Role of Social Media Marketing in Consumer Buying Decision in Automobile Industry

An Empirical Study in Delhi-NCR

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Abstract

In the last one decade, the growth of technology has brought a radical shift in the conduct of business from transactional relationship to social relationship. The marketing strategies used by companies are changing frequently to increase awareness and visibility of the brand. Digital revolution and user generated content (UGC) have forced business organizations to adapt social media marketing (SMM) as a strategy to generate interest about their products or services and to create impact on the consumer buying behavior with the help of various social networking sites (SNS). Also the demographic shift enforces the company to adapt new communication strategy for adoption of the product. This paper identify the role of Social Media Marketing, its impact on consumers and the factors influencing consumer buying behavior for automobile industry. The study employs the primary data collected through survey methods from 280 selected respondents and are assumed to represent the population. We used ANOVA, Factor analysis and Regression analysis to test the impact of social media marketing. The factors identified are: Awareness, Recognition, Social Approval, Association & Reliability. The importance of these factors differ across different

demographic variables such as age, income, education, occupation and gender. Regression model specifies the role of SMM in impacting consumer buying decision for auto products. These findings will certainly contribute to the automobile industry in influencing consumers for purchase decision.

Keywords: Social Media Marketing (SMM), User Generated Content (UGC), Marketing Strategy, Consumer Buying Behavior, Social Networking Sites (SNS), Automobile Industry.

INTRODUCTION

The automotive industry is playing a significant role in the development of Indian economy with its contribution of almost 7% to the country's GDP. According to KPMG's Global Automotive Executive Survey 2012, India is likely to be the world's 3rd largest producer of passenger cars by 2016. It is also expected to be the 3rd largest automotive industry global post 2020. The consumers of Auto industry are shifting from traditional media to digital media to seek information and guidance on making decision related to new vehicle. According to Google India Auto Report, 69% of car owners and 72% intenders in India refer to internet as their primary source of car related information as against 53% referring to friends and family.

Over the past few decades the business organization have experienced a radical shift in the conduct of business. The advent of technology has made communication easier and the usage of internet has made a tremendous impact in the conduct of business and the market. The use of social media sites as part of company's marketing strategy has increased significantly in the past couple of years. A report from the International Telecommunication Union, the number of Internet users has boosted from 738 million in 2000 to 3.2 billion in 2015. Nearly 2.1 billion people possess social media accounts which is just over 2/3rd of the active internet users. Hence it's easy to apprehend why business and consumer marketers almost in unison believe that social media is vital to influence consumer buying behavior.

The 21st century has witnessed tremendous revolution in technology which had brought a big change in the conduct of business and also in the cognitive process of every consumer. Each consumer gathers information primarily from internet which is playing a pivotal role and significantly a great source of communication, information and entertainment. Today, every individual is using Social Networking sites such as Twitter, Facebook, LinkedIn and many others. Apart from these there are various others which cater to the specific need like YouTube for movies and videos. The online consumer behavior are subtlety different from the traditional consumer behavior due to the advent of technology and culture (Chau, Cole, C. et al., 2002). The consumer behavior is changing in the way the market place. The traditional 4P's is now being given a new shape and has become inevitable. The traditional way of reaching prospective consumer have changed because of internet. Companies have started preferring Social Networking Sites (SNS) as the platform to market products or services.

For a high involvement product like Automobile, consumer passes through different stages in making decision- According to J Scott Armstrong (1991) – these stages are problem recognition, information search, evaluation of alternative, purchase decision &

post purchase behavior. The initial problem recognition is the result of Black Box which includes individual's personality, attitude, perception, value system and knowledge. Once the consumer recognizes the problem he starts searching for information from different sources a concept named as Zero Moment of Truth. According to L.G. Schiffman (1993), apart from internal factors there are external factors – Culture, sub-culture, reference groups, ethnicity, market mix factors which affect consumer buying behavior. Some of these factors can be controlled by the marketers such as social media marketing strategy.

Social media is now a developing phenomenon in marketing. Marketers are beginning to understand the use of social media as a component in their marketing strategies and campaigns to reach out customers (Tanuri, 2010). Each media platform such as blogs, online discussion forums, and online communities has an effect on marketing performance (Stephen and Galak, 2009). Consumers using social media can generate, edit and share online information about company's products and services. They can also create online communities and networks that direct where information flows out of a business's control. Customers perceive this information as more reliable than straightforward business communication. Hence, peer opinion becomes a major influence on buying behavior (Constantin ides et al., 2010).

The continuous growth of social media users and online forums/communities and the opinion shared will certainly impact auto buyers. This incisive and in depth study will certainly help the auto marketers, dealers to analyze and understand the role of SMM and will open windows for future strategies.

REVIEW OF LITERATURE

In the last one decade, the internet has brought revolution in the way people work, communicate and live. This new kind of internet is fed by new types of online content, applications and services called social media. To understand this phenomenon, it is necessary to understand the term web 2.0 (Postman, 2009). Web 2.0 refers to a second generation of Web-based services that enable users to collaborate and share information online, highlighting UGC (Filho and Tan, 2009). UGC is user generated content and is also known as user-created content or consumer generated media (CGM) (Grannell, 2009).

