record its supremacy over Technology Acceptance Model in conditions wherein intentions are affected significantly by consumers' involvement in value creation process; and social perspective plays an important role (Baron, Patterson and Harris, 2006). Moreover DTPB provides the much detailed understanding of usage intentions and planning mechanism (Gillenson and Sherrell, 2002). Shih and Fang (2004), Taylor and Todd (1995) and Sahli and Legohérel (2015) in their respective studies have rated DTPB better than other models in explaining usage intentions. This study aims to understand the intentions to use digital marketing communication by comparing TAM and DTPB.

2. Relevance of the study

Increasing online searches about cars, dominance of digital channel in consumers' car buying, increasing customer demand for seamless digital car buying experience and huge spending by the leading car market players on digital platforms, present an optimistic future of digital marketing in India passenger car market and call upon closer inspection of consumer dynamics in the area. Understanding usage intentions in technology mediated environments is of paramount importance as usage intentions have normally been used as proxy for actual usage (Davis, 1989). Researchers like Fishbein & Ajzen (1975), Davis (1989), Ajzen (1991), Taylor & Todd (1995) in their respective studies have validated the positive relationship between the usage intentions and actual usage. Under such circumstances marketers have the opportunity to build positive brand image over digital platforms by leveraging upon the important constructs to get the improved business results. The study equally benefits the academicians whereby it extends contextual support to the extant models in western world by exploring its application in relatively unexplored product category.

3.Theoretical Models used in the study

3.1 Technology Acceptance Model (TAM)

TAM relies upon three constructs namely perceived usefulness, perceived and attitude forming the usage intentions (Davis, 1989). Perceived usefulness refers to the beliefs of the users that using particular technology/system would improve the performance. Perceived ease of use deals with the belief of the users that using a particular technology/system would be free of efforts. Attitude refers to the predisposition of the users to behave in a particular way i.e. favourable or unfavourable towards a new technology/system. Usage intentions refer to the intent to use a particular technology. Usage intentions are considered proxy for the actual usage behaviour of users. The model contends that attitude is affected by perceived ease of use and perceived usefulness. Attitude in-turn affects the usage intentions which are also affected by perceived usefulness. TAM is able to provide a proper description of users' intention to use technology. However, the model (TAM) struggles to explain the significant variation in certain condition especially when usage intentions are affected by consumers' contribution in value creation process. The model has been applied by researchers across various product categories in India such as agriculture (Jain & Rekha, 2020), handicraft items (Yadav & Mahara, 2019), procurement (Ramkumar et al. 2019), tourism (Singh, 2019), m-commerce (Pipitwanichakarn & Wongtada, 2019), e-banking (Ahmad, , 2019), m-wallet (Singh, , 2020), smart ATM (Sharma, , 2019) and m-commerce (Biswas, 2019) etc. However, application of TAM in extended problem category has been really limited.

Biswas and Mishra (2019) applied Tam while studying the m-commerce adoption and revealed that that perceived usefulness and perceived ease of use significantly determine consumers' attitude towards m-commerce. Perceived Usefulness was also found having a positive impact on intention to use m-commerce. These results further confirm the capability of TAM in predicting consumer acceptance of technology in Indian context.

3.2Decomposed Theory of Planned Behaviour (DTPB)

DTPB has evolved from Theory of Planned Behaviour (Ajzen, 1991) whereby every construct of TPB namely attitude, subjective norms and perceived behavioural control; was disintegrated accounting for detailed explanation of usage intentions (Taylor, 1995). Attitude is further classified into three parts piggy riding the theory of diffusion namely perceived usefulness (relative advantage), perceived ease of use (complexity) and compatibility. Perceived usefulness and perceived ease of use are defined along the similar lines of TAM. Compatibility deals with fitting of new technology in the existing value system and needs of the users. Subjective norms deal with the opinion of important people in the user's reference group regarding the usage of technology. Subjective norms are decomposed into friends, family and relatives. Subjective norms consider both interpersonal and external influences affecting technology usage. Perceived behavioural control deals with the user's perception about the availability or non-availability of the resources restricting the use of technology. Self efficacy, technology facilitating conditions and resource facilitating conditions are identified as the salient constituents of perceived behavioural control. Self efficacy deals with individual's judgment about possession of certain capabilities, essential to perform the warranted behaviour. Resource facilitating conditions identify the accessibility or availability of the resources required to utilize the technology. Technology facilitating conditions deal with trustworthy and authentic nature of the technology (Taylor, 1995).

