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The effects of online reviews on service expectations: Do cultural value orientations matter?

Abstract

This study aims to explore the moderating influence of cultural value orientations of consumers on their use of positive and negative electronic word of mouth eWOM (PWOM and NWOM) to develop service expectations. It uses two experimental studies. Study 1 involves analysis of the manipulated effects of consumer-generated eWOM valence with 266 consumers from three different countries. Study 2 comprises of replication of study 1 but with added marketer generated information (imagery of the firm) with 84 consumers. The findings show that cultural value dimensions of power distance and long-term orientation influence how consumers react to PWOM and NWOM. For low power distance and short- term oriented consumers, the degree of impact on expectations is much higher when they encounter NWOM versus PWOM as compared to high power distance and long-term oriented consumers. It suggests a new segmentation strategy for practitioners based on the relationship between the interpretation of online reviews and cultural orientation of individual consumers.

Keywords: culture, eWOM, service expectations, valence.

1. Introduction

Consider for a moment that you would like to visit a new destination for your next holiday and you need to book a hotel for your accommodation. As you have very little idea about this place and do not know much about the hotels there, you decide to visit a well-known tourism related website to gather information about the place and about its hotels. Whilst narrowing down your search for a hotel to stay in, you come across the following two excerpts from tourists about their experiences of staying in that particular hotel: -

Tourist A: "This was the 3rd time I stayed in this hotel and it was as great as the other times. The hotel is wonderful, indoor pool area is the best and we had a blast."

Tourist B: "When I arrived at the hotel, I found it terrible, disgusting. The room smelled so bad that I felt ill. I will never come back again."

As the messages contradict, you are in a dilemma and are not sure what to expect from this hotel if you decide to stay there.

Electronic word of mouth (eWOM) consisting of sources such as online consumer reviews, blogs, and user-generated content that represents traditional word of mouth (WOM) in the online context has become a major source that consumers use for pre-purchase information search and decision making (Fong and Burton, 2008; Hwang, Jani and Jeong, 2013; Johnson and Grier, 2013; Kim and Gupta, 2012; Martin and Lueg, 2013; Wan, 2013). Nielsen Research finds that 68% of consumers believe that consumer opinion posted online is one of the most accessible, trustworthy and used sources of information (Trust in Advertising Report, 2013). The role of such online reviews as a tool to attract new customers is particularly important for service sector firms such as hotels and travel destinations focusing on selling experiences rather than product firms for several reasons. Compared to products, service purchase decisions are more uncertain and risky as services are characterized by intangibility, variability, and are high in experience and credence attributes. Such purchase

decisions become far riskier in the context of relatively unknown or new-to-market service firms, where information available is mainly marketer generated (such as company website, advertisements etc.), and often perceived as biased. Berger, Sorensen and Rasmussen (2010) observe that the influence of online reviews in decision making is higher for an unfamiliar brand rather than established entities due to an absence of trust based on prior experience. Hence, online reviews are a significant information source that potential consumers use before making a purchase decision from a relatively unknown service entity.

Extant research on eWOMs is largely categorized into two areas. The first stream of research explains under what conditions consumers are likely to generate and share online reviews (positive reviews PWOM or negative reviews NWOM) with others (such as Berger, 2014; De Angelis et al., 2012; Dubois, Bonezzi and De Angelis, 2016). With a focus on the role of consumers as senders or creators of online reviews, this body of research addresses "why do people generate or share online reviews?". For instance, Berger (2014) suggests that consumers engage in WOM (eWOM) activities to manage emotions, develop impressions or to create social bonding. The second stream of research focuses on the impact of eWOMs (PWOM or NWOM) on various aspects of consumer behavior such as product evaluations (Kim and Gupta, 2012), trustworthiness (Sparks and Browning, 2011), information needs (Hwang et al., 2013), or how sales may be influenced (Basuroy, Chatterjee and Ravid, 2003; Ho-Dac, Carson and Moore, 2013). With an emphasis on the role of consumers as receivers of online reviews, this body of literature investigates "what happens when people take account of such online reviews?". However, research is rather limited on how online reviews influences expectations in the pre-purchase decision-making stage from an unknown service firm. Purchasing services from unknown firms is inherently risky due to aforementioned characteristics such as intangibility, experience or credence attributes coupled with lack of previous experience or insights about the firm. In such circumstance, online reviews play a

significant role in influencing consumer choice and their pre-purchase expectations. This study attempts to address this important research gap by clarifying how such reviews impact on pre-purchase expectations for an unfamiliar service offer. It is important to understand the role of such reviews on pre-purchase expectations as this will in turn impact on consumers' post-purchase service evaluations.

