Elucidating the relationship of social media usage and e-WOM with brand related purchase decision involvement: an integrated meta-framework approach

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Abstract: The study tends to observe the impact of social media usage, electronic word of mouth on purchase decision involvement in the presence of social media-based engagement. The study has also observed the relationship of social media and social media-based engagement, and relationship between e-WOM and social media-based engagement. The study has used Electronic word of mouth and perceived control theory, social exchange theory and social penetration theory to conduct this research. The present study has used SMART PLS tool and SEM technique to measure the results. A sample of 286 social media users responded through convenient sampling technique. The findings of the research unfold that social media usage has an impact on purchase decision involvement in the presence of mediating variable social media based engagement, and e-WOM has an impact on purchase decision involvement in the presence of mediating variable social media based engagement. Further studies should use other social media dimensions and study social media based engagement with other variables.

Key words: Social media based engagement; Electronic word of mouth; Purchase decision involvement

1. Introduction

Social media is becoming inseparable for many businesses. Businesses tend to provide efficient and productive outcomes for their consumers, in the form of tangible and intangible products and services. Most of the businesses all over the globe are using social media platforms to create awareness about their brand amongst online community and social media audience. There are various types of e-commerce businesses that are specifically using social media platforms to sell their products (Choi, Seo, & Yoon, 2017). Businesses in particular use social media and advanced technologies for promoting their brands and products, customers on the other hand are very much concerned for the products they are spending on.

Online reviews from the existing users of the products and services plays an important and vital role in promoting brand and gaining trust of the new customers. Online reviews about a particular brand from its existing users are usually referred as e-WOM. In particular, internet has established gates for Electronic Word Of Mouth (e-WOM) communication through web pages; such as online discussion forums, blogs, Facebook, Instagram, electronic bulletin broad systems, newsgroups (Jalilvand, Esfahani, & Samiei, 2011). Online reviews about specific product or service, allow users and consumers to not only gain knowledge with regard to products or services from not only fewer people but also from large groups of consumers experiencing , who have relevant experience with specific product or service (Lin, Yi Lu, & Wu, 2012).

Social media has become more popular media across the globe and it is helping assuming consumer behavior. It provides factual and logical information from around the globe and allows customers to observe and communicate with one another at any time. Social media usage has increased drastically among users such as customers, individuals, firms, government (Haenlein, 2017). The present study is an application of three theories; e-WOM and perceived control, social exchange theory and social penetration theory, to measure the impact of social media usage, electronic word of mouth on consumer purchase decision involvement in the presence of social media-based engagement amongst the customers of Samsung mobile phones. In this study social media usage and e-WOM has been studied as independent variables, whereas social media-based engagement has been studied as mediating variable and purchase decision involvement as dependent variable.

Samsung mobile is marked as one of the high ranked best smart phone developers successfully. It is burgeoning developing and wining a great quantity of market share in smart phone industry. Samsung Mobile uses the strategies and techniques that includes high level of technology advancement to develop efficient and affective products and services (Kumar, 2016). The popularity of social media has been widely emerged among marketers. More than 80% of enterprises are using social media for marketing of their products and services. Identifying the importance of information and the easiness of social media platforms, firms and businesses analyze these websites to observe the

reviews of consumers and customers about different products. Enterprises are becoming more efficient and effective with use of new technology given by social media (Kudeshia & Kumar, 2017).

Aim of this study is to identify the impact of e-WOM and social media usage and how these two factors affect consumer purchase decision involvement. The study also highlighted the importance of social media-based engagement with regard to social media usage and e-WOM and how it triggers consumers to make specific purchase. Social Media based engagement has been observed as mediating variable in present study. The present study has been taken out to measure consumers' purchase decision involvement among customers of Samsung Mobile phones.

This study has been focused on consumers using social media and will tend to identify the factors that trigger consumers to make purchase of Samsung Mobile Phones. The study has also tended to help the managers to use social media as a tool to advertise their products and market their brands. The study has also highlighted the importance of e-WOM and how it can have positive or negative effect on consumers using social media all over the globe. This study tends to be helpful for the managers to identify the importance of social media as well as it is supposed to be helpful for the academics to as it tends to contribute in vast knowledge in marketing discipline. This study is also supposed to be useful for academia and researchers to explore further variables in same direction; this study tends to help researchers in their related field of study.

