

Does Electronic word-of-mouth (eWOM) on Social Media leads to Information Adoption? Empirical Evidence from the Emerging Markets!

Muddasar Ghani Khwaja, Ahmad Jusoh, Khalil Md Nor



Abstract: With the amplification in online retailing, electronic word-of-mouth (eWOM) is reckoned to be one of the most influential factors in consumers online purchase behaviours. Prior studies have emphasized on determining the effects of eWOM using discussion forums, shopping websites, consumer review websites and blogs as the platforms; but the current study has focused to investigate eWOM effects in the social media context. Congruently, before the purchase intentions and consumer decision making endeavours are executed, it is necessary to investigate the propensity of information being adopted by the consumers. In this regard, the study focused on how eWOM has been making an impact on the information adoption process of consumers. Sequential mediation effects of perceived risk, argument quality, information usefulness, and trust have been determined among eWOM and information adoption. The data was collected from 346 online shoppers using non-probability convenience sampling technique. Structural Equation Modelling on Mplus software was conducted for substantiating causality among constructs. Results attained affirmed the established theoretical relationships.

Keywords: eWOM, Information adoption, Trust, Source Credibility, Perceived Risk

I. INTRODUCTION

Consumers have been experiencing exceptional deviations in advertisements after the initiation of mass media. The exposure towards diverse advertisements was argued to be beneficial for the consumers, but conversely, extensive information exposure has made decision making for the consumers quite problematic. As the consumers inclination towards electronic means is increasing, therefore the job of marketers is becoming critical in terms of providing appropriate online adverts (Melancon and Dalakas, 2018). On the other hand, because of getting extensive amount of information from various sources, consumers have become confused that which information source has credibility and

authenticity (Lever, *et al.*, 2017). The sharing of information on the online sources through experiences and opinions on the online platforms is called electronic word-of-mouth (eWOM). Hu and Kim (2018) and Erkan and Evans (2016) explained that eWOM spreads in a very less amount of time, and to a huge number of audiences. Before making any purchases, consumers search for relevant information being posted by other customers (Lever, *et al.*, 2017; Matute, *et al.*, 2017; Wu and Lin, 2017). This activity enables them to be comfortable in the purchasing process (Erkan and Evans, 2016; Mahmood *et al.*, 2019). Because of these positive developments of eWOM, substantial amount of research studies has been conducted on the respective domain (Cheung *et al.*, 2009; Cheung and Thadani, 2012; Hussain *et al.*, 2017, 2018).

Researchers like Jarvinen, *et al.*, (2015) and Leung, *et al.*, (2015) have argued that electronic word-of-mouth (eWOM) has arisen to be one of the most influential marketing tools. The leading eWOM platforms are blogs, websites, shopping websites, discussion forums, consumer review websites, and social media websites (Reichelt, *et al.*, 2014; Tariq, *et al.*, 2017; Zhang, *et al.*, 2017). Hussain *et al.*, (2017) emphasized that eWOM on social media is moderately less measured. Meanwhile, prior research studies of eWOM on consumer review websites have provided affirmative outcomes (Li and Zhan, 2011). Lee and Youn (2009) argued that the persistence of investigating eWOM on these platforms remained to determine consumer purchase intentions. Meanwhile, as eWOM on social media was relatively new, therefore less importance was given initially to this platform, with limited number of studies (Cheung and Thadani, 2012; Hussain *et al.*, 2017; Lever, *et al.*, 2017; Ek Styven and Foster, 2018). Recent studies have shown that consumers have been extensively using social media in order to get information about unfamiliar products and services (Ek Styven and Foster, 2018; Fang, 2014; Westerman, *et al.*, 2014). In the light of several research studies, it is hence established that social media networks are valuable eWOM platforms. Recent studies have shown that consumers have been extensively using social media in order to get information about unfamiliar products and services (Ek Styven and Foster, 2018; Fang, 2014; Khwaja *et al.*, 2019).

In the light of several research studies, it is hence established that social media networks are valuable eWOM platforms.

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Social media has provided new horizon to eWOM which has enabled users to communicate with the networks. One of the biggest advantages of eWOM on social media remains that consumers have the option to exchange information with the people they know;

unlike other eWOM platforms where anonymous people shared their opinions and experiences (Cheung and Thadani, 2012; Chu and Kim, 2011; Erkan and Evans, 2016; Zhang *et al.*, 2017). Contemporary studies have revealed that consumer reviews on the social media have been increased as people find this platform to be more suitable for eWOM communications (Ek Styven and Foster, 2018).

By considering the aforementioned developments, the study focused on measuring the relationship between eWOM source credibility antecedents with information adoption in social media, through sequentially mediation role of perceived risk, trust, argument quality, information usefulness and trust. Additionally, studies have also confined their research mainly on determining the effects of eWOM on purchase intentions (Bhandari and Rodgers, 2018; Erkan and Evans, 2016; Matute, 2016; Gunawan and Huarng, 2015), but there have been couple of studies conducted on determining eWOM source credibility effects on information adoption (Hussain *et al.*, 2017, 2018). Therefore, it remains eminent to explore the domains of eWOM source credibility with effects on information adoption. Considering all these factors, the study was conducted in the emerging market of Pakistan, where online shopping is getting elevation, and eWOM has been one of the critical facilitators.