Filho and Tan (2009) identified that after buying and consuming a product or service, some users like to share their review and evaluation through a social network site. This can create a huge flow of electronic word-of-mouth. Electronic word of mouth can take place in many ways: Web-based opinion platforms, discussions forums, boycott Web sites, news groups (Hennig-Thurau et al., 2004), posted reviews, mailbags, electronic mailing lists, personal e-mail, chatrooms, instant messaging (Schinder and Bickart, 2012). In a separate study, Blackshaw and Nazzaro (2006) examined that electronic word-of-mouth communication is owned and controlled by consumers and has higher credibility and trust than traditional media.

Ghose et al. (2009), studied that consumers generated product review, images and tags, which serve as a valuable source of information for customers making product choices online. Consumers can share their information, easily interact and exchange shopping experience with other consumers using online discussion forums or any other social network

technologies because of connective nature of the internet (Cheung et al.) Online consumer reviews can be viewed as consumer created product information and can be viewed as of electronic word-of-mouth (Chen and Xie 2008).

Akar (2010) studied that when a consumer has to purchase a product or service, they search for others opinions again and again. A similar study by Clemons (2009) experienced that consumers receive information about products and services from alternative information resources especially by consulting other consumers via online comments and electronic social networking Web sites. Among consumers, the opinions of the others are seen as more objective than the marketing messages of companies (Akar 2010).

Heijden, Verhagen, and Creemers (2003)

identified that online purchase intention is strongly determined by the attitude the consumer possess towards online shopping at the website. Also, trust-oriented models appear to be more appropriate to explain online purchase behavior than website oriented models.

Stroud (2008We) says that the ability of social networking sites to generate these huge volumes of web traffic is a proof of their huge popularity. Google, Yahoo and News International have brought themselves a presence in the social networking arena. The detailed rationale for these acquisitions differs but all have a common theme of wanting access to the enormous audiences.

Jothi (2011)studied promoting a community is just like as promoting a new brand product or service to the consumers. Social media is used
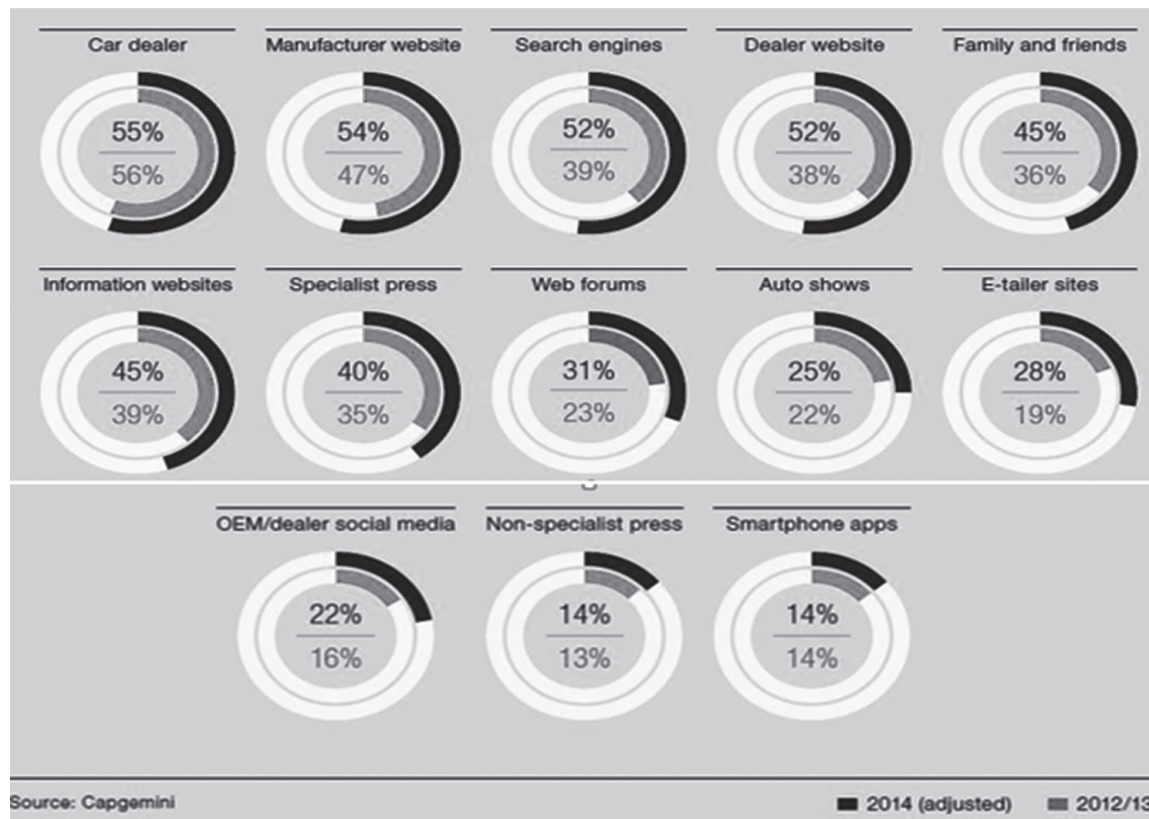

