# Impact of Interactivity of Electronic Word of Mouth Systems and Website Quality on Customer E-Loyalty

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## Abstract

In this study, we aim to identify the impact of interactivity of electronic word of mouth (EWOM) systems on customer e-loyalty based on Interactivity Theory. In electronic market place, consumers now interact with e-retailers and other consumers with the help of EWOM systems. We have also tried to identify the impact of website quality on customer e-loyalty. An empirical data of 400 respondents is collected through questionnaires in the city of Lahore, Pakistan. Structural Equation Modeling (SEM) is employed to analyze the key relationships. Findings show that interactivity of EWOM systems has a positive influence on customer e-loyalty. If this interaction is properly managed, it can increase the customer e-loyalty. Findings also show that website quality has a positive influence on customer e-loyalty. In the context of electronic commerce, EWOM systems are of uprising concern. These findings could be of help to the electronic commerce companies in raising their customers' e-loyalty by appropriately managing their EWOM systems.

**Keywords:** electronic word of mouth (EWOM), decision support, e-loyalty, interactivity of EWOM systems, website quality.

# 1. Introduction

The internet is playing a vital role in the development of word of mouth (WOM) activity (Dellarocas, 2003). Consumers are now able to collect and disseminate information through the help of social media, blogs, online communities and customer review systems on websites of companies. These utilities have generated a new kind of WOM that is called electronic word of mouth (EWOM). EWOM systems have now become a vital part of electronic commerce. According to Chatterjee (2011) there are two important implications of these utilities. First, customers are able to search first-hand information and make decisions thereof on the basis of it; second, companies can develop successful brand pages with the help of information provided by customers by way of their searches through these utilities.

Customer review system is the best example of EWOM systems. The customer review system allows customers to post text-based comments, provide video reviews as well as

interact with other customers. E-commerce allows online shoppers to complain or complement the whole day without any time restrictions (Jean Harrison-Walker, 2001). This new wave in the EWOM activity has not only revolutionized the process of interaction among customers but has also altered the way of businesses dealings with customers as well as other businesses (Cheung & Thadani, 2012).

The information available on online forums is considered as highly influential by the customers (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). According to e-Marketer, 61% of the customers explore social media, blogs and online communities before making the purchase decision. Info-group reported that 80% of the customers check online customer reviews before making the purchase decision. It is evident that customers believe in the information provided by other customers (Gauri, Bhatnagar, & Rao, 2008).

This study revolves around the following research questions: What is the impact of interactivity of EWOM systems and website quality on customer e-loyalty? How satisfaction with decision support mediates the relationship between interactivity of EWOM systems and customer e-loyalty? How satisfaction with decision support mediates the relationship between website quality and customer e-loyalty? To answers these questions, we have base our study on Interactivity Theory (Johnson, Bruner II, & Kumar, 2006) and the Website Quality Model (Kim, Kishore, & Sanders, 2005). Therefore, we aim to identify the effect of interactivity of EWOM systems and website quality on customer e-loyalty in Pakistan. Other objective is to determine the mediating role of satisfaction with decision support.

Many researchers have given focus on the growing importance of EWOM. Several studies have been conducted to determine customer motives to participate in EWOM process (Awad & Ragowsky, 2008;Cheung & Thadani, 2012; Hennig-Thurau, Walsh & Walsh, 2003).They have focused on explaining the relationship between EWOM and trust Other and how EWOM affects customers. These researches focus on two things. Firstly, how EWOM works as an information channel for the consumers and how it motivates customers to take part in the EWOM process. However, little work has been done to date on the impact of interactivity of EWOM systems on the customer e-loyalty. A similar study has previously been conducted by Yoo, Kim, and Sanders (2015) in Seoul, Korea in the context of e-market place. However, this study did not identify the direct impact of interactivity of EWOM systems and website quality on customer e-loyalty. Secondly, they did not consider satisfaction with decision support as a mediating variable.

Our study addresses this gap in two ways, firstly by investigating the impact of interactivity of EWOM systems and website quality on customer e-loyalty and secondly we have also investigated the mediating role of satisfaction with decision support. This study has been conducted for the first time in Pakistan and it focuses on online shopping websites of Pakistan. This study may help the e-commerce companies of Pakistan in managing and developing the EWOM systems in online shopping websites. In addition, this study may help the online retailers in enhancing customer e-loyalty. Moreover, this study might also prove to be significant in Pakistan because the size of e-commerce

market in Pakistan is estimated to be \$ 20-30 million annually (Express Tribune, 2012), and internet users are estimated to be 21.3 million (Central Intelligence Agency, 2016).