II. LITERATURE REVIEW

A. Electronic Word of Mouth (eWOM)

The online advocacy of products and services in favour or against on the online platforms is known as electronic word-of-mouth (eWOM). Zhang, Craciun, and Shin, (2010) elucidated that Electronic Word of Mouth (eWOM) is esteemed as a powerful marketing instrument. Before making a purchase decision, consumers search for information online about the product and services. Through this manner they are able to make good purchase decisions. (Pitta and Fowler, 2005). EWOM prevalence is mainly at the social media websites; however, company websites, blogs, shopping websites, review websites and discussion forums are the best eWOM platforms (Cheung and Thadani, 2012). The sharing of experiences with family, friends and peers is an interesting phenomenon provided by social media. These interactions have led the executions of eWOM at a considerable rate (Chu and Kim, 2011). This increased information sharing patterns have led to reduced anonymity about products and services. Hence, eWOM information in the recent times is considered to be reliable, appropriate and credible (Chu and Choi, 2011). Wolny and Mueller (2013) and Tariq *et al.*, (2017) emphasized that as eWOM on social media is mostly related to brands, therefore a great tendency of elevated consumer purchase intentions can be experienced.

In the growing digital world, the importance of eWOM has undoubtedly escalated. Previously, traditional word of mouth (WOM) was regarded as the premium source of

communications among the masses (Arndt, 1967). But in the current era, eWOM is considered to be the foremost forms of communications, as any comment or statement made by the potential, actual or former customer of any company would have an impact on the new customers purchase decisions (Bajpai and Pandey, 2012). eWOM can have positive and negative effects. The anticipation and management of eWOM messages is to be taken care of in a precise manner (Bachleda and Berrada-Fathi, 2016).

The decision-making power of the consumers has been boosted due to online information presence at different portals. The customers now have leverage to examine each and every product's description online and subsequently watch reviews of those products by the current, former and potential customers (Willemsen, *et al.*, 2013). The companies are hence more concerned about the quality of products and services being provided as any shortcoming can lead to negative eWOM (Vimaladevi and Dhanabhakaym, 2012). The prevalence of eWOM on the social media platforms is certainly higher. Although there are numerous opinions making websites, blogs and portal available where people are indulged in eWOM communications; the magnitude of social media still remains powerful. The adoption of eWOM communications information through social media is considered certainly more. The dependency of strong eWOM messages is now inclined on the number of likes, shares, and comments. The indulgence of more people on a single post means that eWOM communications is taking place extensively (Hu, and Kim, 2018).

B. eWOM Source Credibility

Source credibility is one of the critical features of eWOM communications and is highly regarded as the backbone of eWOM process (Luo, *et al.*, 2013). Researchers have identified that communicator's credibility, familiarity, physical appearance, power and attractiveness are the determinants of information source which have an impact on message's credibility (Westerman, *et al.*, 2014) On the online mediums, physical appearance and attractiveness determinants cannot be seen of the communicators; therefore the focus is more on credibility, power and familiarity (Zhang, *et al.*, 2017). The credibility of the message sender is hence considered to be of utmost importance as it clearly gives an idea to the reader that the communication being carried out is authentic and verified (Bachleda and Berrada-Fathi, 2016). In the era of colossal information bombardment from all sources, credibility of the information is a real challenge for the online users. Users therefore opt to adopt that information which are being passed by credible sources. The conclusions and deductions being drawn about the information is based on the source of the story (Willemsen, *et al.*, 2013).

C. Perceived Risk

Due to limited information expansion, source credibility influences perceived risk. Perceived risk is considered to be subjective and it varies from individual to individual and consumers behaviours are in fact risk taking (Bauer, 1960).

The feeling of subjective certainty and amount of stake are both different components and can be examined by perceived risk (Cox, 1967). Inherent risk is type of risk associated with the product's class.

The variation in function, price, characteristics and its importance in buyer's mind is inherent risk. For instance, inherent risk in the purchase of wedding dress is high than that of purchasing shorts. This is mainly because of the importance of occasions. Similarly, inherent risk of purchasing a car is higher than that of purchasing a t-shirt. The unavoidable risk associated with the product is known as handled risk. Handled risk can be lower when consumers have precise insights about the product and have sufficient information about it (Wu, 2013). In the recent studies of Behrens, (2014), Hussain *et al.*, (2017) and Walsh *et al.*, (2017), it was argued that perceived risk significantly influences on the online shopping. Along with the above-mentioned dimensions of perceived risk, security risk on online platform is considered to be a critical concern for the consumers (Behrens, 2014; Hussain *et al.*, 2017; Wu, 2013). Furthermore, Hussain *et al.*, (2018) concluded that in the online shopping, security or privacy are the mainstream components of perceived risk for the consumers.