Decomposed Theory of Planned Behaviour has also been applied by researchers in Indian context such as e-filing of tax (Hanum, 2019), e-government system (Rana, Lal & Slade, 2016), luxury goods (Jain, Khan & Mishra, 2017), and m-commerce (Gangwal, 2016) etc. Study conducted by Dahiya and Gayatri (2017) however applies the decomposed theory of planned behaviour model in Indian automobile industry, still the rationale behind choosing the model has not been justified enough in the study. The study couldn't offer much to the reader if one wishes to know how the chosen model fares against the most popular TAM model in explaining users' intentions.

3.3Research Methodology

The main objective of the study is to explore which intention-based model is best suited for predicting the intentions to use digital marketing communication while making car buying decisions. The study compared two models namely TAM and Decomposed TPB to arrive at the conclusion. The study banked heavily upon primary data collected from 500 actual and potential Indian car buyers from Delhi, using a structured 5 points Liker's scale. Data was collected from September 2019 to March 2020 using convenience sampling. Structural equation modeling was used to compare the models in terms of overall fit, explanatory power and significance.

An in-depth study of the literature revealed the most common beliefs related to core constructs like attitude, perceived ease of use, perceived usefulness, compatibility, subjective norms, perceived behavioural control, usage intentions and actual usage of both the models in technology mediated environment. The beliefs were converted into statements after making necessary modifications in order to suit the product of the study i.e. car. The statements essentially showed the conduct of the car buyers while making car buying decisions in digital realms. The measurement process was adopted from Francis et al. (2004) whereby evaluation statements were structured for each belief statement highlighting the favourable or unfavourable outcome, impetus to conformance and facilitating or impeding stipulations. Product of evaluation and belief statement was taken as final score for each item. Scoring for all the constructs except Attitude (A), Perceived Behavioural Control (PBC), Subjective Norms (Only S1), usage intentions (UI) and actual usage (AU) were done in the similar manner. Measurement process for A, PBC, S1, UI and AU included the direct average score of the statements constituting the constructs.

3.4 The Sample Characteristics

The sample represented a comparatively younger population wherein 36 percent of the sample was constituted by the respondents in the age bracket of 18 to 25 years. Post graduate educational background was held by 46 percent respondents. Little more than forty percent (42 percent) were found belonging to above 4 Lakhs and below 8 Lakhs income category. Service sector respondents accounted for 40 percent of the sample whereas about little less than thirty percent (29 percent) student respondents also formed the sample for the study. Male respondents over-represented the sample wherein majority of the sample (64 percent) was represented by the male respondents. Metropolitan nature of the study area resulted in over-representation (45 percent) of the urban area in the sample. Respondents from semi-urban (28%) and rural areas (27%) were almost equally distributed in the sample. There were 25% (198 out of 801) of the respondents who only believed in traditional channels of communication while buying a car. 75% (603 out of 801) of the respondents in the sample made use of at least one digital communication channel while making a car buying decision. Digital channels in the study included Websites,

Social Networking Sites, 'YouTube', Online Communities, Phone, Smartphone, Digital Outdoors, E-mails and Digital TV. Table 1 given below gives the details of the respondents profile for the study.

Table 1: Respondents' Profile

Factor	**Options**	**per cent of Respondents**
Age	18-25 years	36
	26-30 years	18
	31-35 years	15
	36-40 years	10
	Above 40 years	21
Education	Senior Secondary	16
	Graduate	46
	Post Graduate	35
	Others	3
Income	Below 4 Lakhs	19
	4 Lakhs and above but below 8 Lakhs	42
	8 Lakhs and above but below 20 Lakhs	31
	20 Lakhs and above	8
Occupation	Student	29
	Service	40
	Business	22
	Home-maker	9
Gender	Male	64
	Female	36
Place of Living	Urban	45
	Semi-Urban	28
	Rural	27
Usage of Channels of Communication	Traditional Channels	25
	Digital Channels	75

Source: Author' Analysis

3.5 Statistical Analysis

Two models were tested using structural equation modeling supported by AMOS 20.0 software using maximum likelihood estimation. Two stage model building process involving measurement model and structural model, was followed. Table 2 depicts the reliability and validity statistics of the scale used.

