Webology (ISSN: 1735-188X)
Volume 19, Number 2, 2022

The Role Of Social Media As An Information Tool In The Students' Choice Of University: The Moderating Role Of Emotional Attachment

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Received date: 8th April 2022
Revised date: 26th April 2022
Accepted date: 28th April 2022

Abstract

Higher education has observed incremental increase in enrollment over the past four decades. This growing rate of students' enrolment on one side has increased the number of universities and on the other end made it difficult for HEIs to compete for students. Students' induction is a costly process. To overcome financial pressure on HEIs of many countries of the world, institutes/universities are practicing various tactics to enroll larger number of students. HEIs are practicing new modes of communication to approach their students. HEIs' admission offices have rapidly embraced the blessing of social media in their efforts to meet enrollment goals. This study examined role of social media as an information tool among students in their university choice and the moderating role of emotional attachment. A quantitative research was initiated. Business students of three purposively selected HEI's participated in the data collection. A sample of 260 respondents were statistically tested to investigate the relationship between Social Media Interaction (SMI) and electronic Word-Of-Mouth (eWOM). Results revealed strong evidence that SMI has a significant positive effect on eWOM. Furthermore, Emotional Attachment (EA) of the students to HEI brand significantly moderate the relationship between SMI and eWOM.

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Keywords: Social Media Interaction, Emotional Attachment, electronic Word-of-Mouth, theory of Reasoned Action, Theory Planned Behaviour, Information Acceptance Model

Chapter 1: Introduction

1.1 Introduction

Higher education enrollment observed incremental increase over the last four decades. In Malaysia, Lao People's Democratic Republic, China, Sri Lanka and Nepal, the gross enrolment ratios for Bachelor's programmes have increased 10 times over the past four decades (UNESCO Institute for Statistics, 2013). A survey conducted in 2015 by Pakistan Social and Living Standards Measurement (PSLM) states that literacy rate of the population (10 years and above) is 60 percent as compared to 58 percent in 2014. The data revealed higher literacy rate in urban areas (76 percent) as compared to rural areas (51 percent). The growing rate of students' enrollment on one side has increased the number of universities and on the other end made it difficult for DAIs (Degree Awarding Institutions) to compete for students.

To overcome financial pressure on DAIs of many countries of the world, institutes/universities are practicing various tactics to enroll larger number of students (Bjarnason et al., 2009). But on the other end, students of today generation are quite different from 20 years ago, as they are grown up in an era where they are fully aware of internet. Each member of this generation is somewhat connected with their families and friends through internet. This immense inclusion of technology in this generation has changed the approaches of communication. HEIs are practicing new modes of communication to approach their students. In the pre-Internet era, educational institutions' admission cells held the primary control over communication to prospective students through prospectus, newsletters, and institute visits.

In this information saturated world, customers receive unfiltered information from their peers on SNS because they consider peers' online review more credible, trustworthy and upto-date than information provided by service operators (Hennig-Thurau et al., 2004; Craciun, & Shin, 2010). As people are informed about service or product from their friends, they become customers at 15 percent higher rate than if they are informed through other sources.

eWOM facilitates consumer interactions by allowing them to exchange the product related details using computer mediated communication so that they can make informed purchased decision (Hoffman et al., 1996; Blazevic et al., 2013). For quite long, eWOM is regarded as a more influential marketing tool (Kumar & Benbasat, 2006; Bickart & Schindler, 2001; Zhang, Craciun, & Shin, 2010). People's emotions are involved in the generation of eWOM because people share information and exchange product information only when they trust each other

(Kozinets et al., 2010). Therefore, eWOM is playing an effective role in influencing the purchase decisions of customers (Brown et al., 2007; Engel et al., 1969; De Bruyn & Lilien, 2008).

According to Lee, Back, and Kim (2009), emotions are individual's negative (i.e. annoyed or nervous) and positive (i.e. relaxed or pleased) feelings. The more people are with positive emotional state, the lesser they take time to make purchase decision and decision

complexity is minimized as compared to people with negative emotions (Isen, Means, Patrick, & Nowicki, 1982). Emotional attachment refers to emotional relationships between a brand and consumer (Malär et al., 2011). The more a brand reflects consumer's self, the stronger is the emotional attachment of the latter to the former. However, whether and how users develop this psychological bond with an online service provider (e.g. Facebook and LinkedIn) in terms of personality traits have not been fully recognized in a social media context. Emotions either negative or positive affect the intensity of eWOM (Westbrook, 1987). With the emergence of social media and online communication, marketers make hard efforts to persuade consumer to recommend brand by generating positive eWOM and, thus help in boosting sales by creating brand awareness (Edelman, 2010). Students' opinions on social media may help other students to get some guidance in their university choice. This study intended to examine role of Social Media Interaction (SMI) in students' university brand choices and also how much students get involved in the generation of eWOM due to SMI and emotional attachment.