The paper is structured as follows: we initially conduct a literature review on the electronic word of mouth (EWOM) in order to identify the impact and importance of EWOM. Next, we developed a theoretical framework in order to identify constructs and develop hypotheses. Following theoretical framework, we explained our methodology. Subsequently, we used structural equation modeling to test our hypotheses empirically. Finally, we discussed practical implications of our results and point out gaps in our study for future research.

## 2. Literature Review

Electronic word of mouth (EWOM) is defined as "any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the internet" (Hennig-Thurau, Walsh& Walsh, 2003). EWOM literature focuses on two important research streams. The first stream of EWOM literature has explained the outcomes of EWOM, e.g. customer retention, sales growth and increase in purchase intention (Duan, Gu, & Whinston, 2008). Other stream has focused on the process regarding creation of EWOM and how customers use it (Cheung, Luo, Sia, & Chen, 2009). Previous studies on EWOM have shown that there is a positive impact of EWOM on customer purchase behavior and business performance (Duan, Gu, & Whinston, 2008). Chevalier and Mayzlin (2006) reported that Amazon generated such word of mouth, which was more positive in terms of both quality and quantity than Noble and Barnes, and more positive EWOM meant higher sales of books. Pavlou and Dimoka (2006) examined that EWOM generated through customers' comments as compared to just customers' ratings, developed more trust among customers. Bickart and Shindler (2001) found that information provided by other customers was more influential in term of appeal and meaning than by sales people. Thompson (2003) reported that online reviews can positively and negatively affect the sales of a company.

Dellarocas (2003) reported that problems of trust occur in e-commerce transactions because of lack of interaction and absence of a platform that enables the customers to examine the product. Gruen, Osmonbekov, and Czaplewski (2006) described EWOM as the exchange of knowledge among customers; however, motivations, opportunities and abilities of customers are helpful in the development of this exchange.

Some previous studies focused on the customers motivations to participate in the process of EWOM. Hennig-Thurau, Walshand Walsh (2003) identified some motivations of customers for checking online word of mouth and the subsequent outcomes. They found that customers were motivated to read online reviews because they wanted to decrease search time, eliminate risk, reduce purchase regret, discover new and innovative products and enhance social standing among other customers. They also investigated the motivation behind posting of EWOM on the internet and found that economic benefits, enhancement in social status and social interaction were the main factors. Other researches on EWOM have examined the impact of positive and negative EWOM on customer behavior. According to Chatterjee (2001), purchase intention and trust are badly affected by negative customer reviews over the internet.

In summary, most researches on EWOM show how it impacts consumer behavior and how it benefits e-retailers (Chevalier & Mayzlin, 2006; Chatterjee, 2001; Bickart and Shindler, 2001; Lin, Wu, & Chen, 2013). However very few studies have focused on the importance of EWOM systems and their impact on online customers' behavior (Yoo, Kim, & Sanders, 2015). This study addresses this gap by investigating the impact of interactivity of EWOM systems on customer e-loyalty.

## **3. Theoretical Framework**

## 3.1 Interactivity of EWOM Systems

Interactivity can be defined as the extent to which interaction between customers is supported through EWOM systems (Yoo, Kim, & Sanders, 2015).Interaction is considered as an important benefit of internet (Song & Zinkhan, 2008). Online shopping websites might be the best source for customers to experience high level of interactivity. This study has examined the interactivity of EWOM systems with the general viewpoint of interactivity. EWOM systems are those places on the internet where interactive services are offered by e-sellers utilizing technological channels through which EWOM flow.

According to Johnson, Bruner II, and Kumar (2006), interactivity is measured through four dimensions; reciprocity, responsiveness, non-verbal communication and speed of response. Reciprocity refers to the extent to which customers have the opportunity to engage in conversation with several companies collectively as opposed to hearing menology from them. A website can reply to the specific needs of the visitor more effectively if it is providing reciprocal communication between the website company owner and the visitor (Ha & James, 1998). Responsiveness refers to the extent to which a customer receives the information related to his/her inquiry (Burgoon et al., 1999). For example, responsiveness of EWOM system is low, if information provided through website is irrelevant, repetitive, simple or insincere. User satisfaction as well as interactivity of website can decrease because of low responsiveness (Johnson, Bruner II, & Kumar, 2006). That is why many online shopping websites strive to provide better EWOM information to customers through filtration of user generated content and feedback mechanisms.