D. Trust Inclination

The notion of trust has been measured in different disciplines and contexts. According to the research objectives, trust inclination is to be examined in the online selling domain. Honesty refers to the conception that the company would be fulfilling its promises with truthfulness. Lastly, competence states that seller is competent and proficient in the selling of certain products and services (Matute, *et al.*, 2016). Shen *et al.*, (2013) explained that in the online business environment, commercial transactions are on zenith in which trust plays a pivotal role. Previous research studies have exemplified that due to the expanding canvas of e-commerce transaction, trust can reduce the level of perceived risk, which would lead to purchase intentions and eventually purchase behaviours (Kim *et al.*, 2008; Cheung *et al.*, 2009). Reichelt, *et al.*, (2014) identified that the relationship among trust and perceived risk is found to be inconsistent in the literature. Researchers like Kim, Ferrin, and Rao, (2008), and Cheung and Lee, (2001) advocate that there prevails a negative relationship among perceived risk and trust and trust is in fact an antecedent of it. Meanwhile, some researchers proposed that the element of trust in electronic channels and perceived risk leads to consumer trust behaviours (Bhandari and Rodgers, 2018; Wu and Lin, 2017).

E. Information Adoption Model (IAM)

Sussman and Siegal (2003) coined information adoption model (IAM) through the extraction of theory of reasoned action (TRA) and technology acceptance model (TAM) (Fishbein and Ajzen, 1975; Davis, 1989; Ajzen, 1985). Argument's essence within the message is known as central route, while peripheral route states those issues and concerns which are indirectly related to the essence of the message (Erkan and Evans, 2016; Shu and Scott, 2014). As the eWOM information can be created by any individual on the online platforms; therefore, the credibility and quality of eWOM

information has become questionable (Melancon, and Dalakas, 2018; Khwaja *et al.*, 2019). IAM is strongly applicable for the eWOM studies as it comprehends information on computer-mediated platforms (Shu and Scott, 2014; Cheung *et al.*, 2009). Shu and Scott (2014) explained IAM in the social media networks contexts while Cheung *et al.*, (2008) discussed IAM in the perspective of online discussion forums. Due to the application of IAM prevails on the social media networks, it is therefore taken into consideration for this study. The components of IAM prevalent in this study are information argument quality, information usefulness and information adoption. The theoretical association of eWOM source credibility with perceived risk is based on the study of Hussain *et al.*, (2017, 2018), which clearly enlightened how eWOM source credibility influences significantly on perceived risk, which leads to effect on argument quality and information adoption at the same time. As per the contextual and literary gap, these simultaneous effects have an impact on trust before leaping towards information adoption (Ek Styven and Foster, 2018). The critical factor of trust is the game changer, as if there is no trust; the information cannot be adopted by the consumers.

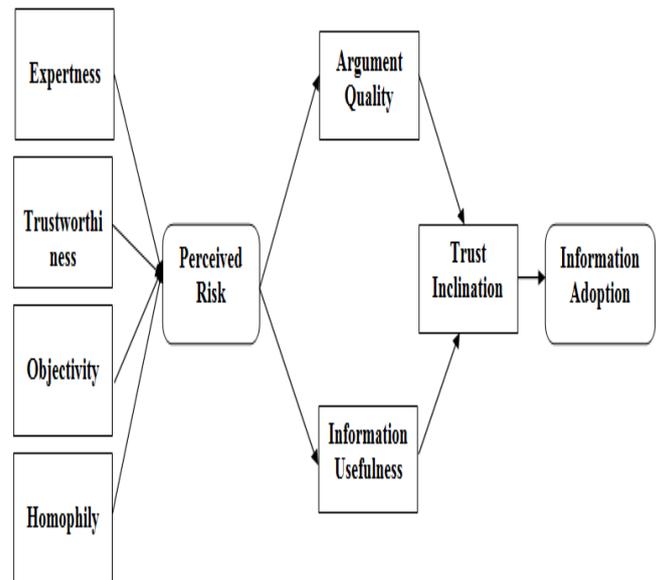


Figure 1.1 Conceptual Framework (source: Self developed)

F. Hypotheses of the Study

- H1:** eWOM expertness has a positive effect on perceived risk.
- H2:** eWOM trustworthiness has a positive effect on perceived risk.
- H3:** eWOM objectivity has a positive effect on perceived risk.
- H4:** eWOM homophily has a positive effect on perceived risk.
- H5:** Perceived Risk positively effects on argument quality.
- H6:** Perceived Risk positively effects on information usefulness.
- H7:** Argument quality has a positive effect on trust.
- H8:** Information usefulness has a positive effect on trust
- H9:** Trust has a positive effect on information adoption.

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III. RESEARCH METHODOLOGY

In the current study, positivism research philosophy has been followed.

The determination of causality among the constructs can only take place through deductive reasoning. Moreover, the conceptual framework of the study is established on the theory of reasoned action; subsequently positivist school of thought focuses on theory testing approach. The research design of the respective study is descriptive as survey method was used. The data was collected using structured questionnaire, which was being adapted. The respondents of the study were online shoppers of Pakistan, who used social media as one of the primary sources to shop. Hence, the unit of analysis were individuals who were involved in online shopping activities. The population frames of this study are the social media users in Pakistan. According to Geo News (2017), there are over 44 million social media accounts in Pakistan. Cross-sectional time horizon was being followed in this study. Moreover, non-probability convenience sampling technique was used with the sample size of 346 respondents. For statistical data modelling, assumptions of regressions were initially fulfilled in which data normality, reliability, homoscedasticity, validity and correlations were determined on SPSS 24. The study used Structural Equation Modelling (SEM) on Mplus 7.0 software in order to determine causality

one time in every 90 days (see table 1).