Extant research has also addressed individual or context-specific moderating factors that explain why individual consumers react differently to online reviews. Studies show that consumers use such reviews differently based on the individual characteristics of the receiver (such as their information processing goal) or the message (such as message framing) (Dubois, Rucker and Tormala, 2011; He and Bond, 2015; Relling, Schnittka, Satler and Johnen, 2016; Sparks and Browning, 2011). For instance, Relling et al (2016) observe that PWOM evokes more positive reaction among consumers who use eWOM mainly for social bonding as compared to consumers who use it to perform specific tasks. However, research on understanding the role of culture as a moderator is scarce. Particularly, extant research has paid little attention to how the culture of individual consumers might influence their perception of positivity of PWOM or negativity of NWOM in case of unfamiliar service firms. Cultural orientations are likely to influence how consumers use online reviews to search and process information, therefore it is crucial to study their potential moderating effects on expectation formation. Although, the role of cultural orientations of individuals in influencing decision making has been noted as important in many studies (e.g. Donthu & Yoo, 1998; Furrer, Liu & Sudharshan, 2000; Herrero, Martin and Hernandez, 2015; Laroche et al., 2004; Liu, Furrer & Sudharshan, 2001; Schumann et al., 2010), their role as moderators in eWOM processing is not well explored. This is a significant research gap that the current study attempts to address.

It is important to explore the moderating role of culture on expectation formation due to the effects of eWOM valence for several reasons. Currently, it is unclear how consumers exhibiting high versus low power distance orientations, which reflects how they handle inequality in society (Hofstede, Hofstede and Minkov, 2010), develop expectations when they encounter NWOM or PWOM about a service provider. As individuals on different parts of the power distance spectrum have different views on disparity and inequality in society, this will likely have a significant influence on their processing of negative or positive messages of online reviews. Similarly, consumers differ based on their cultural orientation of uncertainty avoidance, which explains their tolerance towards unpredictability (Hofstede et al., 2010) and leads to different levels of risk averseness. This will likely lead to difference in approach behavior towards positive or avoidance behavior towards negative messages when encountering online reviews. Therefore, this study attempts to explore such issues with an integrative investigation of the role of culture on how consumers develop pre-purchase expectations. From a practice perspective, firms often manage their online review management strategy in a rather unimodal way (i.e. PWOM always leads to positive or NWOM leads to negative expectations) with simplistic assumptions that the goals and information processing of consumers are homogeneous. Consumers around the world possessing very different cultural orientations access online reviews for purchase decision-making purposes. Hence, firms can only design an effective customer acquisition/ retention strategy based on online reviews when accounting for such individual consumer differences.

Against this background, this study seeks to enhance current understanding by investigating how the cultural orientation of individual consumers' moderates how they process eWOM valence, both positive and negative. This research employs two experimental studies. Study 1 tests the moderating effect with 266 consumers from the student population in three different countries by exposing them to manipulated PWOM or NWOM scenarios in

the context of a fictitious, unfamiliar service entity (hotel). Study 2 is a replication of the first study with 84 consumers from an online shopper panel with an additional tangible imagery (photo of the hotel representing its offering). A photo is used as past research suggests that new-to-market or unfamiliar firms can reduce the level of distrust among consumers by exposing them to the imagery of the firm, hence reducing the perceived risk of purchasing from an unknown entity (Darke, Brady, Benedicktus and Wilson, 2016; Relling et al. 2016). These consumers are exposed to manipulated PWOM or NWOM about the hotel with added marketer generated information (photo), as they would see when booking online through a travel website. Study 2 also provides a robustness check of the findings from the previous study.