HEIs have continuously developed and evolved sophisticated admission mechanisms to accumulate larger number of students to meet financial needs. Intensity of competition is increasing day by day in higher education market. Thus universities are focusing to bring and implement creative and unique strategies to gain and retain right number of students (Ferguson, 2010). Students of Gen Y are different from previous generations as they have grown up in the world where they know internet.

Although huge data is available regarding the popularity of social media in this context, but there is still few research studies on social media's role and how social media develop link between prospective students and admissions offices (Ferguson, 2010). Majority of available literature merely empirically explains the processes and outcomes of social media use by universities/institutes admission offices (Anton, 2006; Kessler, 2011; Wiseman, 2011; Johnson, 2011; Lavrusik, 2009). Majority of research studies conducted in Western countries have linked social media role in college admission perspective in controlled social network. In context of social media, less attention is paid to aforementioned problem. Further in a country like Pakistan, this phenomenon remained unexplored.

1.2 Research Hypotheses

The following hypotheses are proposed for the given study:

$H_{1:}$ Social Media Interaction has significant affect on electronic Word-Of-Mouth.

$H_{2:}$ Emotional attachments of student to his/her university choice have significant effect on e WOM.

$H_{3:}$ Emotional attachment will significantly moderate the relationship between Social Media Interaction and electronic Word-Of-Mouth.

2. Literature Review

2.1 Social Media Interaction

Social media has become the most popular communication channel among students in last few years (Pelling & White, 2009). A study conducted by Selwyn (2009) examined 909 undergraduate UK university students in terms of Facebook usage. A qualitative analysis of students' messages and comments revealed that students initially exchanged in social support in order to coordinate their studies rather than involving in collaborative or deeper learning. Study also suggested that marketers have no control on frequency, timing and content of social media-based conversation among consumers which is in contrast to traditional integrated marketing communication where managers possess high degree of control. In 2005, Xavier was one of the first universities to use blogs as a strategic students' recruitment tool (Anton, 2006). Still there is no conclusive evidence that how much this approach is effective in students' recruitment but in literature this is the only case reported so far. In order to gain control, universities /institutes employing various strategies to shape a landscape that facilitate university admissions. Limited literature is available that how emotional attachment is influenced by social media and how much social media based relationships cause desired behavioral outcomes like positive eWOM by students in their university choices. Social media have become most prevalent electronic Word-Of-Mouth channels because of its mobility, interactivity and ubiquity (French & Read, 2013; Zmuda, 2013).Those brands that are followed by individuals via social media got higher probabilities that they would be purchased and recommended as it is found that almost 50% of Facebook fans are already customers of desired brand (Blazevic et al., 2013).When consumers experience brand positively while using social media, it might results in repeat purchase of brand as well as its recommendations (Blazevic et al., 2013).

2.2 Behavioral outcome such as eWOM:

Social media (SM) has generated worthy platform for eWOM conversation (Erkan & Evans, 2016). Erkan & Evans (2016) examined effect of social media based conservations on consumers' purchase intentions. Using Information Adoption Model (IAM) and Theory of Reason Action (TRA) a conceptual model was designed. Results suggested pivotal factors of eWOM in social media such as usefulness, credibility, quality, adoption of information, attitude towards information and needs of information that affect purchase intentions of consumers (Erkan & Evans, 2016).

In literature, TAM and TAR were utilized by several researchers to explain this phenomenon of how individuals' adoption of information or idea is affected (Fishbein & Ajzen, 1975; Davis, 1989). TAM fails to deliver reasonable understanding of users' intention and attitudes where individuals generate information, specifically in eWOM context (Ayeh, 2015).

eWOM conversation facilitates transfer of basic information between individuals sender and receiver (Bansal & Voyer, 2000). Same information might cause different notions among

receivers as it varies from person to person (Cheung, Lee, & Rabjohn, 2008; Chaiken & Eagly, 1976).

Some other research studies identified key factors that evoke consumers towards eWOM such as to minimize pre and post purchase search and evaluation efforts (e.g., Bronner & de Hoog, 2010; Dabholkar, 2006; King, Racherla & Bush, 2014; Hennig-Thurau & Walsh, 2003), minimization of risk (Kim, Mattila, & Baloglu, 2011; Bettman & Park, 1980; Sweeney, Soutar, & Mazzarol, 2008), search for social reassurance/ assurance (Bristor, 1990) and to overcome negativity bias (O'Reilly & Marx, 2011).