4.2 Model Estimation with Structural Equation Modelling

In order to achieve our research objectives, Structural Equation Modelling (SEM) was carried out. Lowry and Gaskin (2014) emphasized that it requires large sample size for structural fit, however for measurement model; a moderate sample size can work out too. For the respective study, data of 342 respondents were processed. The structural equation modelling is divided into four major sections, namely, Data Screening, Exploratory Factor Analysis, Confirmatory Factor Analysis and Path Model (SEM). The illustrations of all the sections of SEM are provided as follows.

4.2.1 Data Screening

In the data screening phase, missing data, outliers, normality, linearity and multicollinearity concerns are measured. The data had no missing value and there were no mainstream outliers which would be affecting the construct. The skewness of the data was between 1 and -1. Meanwhile, kurtoses of the constructs were also in the acceptable range. There were no concerns of multicollinearity. Moderate correlations among the variables were being examined. Moreover, VIF value was less than 3 which affirms that the ready is fit for exploratory factor analysis. In order to extract normality of the data, descriptive statistics results of skewness, kurtosis, mean and standard deviation were attained. The results manifestly notify that the data is normal since all the values were in the defined range.

Table 2

Data Normality (N=346)								
Variables	Minimum	Maximum	Mean	SD	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	SE	Statistic	SE
TW	1.00	5.00	2.3006	0.81247	0.750	.131	0.402	.261
Homo	1.25	5.00	4.0231	0.62973	-0.643	.131	1.216	.261
Obj	1.00	5.00	3.2466	1.31737	-0.452	.131	-0.978	.261
Exp	1.00	5.00	3.1257	1.24895	-0.269	.131	-1.196	.261
PR	1.00	5.00	2.8218	0.80299	0.093	.131	-0.513	.261
AQ	1.00	5.00	2.9121	0.73538	-0.153	.131	-0.072	.261
InUse	1.00	5.00	3.8276	0.68440	-0.761	.131	1.525	.261
Trt	1.00	5.00	3.5019	0.81699	-0.389	.131	0.125	.261
InAdp	2.00	5.00	3.9364	0.61291	-0.658	.131	1.470	.261

The outcomes of the descriptive statistics revealed that the data had no normality concerns. The multivariate normality of the constructs was determined using kurtosis, skewness, and standard deviation tests. The data was precisely skewed, as the skewness outcomes were between the acceptance range of +2 and -2. Similarly, kurtosis results were also affirmative as the outcomes were in the acceptable range of +3 and -3.

4.2.2 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) is considered to be the prestige of co-variance based structural equation modelling.



Items		Frequency	Percentage
Gender	Female	211	61.0%
	Male	135	39.0%
Age	Below 18 years	23	6.6%
	18-23 years	176	50.9%
	24-29 years	107	30.9%
	30-35 years	27	7.8%
	36 years and above	13	3.8%
Internet usage frequency	At-least one time in a day	296	85.5%
	At-least one time in 7 days	34	9.8%
	At-least one time in 30 day	10	2.9%
	Less than one time in 30 day	8	1.7%
Internet shopping frequency	Less than one time in every 180 days	8	2.3%
	At-least one time in every 180 days	67	19.4%
	At-least one time in every 90 days	83	24.0%
	At-least one time in every 30 days	151	43.6%
	At-least one time in a week	37	10.7%

among the constructs. Confirmatory Factor Analysis (CFA) and measurement model were run for the testing of hypotheses.

IV. RESULTS

4.1 Demographics Outcomes

Three hundred and forty-six respondents' data was taken into consideration in this study. The total number of male respondents was 211 (61%), while females were 135 (39%). In terms of age bracket, majority of the respondents were in the age bracket of 18-23 years (50.9%), the second biggest age bracket was 24-29% (30.9%). In terms of internet usage, 296 respondents (85.5%) had the internet usage frequency of at-least once in a day. Moreover, 43.6% respondents had internet shopping frequency of at-least one time in every 30 days, while, 24% had internet shopping frequency of at-least

CFA was therefore conducted after the precise exploratory factor analysis (EFA). Table 3 provides comprehensive CFA outcomes. In table 3, ρ denotes EFA loadings, while λ presents CFA loadings. Both EFA and CFA loadings were above the threshold of 0.30. α presents Cronbach's alpha values of reliability.

The outcomes denote that there were no reliability concerns as all the α values of the constructs were greater than 0.70. Furthermore, composite reliability (CR) was also determined which also provided affirmative outcomes. Lastly, average variance extracted (AVE) was also estimated which manifestly provided the outcomes greater than 0.50. The measurement model fit indices were also precisely taken into consideration so that there would not be any concern in the model estimation part. Absolute and incremental fit indices were determined in which χ^2/df outcome was 1.233 which is well in the acceptance range of 1-5. RMSEA and SRMR values were 0.026 and 0.034 respectively which is also in the acceptance range of less than 0.08. Furthermore, goodness of fit indices (GFI) and aggregate goodness of fit indices (AGFI) 0.913 and 0.892 respectively, which is also in the acceptable range. In terms of incremental fit indices, confirmatory fit index (CFI), normative fit index (NFI) and Tucker-lewis index (TLI) values were 0.987, 0.935 and 0.985 respectively which clearly indicates that there are no construct items validity and reliability concerns.

