Credibility of Online Reviews and Its Impact on Brand Image

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Purpose:

Brand image is considered as a signaling phenomenon because high brand image ensures quality product that can reduce consumer's uncertainty. A strong brand image influences consumer to pay higher prices, which in turn provides competitive advantages and market success to a company. To build a strong brand image online reviews, blogs, and texts on brand usage experiences are more effective than oral communication. Online reviews on product creates a distinct place for brands in the consumer's mind and thus ultimately effects image of the brand. Therefore, this study attempts to fill this gap and investigates the effects of online reviews on functional and hedonic brand images in the context of consumer electronic products in India.

Design/methodology/approach

The present study adopted a novel approach to collect data. Data has been collected from select e-commerce site's brand pages in Facebook social media platform through Google form application on 1038 respondents. Structural equation modeling has been performed to examine the effects of online reviews on functional and hedonic brand images.

Findings

The data analysis reveals that source and review quality have more significant effect on credibility evaluation of online reviews. Moreover, credible online reviews have more effects on hedonic brand image in the context of consumer electronic products in India.

Originality/Value

The present study combines Yale attitude change model and attribution theory to examine the effects of online reviews on brand image.

Keywords: Credible online reviews; Brand image; Functional brand image; Hedonic brand image; Brand pages; Facebook; Structural equation modeling; Consumer electronic products.

1. Introduction

Brand image is considered as a signaling phenomenon because high brand image ensures quality product that can reduce consumer's uncertainty (Hazée *et al*., 2017). Brand image can be defined as a " mental construct developed by the consumer on the basis of a few selected impressions among the flood of the total impressions; it comes into being through a creative process in which these selected impressions are elaborated, embellished, and ordered" (Reynolds, 1965, p. 69). Brand image is the brand value in the mind of the consumers (Yuan *et al*., 2016). A strong brand image influences consumers to pay higher prices, which in turn provides competitive advantages and market success to a company (Aranda *et al*., 2015). Bruhn *et al*. (2012) divided the concept of brand image into two parts, namely, functional and hedonic brand image. Functional brand image deals with the performance or usage aspects of the brands whereas, hedonic brand image deals with the emotions or sentiments of the consumers towards brands.

Rapid growth of online social media communication makes it difficult for marketers to have control over brand management (Bruhn *et al*., 2012). Successful brands are using online social media for sustaining and interacting with consumers (Neirotti *et al*., 2016). The present study follows attribution theory to understand the effects of online reviews on brands. Folkes (1988, p. 548) states that "attribution theory is a rich and well-developed approach that has a great deal to say about a wide range of consumer behavior issues". Attribution theory is considered as social

psychological theory that explains the tendency of the people to give meaning to their environment. When consumers are gone through various online reviews on brand then they try to create a perception about that brand and thus creates an image of the brand in the consumer's mind. In other words, online product reviews influence consumer's attitude towards brands (Lin and Xu, 2017). Recent studies have generally focused on various factors that affect sharing of product usage experiences of the consumers. However, very less studies have been documented on the impact of online reviews on image of the brand in the consumer's mind (Kostyra *et al*., 2016). Hence, this study attempts to fill this gap and investigates the effects of online reviews on functional and hedonic brand images in the context of consumer electronic products in India.

Various online reviews do affect the purchase decision of the consumers (Lee and Hong, 2016). Currently it is a very common phenomenon that consumers look into online product reviews before taking purchase decisions (Zhang *et al*., 2014). Consumers generally seek the credibility of online reviews before accepting the reviews (Shan, 2016). In this context, a popular information persuasion model is the Yale attitude change model (Hovland *et al*., 1953) has been adopted. Yale attitude change model (Hovland *et al*., 1953) identifies four factors that affect credibility evaluation of online reviews, namely, source of the review, content of the review, receiver of the review and the medium of the review. Hence, in the present study online review is the medium and other three factors are examined that makes a review credible.

The present study joins Yale attitude change model and attribution theory to examine the effects of online reviews on brand image. The present study adopted a novel approach to collect data. Data has been collected from select e-commerce site's brand pages in Facebook social media platform through Google form application. The present study first determines the reliability of the variable scales and then uses factor analysis to evaluate the unidimensionality of

the variable scales. Finally, structural equation modeling is performed to determine the appropriate model.

The rest of the paper is organized as follows. The second section deals with theoretical framework. The third section proposes the conceptual framework and determines a set of hypotheses. The fourth section discusses the methodology to validate the proposed hypotheses. The subsequent section discusses the results of the study. The final section concludes the study and throws light upon the implications of the study.