2. Theoretical background and research propositions

2.1 WOM and eWOM, service quality expectations and cultural value orientation

Interpersonal communication and specifically word of mouth (WOM) is an extensively researched area in the field of marketing and consumer behavior (see Berger, 2014; Matos and Rossi, 2008 for detailed literature review). Westbrook (1987) defines WOM as "informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services and/ or their sellers." Another main focus of the current study, service expectations is defined as "the level of service customers believe they are likely to get" (Zeithaml, Bitner and Gremler, 2006). Finally, Hofstede, Hofstede, and Minkov (2010) define culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others." Literature on these three topics pertinent to the current study is now reviewed.

Recent studies have largely focused on the role of eWOM, where consumers' access information from opinions posted online rather than the traditional WOM that mostly

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involves face-to-face interpersonal communication. The ubiquitous use of the internet in everyday life means that eWOM not only manifolds the scope of personal networks available to the individual consumer as compared to traditional WOM but that it is also is accepted as a credible and impartial source of information (Martin and Lueg, 2013). Therefore, consumers tend to use eWOM significantly, particularly when the decision-making is either risky, difficult or there is lack of available information (Berger, 2014).

Past studies categorize eWOM research in two ways- the propensity of consumers to generate and transmit eWOM focusing on the role of consumers as senders (such as Berger, 2014; De Angelis et al., 2012; Dubois, Bonezzi and De Angelis, 2016; Lam, Lee and Sudharshan, 2009) and the effects of received eWOM on their behavior, highlighting the role of consumers as receivers (such as He and Bond, 2015; Lam et al., 2009; Relling et al., 2016; Schumann et al., 2010). The first stream of research often identifies factors such as self-enhancement, dissonance reduction and reducing loneliness as motivations for consumers to express themselves online (Berger, 2014). De Angelis et al (2012) find that the motive of self-enhancement (the need to feel good about oneself) leads consumers to generate PWOM and transmit NWOM. Dubois et al (2016) identify that customers share NWOM with whom they feel a strong bond and PWOM with whom they feel a weak bond. Therefore, inter-personal closeness influences eWOM valence sharing. Consumers share NWOM with close ties as they would like to protect them from any potential dissatisfaction, negative experience, whereas they share PWOM with distant ties with the motivation of self-enhancement.

The second stream of eWOM research focuses on the effects of received eWOM on consumers and how that influences firms' marketing strategy and, ultimately, profits. For instance, consumers' purchase intention and trust are influenced by eWOM valence (Sparks and Browning, 2011). He and Bond (2015) posit that consumers' interpretation of WOM dispersion depends on the receiver's perceived dissimilarity with the reviewer. Quite self-

evidently, NWOM tends to decrease and PWOM increase sales (Basuroy, Chatterjee and Ravid, 2003; Ho-Dac, Carson and Moore, 2013). Therefore, understanding eWOM usage and its influence on consumer decision-making are of fundamental importance to firms. However, extant research on how eWOM influences consumer expectations in the pre-purchase decision making stage in case of relatively unknown or new-to-market service firms is scarce. This is a significant research gap as service purchase is characterized by a high degree of uncertainty and risk. This manifolds if the service provider is little known. Since, in such cases, the marketer generated information (such as advertisements) is often deemed as biased, consumers rely heavily on what other consumers say about their experience with the firm through eWOM. The focus of the present study is to address this gap in literature.

The positive effects of PWOM and the negative effects of NWOM often depends on several mitigating factors, such as certainty surrounding the decision (Dubois et al., 2011), lack of existing, dependable information sources (Berger, 2014), closeness of the referral source (Zhao and Xie, 2011), established versus unknown brands (Berger, Sorensen and Rasmussen, 2010), and category maturity of the product concerned (Ho-Dac et al., 2013). For example, Dubois et al. (2011) in their study on how rumor can become a fact or vice versa suggest that a transmitted eWOM message is characterized by the valence of the sender's beliefs (I like/dislike the hotel) as well as certainty of those beliefs (I am sure/unsure that I like/dislike the hotel). The receiver evaluates both pieces of information to make a judgment about the hotel. Dubois et al. (2011) also find that belief certainty dictates how the message is transmitted and received. Therefore, valence in eWOM is potentially influenced by the receiver's primary belief about the product/ service being talked about as well as the secondary belief (certainty) about the valence.