Cronbach's Alpha was used to check the reliability of scale. Each construct was found exceeding the minimum cut off statistic value of .7, indicating the internal consistency (Nunnally and Bernstein, 1994). Convergent validity which dealt with degree of relatedness among multiple measures of a construct was assessed by analysing the factor loading of each item and variance extracted by each construct. This can be seen from the table 2 that every item of the scale was found associated with the factor loadings values of greater than the recommended value of .6 (Bagozzi and Yi, 1988).

AVE (Average Variance Extracted) which referred to the overall amount of the variance in the indicators accounted for by the latent variable; was found exceeding the recommended value of .5 (Farrell, 2010). Discriminant validity dealt with assessing the degree to which measures of different constructs were distinct. Discriminant validity was assessed by using Maximum Shared Variance (MSV) and Average Shared Variance (ASV). Shared variance is the amount of variance explained by a variable in another construct and represented by

the square of correlations between two variables. Maximum shared variance was found less than average variance extracted. Value of MSV for every construct was found greater than ASV. All of the above mentioned measures established discriminant validity of the scale.

Table 2: Validity and Reliability of the Scale

Construct	**Item**	**Factor Loadings**	**AVE**	**Cronbach's Alpha**	**ASV**	**MSV**
Perceived usefulness (PU)	PU1	.94	.865	.952	.114	.194
	PU2	.95				
	PU3	.90				
Perceived ease of use (PEOU)	PEOU 1	.99	.970	.986	.072	.194
	PEOU 2	.98				
Compatibility (C)	C1	.96	.912	.954	.099	.185
	C2	.95				
Subjective Norms (SN)	SN1	.92	.865	.951	.067	.123
	SN2	.97				
	SN3	.91				
Self-Efficacy (SE)	SE1	.99	.912	.954	.130	.137
	SE2	.92				
Technology Facilitating Conditions (TFC)	TFC1	.99	.970	.989	.071	.121
	TFC2	.98				
Resource Facilitating Conditions (RFC)	RFC1	.91	.883	.936	.071	.119
	RFC2	.97				
Attitude (A)	Att1	.89	.748	.891	.167	.336
	Att2	.87				
	Att3	.86				
	Att4	.84				
Perceived Behavioural Control (PBC)	PBC1	.89	.783	.849	.194	.372
	PBC2	.88				
Usage Intentions (UI)	U1	.83	.624	.793	.156	.384
	U2	.81				
	U3	.80				
	U4	.71				
Actual Usage (AU)	AU1	.84	.714	.758	.147	.221
	AU2	.85				

Source: Author' Analysis

Model fit was assessed on the basis of key measurement indices. CMIN (actually a Chi-Square Statistic divided by degrees of freedom), the most common goodness of fit index was analysed to determine the fit. Normally a smaller (less than or equal to three) and insignificant value of $\chi 2$ is preferred because that would indicate no discrepancy between predicted and observed covariance matrix of the model (Bagozzi and Yi, 1988). The chi-square value for both the models was found below three. Vlaue of RMSEA i. e. Root Mean Square Error of Approximation, another supplementary fit statstic was found less than the suggested value of .08 (Browne and Cudeck, 1993), indicating a good fit of the model. Other important fit indices like NFI (Normed Fit Index), RFI (Relative Fit Index), IFI (incremental Fit Index), TLI (Tucker Lewis index) and CFI (Comparative Fit Index) were also used to judge the fit of the models (Kenny, 2015). All 'goodness of fit' indices exceeeded the cut off value

demonstrating a good fit of the models. Collectively, a reliable and valid scale along with good fit indices suggested the fitness of the measurement models.