Table 3

CFA/ EFA Factor loadings, reliability, and validity of measurement model (N=346)

Constructs & Items	ρ	λ	α	CR
Trustworthiness				
TW1	.756	.809	0.917	0.920
TW2	.856	.859		
TW3	.950	.913		
TW4	.854	.862		
Homophily				
Homo1	.853	.834	0.919	0.919
Homo2	.853	.913		
Homo3	.850	.864		
Homo4	.859	.826		
Objectivity				
Obj1	.987	.984	0.950	0.951
Obj2	.859	.865		
Obj3	.936	.940		
Expertness				
Exp1	.856	.641	0.913	0.932
Exp2	.763	.998		
Exp3	.900	.669		
Exp4	.889	.995		
Perceived Risk				
PR1	.716	.738	0.770	0.772
PR2	.783	.772		
PR3	.672	.672		
Information Usefulness				
InUse1	.864	.874	0.869	0.884
InUse2	.906	.920		
InUse3	.692	.740		
Argument Quality				
AQ1	.624	.663	0.914	0.910
AQ2	.875	.855		
AQ3	.708	.776		
AQ4	.702	.779		
AQ5	.880	.790		
AQ6	.927	.823		
AQ7	.655	.686		
Trust Inclination				
Trt1	.703	.795	0.873	0.875
Trt2	.846	.851		
Trt3	.893	.862		
Information Adoption				
IU1	.766	.814	0.789	0.790
IU2	.738	.801		

KMO = 0.875; Chi - square (df=528) = 8279.427, P = 0.000

Measurement model fit statistics:

a. Absolute fit indices

$\chi^2 = 559.717$, $df = 454$, $P = 0.000$, $\chi^2/df = 1.233$, RMSEA = 0.026, GFI = 0.913, AGFI = 0.892, SRMR = 0.03

b. Incremental fit indices

CFI = 0.987, NFI = 0.935, and TLI = 0.985

Note. ρ = Factor loadings at 0.40 using EFA; λ = Standardized factors loadings using CFA; α = Cronbach Alp
CR = Composite Reliability; AVE = Average variance extracted

The estimation of discriminant validity is another significant facet in structural equation modelling approach. Table 4 provides complete depiction of the discriminant validity of the respective constructs. Maximum shared variance (MSV) needs to be less than 1, and in the table below, there are no MSV concerns. Similarly, diagonal of the correlations values prominently specifies that there are no discriminant validity concerns.

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Table 4

Discriminant validity of constructs and correlations (N=346)

	MSV	PRisk	AQ	Homo	Exptrns	TWorth	Objctv	InUsefl	Trust
PRisk	0.163	0.729							
AQ	0.294	0.404	0.770						
Homo	0.343	0.317	0.362	0.860					
Exptrns	0.182	0.049	0.018	0.050	0.885				
TWorth	0.173	0.386	0.416	0.270	0.013	0.862			
Objctv	0.082	0.207	0.147	0.157	0.286	0.079	0.931		
InUsefl	0.429	0.133	0.275	0.564	0.092	0.245	0.001	0.848	
Trust	0.294	0.337	0.542	0.538	0.102	0.264	0.087	0.417	0.837
InAdop	0.429	0.288	0.382	0.586	0.126	0.231	0.099	0.655	0.519

*p<0.05; **p<0.01

4.2.3 Path Modelling Outcomes

After the attainment of appropriate outcomes from confirmatory factor analysis (CFA) and the measurement model, it was pertinent to determine the causality among constructs by inspecting the established hypotheses statistical outcomes. Path modelling was subsequently conducted and its inclusive results are presented in table 5. H1 theorized that eWOM expertness has a positive influence on perceived risk. The beta value/path coefficient of 0.135 affirms the theorized hypothesis as the t-value was 2.321, which is greater than 1.96 and p-value of less than 0.05. Similarly, H2 determined the effects of trustworthiness on perceived risk and it provided a strong beta value of 0.359 with t-value of 5.684. Consequently, all the hypotheses outcomes emerged to be in the acceptable range which confirmed strong theoretical association among the constructs. The sequential path modelling outcomes were therefore accepted. Moreover, regression outcomes were also attained. Perceived Risk, Argument Quality, Information Usefulness, Trust and Information Adoption had regression values of 0.32, 0.24, 0.07, 0.39 and 0.30 respectively which clarifies that strong causality among the factors exist. Along with structural paths determination, structural equation model fit measures were also examined. The Chi-square /degree of freedom (χ^2/DF) value was 1.838, RMSEA value 0.049, SRMR 0.073, GFI 0.880, AGFI 0.858, NFI 0.901, IFI 0.952 and TLI 0.946 confirms that the conceptual framework had strong literary foundations (see table 6).