2. Theoretical framework

2.1 Yale attitude change model

The concept of Yale attitude change model first coined by Carl Hovland and his colleagues in the year of 1953 at Yale university. Yale attitude change model is concentrates on persuasive communication. In other words, the Yale attitude change model describes the various factors that makes a message credible. Carl Hovland started this study based on his experiences of attempting to increase the confidence of US soldiers during World war II. At that time four factors played very important role to boost the morale of the US soldiers with propaganda. The present study follows Yale attitude change model to examine the four factors that makes an online review credible. Yale attitude change model suggests that there are four factors that makes a review credible, namely, source of the review, content of the review, receiver of the review and medium of the review. In the present study online is the medium of the review. The other three parts are discussed in the hypothesis development section.

2.2 Attribution theory

The concept of attribution theory is first introduced by Fritz Heider in the year of 1958 in his study on interpersonal relationship (Heider, 1958). Attribution theory focuses on people's cognitive interpretation of events and its effect on their behavior (Heider, 2013). "Attribution theory deals with how people interpret incidents or behaviors in terms of their causal inferences, and their interpretations play a significant role in determining reactions to these incidents or behaviors" (Chang *et al*., 2015, p. 50). The present study connects credible online reviews and brand image concept through attribution theory. When consumers read various reviews on brand (incidents) that creates an image of the brand in the mind of the consumers (reactions of incidents). Thus, ultimately effects brand image.

3. Hypotheses development

3.1 Credible online reviews

In online environment vast amount of consumer reviews exist. However, all the reviews can't be trusted (Johnson and Kaye, 2016). Hence, consumers seek credibility of the information. Credibility evaluation of online reviews can be described as a process by which consumers assess the accuracy of online reviews (Erkan and Evans, 2016). Consumers pursue online reviews if they perceive the reviews as credible (Filieri, 2015). This study draws on the Yale attitude change model (Hovland *et al*., 1953) and identifies the factors that makes a review credible. The present study examines the effects of three factors (source, message and receiver as suggested by Yale attitude change model) in the context of reviews on consumers electronic products in online medium.

3.2 Source

The source is the person who writes online reviews. Source credibility can be described as the factors that evaluate the credibility of the information sources (Ayeh, 2015). People generally pursue information if they consider the source of the information as credible (Li, 2015). Prior studies indicate that there are two dimensions of source credibility, namely, expertise and trustworthiness (Cheung and Thadani, 2012; Shan, 2016). Source credibility can be defined as "message source's perceived ability (expertise) or motivation to provide accurate and truthful information (trustworthiness)" (Cheung and Thadani, 2012, p. 466). Thus, the present study suggests that:

H1. Source has a positive effects on credible online reviews.

3.3 Message

In the context of online reviews, message credibility is the credibility of the contents of the reviews. The factors that makes a review contents credible are review quality, review consistency and review sidedness.

Review quality can be described as the extent to which the receiver perceives the review as logical and reliable. Receiver evaluates the quality of the information on the basis of accuracy, content, format and timeliness (Li, 2015). Review quality can be explained as the extent to which the information receiver feels a particular recommendation has sufficient justification to its arguments (Shan, 2016). Thus, the next hypothesis is formulated as:

H2a. Review quality has a positive effects on credible online reviews.

Review consistency can be expressed as the degree of consistency between a particular review and the reviews of others (Cheung and Thadani, 2012). People consider a review is credible if a

particular review is similar with other reviews or if a particular review got high votes or likes or ratings from others that means other consumers have the similar opinion as the particular review (Cheung *et al.*, 2009). Thus, the next hypothesis is formulated as:

H2b. Review consistency has a positive effects on credible online reviews.

Recommendation can be one-sided or two-sided. One-sided recommendation means that it contains either strengths or weaknesses but not both aspects of the product. Two-sided recommendation means it contains both the aspects, that is, strengths as well as weaknesses of the product (Kim *et al.*, 2015). Two-sided information is generally perceived to be more credible as compared to one-sided information (Chintagunta *et al.*, 2010). Contrary, negatively framed information has much more stronger influence on the behavior of others compared to positively framed information (Folse *et al.*, 2016). Moreover, receivers perceive negatively framed recommendations as more credible compared to positively framed recommendations. Thus, the following hypothesis is proposed:

H2c. Two sided reviews have a positive effect on credible online reviews.

3.4 Receiver

The receiver is the person who is exposed with online reviews. Consumers compares a particular review with their previous knowledge and experiences on products. Consumers generally consider reviews as credible if it is consistent with their previous knowledge and experiences (Cheung *et al.*, 2009). Thus, the next hypothesis is formulated as:

H3. Receiver has a positive effect on credible online reviews.