Similarly, Berger et al (2010) find that negative influence of NWOM can sometimes become positive and help in increasing sales when brands are relatively unknown. Despite a

substantial body of work on how individual characteristic of users influence their eWOM interpretation, research is rather limited on the role of cultural orientations of individual receivers and how that might influence their interpretation of eWOM. Culture often dictates how consumers search and process information in the pre-purchase decision-making stage (Donthu & Yoo, 1998; Schumann et al, 2010). However, the role of cultural orientations of individual consumers is shaping interpretations of eWOM and how that influences consumers' expectations is less studied in the literature. Hence, this study focuses on the role of the cultural orientation of users as the mitigating factor on how consumers process eWOM valence and develop their expectations from a lesser known service entity.

Hofstede et al (2010) classify five dimensions of cultural orientations: uncertainty avoidance, power distance, long-term orientation, individualism/ collectivism, and masculinity/ femininity. However, past research states that not all of the five dimensions influence the degree of external information search or towards expectations of consumers. Dawar, Parker and Price (1996) explored the influence of three culture dimensions, namely power distance, uncertainty avoidance and individualism/ collectivism, on the way consumers seek interpersonal information before making purchase decisions. They find that power distance and uncertainty avoidance orientations influence the way customers seek external information from sources such as marketing magazines before making purchase decisions, but not individualism/collectivism. Individualism is characterized by "I" consciousness and self-orientation, whereas collectivism is characterized by "We" consciousness and group-orientation (Hofstede et al., 2010). Therefore, in the pre-purchase information seeking behavior, Dawar et al. (1996) find that there is no substantial difference between individualists and collectivists in their scrutinizing of external sources of information.

Further, Schumann et al (2010) observe that the dimension of masculinity/ femininity does not influence consumers' external information processing behavior. Masculine customers

emphasize specific gender roles and value male assertiveness, whereas feminine customers value fluid gender roles and female nurturance (Hofstede et al., 2010). Therefore, there is no difference between masculine and feminine consumers in the way they collect and process information from external sources (such as eWOM). Past studies (such as Donthu and Yoo, 1988) also suggest that masculinity/ femininity does not influence service expectation formation. Therefore, the current study attempts to explore how culture might influence how consumers seek external information source (like eWOM, the focus of this study) by focusing on the three dimensions of culture (uncertainty avoidance, power distance and long-term orientations) that have been found to influence consumers' information seeking and expectation formations. The next section describes the theoretical underpinning of the propositions of the study.

2.2 *Moderating effect of culture on the impact of received WOM valence on predicted expectations*

2.2.1 *Power distance*

Power distance reflects the extent to which the individual members of society accept unequal distribution of power (Hofstede et al. 2010). Members of high power distance societies expect large disparities in income, social status, and wealth, whereas members in low power distance societies do not accept such disparities and believe all inequalities should be minimized (Donthu & Yoo, 1998).

Past research suggests that high power distance individuals tend to engage in wider information search while making decisions as compared to low power distance individuals (Schumann et al., 2010). Hence, when they come across consumer generated eWOM about a service provider, its influence on their attitudes towards the firm will be diluted by other information sources, such as company generated marketing materials (advertisements,

company website). Therefore, PWOM and NWOM are less likely to create significant divergence from the base service expectations high power distance customers have from their pre-conceived notions about the firm.

On the other hand, low power distance individuals believe in equality in society (Hofstede et al., 2006). Such individuals consider that everyone has the right to express their opinion and any such viewpoint deserves merit for consideration. Low power distance individuals also have less sense of distrust towards others (Dawar et al, 1996). So, when they come across PWOM and NWOM from past customers about a service entity, they consider such feedback carefully and significantly in their decision-making. Any PWOM is likely to increase service expectations, whereas NWOM is likely to decrease such expectations (Sparks and Browning, 2011). Therefore, the influence of eWOM valence on service expectations is likely to be high. Hence, this study proposes

Proposition 1 (P1): PWOM and NWOM will influence service expectations to a lesser degree for high power distance consumers compared to low power distance consumers.

2.2.2   Uncertainty avoidance

Uncertainty avoidance reflects how comfortable members of a society are with uncertainty and ambiguity (Hofstede et al. 2010). Dawar et al., (1996) state that high uncertainty avoidance individual′s accord a high level of authority to rules. Such individuals

have a low tolerance for new ideas that are outside the norm and have high-risk averseness. On the other hand, low uncertainty avoidance individuals perceive higher tolerance towards ambiguity, tend to be less anxious, and are willing to take more risks (Schumann et al. 2010).