2. Conceptual model and hypotheses

As social media has been quickly emerged and became well known interaction and communication medium, various businesses and brands have started capitalizing on social networking prospective for electronic customer relationship management (Curtis et al., 2010). Previous studies indicated that 87% of intercontinental enterprises uses at least one social media networking site, the most popular social media site amongst these networking site is Twitter with (82%) then the second ranked social media site to be used by businesses is YouTube (79%) followed by Facebook with (74%). The recent study have shown that twitter has been proved to be most useful site for businesses while actual practitioners use LinkedIn by 74% (Go & You, 2016).

Previous research has used Dual Process Theory to study e-WOM (Hussain et al., 2016). Dual process theory states that thought can be form by two different ways, that can be automatic unconscious way (implicit) or more processed, controlled process (explicit). Another past research has taken Social Identity Theory to study electronic word of mouth (Smith et al., 2016). Social identity theory explains that how an individual recognizes himself on the basis of group he belongs to, his class, status, caste, his membership in a group identifies him and improves his self-esteem.

Another research has used Confirmation Biased Theory for e-WOM (Liu, 2017). Confirmation biased theory an ability to search for, or assume information in a way that confirms ones preconceptions, directing towards obvious statistical errors. Previous study has used source credibility theory to study e-WOM. Source Credibility Theory explains that how information's persuasiveness is affected by the perceived credibility of source of the information or communication (Giffin, 1967). The present study will be an application of Word of Mouth/Psychological Ownership Theory and Perceived Control to study e-WOM and its impact on consumers purchase decision involvement.

Social media engagement can be explained as a triggered behavior that can be a result of intense involvement of social media user that effect an individual positively or negatively (Hollebeek, Conduit, & Brodie, 2016). Behavior that goes with engagement with social networking sites includes involvement of customer, creation of, consumption of and contribution to brand related content with social networking sites. Social media engagement also involves degrees of involvement, very initial or low degree to high and intense degree of engagement, for example; (liking a page related to brand on Facebook or any other social networking site) to more higher level of engagement including consumers' participation in co-creative activities (Ardley, Hardwick, Delarue, & Taylor, 2016).

Decision involvement has been used to observe the effects of online reviews in one of other recent studies. A previous study has observed purchase decision involvement to study the relationship between religious and Islamic norms in society (Dehyadegari et al., 2016). Another study has focused on decision involvement to study the impact of price promotions on students' FMCG (Connochie, et al., 2016). The present has observed purchase decision involvement to observe the impact of electronic word of, social media engagement while social media based engagement as a mediator.

3. Research methodology

There are three designs of research i.e. quantitative, qualitative and a mixed method. In quantitative research, data is gathered in numbers and analyzed statistically. In qualitative research design, the data is collected in words and thematic analysis is used in order to reach the findings or conclusion. In a mixed research design the data is collected in both numbers and words to reach the findings. There three paradigms of research i.e. positivism, interpretivism and pragmatism. In positivism paradigm the researcher remains independent of research, data is collected quantitatively and already established theories are tested in a different context. In interpretivism, the research is not independent of the research, the data is collected in words and theories are generated using grounded data. In pragmatism a mixed method approach is used in which data is collected in words

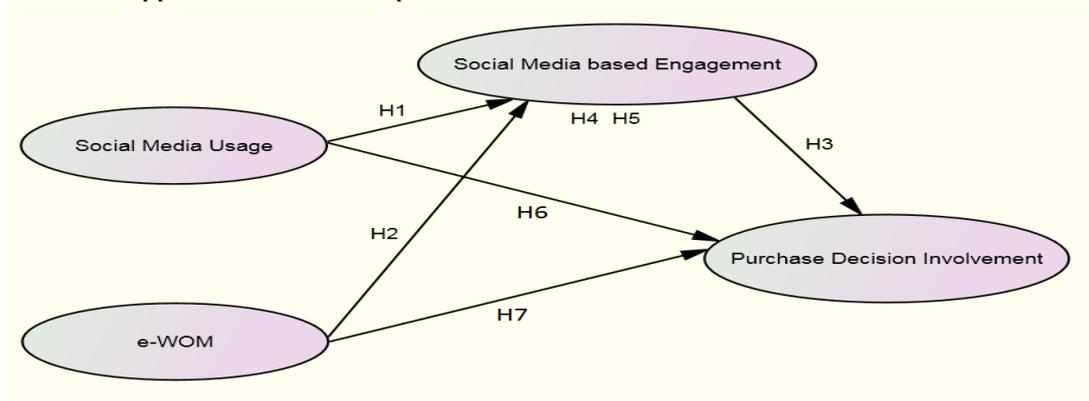as well as in numbers. The present research is quantitative in its approach and follows positivism paradigm.