Nonverbal information is the information conveyed using multiple formats or channels of communication (Johnson, Bruner II, & Kumar, 2006).For example, use of images, audio and video for communication instead of text alone. Text richness can be increased by the use of images and videos clips. Multiple channels are important for the websites which are heterogeneous or require a direct experience of customers. Ramirez and Burgoon (2004) elaborated that customer uncertainty can be reduced by increasing media richness and that might lead to greater customer satisfaction. Many e-commerce sites have developed images, audio and video customer-rating systems other than just a text based rating system.

Speed of response refers to the quickness of receiving responses. Interactivity is obtained when immediate feedback is provided to users and when users perceive that the changes occurring in the goods and services are because of their inputs (Klein, 2003). Many researchers have considered the speed of response as an important element of

interactivity (Alba et al., 1997). Speed of response is high when e-retailers quickly respond to the complaints and feedback of customers.

# 3.1.1 Interactivity of EWOM Systems and Satisfaction with Decision Support

Satisfaction with decision support can be defined as capability of an information system to assist in decision-making and better performance of the consumer jobs (Sanders, 1984). Interactivity of websites is considered as an important factor behind users' satisfaction with decision support systems (Garrity, Glassberg, Kim, Sanders, &Shin, 2005). According to previous studies, high level of website interactivity enhances customer purchase intention and enjoyment (Kim, Fiore, & Lee, 2007). By enabling the customers to communicate simultaneously with the e-retailer and other customers, EWOM systems increase customer participation, thus making the information becomes more credible and relevant. Furthermore, interactive online shopping websites increase customer satisfaction when they cognitively and emotionally experience the website (Ballantine, 2005). Therefore, interactive websites may positively influence customer satisfaction by engaging the customers with the website. Furthermore, interactive websites with the help of EWOM systems may improve the customer decision making by providing up to date information. Therefore, we have proposed the following hypothesis:

H<sub>1</sub>:Interactivity of EWOM systems has a positive influence on users' satisfaction with decision support

#### 3.2 Website Quality

Previous studies on website quality have focused on the quality of information available on websites; how easily it is accessible to users, how users interact with that information, and how conveniently they can share their information through reviews (Bauer & Scharl, 2000). These studies described the insights about how to develop a successful website. However, they did not cover all the characteristics that are very important in current ecommerce environment. Highly dynamic and interactive characteristics like internet, web networks and hypermedia technologies are part of current e-business environment (Kim, Kishore, & Sanders, 2005). These characteristics represent various success factors for a new e-business. These factors consist of user-friendly interface, information relevance, information completeness, and information accuracy, history maintenance and website design (Yoo, Kim, & Sanders, 2015). Previous quality models did not address the web usability problems, including disorientation and irrelevant information now addressed by Website Quality Model; (Kim, Kishore, & Sanders, 2005). Therefore, we have adopted the comprehensive Website Quality Model given by Kim, Kishore, and Sanders (2005). Website Quality Model is structured by including dimensions related to information form, information content and information time to solve the problems related to usage of website.

The content dimension focuses on correcting the content issues of intrinsic information. This dimension is directed to provide users with complete, relevant and accurate information. Form dimension addresses the issues of information presentation on website. Finally, time dimension manages the relationship between information and time provision. Through this relationship, users are able to get knowledge about their activities during surfing on different websites.