One of the main reasons why individuals engage in WOM activity is to acquire information (Berger, 2014). This information acquisition activity increases when the purchase decision becomes riskier. As high uncertainty avoidance individuals tend to avoid

risk, they are likely to seek more eWOM before making a purchase decision. This means that when they come across NWOM, it is likely to have a significant negative influence on their perception towards the service provider. On the other hand, Schumann et al (2010) observe that the effect of received PWOM is greater for high uncertainty avoidance individuals, meaning that when they encounter PWOM then the level of expectations is likely to be higher.

In contrast, consumers in low uncertainty avoidance cultures, due to their characteristic of accepting more diversity of opinion, are more comfortable with instability and are more open to experimentation (Geletkanycz, 1997). Such consumers, when exposed to PWOM and NWOM, will not consider it as absolute truth (Reimann, Lunemann and Chase, 2008) and the persuasive power of PWOM and the dissuasive power of NWOM are likely to be low and have less influence on service expectations. Hence, this study proposes

Proposition 2 (P2): PWOM and NWOM will influence service expectations to a lesser degree for low uncertainty avoidance consumers compared to high uncertainty avoidance consumers.

2.2.3   Long term orientation

Hofstede et al. (2010) define people in long-term orientation cultures as believing that perseverance is the key to achieving results. On the other hand, people in short-term orientation cultures focus on achieving quick results and view time as ″here-and-now″

(Nevins, Bearden &Money, 2007).

Research suggests that long-term oriented consumers are more likely to tolerate poor service quality and are willing to provide time to the service provider to improve their delivery (Donthu & Yoo, 1998). Therefore, when long-term oriented consumers encounter

any negative criticism about a service entity then it is less likely that such NWOM lowers their service expectations. Such consumers attach less importance to the current state of affairs and believe firms can improve their service delivery in future if given appropriate support. On the other hand, when long-term oriented consumers encounter PWOM, it won't increase their expectation levels from their current state significantly as they believe the firm can improve service much better in future. This means that the impact on service expectations, for these consumers, due to the effect of both PWOM and NWOM is likely to be low.

In contrast, short-term oriented consumers expect every service experience to be near perfect and constantly judge the service delivery system, focusing on only current benefits rather than any future paybacks (Donthu & Yoo, 1998). Therefore, when short-term oriented consumers encounter any NWOM, it is likely to have a highly detrimental effect on their service expectations and force them to search for alternative service providers (Liu et al., 2001). Similarly, when such consumers encounter PWOM, it is likely to enhance their service expectations quite significantly. Any positive feedback from existing customers will give a sense of assurance that the current service delivery structure of the firm is good. This ensures their motivation to have the desired service "here and now", meaning that the influence in expectations is likely to be higher. Therefore,

Proposition 3 (P3): PWOM and NWOM will influence service expectations to a lesser degree for long-term oriented consumers compared to short-term oriented consumers.

3. Study 1: The moderating influence of cultural value orientation on the effects of PWOM or NWOM on perceived service expectations

3.1   *Study design and context*

This study used a 2 (eWOM: positive versus negative) by 2 (cultural value orientation: high versus low) between subjects' experimental design. Study 1 involved exposing participants to only eWOM as a source of information about the firm in absence of any other marketer-generated signal to remove potential confounding effects. The experiment manipulated the effect of eWOM valence by using two different scenarios (one to reflect PWOM and another to reflect NWOM). Recent studies suggest that culture is an individual trait and should not be stereotyped based on nationality (Mooradian and Swan, 2006). Hence, instead of equating country with the culture, this study used individual cultural value orientations as the focus of analysis and explored its impact on service quality expectations. Moreover, as individuals develop cultural value orientation over a prolonged period, the study did not manipulate it in the experiment but instead measured it using an established scale. In order to remove the influence of extraneous factors, such as brand familiarity/ recognition, past experience with individual service brands that might influence the pre-visit expectations, this study used the context of a fictitious service entity (called Hamilton Beach Hotel). Online reviews and other forms of eWOM are potentially powerful information sources in booking hotels (Sparks and Browning, 2011). Therefore, the study chose the context of a hotel to test the propositions.