The present study follows attribution theory to understand the effects of online reviews on brand image.

3.5 Brand Image

A positive brand image can enhance performance of the brand (Barreda *et al*., 2016). Image is " the set of beliefs, ideas, and impression that a person holds regarding an object" (Kotlar, 2001, p. 273). To build a strong brand image online reviews, blogs, and texts on brand usage experiences are more effective than oral communication (Berger and Iyengar, 2013). Bruhn *et al*. (2012) noted that brand image can be measured through brand benefits and attributes. Brand image can be measured through the performance or utility of the brand which is called functional brand image. Further, brand image is evaluated through the consumer's feelings or emotions towards brand which is called hedonic brand image. Online reviews on brand's performance or consumer's feelings towards brands creates a perception about that brand in the consumer's mind. Thus, the next hypotheses formulated as:

H4a. Credible online reviews have a positive effect on functional brand image.

H4b. Credible online reviews have a positive effect on hedonic brand image.

Thus, based on the above hypotheses formulation, the following is the proposed research model of this study.

[Insert Figure 1 here.]

4. Methodology

4.1 Consumer electronic product's reviews in online context

Product category is the very important factor to evaluate credibility evaluation of online reviews (Mudambi and Schuff, 2010). Consumer electronic product category is considered for the present study because it is highest online reviewed product category (Chan and Ngai, 2011). The updated versions of consumer electronics are released in the market very frequently. Therefore, consumers are interested on online reviews to take right purchase decisions (Park and Kim, 2008). Consumer electronics is highest online selling product category (PWC, 2014). Hansen and Møller Jensen (2009) suggests that online buyers are more interested towards online reviews. Therefore, the online buyers of consumer electronic products are considered as respondents in the present study.

4.2 E-commerce site's brand pages in Facebook social media platform

E-commerce sites are the major medium of online purchases (Goldsmith and Flynn, 2004). Therefore, to get the data the present study considers the customers of e-commerce sites. In India, three e-commerce sites gives highest satisfaction to the customers. The three e-commerce sites are Flipkart, Snapdeal and Amazon India (DCA, 2014).

   India is considered as second largest users of Facebook social media ((Dhir *et al*., 2016). Further, consumers of India prefer Facebook social media over other social media platform (E&Y, 2015). In Facebook social media, online brand pages of e-commerce sites are exist where customers of e-commerce sites are present. Therefore, the present study considers Flipkart, Snapdeal and Amazon India brand pages in Facebook social media for data collection.

4.3 Measures

Cheung *et al*. (2008) study was considered to determine the items that measure credible online reviews. Cheung *et al*. (2008) study was followed to determine the items that measure source. Cheung *et al*. (2009) study was considered to determine the items that measure message factors.

Cheung *et al*. (2009) was considered to determine the items that measure receiver. Bruhn *et al*. (2012) study was followed to determine the items to measure functional and hedonic brand images.

All the items were measured through 5 point Likert scale where 1= strongly disagree and 5= strongly agree.

4.4 Pilot study

An offline pilot study was conducted to validate the questionnaire. 286 respondents were considered for pilot study. Reliability alpha (Cronbach's alpha) were measured for all the variables. Exploratory factor analysis (EFA) was performed (principle component analysis extraction method and varimax rotation method) to check the unidimensionality of the variables.

4.5 Data collection procedure for final study

Questionnaire was prepared in Google forms and the link of the questionnaire was posted in the message box of the respondents of Flipkart, Snapdeal and Amazon India brand pages in Facebook.

4.6 Final study

For final study, 1038 respondents were considered. Confirmatory factor analysis (CFA) was performed to determine the measurement model and structural equation modeling (SEM) was performed to examine the relationships between the variables. The present study uses SEM because SEM can directly measure the relationships between latent and observed variables (Hair *et al*., 2009).

5. Results and discussions

The questionnaire was discussed with three experts in online communication field as suggested by Zaichkowsky (1985) for its content validity. Further, to check the each item's clarity and

specificity the questionnaire was discussed with four academicians. Moreover, to identify the unclear questions an offline pilot study was conducted.

5.1 Pilot study

An offline pilot study was conducted with 286 respondents. In the pilot study, two questions were asked to the respondents apart from the questionnaire that are in last year how many consumer electronic brand's online reviews they saw? Tell us the name of the consumer electronic brands. In last one year the various consumer electronic brands were considered by the respondents were Apple, Micromax, HP, Xiaomi, Canon, Nikon, Dell, Sony, Asus, Samsung, Google, Microsoft, HTC. Therefore, the present study considers all the 13 brands for final study.