Table 5: Results of Hypotheses (Direct and Indirect effects)

Hypotheses	Relationships	Path Coefficient	t-Statistics	p-values	Results
H1	Exp → PR	0.135**	2.321	< 0.01	Supported
H2	TW → PR	0.359**	5.684	< 0.01	Supported
H3	Obj → PR	0.187**	3.137	< 0.01	Supported
H4	Homo → PR	0.263**	4.249	< 0.01	Supported
H5	PR → AQ	0.492**	6.765	< 0.01	Supported
H6	PR → InUse	0.256**	3.974	< 0.01	Supported
H7	AQ → TRT	0.478**	7.649	< 0.01	Supported

H8	InUse → TRT	0.342**	6.380	< 0.01	Supported
H9	TRT → InAdp	0.550**	7.715	< 0.01	Supported

Notes: ** $p < 0.05$, * $p < 0.10$

Perceived Risk $R^2 = 0.32$, Argument Quality $R^2 = 0.24$, Information Usefulness $R^2 = 0.07$, Trust $R^2 = 0.39$, Information Adoption $R^2 = 0.30$

Table 6: Structural Equation Model Fit Measures

Constructs	Chi-Square	DF	χ^2/DF	GFI	IFI	CFI	NFI	TLI	AGFI	RMSE
Model	766.400	417	1.838	0.880	0.952	0.952	0.901	0.946	0.858	0.049

DF = Degree of freedom, χ^2/DF = Chi-square /degree of freedom, AGFI = Adjusted good-of-fit index, TLI = Tucker-Lewis Index, NFI = Normed Fit index, CFI = Comparative fit index, IFI = Incremental Fit Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean Square Residual

V. DISCUSSION

The study examined the dimensional effects of eWOM source credibility on information adoption of the online buyers of the Pakistani consumer market. Source credibility is one of the critical features of eWOM communications and is highly regarded as the backbone of eWOM process (Luo, *et al.*, 2013). Researchers have identified that communicator's credibility, familiarity, physical appearance, power and attractiveness are the determinants of information source which have an impact on message's credibility (Westerman, *et al.*, 2014) On the online mediums, physical appearance and attractiveness determinants cannot be seen of the communicators; therefore the focus is more on credibility, power and familiarity (Zhang, *et al.*, 2017). The credibility of the message sender is hence considered to be of utmost importance as it clearly gives an idea to the reader that the communication being carried out is authentic and verified (Bachleda and Berrada-Fathi, 2016).

In the era of colossal information bombardment from all sources, credibility of the information is a real challenge for the online users. Users therefore opt to adopt that information which are being passed by credible sources. The conclusions and deductions being drawn about the information is based on the source of the story (Willemsen, *et al.*, 2013). The studies of Cheung and Thadani, 2012; Babic, *et al.*, 2012) have investigated the effects of eWOM on purchase intentions. Most of these studies have resulted in having eWOM's significant influence on consumers. On the broader sphere, eWOM's effects have been investigated on a variety of different platforms.

Nevertheless, it was eminent to signify that comparatively less attention had been given to eWOM effects transmitted through social media networks (Hussain *et al.*, 2017; Cheung and Thadani, 2012). Even though contemporary research studies are focusing on the effects of eWOM on social media (Wang *et al.*, 2012; See-To and Ho, 2014), but there has been

less focus found on the unfolding of eWOM source credibility dimensions and examining their effects on information adoption of consumers (Hussain *et al.*, 2017; Hussain *et al.*, 2018). Therefore, the first and foremost focus was to fill the gap of examining eWOM source credibility dimensions effects on information adoption. The positive outcomes among the constructs indicate that before the information is being adopted, a sequential process is being considered by the shoppers, and eventually a purchase decision is being made.

VI. CONCLUSION AND FUTURE RESEARCH DIRECTIONS

The changing behaviour of individuals on the online platforms are eminent to be uncovered, and marketers in the recent times are striving to determine how information adoption would be done precisely. The study emphasized on how expertness, objectivity, homophily and trustworthiness impact on information adoption. Meanwhile, risk, argument quality, information usefulness and trust were used as mediators, as it was reckoned that these constructs would be strengthening the relationship between eWOM and information adoption. The results of the study clearly identified presence of strong association among the constructs. As this study was conducted in the emerging market of Pakistan, therefore it revealed that how social media marketing is making its roar in the developing regions. Marketers hence need to work effectively on the eWOM source credibility domains. Before generalizing the results of this study, some critical components must be considered. This study was cross-sectional in nature, future studies must use longitudinal research design. Furthermore, studies should focus on determining the effects of eWOM source credibility, along with e-Service Quality on the information adoption. The framework of this study can be extended by incorporating constructs like purchase intentions and purchase decisions. Another limitation of this study was that the data was collected from customers only. Future studies must collect data from customers and companies as well. By using this approach, a sound multi-level modelling outcome would be productive for the researchers and marketers.