3.2 Sample and experimental procedure

This research selected participants from a pool of undergraduate and postgraduate business program students of a large British university. The researchers collected data from three campuses of the university in U.K., China, and Malaysia. The students in both China and Malaysia have to meet certain English language criterion during the admission process at the university and are highly adept in English. Therefore, the questionnaire developed in English was used across three campuses and did not require any translation to the local languages. This study used filter questions to choose student participants: an experience of

taking at least one holiday in the past year, and use of online reviews posted on travel portals like hotels.com for hotel booking purposes. The experiments and associated data collection were conducted online. Using the university database, the researchers sent invitations to the students to participate in the experiment. Prize draws were used to increase participation. The study randomly allocated participants to one of the scenarios using an online program. As previously detailed, the questionnaire asked the participants to answer the filter questions to judge their past use of eWOM in hotel booking activities and possible inclusion in the study. It also asked them to review the eWOMs for their scenario, imagine themselves as potential holidaymakers at this hotel, and complete the questionnaire about their expectations from the hotel, cultural orientations and demographic profile. The responses were anonymous.

The study received 292 responses out of 1000 invitations sent. 26 questionnaires were incomplete. To test non-response bias between participants who completed the questionnaire in full versus partially, the study conducted t-tests on one expectation item (HBH restaurant will serve tasty food: t=0.60, p>0.05) and one filter question (use of online reviews on portals for hotel booking, t= 1.01, p>0.05). There was no significant difference between participants who completed the questionnaire in full versus who completed partially. Therefore, non-response bias was not considered to be a significant issue in the study.

The final sample consisted of 266 fully completed questionnaires (response rate= 26.6%). 136 subjects participated in the PWOM manipulation and 130 participated in NWOM manipulation scenarios respectively. Table 1 provides the demographic profile of the participants.

TABLE 1 HERE

3.3   Word of mouth manipulation

The researchers used the tourism and hospitality literature and reviews from websites to select the online review items. First, based on literature, the study identified certain key areas (accommodation, food, facilities such as a spa and staff behavior) where tourists interact with the hotel to develop their service expectations (Li et al., 2011; Jeong and Jang, 2011). Second, based on customer views posted on independent tourism review websites such as tripadvisor.com and hotels.com, the researchers collected a list of positive and negative service issues that tourists raise in such areas. The researchers went through around 100 customer feedbacks on each of these areas to identify a list of most used positive and negative words that customers used to write about their experiences. Since, customers from U.K, China and Malaysia might use different sets of positive and negative words to describe their experiences, therefore equal representations of the three countries were made based on reviewers' nationality while choosing the feedbacks and making shortlisting of the keywords. The numbers of positive and negative reviews were equal, similar in length, and worded opposite to each other. For example, "My friends and I stayed at the Hamilton Beach Hotel in

 January and we had a great time" versus "My friends and I stayed at the Hamilton Beach Hotel in January, and we had a horrid time." Appendix A provides the manipulated scenarios.

3.4   Manipulation check

The manipulation check involved two stages. First, to improve the face validity of the manipulated scenarios, the study took opinion from two experts. Based on their opinion, the study made certain changes, such as shortening the description of the scenarios and making the length of the PWOM and NWOM statements comparable. Second, the researchers presented the two scenarios to a sample of 60 students (30 for each scenario). Following Park and Lee (2009), the subjects were asked to rate the extent to which they felt the WOM

messages stressed on the positive/ negative aspects about the hotel on a 7-point scale (7= highly positive, 1= highly negative). T-test revealed significant difference between the two scenarios (PWOM scenario: mean= 6.21, NWOM scenario: mean= 2.85, t-value= 4.89, $p<0.05$). The study also asked the sample about their service expectations from the hotel for each scenario (1= low quality, 7= high quality). The t-test revealed that there were significant differences in service expectations between the scenarios (PWOM scenario: mean= 6.27, NWOM scenario: mean= 3.56, t= 4.03, $p<0.05$). It was deemed that the manipulations were successful and their effect on overall service expectations was significantly different. Therefore, the manipulations were deemed suitable for use with the final sample.