Kim and Gupta (2011) in their research investigated emotional expression's influence on eWOM. To analyze that how online users interpret negative and positive emotional expression in reviews, two experiments were performed. The findings revealed that reviews informative value decreases as online user post single negative review due to negative emotional expressions because online users perceive this single negative review as irrational disposition due to negative emotion and also single positive review doesn't influence the consumers' product evaluation until and unless multiple reviews from multi users is presented which influence both informative value as well as consumer's product evaluation (Kim & Gupta, 2011).

According to Crosby and Johnson (2007), consumption emotions influence eWOM (such as behavioral intentions) and consumer loyalty. Arousal and pleasure have significant influence on eWOM (Ladhari, 2007).

2.3 Emotional Attachment:

Gunduz and Hatemi (2005) conducted a research that identified characteristics of consumption emotion in two ways such as structural and categorical dimension approaches. To understand various categories of emotion such as joy, fear, anticipation, acceptance, disgust and surprise, an emotion scale was developed (Plutchik, 1984). Various research studies have supported emotion categories in consumption emotion measurement (Westbrook, 1987; Batra & Holbrook, 1990). Negative and positive emotions cause unique influence and variance over individuals' behaviors (Machleit & Eroglu, 2000).

Derbaix and Vanhamme (2003) found that positive emotions, surprise and negative emotions are highly correlated with eWOM. Disappointment and regret causes positive impact on negative eWOM (Zeelenberg & Pieters, 2004).

White and Yu (2005) concluded negative relationship between positive eWOM and regret while strong positive relationship between positive eWOM and positive emotion. Positive eWOM and disappointment reported negative relationships.

Ladhari (2007) concluded that when consumers feel satisfied, their arousal and pleasure significantly affect eWOM. Conceptual model revealed that arousal and pleasure effect satisfaction, eWOM communication and the likelihood of generating eWOM.

Although sufficient literature is available regarding fame of social media in this context, but very few research studies on social media's role and how social media establish bridge between prospective students and admissions offices which is the research gap that this study is aiming at fulfilling it (Ferguson, 2010). Majority of the available literature focuses merely on explaining the processes and outcomes of social media use by universities/institutes admission offices (Anton, 2006; Kessler, 2011; Wiseman, 2011; Johnson, 2011; Lavrusik, 2009). Only one study (Ferguson, 2010) presented an empirical examination of social media's value as a college students' admission tool, but that study was confined to individual institute having limited internal networking sites. None of the studies empirically examined public networking sites in this context. Thus, this study intends to investigate effective role of social media as an information tool for students and how likely students involve in recommending universities for admissions.

3. Research Methodology

3.1 Population of the study

Population of study includes undergraduate, graduates and post graduate business students and teaching faculty of Peshawar district who have recently enrolled. Sampling frame of this study consists of all students who have just completed their study as well as those who recently get admission in any educational program. According to HEC recognized business programmes offering list, twelve universities/ institutes (5 public universities and 7 private universities are operational in Peshawar district. Three HEIs/universities were purposively selected because of their reputation in Peshawar district, including: (1) Institute of Management Sciences, Peshawar (2) Institute of Business and Management Sciences, KPK University of Agriculture and (3) Institute of Management Studies, University of Peshawar. Survey research strategy was used to get the desire data from population.

3.2 Sampling design

Sampling design assists in determining and selecting sample size from population of study. Information obtained from admission offices of three aforementioned HEIs suggested a sample frame of 800 students. Sekaran and Bougie (2016, pp. 294) stated a table proposed by Krejcie & Morgan (1970) that suggests sample size of 260 respondents at 0.05 confidence level with sample frame of 800 respondents (see table in appendix). Using convenience sampling technique, questionnaires were distributed among respondents in the classroom setting.

Through proportion allocation method (Cochran, 1977), the desired sample size was divided among the three proposed educational institutions in such a manner that it clearly

represented the population patterns. Detail of business students which were surveyed from each of HEI/DAI are listed in the below Table 3.1

Table 3.1 Sample size distribution in the selected HEIs/universities

University/Institute	Total enrolled Undergraduate and graduate business students	Sampled Business Students
IBMS, University of Agriculture Peshawar	400	130
IMStudies, University of Peshawar	200	65
IM| Sciences, Peshawar KPK	200	65

Source: Admission cell of institutes/ universities.