## 3.2.1 Website quality and Satisfaction with Decision Support

According to Palmer (2002), website quality has a positive influence on user satisfaction. Similarly, Zviran, Glezer, and Avni (2006) described that more the website quality and usability, greater the perceived user satisfaction. For the effectiveness of consumer decision support systems, it is important to evaluate the degree to which system assists or eliminates the decision-making efforts of users (Garrity, Glassberg, Kim, Sanders, &Shin, 2005). Toufaily, Arcand, Legault and Ricard (2016) conduct a study in the online travel industry. They found that website characteristics like usability, quality of support, and security/privacy have a positive influence on e-satisfaction that further influence customer e-loyalty. Similarly, Giovanis and Athanasopoulou (2014) reported that e-service quality in the form of reliability, security, and usability is positively associated with e-satisfaction and e-trust. Therefore, high quality of website can be helpful in the decision-making process of users. Hence, we have proposed the following hypothesis:

H2:Website quality has a positive influence on users' satisfaction with decision support

## 3.3 Satisfaction with Decision Support and E-Loyalty

E-loyalty can be defined as customer's favorable attitudes toward an e-business website which leads to repurchase behavior and repetitive visits, include both behavioral and attitudinal aspects (Anderson & Srinivasan, 2003). Idea of offline brand loyalty has extended to online consumer behavior through the concept of e-loyalty (Gommans, Krishnan, & Scheffold, 2001). Previous studies showed that satisfaction has a positive impact on customer e-loyalty (Anderson & Srinivasan, 2003). E-satisfaction that is influenced by e-service quality or website characteristics has a positive relationship with customer e-loyalty (Toufaily, Arcand, Legault, & Ricard, 2016; Giovanis & Athanasopoulou, 2014). E-service quality or website characteristics can be the important part of decision support systems. Chen (2015) found that customer satisfaction has a positive influence on e-loyalty through mediation of perceived value, commitment, trust and involvement. Garrity, Glassberg, Kim, Sanders, and Shin (2005) explained that success of web-based information system is dependent on satisfaction with decision support. Hence, satisfaction with decision support can be positively related with customer e-loyalty.

H<sub>3</sub>: Satisfaction with decision support systems is positively associated with customer e-loyalty

## 3.4 Interactivity of EWOM Systems and Customer E-Loyalty

Website interactivity is an important element among other design factors for effective online marketing (Auger, 2005). Websites can create problems for the users because of lack of interactivity. It is difficult for the e-retailers to capture a good market share because of lack of focus on making website more interactive (Salvati, 1999). Customers' level of control and freedom of choice over the online website can be enhanced through navigation process supported by interactivity. Chu and Yuan (2013) found that perceived interactivity of website has a positive influence on users that can lead to e-loyalty behaviors. According to Srinivasan, Anderson, and Ponnavolu (2002) interactivity of

website can have positive impact on the e-loyalty of users. Therefore we have proposed that:

H4: Interactivity of EWOM Systems is positively associated with customer eloyalty

# 3.5 Website Quality and E-Loyalty

There is positive relationship between website design and customer e-loyalty (Koo, 2006). Similarly, Winnie (2015) found that website design is positively associated with customer e-loyalty. Design factors may include content, form and time dimensions. Smith (2001) found that efficient and easy to navigate websites, and dependable distribution systems influence the customer e-loyalty. Superior website quality is positively associated with customer e-loyalty in banking sector (Lii, 2009). Therefore we have proposed that:

**H**<sub>5</sub>: Website quality has a positive influence on customer e-loyalty

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# 4. Methodology

# 4.1 Sample

A convenience sample of 400 respondents was collected with the help of questionnaires in the city of Lahore, Pakistan. According to the frequency distribution as shown in Table 1, 74% of the respondents are males. The age of mostly respondents is ranged between 20 to 25 years. Mixed trend has seen in the education, 48% respondents have a bachelor degree and 37% respondents have a master's degree.

Data was collected on eight online shopping websites working in Pakistan. According to frequency analysis, 44% respondents are using Daraz.pk, 18% are using kamyu.pk and 7.4% are using Homeshopping.pk. This shows that customers of online shopping websites mostly use Daraz.pk for online shopping in Pakistan.

Demographic Factor	Frequency	Percentage
Gender		<u> </u>
Male	298	73.8
Female	106	26.2
Total	404	100.0
Age (in years)		
20-25	364	90.1
26-30	37	9.2
31-35	2	.5
36-40	1	.2
Total	404	100.0
Education Level		
Bachelors	196	48.5
Masters	150	37.1
MS/ M.Phil.	58	14.4
Total	404	100.0
Websites		
Kamyu.pk	73	18.1
Homeshopping.pk	30	7.4

# **Table 1: Sample Profile**

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Ishopping.pk	17	4.2
Daraz.pk	178	44.1
Shophive.com	7	1.7
Azmalo.pk	8	2.0
Tcsconnect.pk	7	1.7
Myshop.com.pk	12	3.0
Others	72	17.8
Total	404	100.0

# 4.2 Measures

Interactivity of EWOM systems measured by adopting a scale developed by Johnson, et al., (2006). We used the scale developed by Kim, Kishore, and Sanders (2005)in order to measure the website quality. Satisfaction with Decision support measured through adopting a scale developed by Yoo, Kim, and Sanders (2015). E-Loyalty measured through adopting a scale developed by Anderson & Srinivasan, (2003).