Figure 1: Important Sources for Car Search

to communicate people in the promotional aspect and inclined to involve the people. Traditional advertising and direct marketing in social media is to send people to the digital community to be informed, entertained and heard. Users find appealing, a value high enough to encourage them to participate. Smith (2010) experienced facebook is gaining popularity and is becoming the greatest source of communications of people. Many companies are trying to emulate Face book's success/challenge it in one geography or another, Facebook has proven that the core asset on which all of its services are built- the social graph – is much more defensible and powerful than many others once anticipated. Yannopoulos (2011) discussed how the Internet is impacting the conduct of a firm's marketing strategy. The discussion includes the impact of the Internet on product and brand strategy, pricing strategy, distribution and promotion strategy.

From the Figure 1 and from the google auto report, it is clear that 3/4th of Indian consumer go for online search before buying Cars & Bikes. Nearly 50% of the buyers rely on Manufacturers, dealers website & Friends. According to KPMG's report, 72% of customers admit to being influenced by digital word of mouth.

Consumers Related facts on Automobile

An offline study conducted by Capgemini, KPMG & Nielsen in top 8 metros reveals fact which will help the OEM's and dealers for future strategies.

- Every second buyer in the country go for online search first before buying a car.
- On an average, new car buyers tend to spend 9-12 weeks to decide which car to buy.

- 85% of online shoppers expect to interact with manufacturers and dealers on social media sites.
- 8 out of 10 potential used car buyers start their research on Google search.
- 62% of customers refer to third party consumer review sites which influence their purchase decision.
- 91% of the consumers do or intend to post on social media either on facebook, blogs or other social media, which influences consumer buying behavior.
- 72% of customers admit to being influenced by digital word of mouth.

Rajan Anandan, Vice President & MD of Google India, in the report said 'This offline substantiates the growing number of auto-related searches we've seen on Google search in India. Auto is among the fastest growing vertical in terms of query volume on Google with volume growth of 70% year on year. Most OEM's have not yet tapped the full potential of the digital medium and we hope this study will help them to understand and engage the Indian consumer online'. In terms of query volume growth in google search, SUVs was the fastest growing car segment growing at 83% year on year, followed by premium cars 82%, sedans 74% and hatchback growing at 53% yoy.

Mohit Arora, executive director J.D. Power Asia Pacific, Singapore said 'Automakers need to work on a strategy to continuously monitor and respond to any feedback posted on such websites, as reviews and comments posted on these website are likely to impact perceptions consumers have of the brands during their shopping process'.

From literature review and discussion with dealers helped to form the basis of the study.

Objectives of the Study

- To understand the factors that influences the consumers buying behavior.
- To analyze the impact of Social media marketing on consumer buying behavior.
- To offer suggestions to the OEM's (object equipment manufacturers) and dealers.

Hypothesis of the Study

Although men and women have been shown to differ towards internet and traditional shopping, there are few studies about gender differences in online buying (Dittmar et al., 2004), According to Comscore (2010) 'women demonstrate higher levels of engagement with social networking sites than men'. Lewis (2010) found in his study that gender does have some influence towards social media.

Li et al. (1999) found that 'consumers with higher incomes were more likely to be in frequent online buyer class. According to Pew Internet and American Life project (2007) reports, consumers with high income are more likely to buy and tend to get influenced from internet.

Blackshaw and Nazzaro (2006) studied that the consumers being educated have begun to use internet for pre-shopping information about products and services. Consumers are making more and more purchasing decision online every day. Social media consumers buy online, communicate with each other, socialize and influence each other online Singh (2010). Lewis (2010) found that education affects individual understanding towards social media.

By using social media, users can share information, communicate with each other, network and interact. However, due to the

easy transfer of information among different social media sites, the information that should be kept private becomes public and influences users (Rose 2010), Therefore, role of social media marketing has significant impact on consumer buying behavior.

Hence, the following hypothesis:

- H_{01}: There is no significant variations between respondent's age and influence of social media marketing on consumers buying behavior.
- H_{11}: There is significant variations between respondent's age and influence of social media marketing on consumers buying behavior.
- H_{02}: There is no significant variations between respondent's gender and influence of social media marketing on consumers buying behavior.
- H_{12}: There is significant variations between respondent's gender and influence of social media marketing on consumers buying behavior.
- H_{03}: There is no significant variations between respondent's income and influence of social media marketing on consumers buying behavior.
- H_{13}: There is significant variations between respondent's income and influence of social media marketing on consumers buying behavior.
- H_{04}: There is no significant variations between respondent's education and influence of social media marketing on consumers buying behavior.
- H_{14}: There is significant variations between respondent's education and influence of social media marketing on consumers buying behavior.
- H_{05}: There is no significant variations between respondent's occupation and

influence of social media marketing on consumers buying behavior.