3.3 Theoretical framework

This study is examining the role of social media in students' institute/ university admission decision choices. A theoretical framework is design to examine relationship among Social Media Interaction (SMI), electronic Word-Of-Mouth (eWOM) and Emotional Attachment (EA). The theoretical framework is shown as in Fig 3.1

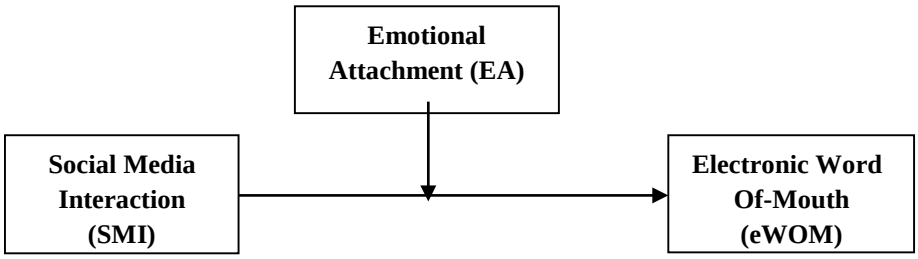


Figure 3.1 Theoretical framework of the study

As shown in Fig 3.1, the theoretical framework consists of an independent variable that is, Social Media Interaction (SMI), a dependent variable electronic Word-Of Mouth (eWOM) and a moderating variable Emotional Attachment (EA). Brown and Reingen (1987) identified three constructs of SMI such as tie strength with peer, identification with peer group and peer communication. Tie strength is extent to which individual is willing to retain some relationship with peer via social media (Van Doorn et al., 2010). Identification with social media friend group refers to "defining features of a self-inclusive social category that renders self stereotypically interchangeable with other in-group members" (Hogg, 1992, p. 45).

Where peer communication is when a person has established an identification with group, then he/she develops and maintains positive self-defining we-intentions relationship with the group (Bagozzi & Dholakia, 2002), is willing to engage in community activities (Algesheimer et al., 2005), and places greater value on relationships with the community (Nambisan & Baron, 2007). This study adapted 15 items to measure social media interaction (four items measuring tie strength with peer group adapted from validated proposed scale by De Bruyn and Lilien (2008) on seven points Likert scale ranging from 1-very unlikely to 7-very likely; five items measuring identification with peer group adapted from validated proposed scale by Algesheimer et al. (2005) on seven points Likert scale ranging from 1strongly disagree to 7-strongly agree; six items measuring peer communication adapted from validated proposed scale by Moschis and Churchill (1978) on seven points Likert scale ranging from 1-strongly disagree to 7-strongly agree).

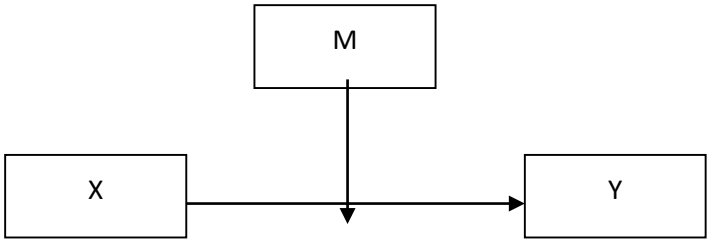
Whereas, three specific constructs were operationalized in users' engagement in eWOM via social media: opinion seeking, opinion giving and opinion passing. Opinion seeking items (four items measured on seven points Likert scale ranging from 1-strongly disagree to 7-strongly agree) and opinion giving items (three items measured on seven points Likert scale ranging from 1-strongly disagree to 7-strongly agree) were adapted from Flynn, Goldsmith and Eastman (1996) while opinion passing (four items measured on seven points Likert scale ranging from 1-strongly disagree to 7-strongly agree except last item which was measured on five points Likert scale ranging 1-extremely unlikely to 5-extremely likely which was later on converted into seven points Likert scale in the analysis phase) items were adapted from Sun et al. (2006). Borrowed items were modified as per need to meet the current study's requirements. The moderating variable i.e. Emotional Attachment (EA) was measured using ten-items on seven-point Likert scale developed by Thomson et al., (2005) ranging from 1-strongly disagree to 7- strongly agree. The tenth item of emotional attachment is reverse item. Thus in the analysis phase, reverse item was treated in the reverse order of respondents preferences.