Reliability alpha of all the 8 variables, namely, source, review quality, review consistency, review sidedness, receiver, credible online reviews, functional brand image and hedonic brand image were in the range of 0.836 to 0.918. Which is well above of 0.7. Therefore all the results were acceptable according to the recommendations suggested by Nunally (1978, p. 245). Exploratory factor analysis revealed that all the variables were unidimensional with Eigen value more than 1. Sample adequacy test that is Kaiser-Meyer-Olkin test (KMO) value was 0.70 which is well above 0.5 as suggested by (Malhotra and Dash, 2011, p. 590).

5.2 Final study

Questionnaire was posted in the message box of 1745 people chosen randomly. Of these 1038 replied. Among 1038 respondents 745 (72%) were male and 293 (28%) were female. Of these 1038 respondents 656 respondents were within the age bracket of 18 to 29 years, 302 respondents were 30 to 39 years old and rest were above 39 years. Among 1038 respondents, 56 were diploma holders, 301 were undergraduates, 456 were graduates and rest were post graduates.

In the final study two instructions were given to the respondents. Did they saw online reviews on consumer electronic products (like TV, Mobile phones, camcorder, digital cameras, CD and DVD players, Laptop, Tablets, mobile or laptop accessories) of brands like Apple, Micromax, HP, Xiaomi, Canon, Nikon, Dell, Sony, Asus, Samsung, Google, Microsoft, HTC in last one year? If yes then answer the questionnaire. Here brand X means the brand's online reviews you saw or considered?

5.2.1. Construct validation

The reliability alpha (Cronbach's alpha) of all the 8 variables, namely, source, review quality, review consistency, review sidedness, receiver, credible online reviews, functional brand image and hedonic brand image were in the range of 0.747 to 0.931 (see table II). Reliability results were acceptable.

Measurement model

Maximum likelihood estimation (MLE) technique was used for measurement model. MLE was used because MLE provides valid and stable results (Hair *et al*., 2009). Various indices of measurement model, namely, normed chi square = 1.722 , goodness-of-fit index (GFI) = 0.970, comparative fit index (CFI) = 0.989, Tucker- Lewis index (TLI) = 0.987, adjusted goodness-of-fit index (AGFI) = 0.960 and root mean square error of approximation (RMSEA) = 0.026. All the results were within the accepted level (see Table I).

[insert Table I. Measurement Model indices here]

Convergent validity

Factor loadings of all the items were more than 0.5 (see Table II). Average variance extracted (AVE) of all the latent variables were more than 0.5 and construct reliability (CR) of all the

latent variables were more than 0.7 (see table II), therefore results were acceptable (Hair *et al*., 2009).

[insert Table II. Convergent Validity here]

Discriminant validity

Square root of AVE of a latent construct is higher than all inter construct correlation (see table III). AVE of a latent variable is higher than the maximum shared squared variance (MSV) and average squared shared variance (ASV) of same latent variable (see table II). Therefore, the results were acceptable (Hair *et al*., 2009).

[insert Table III: Discriminant Validity here]

To test the multicollinearity variance inflation factor (VIF) for each independent variables were measured (O'brien, 2007). The VIF values were less than 3.3 which means the present study is free from multicollinearity problem (Kock and Lynn, 2012). Further, the correlations between independent variables were less than 0.30 that also proves that the present study has no multicollinearity issues (Hutcheson and Sofroniou, 1999).

The present study considered consumer's self report. Therefore, the common method bias test was performed (Podsakoff *et al*., 2003). For common method bias test the present study performed common latent factor method. We again reran the CFA with a extra factor which is considered as indicators for all the measures (Belschak *et al*., 2006). The common latent factor method has no significant effects on any measures. Therefore, we can conclude that the present study is free from common method bias.

5.2.2 Hypothesis testing

After acceptable construct validity results the present study performed structural equations modeling to determine the structural model and test the hypothesis. Various indices of structural model, namely, normed chi square = 2.020 , goodness-of-fit index (GFI) = 0.963, comparative fit index (CFI) = 0.984, Tucker- Lewis index (TLI) = 0.987, adjusted goodness-of-fit index (AGFI) = 0.953 and root mean square error of approximation (RMSEA) = 0.031. All the results were within the accepted level (Hair *et al.*, 2009).

[insert Table IV. Results of Significance Test for Paths of the Model here]

Data analysis (hypothesis testing) reveals that source, receiver, review quality and review consistency have significant positive effects on credible online reviews (see table IV). Moreover, review sidedness found insignificant in this model. Hence, hypothesis H2c was rejected. Further, credible online reviews has significant positive effects on functional and hedonic brand images (see table IV).