- **H$_{15}$:** There is significant variations between respondent's occupation and influence of social media marketing on consumers buying behavior.

RESEARCH METHODOLOGY

For this research, a survey method was adopted to analyze the impact of various attributes on the consumer buying behavior.

Sampling Unit, Sample Selection and Sample Size

Sampling Unit: The population studied here is Indian customers in Delhi-NCR region. The sampling unit consists of the customers who recently bought car or intend to buy and are located in NCR-Delhi. Convenient sampling method was adopted to select the respondents. There was no discrimination on the basis of Income, Age or Gender. The sample is broadly representative of the population for purposes of cross sectional survey.

Sampling Procedure: Since there are large numbers of buyers in Delhi-NCR, we adopted convenient sampling method to select the respondents. Sample selection was to ensure generalization and validity of findings.

Data Collection Method: The study is based on descriptive research design. The main instrument used to collect data was the well-structured questionnaire. This structured questionnaire was distributed to 280 respondents. The present study is based on both primary and secondary data.

Measurement Scales Employed

The role of social media marketing on the respondents were being gauged by using a questionnaire containing close-ended question, which were designed on a five point Likert scale with following options: Highly Satisfied, Satisfied, Neither Satisfied nor Dissatisfied, Dissatisfied and Highly Dissatisfied. The respondents were asked to read the questions and then choose the option for their response. Questions were explained to them if the respondent does not understand a particular question. Prior to the final survey, the questionnaire was pre tested using a sample of respondents similar in nature to the final sample.

Research and Statistical Tools Employed

The research and statistical tools employed in this study are Descriptive analysis. The Descriptive analysis is an important measure for ranking the attributes in terms of their criticality as perceived by the respondents. This is similar to the analysis of the basis statistics on collected samples to investigate the trends of perceptions of certain industry. As such analysis does not provide any meaningful outcomes in terms of understanding the clustering effects of the similar attributes and the predictive capacity, further analysis is required using advanced statistical methods. Factor analysis was used to reduce the attributes for investigating the clustering effects while regression analysis was performed for deriving a predictive model based on the best fit attributes (Field, 2005). Factor analysis is primarily used to get greater insight among numerous correlated but seemingly unrelated attributes into a much fewer underlying factors (Field, 2005). Both Bartlett's test of Sphericity and measure of sampling adequacy (MSA) were also carried out to ensure that the requirements of factor analysis were met. ANOVA was employed

to find the association between demographic and relevant factors. The reliability of the data was carried out by using Cronbach's Alpha Value.

DATA ANALYSIS AND INTERPRETATIONS

The analysis of this data was divided into following section:

• Demographic profile of respondents: Table 1

Table 1: Demographic Profile of the Respondents

Variable	Characteristics	Frequency	Percent
Age	Less than 30	58	20.7
	31- 35	72	25.7
	36-40	70	25.0
	Above 40	80	28.6
Gender	Male	190	67.8
	Female	90	32.2
Yearly Income	Less than 5 lakhs/year	33	11.8
	5-10 Lakhs	126	45.0
	10-20 Lakhs	84	30.0
	20-30 lakhs	23	8.2
	>30 Lakhs	14	5.0
Occupation	Government Employee	44	15.7
	Private Employee	137	48.9
	Business/Trade	73	26.1
	Professional	25	8.9
	Others	1	0.4
Education	HSC	17	6.1
	Graduation	76	27.1
	Post-Graduation	122	43.6
	Professional Degree	62	22.1
	Others	3	1.1

Source: Primary data collected and compiled by authors

• Respondents usage profile: Tables 2-2a
• Factor analysis: Table 3
• Anova analysis: Table 4
• Regression: Fig. 1, Table 5

The demographic profile of the respondents (Table 1) shows that the respondents above 40 years are 28.6% followed by 25.0% in 36-40years age group. This is the age group which represent majority of buyers. There are 43.6% post graduate and 27.1% graduate, which indicate that educated persons are showing interest in this sector. They are decently employed with 26.1% businessman and 48.9 are in private employment and have monthly income above 10 Lakhs (43.2%) which indicate that they also have the buying potential and can be the prospective customers.

From the Table 2, it can be viewed that 80.4% of respondents are user of facebook followed by 32.9% Twitter. Majority of the respondents join SM because of Brand invitation (25.4%) and Friend invitation (25.7%). As majority of the users are using internet regularly, 50.7% of the users are using it for networking/Business opportunities which is a good indicator for the marketer to promote their brands. The preferred time slot for using SNS are mainly from 3-7 pm.

The major types of advertisement viewed are Entertainment, Automobile, Real estate and Service segments with significant percentage, out of which 60% of the respondents are being influenced by the ads and their decision gets affected. From the data it is clear that majority (60%) of the respondents are getting impacted directly or indirectly due to social media marketing. The data also reveals the fact that majority of respondents watch video ads and web-banners.