Fig. 1: Conceptual model

The present study is an empirical study, the study is a quantitative research and follows positive paradigm. The research design of this study is hypothesis testing, type of investigation is causal and cross sectional SPSS 20.0 and SMART PLS were used as a tool to analyze the data and different techniques were used like mean, standard deviations, correlation, plot box to analyze the data structure.

The instrument utilized for the collection of data is a structured questionnaire that contained structured and close-ended questions. The questionnaire has two different sections. Section 'A' comprising of the demographics such as gender, age, experience, and education. Section 'B' is comprised of the questions. All questions in the questionnaire are adapted from previous studies. The five point likert scale is used. The scale from 1 (strongly disagree) to 5 (strongly agree).

Population is the larger part of the sample, in other words it can be said that sample basically represents the population. Sampling is the method through which smaller portion of the population is chosen as a representative of the larger population. The research for the present study was carried out in Rawalpindi and Islamabad whereas social media users mainly using Samsung mobile phones were taken as respondents to get responses. Convenient sampling technique was used for the collection of data. SPSS 20.0 and PLS 3.0 were used as a tool to analyze the data and different techniques were used to analyze the data structure.

4. Analysis and results

The application of Smart PLS to perform analysis is quite simple. Whole model with all indicators is run on Smart PLS (Wong, 2013). In PLS the outer loadings, composite reliability and Average Variance Extracted (AVE) are examined from the PLS Algorithm results to check the multivariate analysis assumptions. The first step is to check the reliability and validity of the construct. The outer loadings of the indicators are analyzed. A value below 0.70 of outer loadings is considered to be insignificant. The values below 0.7 bench mark are insignificant and deleted to run the inner model algorithm. The

Cronbach's Alpha value of all indicators showed that the indicators are reliable at value greater than 0.70. The composite reliability of all the indicators showed values above 0.70 (Wong, 2013). The AVE value of SMU shows value below 0.50 but e-WOM, SME and PDI are significant at values above 0.50 which is because of the lower values of outer loadings which are subject to be deleted in the next step.

Table 1: Correlations

Constructs	SMU	e-WOM	SME	PDI	Mean	SD
SMU	1	0.752**	0.732**	0.557**	3.590	0.803
e-WOM		1	0.845**	0.552**	3.456	0.587
SME			1	0.634**	3.618	0.845
PDI				1	3.472	0.815

Notes: SMU=Social Media Usage; e-WOM= Electronic Word of Mouth; SME=Social Media-based Engagement; PDI=Purchase Decision Involvement

As it can be seen in the Table 2 that SMU and e-WOM are positively correlated (r = .752), SMU and SME are positively correlated with each other (r = .732), SMU is positively correlated with PDI (r = .557). E-WOM is positively correlated with PDI and SME (r = .53), and SME is positively correlated with PDI (r = .634). All correlations are significant at 0.01 levels.

Formulae for Composite Reliability and AVE

$$P_{com} = \frac{[(\Sigma\lambda)]^2}{[(\Sigma\lambda)]^2 + [\Sigma\theta]} \qquad Equation\ 1$$

P_{com} = Composite Reliability
Σ = Summation
λ = Indicator's Standardized Loadings
λ^2 = Square of Indicator's Standardized Loadings
$\theta = (1 - \lambda^2)$ Indicator Measurement Error

$$P_{ave} = \frac{[(\Sigma\lambda^2)]}{[(\Sigma\lambda^2) + [\Sigma\theta]} \qquad Equation\ 2$$

P_{ave} = Average Variance Extracted
Σ = Summation
λ^2 = Square of Indicator's standardized loadings

θ = (1- λ²) Indicator measurement error

Table 2: Validity and reliability

Constructs	Items	Discriminant Validity	Composite Reliability			Reliability
			FL (min-max)	AVE	α	CR
SMU	8	0.727	0.640 – 0.821	0.536	0.875	0.902
e-WOM	6	0.767	-0.095 - 0.801	0.367	0.554	0.693
SME	5	0.732	0.710 - 0.839	0.589	0.824	0.877
PDI	9	0.606	0.614 - 0.811	0.529	0.889	0.909
PDI	9	0.606	0.614 - 0.811	0.529	0.889	0.909

Notes: SMU=Social Media Usage; e-WOM= Electronic Word of Mouth;
SME=Social Media-based Engagement; PD=Purchase Decision Involvement