6. Conclusions

The objective of the present study was to examine the effects of credible online reviews on brand image. The data analysis reveals that source and review quality have more significant effect on credibility evaluation of online reviews. Moreover, credible online reviews has more effects on hedonic brand image in the context of consumer electronic products in India.

6.1 Theoretical implications

The present study combines Yale attitude change model and attribution theory to examine the effects of online reviews on brand image. Yale attitude change model suggests the factors that makes a information persuasive. Through the lens of Yale attitude change model five factors were analyzed in the context of credibility evaluation of online reviews. In the present study attribution theory acts as a bridge between credible online reviews and brand image. Bruhn *et al.*

(2012) suggests that brand image can be divided into two parts, namely, functional and hedonic brand image. In the present study attribution theory acts as a theoretical backbone to examine the effects of credible online reviews on both the brand images.

6.2 Managerial implications

Millions of online reviews are exist in social media. Credibility of online reviews is a big concern for the marketing researchers. Therefore, the present study tries to contribute in the marketing literature field in the context of online reviews. Present days brands has its own brand pages in Facebook or in other social media platforms where consumers are sharing their opinion on that brands. Number of online reviews creates a perception on brands in the consumer's mind ultimately that effects the image of the brand. Various Indian e-commerce giants like Flipkart or Snapdeal have their own brand pages in Facebook where huge number of customers are sharing their experiences.

   In line with the findings of prior study (Djafarova and Rushworth, 2017) the present study also found that source has significant positive effects on credibility evaluation of online reviews. Marketers can give incentives and gifts to its customers so that they can give recommendations for the marketer's brand. Marketers can run educational or brand campaigns on product information or product usage information that helps the current customers to give more information to others that ultimately will attract new customers. Review quality has a positive effects on credible online reviews. Customers are not looking for just a review. They are looking for a review which contains justifications behind that review (Yang *et al*., 2016). Marketer's educational or brand campaigns can help the current customers to write logical reviews of products. Marketers can insist its customers to write reviews with proper explanation. The present study found that review consistency has a significant positive effects on credible online

reviews. Consumer's consistent reviews on a particular brand can improve other consumer's trust. Receiver's product knowledge effects credibility evaluation of online reviews. Marketer's brand campaign can educate its customers and that can improve consumer's knowledge on brands. Review sidedness is found insignificant in the present study. One of the reasons might be consumers do not consider sidedness of a single review. They consider reviews as aggregate (Baker *et al*., 2016).

The present study revealed that credible online reviews has significant positive effects on functional and hedonic brand images. Consumer reviews on product's functions or performance can improve product's functional brand image. Consumers do not want only brand's performance or feature specific reviews. They are more interested towards online reviews which are more connected with consumer's experiences with the brand. Marketers can influence its present customers to write more on product features or performance based on their experiences, which means the review should be a mix of consumer experiences and product related information. Marketers can go for dedicated forum where product features or usage can be discussed. Marketers can involve their customers in their product advertising. The advertisement should be focused on consumer's attitude or feelings towards products. This advertisement strategy can help the marketers to connect with new customers because when others see those advertisements where consumers are sharing their experiences with the brands that might give feel to the people that the stories are similar to their stories. Then the others may connect with the brand.

7. Limitations and directions for future research

The study has some limitations. First the study considers only consumer electronic products. Second for data collection the study considers select e-commerce brand pages in Facebook. The study is based on emerging market like India.

In future, the research model can be tested in other product categories. The research model can be tested in other country contexts. In future data can be collected from other social media platform like Twitter.

Appendix: Scale used for the study

Source

    Source1: Reviewers of brand X are knowledgeable.

    Source2: Reviewers of brand X are reliable.

    Source3: Reviewers of brand X are believable.

Review quality

    Review quality 1: Online reviews on brand X are defined.

    Review quality 2: Online reviews on brand X are explained.

    Review quality 3: Online reviews on brand X are detailed.

Review sidedness

    Review sidedness 1: Online reviews on brand X that contains strength and weakness both aspects of the products are convincing.

    Review sidedness 2: Negative online reviews on brand X are reliable. (Reverse coded)

    Review sidedness 3: Online reviews on brand X that contains merits and demerits both aspects of the products are persuasive.

Review consistency

    Review consistency 1: Online reviews on brand X are related to other reviews.

    Review consistency 2: High voted reviews on brand X are believable.

    Review consistency 3: High voted reviews on brand X are dependable.

Receiver

Receiver1: Online reviews on brand X are matching with my point of view.

Receiver2: Online reviews on brand X are similar to my opinion.