3.6 Structural Model Results

Model fit indices of structural model given in table 3 indicated that both the models were thrived well in predicting the car buyers' intentions to use digital communication in their car buying decisions. The 'chi-square' value was found less than three and other indices of goodness of fit were found having value of more than the recommended cut off value which indicated that both the models were a good fit for the data. Table 3 also explains the explanatory power of both the models used in the study. It can be seen from the table that decomposed TPB explained 63 percent of the variation in the car buyers' intentions to use digital communication, whereas TAM could account for only 45 percent variation in usage intentions. Actual usage behaviour was also best explained by DTPB with 41 per cent of explanation. Attitude was best explained by TAM explaining 55 per cent of the variation. DTPB explained 40 per cent variation in the 'attitude' construct.

Table 3: Fit Indices and Explanatory Power of Structural Models

Index	**TAM**	**DTPB**	**Recommended Value**
CMIN/DF	2.423	2.759	≤ 3
NFI	.898	.962	≥.80
RFI	.912	.955	≥.90
IFI	.920	.975	≥.90
TLI	.901	.971	≥.90
CFI	.942	.975	≥.90
RMSEA	.075	.054	≤.10
	TAM	*DTPB*	
R^2_{AU}	.226	.412	
R^2_{UI}	.446	.631	
R^2_{A}	.547	.402	
R^2_{SN}	–	.313	
R^2_{PBC}	–	.554	

Source: Author' Analysis

Figure 1 given below depicts the structural relationship among the constructs of Technology Adoption Model. Figure also details the path coefficients, their significance and explained variation for each dependent construct in the model. Figure 1 depicts the significant paths from perceived ease of use and perceived usefulness to car buyers' attitude. Path from attitude to usage intentions was also found significant and similarly path from usage intentions to actual usage. The model explained 45 percent variation in the usage intentions and 23 percent variation in actual usage. The model also accounted for 55 per cent variation in attitude.

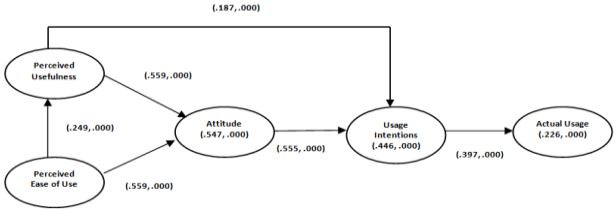

Figure 1**: Results of TAM**

Source: Author' Analysis

Figure 2 exhibits the results of Decomposed Theory of Planned Behaviour (DTPB) model. All the paths of decomposed TPB were found significant. All three constructs namely Attitude, SN and PBC emerged as the significant predictors of car buyers' intentions to use digital marketing communication and together explained 63

percent of the variation in the latter. Perceived behavioural control and usage intentions significantly affected actual usage and accounted for 41 per cent of variation in the latter.

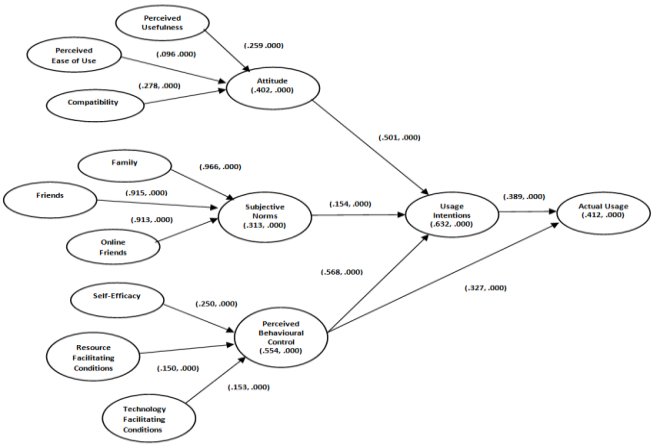

Figure 2. Results of DTPB

Source: Author' Analysis

It has been displayed in figure 2 that all three factors namely perceived ease of use, perceived usefulness and compatibility emerged as the significant determinants of car buyers' attitude and collectively explained 40 percent of variation in the latter. 31 percent of the variation in subjective norms was explained by friends, family and online friends. Similarly self-efficacy, resource facilitating conditions and technology facilitating conditions collectively explained 55 percent of the variation in PBC.