3.4 Data Analysis

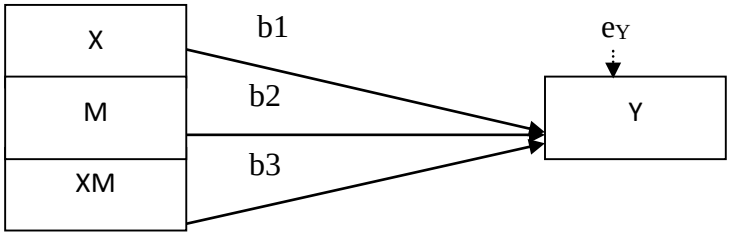
The compiled data were analyzed with Statistical Package for Social Sciences (SPSS) v.19. The PROCESS macro v. 2.16.3 for SPSS, introduced by Andrew F. Hayes (2009), was used to measure the moderation effects. PROCESS is an observed variable OLS regression path analysis modeling tool for SPSS and SAS. It has a quite vast applications in fields of social, business, and health sciences for estimating both direct and indirect effects in single and multiple mediator models (parallel and serial), two and three way interactions in moderation models along with simple slopes and regions of significance for investigating interactions, and conditional indirect effects in moderated mediation models with a single or multiple

mediators or moderators. In order to analyze the moderation effect, Hayes suggested Model 1 for PROCESS for SPSS. Below is the conceptual and statistical diagram.

Conceptual Diagram



Statistical diagram



Regression equation 3.1 was developed to test H1: Social Media Interaction has significant effect on electronic Word-Of-Mouth.

$$eWOM = \beta_0 + \beta_1 SMI + \varepsilon \quad (3.1)$$

In order to measure the direct effect of moderator i.e. EA on dependent variable eWOM, a statistical equation 3.2 is developed to test H2.

$$eWOM = \beta_0 + \beta_2 EA + \varepsilon \quad (3.2)$$

Similarly to quantify the conditional effect of moderator, an interaction term between SMI and the moderating variable i.e. Emotional Attachment (EA) is developed. Below is the regression Model (3.3) which measures H3:

$$eWOM = \beta_0 + \beta_1 SMI + \beta_2 EA + \beta_3 (SMI \times EA) + \varepsilon \quad (3.3)$$

4. Analysis

4.1 Reliability Analysis

In order to ensure that all items used in the questionnaire are reliable, Cronbach's alpha was calculated. The output of the reliability analysis is shown in the Table 4.1, which shows that **α**-values are above the acceptable level of 0.7 (Hair et al., 2003; George & Mallery, 2003).

Table 4.1 Reliability test of SMI, eWOM and EA

Variables	Cronbach's alpha (α)	Remarks
Social Media Interaction (SMI)	0.796	Reliable
electronic Word-OfMouth (eWOM)	0.889	Reliable
Emotional Attachment (EA)	0.907	Reliable

4.2 Characteristics of respondents

To present distribution of single categorical variable, frequency table is used. Variables are shown along with its relative frequency (percentage) or frequency (count). Relative frequency facilitates the comparison of values relative to overall sample size.

4.2.1 Demographic Characteristics

The demographic characteristics of respondents is shown in Tab 4.2

Table 4.2 Sample demographic characteristics (n=260)

Variables	Frequency	Percentage (%)
Gender		
Male	212 48	81.5
Female		18.5
Age		
18-24 years	211	81.2
25-31 years	42	16.2
32-38 years	5	1.9 0.4
39-45 years	1	0.4
46- and above	1	

Qualification Bachelors Master MS/MPhil Ph.D	150 52 50 8	57.7 20 19.2 3.1
Internet Usage Yes No	260 0	100 0.00

The above Table 4.2 exhibits that out of 260 respondents, 212 (81.5%) were male and 48 (18.5%) are female. In this study, majority of the respondents (81.2%) were in the age bracket of 18-24 years. Qualification represents 150 (57.7%) bachelor program students, 52 (20%) master program students, 50 (19.2%) MS/MPhil students and 8 were (3.1%) Ph.D students. All 260 respondents were using internet.

4.2.2 Internet usage frequency

To know about the frequency of usage of internet, respondents were asked, "Overall, how often do you use the internet?". The respondents' responses are shown in Table 4.5.

Table 4.5 Respondents' internet usage frequency

Internet Usage frequency		**Frequency**	**Percentage (%)**
	Several Times a day	212	81.5
	Once a day	48	18.5
	Total	260	100.0

The Table illustrates that 81.5% respondents use internet "several time a day" while 18.5% respondents use internet "once a day".

4.2.3 Social media channels

To understand the respondents' mostly used social media channels, they were asked for "Which Social Media channel you use the most?" against listed social media channels such as Facebook, Twitter, Instagram, LinkedIn, Whats app and We Chat.

Table 4.6 Social media channels used by respondents

Social media Channels		**Frequency**	**Percentage (%)**
	Facebook	98	37.7

Twitter	71	27.3
Instagram	62	23.8
LinkedIn	22	8.5
Whatsapp	5	1.9
WeChat	2	.8
Total	260	100.0

Table 4.6 illustrates that 37.7% respondents use facebook as a social media channel while 27.3% use Twitter, 23% use Instagram, 8.5% use LinkedIn, 1.9% use Whatsapp and 0.8% use WeChat respectively. Out of 260 respondents, 98 respondents use facebook while only 2 respondents use WeChat.