Social Media User	%	Favorite SM	%	Motivation behind Joining SM	%	Time Spent on SM	%	Preferred Time Slot	%	Reason for using SM	%
Facebook	80.4	Facebook	87.5	Brand Invitation	25.4	1-1.5 Hours	43.6	7-11 am	6.8	Legitimate Friend Focus	17.1
Twitter	32.9	Twitter	34.6	Friends Invitation	25.7	1.5-3 Hours	33.6	11-3 pm	19.3	Networking/ Business opportunities	50.7
Google+	21.8	Google+	21.8	Personal research	37.1	More than 3 Hours	22.8	3-7 pm	40	Ease of use/ Simplicity	1.4
LinkedIn	35.9	LinkedIn	39.3	Loyalty towards the brand	8.3			7-12 pm	31.4	Trend	9.6
Others	6.1	Others/ You Tube	6.8	Some other reason	3.5			After 12 am	2.5	Peer Influence	11.1
										Any Others	6.8

Source: Primary data collected and compiled by authors.

Table 2a: Continued

Type of Advt. Viewed	%	Advt. Affects Decision	%	Advt. Influence Decision	%	Content on SM Affects / Influence Decision	%	Kind of Ads You Come Across	%	SM Makes You Comfortable in Decision Making	%	Brand Presence on SM Affects Decision	%
Entertainment	31.1	Strongly Disagree	1.8	Strongly Disagree	0.7	Strongly Disagree	0.4	Web Banners	30.40	Strongly Disagree	0.4	Strongly Disagree	5.4
Automobile	30.7	Disagree	11.1	Disagree	7.1	Disagree	7.5	Pop-ups	38.30	Disagree	3.6	Disagree	6.4
Real-estate	11.4	Indifferent	26.1	Indifferent	40	Indifferent	37.1	Flash Ads	17.20	Indifferent	28.9	Indifferent	25
FMCG product	6.8	Agree	49.3	Agree	41.1	Agree	45.7	Video Ads	39.70	Agree	52.9	Agree	40
Service segment	13.6	Strongly Agree	11.8	Strongly Agree	11.1	Strongly Agree	9.3	Others	14.4	Strongly Agree	14.3	Strongly Agree	23.2
Others	6.4												

Source: Primary data collected and compiled by authors.

Reliability and Validity Analysis

To carry forward the research, the reliability and validity analysis was done to analyze the consistency between survey scales. A Cronbach's Alpha score of 1.0 indicate 100 percent reliability. Cronbach's Alpha score were all greater than the Nunnally's (1976) generally accepted score of 0.7. The score was 0.738 for different characteristic which indicates reliability of the survey. A reliability

of 0.738 means, the variability is about 73.8% true ability and 22.2% error. Hence the research can be carried out on this data set.

Factor Analysis

It is a powerful tool that aims at providing greater insight among numerous correlated variables but seeming unrelated variables into a much fewer underlying factors (Doloi, 2008; Doloi, 2009). In order to evaluate the adequacy of factor analysis, the suitability of data was examined with the help of Kaiser-

Meyer-Olkin Measure of Sampling Adequacy (KMSA) and Bartlett's Test of Sphericity (Hair et al., 2006). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is an index used to examine the appropriateness of factor analysis. Overall, the set of data meets the fundamental requirements of factor analysis satisfactorily (Hair et al., 2006). The value of the KMO represents the ratio of the squared correlation between variables to the squared partial correlation between variables. It varies from 0 to 1. A value close to 1 indicates that the pattern of correlation between variables is relatively compact and

Table 3: Factor Analysis: Components Extracted

F. No.	Variables	Name of Dimension	Factor Loading	% of Variance Explained
F1	SMM leads to awareness of automobile product like car	Awareness	.785	20.01
	SMM helps in acquiring information about automobile		.741	
	SMM helps to compare product features and price.		.777	
	Information of product in SNS helps in generating positive attitude.		.760	
F2	Ads in SNS leads to recognition of brand and its features	Recognition	.761	16.42
	SMM helps in recalling the product (car) and its features during purchase		.705	
	Frequency of Ads in SMM leads to brand recognition		.700	
F3	Ads of Car in Social Media and its discussion in Social networking sites like facebook/twitter/YouTube/blogs leads to social approval	Social Approval	.766	14.58
	Ads in SNS and likes given by friends about the brand car enhances likeability and purchase decision.		.790	
	Review given by friends in Social Media influences your decision in buying car.		.680	
	Ads in SNS helps consumer feel sense of pride as they owe/intend to buy.		.650	
F4	Visual ads in SNS with favorable endorser leads to brand association	Association	.689	12.58
	Ads in SNS and their discussion in facebook/twitter leads to formation of community		.677	
	Ads in SNS makes consumer to involve and enter the automobile website		.597	
F5	SMM and discussion in SNS establishes trustwhiness	Reliability	.688	8.06
	Marketing of car and their visibility in SNS enhances your reliability		.539	

hence factor analysis should give distinct and reliable results (Field, 2005). In analyzing the data given, a set of 16 statements describe various factors items which were considered to be important element for the respondents. These were subjected to a factor analysis using the principal component method. As in common practice, a Varimax rotation with Kaiser Normalization was performed to achieve a simpler and theoretically more meaningful factor solution. The Cronbach's alphas score for all the factors were above the cutoff point (0.7) recommended by Nunnally's (1978). In this research 16 variables are selected, the KMO value for the selected 16 variables is 0.809 which is deemed good for this study. Components Extracted: Principle components analysis is used to reduce numerous correlated attributes into much fewer underlying factors. As discussed, 16 attributes are used in this analysis. A total of five principal components (factors) were evolved. Results are tabulated in Table 3. These five factors explained 71.65% of total variance. Varimax rotation with Kaiser Normalization was performed to achieve a simpler and theoretically more meaningful factor solution.