4. **Findings and Discussion**

The study aimed to understand the best model to predict the intentions of car buyers to use digital communication while making car buying decisions by comparing the two competing models. Both the models achieved comfortable fit to the data (table 3). So, it deemed appropriate to understand the findings on the basis of path coefficients and explanatory powers of the model. Comparison of models revealed the important findings which have been given hereunder:

1. In both the models, actual usage was preceded by usage intentions. TAM stressed that actual usage is only preceded by the usage intentions (40 per cent contribution) which explained 23 per cent variation in the latter. DTPB on the other hand asserted that actual usage can be better predicted (41 per cent explanation) when determined by both usage intentions (39 per cent contribution) and perceived behavioural control (33 per cent contribution).

2. DTPB explained usage intentions superiorly than TAM. The findings can be attributed to the decomposed nature of the DTPB model whereby attitude (50 per cent contribution), subjective norms (15 per cent contribution) and perceived behavioural control (57 per cent contribution) significantly contributed towards explaining 63 per cent of the variation in usage intentions. In case of TAM, attitude made a contribution of 56 per cent and perceived usefulness made a contribution of 19 per cent towards explaining 47 per cent of the variation in usage intentions. The results of the study corroborated well with some of the notable studies conducted earlier. Lin (2007) also compared TAM, TPB and Decomposed TPB predicting the intentions to shop online and stipulated that decomposed TPB predicts the user intentions better (57 per cent explanation) than TPB (46 per cent explanation) and TAM (41 per cent explanation). Taylor and Todd (1995) also compared TAM, TPB and DTPB whereby they concluded that DTPB had better explanatory power (60 per cent explanation) than the TAM (52 per cent explanation) and TPB (57 per cent explanation). Sahli and Legohérel (2015) in their study concerning online tourism products also confirmed the explanatory power of decomposed TPB.

3. Both the models considered attitude an important determinant of usage intentions. Attitude was better explained by TAM in comparison to DTPB. TAM explained 55 per cent of the variation in car buyers' attitude with perceived usefulness (56 per cent contribution) and perceived ease of use (56 per cent contribution) as its major determinants whereas DTPB could only explain 40 per cent of the variation with perceived usefulness (26 per cent contribution), perceived ease of use (10 per cent contribution) and compatibility (28 per cent contribution) as its determinants. TAM appeared to be more parsimonious and competent in comparison to DTPB model in

explaining consumers' attitude towards digital marketing communication. Mathieson (1991) in his study concerning spreadsheets software asserted that TAM was superior to its contemporary models in explaining the attitude.

4. DTPB found subjective norms a significant determinant of intentions to use digital communication while buying a car. Family (97 per cent contribution), friends (92 per cent contribution) and online friends (91 per cent contribution) were found as significant determinants of subjective norms explaining about 31 per cent variation in the same.

5. Perceived Behavioural Control significantly affected both the usage intentions (57 per cent contribution) and actual usage (33 per cent contribution) in DTPB model. DTPB established that self-efficacy (25 per cent contribution), resource facilitating conditions (15per cent contribution) and technology facilitating conditions (15 per cent contribution) were the significant determinants of perceived behaviour control while explaining the 55 per cent variation in the same.

The findings of the study reveal important insights that facilitate improved understanding about consumers' intentions to use digital marketing communication while buying a car. Baggozi (1992) considers parsimony as important criteria to make the final choice in situations where all models fit the data. Going on the similar lines, TAM appears to more parsimonious as the model with fewer constructs explain 45 per cent of the variation in usage intentions. Decomposed TPB appears to be very complex and least parsimonious with twelve variables explaining usage intentions and actual usage. However, parsimony can be compromised for much detailed and improved explanation of the target behaviour (Lin, 2007). Decomposed TPB explained the maximum variation in the usage intentions and actual usage of digital marketing communication. DTPB explained about 18 per cent more variation in usage intentions and actual usage than TAM. Both the models considered attitude as an important construct contributing significantly towards the usage intentions.