3.5   *Measures*

The study measured the dependent construct of service expectations using a 4-item scale adapted from Mauri and Minazzi (2013), and Jeong and Jang (2011). The three dimensions of cultural value construct acting as moderators were measured using 16-items taken from the CVSCALE (Donthu & Yoo, 1998). All the items were measured using a seven-point Likert scale (1=strongly disagree, 7=strongly agree). The experimental design manipulated the independent construct of WOM valence and therefore did not measure it. The study also collected demographic variables such as age, gender, educational levels, and nationality of the participants (see Table 2 for the list of measures).

TABLE 2 HERE

3.6   *Validation of scale*

To validate the factor structure, the study used confirmatory factor analysis. Three items were omitted from further consideration as they had insufficient loading on their respective factors (see Table 2). To ensure homogeneity of the structural model, the study used pooled data across the three campuses and individual cultural orientations (following

Schumann et al. 2010). The model is tested on the criteria of overall fit, reliability, convergent, and discriminant validity. The CFA results show the overall goodness of fit for the model. The chi-square χ^2 (734) = 3128.34, p<0.01, with χ^2/ df= 4.26 which is within the acceptable range of 2 and 5 (Marsh and Hovecar, 1985). The values of CFI= 0.95, IFI= 0.94, TLI= 0.97, RMSEA= 0.07 are all within the acceptable range (Hu & Bentler, 1999). The value of GFI= 0.89 borders the acceptable limit for good fit. The reliability of the constructs is tested using Cronbach's alpha (minimum= 0.72, Nunally, 1978) and composite reliability (minimum= 0.91). The study tests convergent validity using standardized loadings of items more than 0.7 (except three items) on their intended latent constructs and is loaded significantly (t-value > 2.00). To test the discriminant validity of the model, the study uses the average variance extracted (AVE). All the AVE values exceed 0.5 (minimum= 0.65) with the squared correlation between any two constructs is less than the AVE extracted by the constructs. This indicates that the model developed based on theoretical bases is reasonably specified and suitable for use in further analysis.

3.7   *Test for measurement invariance*

As the study used a cross-sectional survey with consumers in three countries, it was necessary to test for measurement invariance across cultures. Following the procedure suggested by Schumann et al. (2010), we conducted the test in three stages (see Table 3 for the results). In the first stage, we assessed the configural invariance of the scale in three countries. This tests the equivalence of factor loadings across groups. The results show all fit indices exceed the recommended level of 0.9 and the scale possesses configural invariance. In the second stage, we conducted metric invariance by constraining the factor loadings to be equal in all the three countries. All the constructs show excellent fit. In the third stage, we analyzed the partial metric invariance of the scale as it is less sensitive to sample size

(Schumann et al., 2010). The results show excellent model fit for all constructs. Thus, we conclude the scale possesses measurement invariance across cultures.

TABLE 3 HERE

3.8   Differences in service expectations among the cultural groups

Table 4 gives the descriptive statistics of service expectations among various cultural groups when exposed to PWOM and NWOM by pooling the data. The table shows that service expectations are significantly different between high and low groups of power distance and long-term orientations cultural groups when exposed to PWOM and NWOM but not for uncertainty avoidance.

TABLE 4 HERE

Table 5 shows the group means of the cultural orientations across the countries and the correlations between the constructs studied.

TABLE 5 HERE

3.9   Relationships between eWOM valence, service expectations, and the moderating role of culture

To test the moderated propositions, this study used analysis of covariance (ANCOVA) using factor scores for expectations and three cultural values. Here, service expectation is the dependent variable (measured on a 7-point scale with 1= strongly disagree, 7= strongly agree), eWOM valence is the independent variable (manipulated in the experiment with PWOM coded as +1 and NWOM coded as zero in the analysis). The three cultural values are the moderators measured using a 7-point scale and then the median split is used to separate the participants into high and low cultural groups following Mantel and

Kardes (1999). Age and gender of the participants are the covariates. Three separate models are run to test the moderating effects of the cultural orientations. Table 6 shows the results.

TABLE 6 HERE

P1 proposed that the PWOM and NWOM will influence service expectations to a lesser degree for high power distance consumers compared to low power distance consumers. The product term in Model 1 shows that there is a significant interaction between WOM valence and power distance (F= 9.41, p<0.01). As shown in Figure 1, power distance moderates the effects of WOM valence on service expectations. The figure shows that for low power distance consumers, the increase in expectations is much higher as compared to the high power distance consumers when exposed to PWOM versus when exposed to NWOM. The descriptive values from Table 3 support the findings as well. Therefore, the results support P1.