It is clear from the factor loadings as highlighted in Table 3 that five factors emerged. These factors explained 73.68 per cent of cumulative variance. These variance reflects considerable contribution of these factors on influencing consumer buying behavior. It means, 73.68 per cent of consumer behavior is being influenced by these 5 factors. All these five factors extracted have Eigen values greater than one.

Discussion of the Extracted factors

Awareness: First factor named *awareness explains 20.01%* of total variance of the linear

component and contains 4 attributes: SMM leads to awareness of automobile product like car, SMM helps in acquiring information about automobile, SMM helps to compare product features and price and Information of product in SNS helps in generating positive attitude. This is in association with the philosophy of Rose (2010) and Blackshaw and Nazzaro (2006) who noted that by using social media sites consumers can acquire and share information about products and services which will help them in their purchase decision.

Recognition: Second factor named *recognition* with 16.42% of total variance. It contains 3 attributes: Ads in SNS leads to recognition of brand and its features, SMM helps in recalling the product (car) and its features during purchase, Frequency of Ads in SMM leads to brand recognition. This recognition of the brand is very well explained by Nielsen's global Online survey on 'How social media impacts brand marketing' which states that 60% of the consumers are able to recognize the brand through social networking sites.

Social Approval: Third factor named *social approval* explains 14.02% of variance with four attributes. These attributes are: Ads of Car in Social Media and its discussion in Social networking sites like facebook/twitter/ YouTube/blogs leads to social approval, Ads in SNS and likes given by friends about the brand car enhances likeability and purchase decision, Review given by friends in Social Media influences your decision in buying car & Ads in SNS helps consumer feel sense of pride as they owe/intend to buy. This factor is explained in the findings of Ghose et al.(2009) who stated -Consumers generated product reviews serves as a valuable source of information for customers making purchase decision online have increased rapidly on

the internet and have had a great impact of electronic commerce (Forman et al., 2008).

Association: Fourth factor named *association explains 12.58% of variance with 3 attributes. These three attributes are:* Visual ads in SNS with favorable endorser leads to brand association, Ads in SNS and their discussion in facebook/twitter leads to formation of community and Ads in SNS makes consumer to involve and enter the automobile website. This is explained by Roberts and Krayank (2009) who stated that all types of social media provides opportunities to present oneself and one's products to dynamic communities and individuals that may be interested. Postman (2008) in the similar type of research concluded that social media not only make an individual to create, share or participate but also helps in building communication.

Reliability: Fifth factor named *reliability explains 8.06% of variance with 2 attributes.* These two attributes are: SMM and discussion in SNS establishes trustworthiness and Marketing of car and their visibility in SNS enhances your reliability. This factor is very well explained by Awareness (2008) who stated social media marketing consists of multidimensional dialogs. Brands talk to customers, customer talk to brands and most importantly customer talk to each other for building trust. The finding also explained that consumer who visited social media sites make better purchase decisions as compared to one who did not.

Hypothesis Testing: In order to test the relationship of demographic variable with social media characteristics ANOVA was employed. The result of ANOVA are presented in the Table 4. Based on significance criteria (0.05), the hypothesis will be accepted or rejected.

• ANOVA results based on age signifies that the attributes such as 'SMM leads to awareness of automobile products', 'frequency of ads in SMM leads to brand recognition', 'ads in SMM helps to recognize brand and features', 'ads in SMM helps consumer feel sense of pride as they owe/accomplish to buy', 'ads of automobile in SM and it's discussion in SNS-facebook, twitter leads to social approval' and 'review given by friends in SM influences decision in buying car', significant value less than 0.05. Hence, we accept H_{11}. This indicates that different age group people are being impacted by SMM differently.

• The ANOVA based on respondent's gender group indicate that the significance value for some of the characteristics such as 'Frequency of Ads in SMM leads to brand recognition', 'Ads of car in Social Media and its discussion in SNS like facebook/twitter leads to social approval', 'Visual ads in SNS with favorable endorser leads to brand association' have significant value less than 0.05. Hence, we accept H_{12} and conclude that there are significant differences between male and female when it comes to the influence of SMM in consumers buying decision on automobiles. Both genders have different requirements and tends to get impacted by these attributes differently.