Receiver3: I always pay attention towards online reviews on brand X.

Online Credible Reviews

Online Credible Reviews 1- Online comments on brand X's products are realistic.

Online Credible Reviews 2- Online comments on brand X's products are logical.

Online Credible Reviews 3- Online comments on brand X's products are accurate.

Functional Brand Image:

Functional1- Online comments on brand X describe the brand's utility.

Functional2- Online comments on brand X describe the brand's efficiency.

Functional3- Online comments on brand X describe the brand's effectiveness.

Hedonic Brand Image:

Hedonic1- Online comments on brand X make the brand attractive towards the consumers.

Hedonic2- Online comments on brand X make the brand charming towards the consumers.

Hedonic3- Online comments on brand X make the brand fascinating towards the consumers.

Table I: Measurement Model indices

Indices	Threshold Value	Present study results
normed chi square	>1 normed chi square <3 (Hair *et al*., 2009)	1.722
GFI	>0.95 (Hair *et al*., 2009)	0.970
CFI	>0.95 (Hair *et al*., 2009)	0.989
TLI	>0.95 (Hair *et al*., 2009)	0.987
AGFI	>0.80 (Hair *et al*., 2009)	0.960
RMSEA	<0.08 (Hair *et al*., 2009)	0.053

Table II: Convergent Validity

Variable	Measurement Instruments	Factor Loadings	Cronbach's Alpha	Construct Reliability (CR)	Average Variance Extracted (AVE)	Maximum Shared Squared Variance (MSV)	Average Squared Shared Variance (ASV)
Credible Online Reviews	Credible1	0.890	0.897	0.899	0.748	0.066	0.027
	Credible2	0.819					
	Credible3	0.883					
Functional Brand Image	Functional 1	0.848	0.747	0.763	0.526	0.024	0.012
	Functional 2	0.760					
	Functional 3	0.530					
Hedonic Brand Image	Hedonic 1	0.931	0.931	0.932	0.821	0.048	0.018
	Hedonic 2	0.858					
	Hedonic 3	0.927					
Source	Source 1	0.940	0.899	0.902	0.755	0.066	0.023
	Source 2	0.769					

	Source 3	0.8891					
Review Quality	Quality1	0.900	0.879	0.880	0.711	0.026	0.010
	Quality2	0.781					
	Quality3	0.844					
Review consistency	Consistency1	0.900	0.904	0.905	0.760	0.048	0.014
	Consistency2	0.826					
	Consistency3	0.888					
Review Sidedness	Side1	0.883	0.858	0.860	0.673	0.041	0.016
	Side2	0.749					
	Side3	0.824					
Receiver	Receiver1	0.959	0.885	0.894	0.741	0.023	0.014
	Receiver2	0.685					
	Receiver3	0.914					

Table III: Discriminant Validity

	Functional	Consistency	Quality	Receiver	Source	Side	Credible	Hedonic
Functional	**0.725***							
Consistency	0.119	**0.872***						
Quality	0.044	0.055	**0.843***					
Receiver	0.015	0.129	0.006	**0.861***				
Source	0.062	0.030	0.133	0.153	**0.869***			
Side	0.136	0.078	0.126	0.117	0.202	**0.821***		
Credible	0.137	0.103	0.161	0.151	0.257	0.133	**0.865***	
Hedonic	0.154	0.219	0.092	0.134	0.074	0.012	0.158	**0.906***

*Diagonal bold figures are the square root of AVE. Off-diagonal figures are the correlations between the constructs.

Table IV. Results of Significance Test for Paths of the Model.

Path	Standardised Coefficient	Path Coefficient	Hypothesis	P	Results
Source ⟶ Credible Online Reviews	0.211	6.223	H1	***	Supported
Receiver ⟶ Credible Online Reviews	0.102	3.097	H3	**	Supported
Review quality ⟶ Credible Online Reviews	0.129	3.811	H2a	***	Supported
Review consistency ⟶ Credible Online Reviews	0.090	2.726	H2b	**	Supported
Review sidedness ⟶ Credible Online Reviews	0.056	1.619	H2c	0.105	Not Supported
Credible Online Reviews ⟶ Functional Brand Image	0.144	3.977	H4a	***	Supported
Credible Online Reviews ⟶ Hedonic Brand Image	0.162	4.848	H4b	***	Supported

*** significance at the $p < 0.001$ level, ** $p < 0.01$

References

Aranda, E., Gómez, M. and Molina, A. (2015), "Consumers' brand images of wines: Differences between two leading Spanish denominations of origin", *British Food Journal*, Vol. 117 No. 8, pp. 2057-2077.