4.2.4 Social media usage rate

To know respondents' time utilization on their preferred social media channels, respondents were asked for "How much time you spend on your preferred social media channel?" by providing choices as "One hour, Two hours, Three hours, Four hours and more than Four hours".

Table 4.7 Time spend by respondents on their preferred social media channel

Time Spend on social media channels		**Frequency**	**Percentage (%)**
	One Hour	85	32.7
	Two Hours	70	26.9
	Three Hours	33	12.7
	Four Hours	14	5.4
	More than four hours	58	22.3
	Total	260	100.0

22.3% respondents use social media more than four hours, 32.7% use one hour, 26.9% use two hours, 12.7% use three hours and 5.4% use for four hours respectively. 85 respondents out of 260 use social media about one hour while 70 respondents use about two hours and 58 respondents use social media more than four hours.

4.2.5 Preferred social media channel

To understand respondents' preferred social media channel, respondents' responses against "My preferred social media tool is?" are presented in the frequencies Table 4.8 stated below.

Table 4.8 Represents preferred social media channel by respondents

Preferred Social media channels		Frequency	Percentage (%)
	Facebook	190	73.1
	Twitter	11	4.2
	Instagram	13	5.0
	LinkedIn	3	1.2
	Whatsapp	43	16.5
	Total	260	100.0

Facebook was preferred social media channel among 190 (73.1%) respondents out of 260. Facebook stood first and most preferred social media channel among other social media channel while Whatsapp stood second and LinkedIn remain the last preferred social media channel. No one among 260 respondents show any preference to WeChat.

4.3 Descriptive Statistics

To understand the basic features of compiled data, descriptive statistics are used.

Table 4.9 Mean, Standard deviation, skewness and kurtosis values of SMI, EA and eWOM

Variables	N	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
SMI	260	4.2701	.90791	-.015	.151
EA	260	4.5213	1.17235	-.370	.151
eWOM	260	3.9832	1.22166	-.094	.151
Valid N (list wise)	260				

Table 4.9 illustrates mean values of both Social Media Interaction (SMI) and Emotional Attachment (EA) as 4.2701 and 4.5213 respectively which state that all the respondents' response lied in the range of "somewhat agree" and "somewhat likely" for questions measuring SMI and EA. While response pattern towards electronic Word-ofMouth (eWOM) is 3.9832 stating that responses are located in the range of "neither agree nor disagree". Skewness value for SMI, EA and eWOM are -.015, -.370 and -.094 respectively which mean values are less than zero. Therefore, data is negatively skewed or

skewed to the left. About normality test of data set, according to Central Limit Theorem (CLT) in probability theory, when sample size of the study is greater, data set is assumed to be normally distributed. The rule of thumb suggests that sample size should be more than 30. While this study sample size is 260 which is greater than 30, therefore compiled data satisfied the normality assumption. Furthermore, Variance Inflation Factor (VIF) value is 1.000 which is less than 10 and greater than 0.1. Therefore, there is no issue of multicollinearity.

4.4 Strength of relationship among SMI, eWOM and EA

To know the strength of relationship among SMI, eWOM and EA, partial correlation matrix was utilized. Table 4.10 was segmented into two main parts: (a) the Pearson product-moment correlation coefficients for all variables- dependent variable, independent variable, and one or more control variables and (b) the results from the partial correlation where the Pearson product-moment correlation coefficient between the dependent and independent variable has been adjusted to take into account the control variable(s).

Table 4.10 Strength of relationship among SMI, eWOM and EA.

Correlations

Control Variables			SMI	EWOM	EA
-none-[a]	SMI	Correlation	1.000	.527	.521
		Significance (2-tailed)	.	.000	.000
		Df	0	258	258
	eWOM	Correlation	.527	1.000	.492
		Significance (2-tailed)	.000	.	.000
		Df	258	0	258
	EA	Correlation	.521	.492	1.000
		Significance (2-tailed)	.000	.000	.
		Df	258	258	0
EA	SMI	Correlation	1.000	.364	
		Significance (2-tailed)	.	.000	
		Df	0	257	
	eWOM	Correlation	.364	1.000	
		Significance (2-tailed)	.000	.	
		Df	257	0	

a. Cells contain zero-order (Pearson) correlations.