• The analysis of variance based on income shows that the attributes, 'SMM helps in acquiring information about automobile', 'Ads of car in Social Media and its discussion in SNS like facebook/twitter leads to social approval', 'Ads in SNS and likes given by friends about the car enhances likeability and purchase decision', 'SMM and discussion in

Items	Age		Gender		Income		Education		Occupation	
	F	*SIG*	*F*	*SIG*	*F*	*SIG*	*F*	*SIG*	*F*	*SIG*
SMM leads to awareness of automobile product like car	9.88	.001	1.081	.299	1.465	.216	7.44	.001	.680	.565
SMM helps in acquiring information about automobile	.311	.850	.088	.767	2.773	.027	1.03	.299	1.76	.154
SMM helps to compare product features and price.	.221	.755	2.638	.105	.975	.421	1.574	.181	.853	.466
Information of product in SNS helps in generating positive attitude.	1.203	.445	1.167	.281	.152	.962	1.323	.262	1.37	.250
Ads in SNS leads to recognition of brand and its features	5.44	.001	.392	.532	1.96	.100	3.18	.022	1.506	.213
SMM helps in recalling the product car and its features during purchase	1.207	.407	.654	.519	.308	.872	1.628	.167	1.418	.237
Frequency of Ads in SMM leads to brand recognition	3.524	.001	7.776	.006	.821	.513	3.48	.022	2.018	.111
Ads of Car in Social Media and its discussion in Social networking sites like facebook/ twitter leads to social approval	2.505	.039	3.863	.045	3.85	.005	2.83	.021	1.206	.308
Ads in SNS and likes given by friends about the brand car/ bike enhances likeability and purchase decision.	.550	.660	.403	.526	2.901	.022	2.67	.004	1.788	.149
Review given by friends in Social Media influences your decision in buying car.	3.614	.021	1.352	.246	1.962	.100	3.014	.018	.518	.670
Ads in SNS helps consumer feel sense of pride as they owe/ accomplish to buy.	.770	.552	.002	.969	1.863	.117	.919	.453	.610	.609
Visual ads in SNS with favorable endorser leads to brand association	.585	.624	2.70	.041	.896	.467	2.17	.072	1.437	.232
Ads in SNS and their discussion in facebook/ twitter leads to formation of community	.789	.605	.209	.648	.578	.679	.799	.526	.413	.744
Ads in SNS makes consumer to involve and enter automobile website	.832	.650	.302	.583	.756	.710	1.811	.126	1.823	.143
SMM and discussion in SNS establishes trustworthiness	.678	.535	.303	.095	2.934	.021	.790	.526	.413	.744
Marketing of car and their visibility in SNS enhances your reliability	1.256	.235	.545	1.294	.422	.792	.957	.437	1.149	.330

SNS establishes trustworthiness', have significance level less than 0.05 and hence we reject H_{03} & conclude that different income group people are being impacted differently by the SMM.

- ANOVA outcome based on education signifies that the attributes such as 'SMM leads to awareness of automobile products like car', 'Ads in SNS leads to recognition of brand and its features, Frequency of ads in SMM leads to brand recognition', 'Ads of car in Social Media and its discussion in SNS like facebook/twitter leads to social approval', 'Ads in SNS and likes given by friends about the car enhances likeability and purchase decision', 'Review given by friends in Social Media influences decision in buying a car', have significant values less than 0.5 and we accept H_{14}.

- ANOVA based on occupation shows that for all the attributes pertaining to SMM has value significantly higher than 0.5, so there is no significant variations between respondents Occupation. Hence we accept H_{05}.

Regression Analysis: The impact of consumer decision making process is further analyzed by linear multiple regression for developing a predictive model. The independent variable used are the characteristics of SMM resulted from factor analysis as indicated in Table 3. Dependent variable is the impact on consumer decision making process which has been asked separately from every respondent. The predictive regression model is framed to analyze the impact on consumer decision making by the individual characteristics of SMM which is generally expressed as:

$$Y = a + b_1(x_1) + b_2(x_2) + b_3(x_3) + b_4(x_4) + \ldots + b_m x_m \pm e$$

where Y is dependent variable, 'a' is constant and 'e' is error terms, b_1, b_2, b_3, b_4, …, b_m are the estimated regression coefficient, x_1, x_2, x_3, x_4, …, x_m are the values of predictor or independent variables.
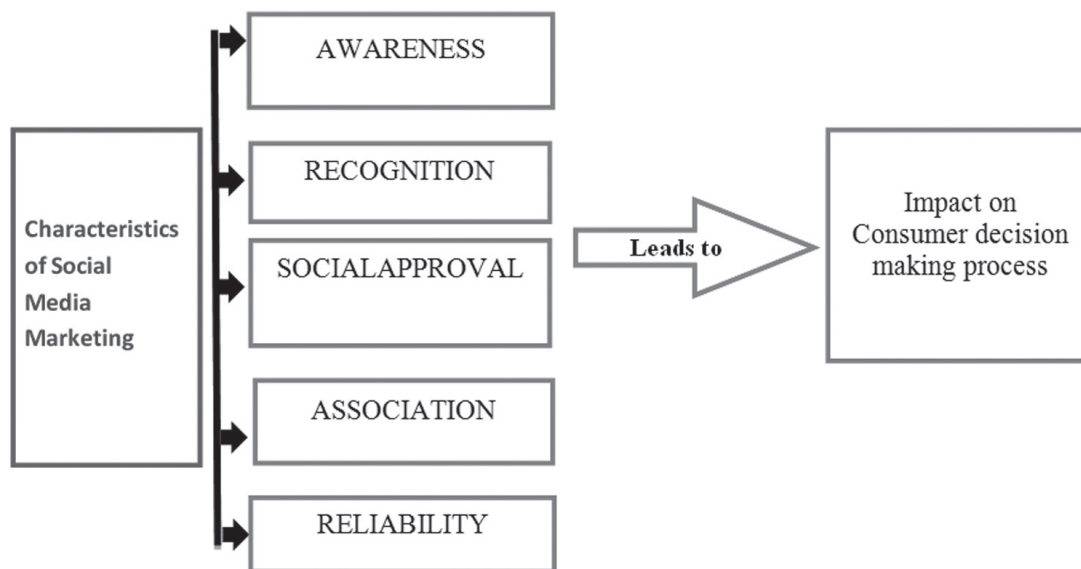
Factors – Impacting consumer decision making