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REFERENCES

1. Ajzen, I. (1985). From intentions to actions: a theory of planned behavior. In J. Kuhl, and J. Beckmann, Action control: From cognition to behavior (pp. 11-39). Springer-Verlag Berlin Heidelberg
2. Arndt, J. (1967) "Role of Product Related Conversations in the Diffusion of a new Product", *Journal of Marketing Research*, 4(3), pp. 291-295.
3. Bachleda, C., and Berrada-Fathi, B. (2016). Is negative eWOM more influential than negative pWOM? *Journal of Service Theory and Practice*, 26(1), 109-132.
4. Bajpai, V., and Pandey, D. R. S. (2012). Viral marketing through social networking sites with special reference of Facebook. *International*

- Journal of Marketing, Financial Services and Management Research*, 1(7), 194-207.
5. Bauer, R. A. (1960). Consumer behavior as risk taking. In *Dynamic marketing for a changing world* (Vol. 398).
6. Behrens, J. (2014). The effects of familiarity and online consumer reviews, on consumers' trust, risk perception, and behavioral intentions. MSc thesis.
7. Bhandari, M., and Rodgers, S. (2018). What does the brand say? Effects of brand feedback to negative eWOM on brand trust and purchase intentions. *International Journal of Advertising*, 37(1), 125-141
8. Cheng, X., and Zhou, M. (2010). Study on effect of eWOM: A literature review and suggestions for future research. In *Management and service science (MASS), 2010 International Conference* (pp. 1-4). IEEE.
9. Cheung, C. M. K., and Thadani, D. R. (2012). The impact of electronic word-of-mouth communication: a literature analysis and integrative model. *Decision Support Systems*, 54(1), 461-470
10. Cheung, C. M. K., Lee, M. K. O., and Rabjohn, N. (2008). The impact of electronic word of mouth: the adoption of online opinions in online customer communities. *Internet Research*, 18(3), 229-247
11. Cheung, C. M., and Lee, M. K. (2012). What drives consumers to spread electronic word of mouth in online consumer-opinion platforms. *Decision support systems*, 53, 218-225.
12. Cheung, C. M., and Thadani, D. R. (2012). The impact of electronic word-of-mouth communication: A literature analysis and integrative model. *Decision support systems*, 54(1), 461-470
13. Cheung, C. M., Lee, M. K., and Rabjohn, N. (2008). The impact of electronic word-of-mouth: The adoption of online opinions in online customer communities. *Internet Research*, 18(3), 229-247.
14. Cheung, M. Y., Luo, C., Sia, C. L., and Chen, H. (2009). Credibility of electronic word-of-mouth: Informational and normative determinants of on-line consumer recommendations. *International Journal of Electronic Commerce*, 13(4), 9-38.
15. Chu, S. C., and Kim, Y. (2011). Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites. *International Journal of Advertising*, 30(1), 47-75
16. Cox, D. F. (1967). Risk handling in consumer behavior – An intensive study of two cases. In D. F. Cox (Ed.), *Risk Taking and Information Handling in Consumer Behavior* (pp.34-81). Boston: Harvard University
17. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340
18. Ek Styven, M., and Foster, T. (2018). Who am I if you can't see me? The "self" of young travellers as driver of eWOM in social media. *Journal of Tourism Futures*
19. Erkan, I., and Evans, C. (2016). The influence of eWOM in social media on consumers' purchase intentions: An extended approach to information adoption. *Computers in Human Behavior*, 61, 47-55
20. Fang, Y.-H. (2014). Beyond the credibility of electronic word of mouth: Exploring eWOM adoption on social networking sites from affective and curiosity perspectives. *International Journal of Electronic Commerce*, 18, 67-102.
21. Fishbein, M., and Ajzen, I. (1975). Belief, attitude, intention and behavior: An introduction to theory and research from "Consumer-Generated Product Reviews", *Journal of Advertising Research*, 51(1), pp. 239-257
22. Geo News (2017). Over 44 million social media accounts in Pakistan. *Geo New Online*. Retrieved on 4 April 2019 <https://www.geo.tv/latest/131187-Over-44-million-social-media-accounts-in-Pakistan>
23. Gunawan, D. D., and Huarng, K. H. (2015). Viral effects of social network and media on consumers' purchase intention. *Journal of Business Research*, 68(11), 2237-2241
24. Hu, Y., and Kim, H. J. (2018). Positive and negative eWOM motivations and hotel customers' eWOM behavior: Does personality matter? *International Journal of Hospitality Management*, 75, 27-37
25. Husnain, M., and Toor, A. (2017). The Impact of Social Network Marketing on Consumer Purchase Intention in Pakistan: Consumer Engagement as a Mediator. *Asian Journal of Business and Accounting*, 10(1), 167-199
26. Hussain, S., Ahmed, W., Jafar, R. M. S., Rabnawaz, A., and Jianzhou, Y. (2017). eWOM source credibility, perceived risk and food product customer's information adoption. *Computers in Human Behavior*, 66, 96-102

Does Electronic word-of-mouth (eWOM) on Social Media leads to Information Adoption? Empirical Evidence from the Emerging Markets!