# 5. Data Analysis and Results

The Structural Equation Model technique is used with the help of AMOS 20 to analyze the relationship among variables of the study. Analysis is divided into descriptive statistics, reliability analysis, confirmatory factor analysis (CFA), hypothesis testing, and mediation analysis.

	N	Minimum	Maximum	Mean	Std. Error	Std. Deviation
Reciprocity	404	1.00	5.00	3.6155	.03947	.79329
Responsiveness	404	1.00	5.00	3.6518	.04053	.81467
Nonverbal Communication	404	1.00	5.00	3.4051	.04167	.83754

# **Table 2: Descriptive Statistics**

Speed of	404	1.00	5.00	3.3432	.04473	.89905
Response						
Content	404	1.00	5.00	3.6510	.03868	.77742
Form	404	1.00	5.00	3.6997	.04042	.81244
Time	404	1.00	5.00	3.5569	.04127	.82943
Valid N	404					

Table 2 shows that among dimensions of interactivity of EWOM systems, reciprocity and responsiveness are more perceived by the customers with mean values (3.6155, 3.6518). In case of website quality, content and form are more perceived by the customer with mean values (3.6510, 3.69).

# 5.1 Reliability Analysis

Inter-item reliability is tested through Cronbach's Alpha by using SPSS 17. According to reliability analysis, the Cronbach's Alpha for interactivity of EWOM systems is 0.83 that is considered as excellent reliability (Nunnally & Bernstein, 1994). The Cronbach's Alpha for website quality is 0.841, which is also considered as excellent reliability. The Cronbach's Alpha values of satisfaction with decision support and e-loyalty are also above 0.7. Therefore, overall reliability of measurements is appropriate.

# 5.2 Confirmatory Factor Analysis

Confirmatory factor analysis is very help in determining the validity. Measurement model has tested before the structural model (Anderson & Gerbing, 1988) in order to conduct confirmatory factor analysis.

# 5.3 Measurement Model

For the development of the measurement model with AMOS 20, the interactivity of EWOM systems and website quality are considered as second order reflective construct as proposed by (Davcik, 2014). The assessment of measurement model has done through fit indices. According to results, model has shown a good fit with all fit indices ( $\chi 2 = 610.451$ , df = 337,  $\chi 2/df = 1.811$ , RMSEA= 0.045, CFI=0.96, NNFI=0.95) better than the recommended cut-off values ( $\chi 2/df < 3$ , RMSEA<0.08, CFI>0.95, NNFI>0.95) (Bagozzi & Yi, 1988; Browne, Cudeck, Bollen, & Long, 1993; Hu & Bentler, 1999).

Measurement	χ2	Df	χ2/df	CFI	NNFI	RMSEA
Model			< 3	> 0.95	> 0.95	<0.08
	610.451	337	1.811	0.96	0.95	0.045

**Table 3: Fit Indices of Measurement Model** 

The convergent validity of study measures is tested by analyzing the parameter estimates. The results show that these estimates are found to be large (>0.66) with significant t-

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values (8-14) (Bagozzi & Yi, 1988) with average variance extracted >0.5 and with composite reliability>0.7 (Fornell & Larcker, 1981). This shows that convergent validity of all constructs is satisfied. Discriminant validity of all study measures is also satisfied, as the square root of AVE of each measure is more than the squared correlations of the two constructs (Zait & BERTEA, 2011).