Figure 2: Characteristics of Social Media Marketing leads to Identification of Factors which Impacts the Consumer Decision Making – Proposed Model

Table 5: Regression Model

Source	Coefficient	Std. Error	Sig	R, R², Adj R²
Constant	1.739	0.212	0.000	R = 0.818,
Awareness	0.410	0.076	0.001	R² = 0.677
Recognition	0.330	0.067	0.011	Adj R² = 0.660
Social Approval	0.281	0.091	0.003	df = 4, 275
Association	0.059	0.054	0.443	f = 142.44, sig = 0.00
Reliability	0.048	0.055	0.394	

RESULTS AND DISCUSSION

As per the model summary table, R^2 is 67.7% of variance, impact of SMM on consumer decision making is explained by five factors, Awareness, Recognition, Social Approval, Association and Reliability. Adjusted R square is 0.660 – model account for 66.0% of variance, it is considerably an acceptable model. Regression model is significant as P value is less than 0.05.Since, the B value for all the factors is positive which implies that these factors are positively related to consumer decision making . Except for Association and Reliability all other factors have significant value less than 0.05. These factors have significant relationship with the outcome, i.e. the impact on consumer decision making process. These factors can reliably predict the outcome variables. These indicate that these characteristics of the SMM have significant impact on the consumer decision making process. This also validate the proposed model as given earlier.

The regression equation to measure the impact of SMM on consumer buying behavior is as follows:

*Impact on Consumer decision making = 1.739 + 0.410 * Awareness (X1) + 0.330 * Recognition (X2) + 0.281 * Social Approval (X3).*

This indicates that the characteristics of social media marketing helps in generating Awareness, Recognition and Social Approval as the most significant factors which eventually has an impact on consumer buying decision.

CONCLUSIONS

Factor analysis clearly brought five factors representing various elements of social media marketing. These factors are awareness, recognition, social approval, reliability and associations. ANOVA has indicated that age, gender, income and education have significant impact of SMM whereas occupation of the respondents has no significant impact. ANOVA has brought significant characteristics such as, 'SMM leads to awareness of automobile product like car', 'SMM helps in acquiring information about automobile', 'Ads in SNS leads to recognition of brand and its features', 'Frequency of ads in SMM leads to brand recognition', 'Ads of car in SM and its discussion in SNS like face book/twitter leads to social approval', 'Ads in SNS and likes given by friends about the brand car enhances likeability and purchase decision', 'Review given by friends in SM influences decision in buying car', 'Visual ads in SNS with favorable endorser leads to brand association', 'SMM and discussion in SNS establishes trustworthiness', which must be taken care to effectively utilize social media marketing. Regression analysis stated that awareness, recognition and social approval are the most significant characteristics of SMM in impacting consumer buying decision.

RECOMMENDATIONS AND SUGGESTIONS

The findings clearly signify that the consumer behavior towards buying a high involvement

auto-product like car is changing and it is now high time that the automotive companies should adapt new strategic communication mode and technology to stimulate the consumer. They should keep advertising in various social networking sites such as face book, twitter, blogs, You Tube to create impact and should also eye online community's forums and discussion about their product.

Today, consumers play a very significant role of content creator with social media using blogs, face book, and twitter or micro blogging application. OEM'S and dealers should consistently monitor the feedback posted on these website which are likely to affect consumer perception towards the brand affecting sales. Since, majority of the respondents uses various SNS, the dealers and OEM's should continuously post news and review of their brand which is likely to generate positive opinion resulting sales. Active listening and responding to customer inquiries and handling objection can enable dealers to analyze customers need not just from vehicles or services but also for perpetual relationship.

Limitation of the Research

The research is carried out in geographical area of Delhi-NCR which is largely urbanized area having metropolitan characteristics of residents. Here due to higher literacy rate the internet penetration is very high and hence the finding can be generalized for such area only and it cannot be generalized for all urban areas.

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