The results suggest that when car buyers consider digital marketing communication delivering subtle benefits over traditional communication and easy to use, they are more likely to use digital communication in their car buying decision. Marketers while designing the promotion content should incorporate the required information facilitating easy decision making while buying a car. DTPB also attributed subjective norms and perceived behavioural control as important determinants towards usage intentions. The findings can be understood by the fact that because car is high involvement product category involving significant investment, the opinion of family, friends and online friends regarding use of digital communication can't be simply ignored by the car buyers. It might be inferred from the results that people important to car buyers might act as influencers and affect the decisions of Indian car buyers regarding usage of digital communication. It can also be understood that if customers feel themselves confident to use digital technology without anybody's help, then it might affect their usage intentions and actual usage of digital marketing communication.

4.1Implications of the study

The study is of great relevance to the academicians because it provides a peep into the role of consumer's intention in shaping consumer behaviour. Not many studies have applied the intention based models in Indian passenger car market especially in technology mediated environment. The study has not only seen the application of intention-based models in a relatively unexplored category, but also reveals the most appropriate model that might be used to predict the usage intentions and actual usage of digital marketing communication while buying a car.

In the Indian context, Intention influences are very different from the western and developed countries, which should be explored. Such knowledge is not only essential for academicians to take up further research in this field but also lays down guiding principles for those stakeholders who are battling to make effective sales to the huge consumer group comprising who intend to buy cars. Organizations will be able to survive cut throat competition if they are able to delight their customers and not just meet their needs and wants. In this process, ample understanding about target market's buying intention and decision making process are necessary to cater to the needs of consumers effectively.

Marketers and researchers' interest in the automobile category can be attributed to the promise that it beholds of being a rewarding segment. It is pertinent to study this segment as Indian auto industry is one of the largest in the world and accounts for 7.1 per cent of Gross Domestic Product (GDP) of the country. Comprehending the consumers of cars from the above mentioned perspectives will help the marketers in devising the digital marketing and communication strategies. Discerning the factors impacting the behavioural intention of consumers will pave a new arena for the marketers and the scholars of marketing.

4.2Managerial Implications

Although the study had academic orientation focusing on confirmatory perspective as its primary objective rather than giving concrete and instrumental policy formulation suggestions, still several managerial implications

of the study can be drawn. The results of both the models given in table 3 can serve as a guideline to better understand the intentions and attitude towards using digital marketing communication while buying a car. Marketers might use TAM if sole objective is to assess the attitude towards digital marketing communication. DTPB might be applied for a comprehensive and improved understanding of usage intentions and actual behaviour. Marketers however might find it challenging to leverage all the factors affecting usage intentions positively ensuring the use of digital marketing communication while buying a car.

As the results pointed out, a prominent managerial task relates to the compatibility of the digital devices. Given the complex nature of digital technology which demands significant changes in existing behavioural patterns, marketers may find it difficult to motivate customers for using digital communication channels. So, it becomes a challenge for the car marketers to develop such a digital communication that suits well with the existing behavioural pattern of the car buyers.

Consumers are getting affected from the opinion of their family and friends regarding use of digital channels of communication. This implies that subjective norms play an important role in predicting car buyers' intentions to use digital communication while making car buying decisions. So it is suggested that marketers should identify and influence the important people in a customer's reference group. Marketers can also identify the early adopters in the group and motivate them to use digital communication who will serve as point of reference to the others.

The results also imply that a car buyer having positive attitude towards digital marketing, knowledge, resources and belief in own capabilities along with the consent of family and friends is more likely to make use of digital communication during their car purchase journey.

4.3Limitations and Scope of the study

The study suffers from several limitations requiring substantial future examination and research. The study didn't differentiate between the actual and potential car buyers. A study with a clear classification between the actual and potential buyers might give different and more understandable results.

Data for the study was collected from Delhi and results of the study should be applied with great caution in non-metro cities. The similar results can't be guaranteed in country other than India. The study collectively used the term digital channels of communication for diverse digital technology platforms and devices like websites, phones, digital TV, e-mails, social networking sites etc. So, the results obtained can't be specifically and precisely applied for a particular channel of communication.

Self-reported behavioural data was used in the study which might be a biased measure of the reported phenomenon as study didn't correlate the results obtained with the actual sale of vehicle. The study couldn't identify whether customers with positive intentions to use digital marketing communication actually bought the vehicle based on digital information or not. Although intentions to use digital marketing communication were studied; but actual purchase behaviour was not studied. The results of the study can be further validated by understanding the usage intentions in other extended problem solving product categories.

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