Ayeh, J. K. (2015), "Travellers' acceptance of consumer-generated media: An integrated model of technology acceptance and source credibility theories", *Computers in Human Behavior*, Vol. 48, pp. 173-180.

Baker, A. M., Donthu, N. and Kumar, V. (2016), "Investigating How Word-of-Mouth Conversations About Brands Influence Purchase and Retransmission Intentions", *Journal of Marketing Research*, Vol. 53 No. 2, pp. 225-239.

Barreda, A.A., Bilgihan, A., Nusair, K. and Okumus, F. (2016), "Online branding: Development of hotel branding through interactivity theory" *Tourism Management*, Vol. 57, pp.180-192.

Belschak, F., Verbeke, W. and Bagozzi, R. P. (2006), "Coping with sales call anxiety: The role of sale perseverance and task concentration strategies", *Journal of the Academy of Marketing Science*, Vol. 34 No. 3, pp. 403-418.

Bruhn, M., Schoenmueller, V. and Schäfer, D. B. (2012), "Are Social Media replacing traditional media in terms of brand equity creation?", *Management Research Review*, Vol. 35 No. 9, pp. 770-790.

Chan, Y. Y. and Ngai, E. W. (2011), "Conceptualising electronic word of mouth activity: An input-process-output perspective", *Marketing Intelligence & Planning*, Vol. 29 No. 5, pp. 488-516.

Chang, H.H., Tsai, Y.C., Wong, K.H., Wang, J.W. and Cho, F.J. (2015), "The effects of response strategies and severity of failure on consumer attribution with regard to negative word-of-mouth", *Decision Support Systems*, Vol. 71, pp. 48-61.

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*, Vol. 1 No. 3, pp. 229-247.

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*, Vol. 54 No.1, pp. 461-470.

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*, Vol. 13 No. 4, pp. 9-38.

Chintagunta, P. K., Gopinath, S. and Venkataraman, S. (2010), "The effects of online user reviews on movie box office performance: Accounting for sequential rollout and aggregation across local markets", *Marketing Science*, Vol. 29 No. 5, pp. 944-957.

DCA, (2014), "e-Retailing in India", available at:

consumeraffairs.nic.in/consumer/writereaddata/e-Retailingindia.pdf (accessed 10 January 2016)

Djafarova, E. and Rushworth, C. (2017), "Exploring the credibility of online celebrities' Instagram profiles in influencing the purchase decisions of young female users", *Computers in Human Behavior*, Vol. 68, pp.1-7.

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*, Vol. 61, pp. 47-55.

E&Y, (2015), "Social Media Marketing- India Trends Study.", available at: http://www.ey.com/Publication/vwLUAssets/EY-social-media-marketing-india-trends-study 2014/$FILE/EY-social-media-marketing-india-trends-study-2014.pdf (accessed 10 January 2016).

Filieri, R. (2015), "What makes online reviews helpful? A diagnosticity-adoption framework to explain informational and normative influences in e-WOM", *Journal of Business Research*, Vol. 68 No. 6, pp. 1261-1270.

Folkes, V. S. (1988), "Recent attribution research in consumer behavior: A review and new directions", *Journal of Consumer Research*, Vol. 14 No. 4, pp. 548-565.

Folse, J. A. G., Porter III, M., Godbole, M. B. and Reynolds, K. E. (2016), "The Effects of Negatively Valenced Emotional Expressions in Online Reviews on the Reviewer, the Review, and the Product", *Psychology & Marketing*, Vol. 33 No. 9, pp. 747-760.

Goldsmith, R. E. and Flynn, L. R. (2004), "Psychological and behavioral drivers of online clothing purchase", *Journal of Fashion Marketing and Management: An International Journal*, Vol. 8 No. 1, pp. 84-95.

Hair, J. F., Black, W. C., Babin, B. J. and Anderson, R. E. (2009). *Multivariate data analysis*. Prentice Hall, Upper Saddle River, New Jersey.

Hansen, T. and Møller Jensen, J. (2009), "Shopping orientation and online clothing purchases: the role of gender and purchase situation" *European Journal of Marketing*, Vol. 43 No. 9/10, pp. 1154-1170.

Hazée, S., Van Vaerenbergh, Y. and Armirotto, V. (2017), "Co-creating service recovery after service failure: The role of brand equity", *Journal of Business Research*, Vol. 74, pp.101-109.

Heider, F. (1958), *The psychology of interpersonal relations*, John Wiley & Sons, New York, NY.

Heider, F. (2013), *The psychology of interpersonal relations*, Psychology Press, UK.