CR	AVE		Satisfaction with Decision Support	E- Loyalty	Interactivity of EWOM Systems	Website quality
0.70	0.40	Satisfaction with Decision Support	0.632			
0.771	0.538	E-Loyalty	.551**	0.733		
0.873	0.633	Interactivity of EWOM Systems	.647**	.552**	0.795	
0.921	0.796	Website quality	.696**	.601**	.716**	0.892

Table 4: Results of Discriminant Validity

\* p < .05; \*\* p < .01; \*\*\* p < .001 (Note: Squared AVE for all the scales are reported in the diagonal)AVE: Average Variance Extracted; CR: Composite Reliability

5.4 Hypotheses Testing

Structural model has developed to analyze the hypotheses. The results show that model has a good fit with fit indices ( $\chi 2 = 888.22$ , df = 338,  $\chi 2/df = 2.628$ , RMSEA= 0.050, CFI=0.96, NNFI=0.95) better than the recommended cut-off values ( $\chi 2/df < 3$ , RMSEA<0.08, CFI>0.95, NNFI>0.95) (Bagozzi & Yi, 1988; Browne et al.,1993; and Hu & Bentler, 1999).

Structural	χ2	Df	χ2/df	CFI	NNFI	RMSEA
Model			< 3	> 0.95	> 0.95	<0.08
	888.22	338	2.628	0.96	0.95	0.050

Table 5: Fit Indices of Structural Model

The analysis identifies that all hypotheses have got the support from statistics except in the case of effect of satisfaction with decision support on e-loyalty (H3), as shown in Table 6.H1 posits that interactivity of EWOM systems has a positive influence on users' satisfaction with decision support and it is supported with ( $\beta$ =0.396, p<0.001). H2 posits that Website quality has a positive influence on users' satisfaction with decision support and it is supported with ( $\beta$ =0.809, p<0.001). H3 posits that Satisfaction with decision support is positively associated with customer e-loyalty and it is not supported with ( $\beta$ = -0.103, p>0.001). H4 posits that Interactivity of EWOM Systems is positively associated with customer e-loyalty and it is supported with ( $\beta$ = 0.328, p<0.001). H5 posits that Website quality has a positive influence on customer e-loyalty and it is supported as ( $\beta$ = 0.718, p<0.001). Standardized Coefficients are shown in Figure 2.

Hypotheses	Hypothesized	Standardized Regression	t- value	P- value	Results
$\mathbf{H}_{1}$	Satisfaction with decision	0.396	6.315	***	Supported
$H_2$	Satisfaction with decision support	0.809	9.396	***	Supported
H3	Satisfaction with decision support $\rightarrow$ E-	-0.103	392	.695	Not- supported
$H_4$	E-Loyalty←Interactivity of EWOM systems	0.328	2.569	***	Supported
H5	E-Loyalty ← Website Quality	0.718	2.975	***	Supported

**Table 6: Results of Structural Model** 

\* p< .05 ; \*\* p < .01; \*\*\* p < .001

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**Figure 2: Structural Model with Standardized Coefficients** 

# 5.5 Mediation Analysis

In order to test the mediating role of satisfaction with decision support, we have developed two structural models with direct effects from interactivity of EWOM systems and Website quality on e-Loyalty and indirect effects via a satisfaction with decision support (Iacobucci, Saldanha, & Deng, 2007).

## 5.5.1 Mediation Model 1

Model has shown a good fit with ( $\chi^2 = 1027.835$ , df = 420,  $\chi^2$ /df = 2.44, RMSEA= 0.040, CFI=0.96, NNFI=0.95). Result shows that Interactivity of EWOM systems has significant direct and indirect effect on e-loyalty at p<0.05. Therefore, we can say that

satisfaction with decision support partially mediates the relationship between interactivity of EWOM systems and e-Loyalty.

χ2	Df	χ2/df	CFI	NNFI	RMSEA
		< 3	> 0.95	> 0.95	<0.08
1027.835	420	2.44	0.96	0.95	0.040

**Table 7: Fit Indices of Mediation Model 1** 

**Table 8: Direct and Indirect path Coefficients of Mediation Model 1** 

Predictor	Direct effect	Indirect effects via Satisfaction with decision support	Total effects
Interactivity of EWOM systems	0.52	a=0.97 b=0.50	1.005

Bootstrapping method is used with the help of AMOS in order determine the significance of indirect effect. The standardized indirect effects are present between lower bound of 0.087 and upper bound of 0.656. The standardized indirect (mediated) effect of interactivity of EWOM systems on e-loyalty is significantly different from zero at the 0.05 level (p=.036 two-tailed). This shows that satisfaction with decision support partially mediates the relationship between interactivity of EWOM systems and e-loyalty.