Table 4.10 shows that there is a moderate, positive partial correlation between the dependent variable, "eWOM", and independent variable, "SMI", whilst controlling for "EA", which was statistically significant (r(257) = 0.364, n = 260, p = .000). However, when a researcher refers to the Pearson's product-moment correlation – which is also known as the zero-order correlation – between "eWOM" and "SMI", without controlling for "EA", there is also a statistically significant, moderate, positive correlation between "eWOM" and "SMI" (r(298) = 0.527 n = 260, p = .000). This suggests that "EA" has greater influence in controlling for relationship between "e WOM" and "SMI".

4.5 Linear relationship of Social Media Interactions on electronic Word-Of-Mouth

To test the effect of SMI on eWOM, PROCESS macros version 2.16.3 was utilized. Reasons behind using PROCESS macro are four fold: (1) It has a quite vast applications in fields of social, business, and health sciences for estimating both direct and indirect effects in single and multiple mediator models (parallel and serial), (2) two and three way interactions in moderation models along with simple slopes and regions of significance for investigating interactions, and conditional indirect effects in moderated mediation models with a single or multiple mediators or moderators, (3) it's user friendly, one can analyze many models by using PROCESS macro like (mediation-moderation, Mediation, moderation-mediation, multi-mediation), as measurement of parameters estimates are not required for regression equation, (4) this can be done with any least squares regression program (such as using REGRESSION command in SPSS) and the results will be identical to Structural Equation Modeling (SEM) (Bolin & Hayes, 2013).

Table 4.11 Linear relationship between Social Media Interaction and electronic Word-Of-Mouth

Independent Variable	Dependent Variable	Standardized Coefficient Beta	T-value	Significance	D_w-Stats	VIF
SMI	eWOM	0.527	9.959	0.000	1.775	1.000
R_2	0.278					
F	99.174				0.000	

Table 4.11 reveals significant positive or negative relationship between SMI and eWOM. As R^2 value is 0.278 which indicates that SMI as an independent variable explains 27.8% change in the dependent variable eWOM. F-statistics value is 99.174 at a significance value of 0.000 which means overall model is good fit.

The results of standardized coefficient beta and t-values (β= 0.527, t-value=9.959) indicate positive and significant relationship between SMI and eWOM at a significance level of P<0.005. Thus results support the rejection of null hypothesis and acceptance of alternate hypothesis.

$H_{1:}$ Social media interaction has significant effect on electronic Word-Of-Mouth

4.5.1 Moderating effect of Emotional Attachment (EA)

In order to examine the interaction effects of Emotional Attachment (EA) as a moderator between Social Media Interaction (SMI) and electronic Word-of-Mouth (eWOM), regression analysis was done through PROCESS macro.

Table 4.12 Interaction effect of EA on relationship between SMI and eWOM

Variables	Coefficient (beta)	LLCI	ULCI	Sig.
Constant	3.9599	3.8194	4.1003	0.000
EA	0.3197	0.1822	0.4572	0.000
SMI	0.4887	0.3168	0.6605	0.000
Int_1	0.0422	-0.0590	-0.1435	0.001

a. Dependent variable: electronic Word-of-Mouth

Table 4.12 suggests that interaction effect is significant as P-value is 0.001 and also zero does not lie between lower level confidence interval (LLCI) and upper level confidence interval (ULCI) as both LLCI and ULCI were -0.0590 and -0.1435 respectively. Also beta values are positive 0.3197, 0.4887 and 0.0422. This suggests positive relationship. Thus on the basis of above evidences, H2 and H3are accepted: $H_{2:}$ Emotional attachments of student to his/her university choice have significant effect on eWOM

$H_{3:}$ Emotional attachment will significantly moderate the relationship between social media interaction and electronic word of mouth.

4.5.2 Conditional effect of Emotional Attachment

This study consisted Emotional Attachment (EA) as a moderator. PROCESS macro in SPSS automatically divides moderation effect into low, medium and high conditions.

Table 4.13 Conditional effect of Emotional Attachment as Moderator

EA	Effect	Sig.	LLCI	ULCI
-1.1724	0.4391	0.0001	0.2238	0.6545
0.0000	0.4887	0.0000	0.3168	0.6605
1.1724	0.5382	0.0000	0.3360	0.7404

Table 4.13 shows the conditional effects of Emotional Attachment (EA) as a moderator. It also suggests none zero values among lower, medium and higher conditions between ULCI (Upper level confidence level) and LLCI (lower level confidence level) such that LLCI (0.2238, 0.3168, 0.3360) and ULCI (0.6545, 0.6605, 0.7404) respectively. The results reveal that emotionally attached university students' interacting through social media are more inclined towards eWOM.

4.5.3 Graphical visualization of conditional effect

To graphically visualize the conditional effects of EA on the relationship between SMI and eWOM, PROCESS macro provide data set which was then used to plot a graph in excel sheet.