Hovland, C. I., Janis, I. L. and Kelley, H. H. (1953), *Communication and persuasion; psychological studies of opinion change.*, Yale University Press, New Heaven.

Hutcheson, G. D. and Sofroniou, N. (1999), *The multivariate social scientist: Introductory statistics using generalized linear models*, Sage, London.

Jalilvand, M. R. and Samiei, N. (2012), "The effect of electronic word of mouth on brand image and purchase intention: An empirical study in the automobile industry in Iran", *Marketing Intelligence & Planning*, Vol. 30 No. 4, pp. 460-476.

Johnson, T. J. and Kaye, B. K. (2016), Some like it lots: The influence of interactivity and reliance on credibility, *Computers in Human Behavior*, Vol. 61, pp. 136-145.

Kock, N. and Lynn, G. (2012), "Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations", *Journal of the Association for Information Systems*, Vol. 13 No. 7, pp. 546-580.

Kostyra, D.S., Reiner, J., Natter, M. and Klapper, D. (2016), "Decomposing the effects of online customer reviews on brand, price, and product attributes" *International Journal of Research in Marketing*, Vol. 33 No. 1, pp.11-26.

Kotler, P. (2001), *A framework for marketing management*, Prentice-Hall, Upper Saddle River, NJ.

Lee, J. and Hong, I. B. (2016), "Predicting positive user responses to social media advertising: The roles of emotional appeal, informativeness, and creativity", *International Journal of Information Management*, Vol. 36 No. 3, pp. 360-373.

Li, C.Y. (2015). "The effects of source credibility and argument quality on employees' responses toward information system usage", *Asia Pacific Management Review*, Vol. 20 No. 2, pp. 56-64.

Lin, C.A. and Xu, X. (2017), "Effectiveness of online consumer reviews: the influence of valence, reviewer ethnicity, social distance and source trustworthiness", *Internet Research*, Vol. 27 No. 2.

Malhotra, N. K. and S. Dash. (2011). *Marketing Research: An Applied Orientation,* Pearson Education, Delhi.

Mudambi, S. M. and Schuff, D. (2010), "What makes a helpful review? A study of customer reviews on Amazon. com", *MIS quarterly*, Vol. 34 No. 1, pp. 185-200.

Neirotti, P., Raguseo, E. and Paolucci, E. (2016), "Are customers' reviews creating value in the hospitality industry? Exploring the moderating effects of market positioning", *International Journal of Information Management*, Vol. 52 No. 2, pp. 139-153.

Nunnally, J. (1978), *Psychometric methods*, McGraw Hill, New York.

O'brien, R. M. (2007), "A caution regarding rules of thumb for variance inflation factors", *Quality & Quantity*, Vol. 41No. 5, pp. 673-690.

Park, D.H. and Kim, S. (2008), "The effects of consumer knowledge on message processing of electronic word-of-mouth via online consumer reviews", *Electronic Commerce Research and Applications*, Vol. *7* No. 4, pp. 399-410.

Podsakoff, P.M., MacKenzie, S.B., Lee, J. Y. and Podsakoff, N. P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of applied psychology*, Vol. 88 No. 5, pp. 879-903.

PWC, (2014), " Evaluation of e-commerce in India: Creating the bricks behind the clicks", available at: https://www.pwc.in/assets/pdfs/.../evolution-of-e-commerce-in-india.pdf (accessed 10 January 2016).

Reynolds, W. H. (1965), "The role of the consumer in image building", *California management review*, Vol. 7 No. 3, pp. 69-76.

Shan, Y. (2016), "How credible are online product reviews? The effects of self-generated and system-generated cues on source credibility evaluation", *Computers in Human Behavior*, Vol. 55, pp. 633-641.

Yang, S.B., Shin, S.H., Joun, Y. and Koo, C. (2016), "Exploring the comparative importance of online hotel reviews' heuristic attributes in review helpfulness: a conjoint analysis approach", *Journal of Travel & Tourism Marketing*, pp. 1-23.

Yuan, R., Liu, M.J., Luo, J. and Yen, D.A. (2016), "Reciprocal transfer of brand identity and image associations arising from higher education brand extensions", *Journal of Business Research*, Vol. 69 No. 8, pp. 3069-3076.

Zaichkowsky, J. L. (1985), "Measuring the involvement construct", *Journal of consumer research*, Vol. 12 No.3, pp. 341-352.

Zhang, K.Z., Zhao, S.J., Cheung, C.M. and Lee, M.K. (2014), "Examining the influence of online reviews on consumers' decision-making: A heuristic–systematic model", *Decision Support Systems*, Vol. 67, pp.78-89.