5.5.2 Mediation Model 2

Model has shown a good fit with ( $\chi 2 = 923.778$ , df = 340,  $\chi 2/df = 2.717$ , RMSEA= 0.050, CFI=0.96, NNFI=0.95). Website quality has a significant direct effect on e-loyalty at *p*>0.01 but in the case of indirect paths ab is not significant with *p*>0.01. Therefore, we can say that satisfaction with decision support does not mediate the relationship between Website quality and e-Loyalty.

χ2	Df	χ2/df	CFI	NNFI	RMSEA
		< 3	> 0.95	> 0.95	<0.08
923.778	340	2.717	0.96	0.95	0.050

Table 9: Fit Indices of Mediation Model 2

Predictor	Direct effect	Indirect effects via Satisfaction with decision support	Total effects
Website quality	0.94	a=0.93 b=-0.19	0.7633

Table 10: Direct and Indirect path Coefficients of Mediation Model 2

Bootstrapping method is used with the help of AMOS in order determine the significance of indirect effects. The standardized indirect effects are present between lower bound of -1.179 and upper bound of 0.311. The standardized indirect (mediated) effect of interactivity of EWOM systems on e-Loyalty is not significantly different from zero at the 0.05 level (p=.548 two-tailed). This shows that satisfaction with decision support does not mediate the relationship between interactivity of EWOM systems and customer e-Loyalty.

# 6. Discussion

The main purpose of this study is to investigate the relationship between interactivity of EWOM systems, Website quality and customer e-Loyalty. In order to fulfill this purpose, four variables (reciprocity, responsiveness, non-verbal information and speed of response) chosen from the interactivity theory and three variables chosen from Website Quality Model. Findings show that reciprocity and responsiveness dimensions of interactivity of EWOM systems are more perceived by the customers. Therefore, it is important for the e-trailers to make the website reciprocal and responsive in order to engage customers. Content and form dimensions of Website quality are more perceived by the customers. Therefore, e-retailers can get a good flow of customers by improving the content and design of website. Results of hypotheses testing show that interactivity of EWOM systems has a positive impact on the satisfaction with decision support and it is supported by previous studies (Garrity, Glassberg, Kim, Sanders, &Shin, 2005;Ballantine, 2005). When customers find that EWOM systems like customer review systems are reciprocal, responsive and quick they can be more satisfied with the decision support. Secondly, Interactivity of EWOM systems has a positive influence on the e-Loyalty of customers during online shopping. This finding is also supported by previous studies (Chu & Yuan, 2013; Srinivasan, Anderson, & Ponnavolu, 2012) Customer eloyalty can be increased if they get quick response from the e-retailers on the website. Next, Website quality has a positive influence on satisfaction with decision support and it is supported by previous studies (Palmer, 2002; Zviran, Glezer, &Avni, 2006). If customer decision making is assisted by the design of website and content provided on the website, it could enhance the satisfaction of the customers with decision support. Finally, Website quality has a positive influence on e-loyalty of customers with websites and it is supported by previous studies (Lii, 2009; ko, 2006). When websites provide proper information about the content, and has simple and clear design, customers can prefer these kinds of websites.

Previous studies focused on outcomes of EWOM like increase purchase intent, increase business revenue, and focused on how customers involved in EWOM process. However, the importance of EWOM systems that provide a communication channel through which

information flow) itself neglected. This study has tried to fulfill this gap by investigation the relationship between EWOM systems and customer e-loyalty.

#### 7. Managerial Contributions and Limitations

This study could help the e-commerce companies of Pakistan in developing and managing the customer review systems in online shopping websites. In addition, the study could help the online retailers in developing customer e-loyalty. There are many e-commerce websites working in Pakistan like kamyu.pk, daraz.pk. All websites have EWOM systems in the form of customer review systems. Therefore, this study could encourage the website owners to make their websites as interactive as possible in order to increase customer satisfaction with decision support and loyalty with website.

This study has some limitations. First, we used the convenience sampling for selecting sample, which cannot consider as truly representative of the population. Further study can be conducted based on random sampling. Second, we did not identify the type of products, customers purchasing on online shopping website. Further research can be done by considering different categories of products, customer purchasing online like search goods and experience goods.

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