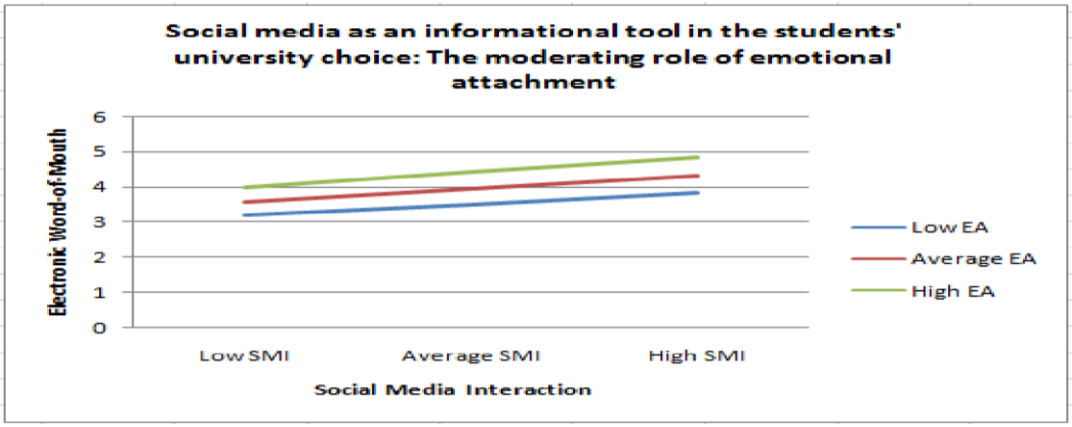


Figure 4.1: Visualization of conditional effect

Fig. 4.1 Social Media Interaction (SMI) and Emotional Attachment (EA) are represented on x-axis while electronic Word-of-Mouth (eWOM) on y-axis. Where light green color line represents -1SD, red color represents mean and blue color shows +1SD. Above graph illustrates that when university students' are at lower EA to social media, they involve in

lower eWOM and as EA increases, eWOM also increases. This accepts the hypothesis H3 i.e. emotional attachment will significantly moderate the relationship between social media interaction and electronic word of mouth. Low EA is represented by blue, medium EA by red and high EA by light green color respectively.

5. Conclusion

5.1 Conclusion

This study examined the moderating role of Emotional Attachment (EA) on the relationship between Social Media Interaction (SMI) and electronic Word-Of-Mouth (eWOM). To test this relationship, 260 business students of three purposively selected universities/institutes of Peshawar district were surveyed using an adopted and a validated questionnaire.

Results suggest a significant effect of SMI on eWOM. Thus null hypothesis was rejected i.e. Social Media Interaction has insignificant effect on electronic Word-OfMouth. French & Read (2013) and Zmuda (2013) in their study also found that social media channel is the most prevalent eWOM because of its interactivity, ubiquity and mobility. Wirtz and Chew (2002) also suggested that social media users tend to seek information and advices from those with who they are in closer ties like family and friends etc. They are also willing to share all important information related to brand with their close friends (Tsai & Ghoshal, 1998; Chiu, Hsu & Wang, 2006). Therefore, the result of H1 is aligning with previous research literatures.

H2 and H3 were accepted on the basis of results produced by PROCESS macro. Significant changes in the relationship between SMI and eWOM were observed when EA was introduced as moderator. Thus suggest that as Emotional Attachment increases, SMI evolves higher eWOM. The study findings reveal that students share their likeliness and appreciations about university/ institute brands by writing some good comments in favour of brands on social media platforms and are willing to recommend universities/ HEIs brands choices to their families and friends using social media sites. Fornell (1992) also suggested that emotionally satisfied and attached customers show greater loyalty which supports our findings that emotionally attached students with university brands through social media show more loyalty in terms of positive electronic word-of mouth by placing favorable comments on various social media networking sites. Analyzing students' behaviors on social media platforms is the major contribution of this study. As findings suggested that SNS are more effective in catering students' enrolment as compared to traditional techniques. Social media is advantageous for students, DAIs' administrators and marketers who want to utilize its blessings. Secondly, DAIs' can use emotions to engage current and potential students. Marketers can also take benefit of it by involving consumers through emotional components.

5.2 Limitations and future directions

There are several limitations of this study which can be used as a direction for further studies. Instead of considering all social media channels, one can examine the most influential social media channel effects on relationship between SMI and eWOM. Secondly, survey research strategy is used to collect data. Using strategies like observations, interviews can also bring some more contribution to literature. Lastly, this study is performed in the university/institute context only; consideration of other contexts can bring variations in the findings.

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Sample Size for a Given Population Size

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384