Table 3: Outer model loadings after dimension reduction

Constructs	Items	Discriminant Validity	Composite Reliability			Reliability
			FL (min-max)	AVE	α	CR
SMU	6	0.777	0.724 – 0.847	0.603	0.867	0.901
e-WOM	4	0.741	0.707 – 0.798	0.549	0.736	0.829
SME	5	0.767	0.709 – 0.839	0.589	0.824	0.877
PDI	7	0.761	0.714 – 0.803	0.579	0.870	0.906

Notes: SMU=Social Media Usage; e-WOM= Electronic Word of Mouth;
SME=Social Media-based Engagement; PD=Purchase Decision Involvement

After possible dimension reduction the values of outer model loadings are further improved and significant at above 0.70 minimum thresh hold.
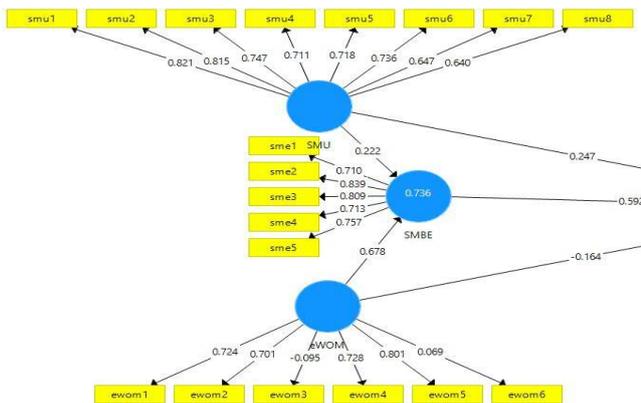

Fig. 2: Outer model

The P value or path coefficients of the latent variables are shown in the Table 4.

Table 4: Coefficient

The relationships between variables	Results of Inner Model	
	β	R²
SMU→ PDI	0.294	Significant
e-WOM→ PDI	-0.125	Insignificant
SMU→ SME	0.285	Significant

e-WOM→ SME	0.655***	Significant
SME→ PDI	0.542***	Significant
R² (SME)	0.757	
R² (PDI)	0.461	

*Notes: *** β < 0.1*

According to Wong (2013) a value of 0.1 or above is standard to confirm relationship between latent constructs. The values of R square of PDI explained 46.1% relationship and SME explained 75.7% of the relationship therefore it is confirmed that after removal of insignificant indicators all the statistics of PLS SEM should turn better.

The second run composite reliability also showed reliable results. The Cronbach's Alpha values are above 0.70, composite reliability results are also within the range. The AVE's values have also enhanced in the second run. The p value of -0.125 between SMU and EWOM is negative. However all other p values are positive and above 0.1 as set for small samples (Wong, 2013) and hence proved that SMBE is mediating between SMU and EWOM and PDI. Therefore all other hypothesis accepted.

The values of R square have also improved in the second run. SMBE is explaining 75% of mediating relationship among PDI and e-WOM. Further 46 % between SMU and PDI.

Fig. 3: Outer model with factor loadings

In this section of research, results of descriptive analysis, reliability tests results to find out the reliability of data and findings of correlation and regressions are interpreted and concluded. Maximum age of respondent was 2.4% were intermediate students, 40% were graduation students, 53% were master's students and 3.5% were PhDs. 99.3% of respondents were users of social media platforms. By analyzing mean value it can be interpreted that most of the answers were on positive side. The minimum value shows the minimum response that is 1.00 and maximum value shows the maximum response i.e. 5.00.

5. Discussion and conclusion

This present study has observed entirely new variable Social Media Based Engagement as a mediator and the results have shown the importance of this variable, people tend to use social media platform and get engaged with specific matters according to their interests and likeliness. The present has observed the relationship of e-WOM and Social Media Usage with Purchase Decision Involvement; the results have shown that there is a relationship between these variables in the presence of mediator Social Media Based Engagement.

This study was taken out within the users of Samsung phones, as it has been observed that consumers tend to search the reviews about electronic gadgets from already existing customers before making actual purchase. This study has shown that consumers are actually and more likely into reviews by different users of Samsung smart phones as they consider their purchase to be more worthy and productive and they do not want any sought of loss of their monetary values as well as time.

The results of this study has shown that the social media is very important in marketing and marketers and brands can only use social media platform to be successful as in this era the users of social media have drastically emerged. This study has shown that the rise of technology has increased up to mark and social media plays a vital role in success of any product, service or brands, this study has also shown that the importance of reviews by already existing customers of products or services have great importance in influencing purchase decision of an individual.

This study has observed a new variable Social Media Based Engagement as a mediator that can be used as an independent variable or dependent variable with another product or brand or service in future studies. The present study has been taken out with the Samsung mobile phones, the future studies should focus on another industry arising in market.

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