27. Hussain, S., Guangju, W., Jafar, R. M. S., Ilyas, Z., Mustafa, G., and Jianzhou, Y. (2018). Consumers' online information adoption behavior: Motives and antecedents of electronic word of mouth communications. *Computers in Human Behavior*, 80, 22-32
28. Jarvinen, J., Töllmen, A., and Karjaluto, H. (2015). Web analytics and social media monitoring in industrial marketing: Tools for improving marketing communication measurement. In *Marketing Dynamism and Sustainability: Things Change, Things Stay the Same...* (pp. 477-486). Springer, Cham
29. Khwaja, M.G., Jusoh, A., and Nor, K.M. (2019). Does online social presence lead to purchase intentions? *International Journal of Economic Policy in Emerging Economies*, 12(2), 198-206.
30. Kim, E., Sung, Y., and Kang, H. (2014). Brand followers' retweeting behavior on Twitter: how brand relationships influence brand electronic word-of-mouth. *Computers in Human Behavior*, 37, 18-25
31. Lee, M. and Youn, S. (2009) "Electronic word of mouth (eWOM): How eWOM platforms influence consumer product judgement", *International Journal of Advertising*, 28(3), pp. 473-499.
32. Leung, X. Y., Bai, B., and Stahura, K. A. (2015). The marketing effectiveness of social media in the hotel industry: A comparison of Facebook and Twitter. *Journal of Hospitality and Tourism Research*, 39(2), 147-169
33. Lever, M. W., Mulvey, M. S., and Elliot, S. (2017). From Hashtags to Shopping Bags: Measuring the Rise of eWOM through Social Media and its Impact on Travelers' Shopping Patterns. *International Conference 2017, Quebec City, Quebec, Canada*
34. Li, J., and Zhan, L. (2011). Online persuasion: How the written word drives WOM: Evidence from consumer-generated product reviews. *Journal of Advertising Research*, 51(1), 239-257.
35. Luo, C., Luo, X. R., Schatzberg, L., and Sia, C. L. (2013). Impact of informational factors on online recommendation credibility: The moderating role of source credibility. *Decision Support Systems*, 56, 92-102.
36. Mahmood, S., Khwaja, M., and Jusoh, A., (2019) Electronic word of mouth on social media websites: Role of social capital theory, self-determination theory, and altruism, *Int. J. of Space-Based and Situated Computing*, Vol. 9, No. 1, pp.239-254.
37. Matute, J., Polo-Redondo, Y., and Utrillas, A. (2016). The influence of EWOM characteristics on online repurchase intention: Mediating roles of trust and perceived usefulness. *Online Information Review*, 40(7), 1090-1110
38. Melancon, J. P., and Dalakas, V. (2018). Consumer social voice in the age of social media: Segmentation profiles and relationship marketing strategies. *Business Horizons*, 61(1), 157-167.
39. Pitta, D. A., and Fowler, D. (2005). Online consumer communities and their value to new product developers. *Journal of Product and Brand Management*, 14(5), 283-291.
40. Reichelt, J., Sievert, J., and Jacob, F. (2014). How credibility affects eWOM reading: the influences of expertise, trustworthiness, and similarity on utilitarian and social functions. *Journal of Marketing Communications*, 2 (1-2), 65-81
41. Shen, X. L., Cheung, C. M. K., and Lee, M. K. O. (2013). What leads students to adopt information from wikipedia? An empirical investigation into the role of trust and information usefulness. *British Journal of Educational Technology*, 44(3), 502-517
42. Shu, M. L., and Scott, N. (2014). Influence of social media on chinese students' choice of an overseas study destination: an information adoption model perspective. *Journal of Travel and Tourism Marketing*, 31(2), 286-302
43. Sussman, S. W., and Siegal, W. S. (2003). Informational influence in organizations: an integrated approach to knowledge adoption. *Information Systems Research*, 14(1), 47-65
44. Tariq, M., Abbas, T., Abrar, M., and Iqbal, A. (2017). EWOM and brand awareness impact on consumer purchase intention: mediating role of brand image. *Pakistan Administrative Review*, 1(1), 84-102
45. Vimaladevi, K., and Dhanabhakaym, M. (2012). A study on the effects of online consumer reviews on purchasing decision. *Prestige International Journal of Management and IT-sanchayan*, 1(1), 91-99.
46. Westerman, D., Spence, P. R., and Van Der Heide, B. (2014). Social media as information source: Recency of updates and credibility of information. *Journal of Computer-Mediated Communication*, 19, 171-183.
47. Willemsen, L., Neijens, P. C., and Bronner, F. A. (2013). Webcare as customer relationship and reputation management? Motives for negative electronic word of mouth and their effect on webcare receptiveness. In *Advances in Advertising Research (Vol. IV)* (pp. 55-69). Springer Fachmedien Wiesbaden
48. Wolny, J., and Mueller, C. (2013). Analysis of fashion consumers' motives to engage in electronic word-of-mouth communication through social media platforms. *Journal of Marketing Management*, 29(5-6), 562-583
49. Wu, T. Y., and Lin, C. A. (2017). Predicting the effects of eWOM and online brand messaging: Source trust, bandwagon effect and innovation adoption factors. *Telematics and Informatics*, 34(2), 470-480.
50. Zhang, K. Z. K., Cheung, C. M. K., and Lee, M. K. O. (2014). Examining the moderating effect of inconsistent reviews and its gender differences on consumers' online shopping decision. *International Journal of Information Management*, 34(2), 89-98
51. Zhang, T., Abound Omran, B., and Cobanoglu, C. (2017). Generation Y's positive and negative eWOM: use of social media and mobile technology. *International Journal of Contemporary Hospitality Management*, 29(2), 732-761

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