FIGURE 1 HERE

P2 proposed that the PWOM and NWOM will influence service expectations to a lesser degree for low uncertainty avoidance consumers compared to high uncertainty avoidance consumers. The product term in model 2 shows that the interaction effect between WOM valence and uncertainty avoidance does not differ between the high and low group of consumers (F= 0.13, not significant). Therefore, the results do not support P2.

P3 proposed that the PWOM and NWOM will influence service expectations to a lesser degree for long-term oriented consumers compared to short-term oriented consumers. The product term in Model 5 shows that there is a significant interaction between WOM valence and long-term orientations (F= 45.65, p<0.01). As shown in Figure 2, long-term orientations moderate the effects of WOM valence on service expectations. As the lines do not cross but are not parallel, it exhibits an ordinal interaction. The figure shows that for

short-term orientations consumers, the increase in expectations is much higher as compared to the long-term orientations consumers when exposed to PWOM versus when exposed to NWOM. The descriptive values from Table 3 supports the findings as well. Therefore, the results support P3.

FIGURE 2 HERE

4. Study 2: The moderating influence of cultural value orientation on the effects of PWOM or NWOM on perceived service expectations in presence of tangible imagery

4.1 *Study design and context*

Study 2 aimed to provide additional support and to establish the robustness of the findings of Study 1. It followed the same design as Study 1 where one group of participants were exposed to PWOM and the other to NWOM and measuring their cultural orientation and service expectations towards the same fictitious hotel (Hamilton Beach Hotel) as their next holiday accommodation. So, it used the same 2 (eWOM: positive versus negative) X 2 (cultural orientation: high versus low) between subject's experimental design. However, this study used a promotional image of the hotel (see Figure 3) along with service descriptions in addition to the eWOM statements for the participants to assess and develop their perceived service expectations.

FIGURE 3 HERE

4.2 *Sample and experimental procedure*

Study 2 selected participants from a UK based online panel in exchange for a chance to win a reward voucher. It used the same questionnaire with same filter questions as Study 1. Participants were randomly allocated to one of the experimental groups (PWOM or NWOM). Data collection was carried out online. The final sample consisted of 84 fully completed questionnaires (PWOM: N= 40, NWOM: N= 44; female= 63%, age between 35-45 years=

53%). Iacobucci (1994) suggests that in consumer experiment based studies, a sample of 20 or above in each condition provides reasonable statistical power. The responses were anonymous.

4.3   Experimental manipulation

We used the same PWOM and NWOM scenarios as in Study 1. However, we added a marketer generated signal (a promotion leaflet of the hotel along with a photo of the hotel) with the eWOM scenarios. The descriptions of the services in the promotion included key areas such as physical facilities, food and staff behavior as expected by customers and used as measures of service expectations construct. The photo and the textual descriptions were borrowed from real-life hotels located in seaside destinations. A professional firm was employed to make the photo look authentic and similar to the photos of hotels posted on travel-related websites. Both the PWOM and NWOM groups were exposed to the same visual material as a baseline. As customers in real-life purchasing situations are exposed to both marketer generated visual stimuli and with consumer-generated eWOM information, Study 2 incorporated this into the design to make the experiment more realistic, to increase participants' engagement towards the process, and to reduce their distrust towards the service provider (Darke et al., 2016).

4.4   Measures

To measure cultural orientation and service expectations (Cronbach's alpha> 0.70 for all the constructs) we used the same scale as Study 1.

4.5   Results

The findings of Study 2 confirm the results obtained from Study 1. The ANCOVA results (see Table 6) show significant interaction between eWOM valence and cultural orientations of power distance (F= 3.27, p<0.10) and long-term orientation (F= 5.94, p<0.01) but non-significant interaction for uncertainty avoidance (F= 1.56, not significant). Therefore, eWOM

valence has a higher effect for low power distance consumers (NWOM: mean= 3.45, PWOM: mean= 6.14) compared with high power distance consumers (NWOM: mean= 4.55, PWOM: mean = 5.97), and for short-term oriented consumers (NWOM: mean= 3.03, PWOM: mean= 5.24) when compared with long term oriented consumers (NWOM: mean= 5.49, PWOM: mean= 6.21). This showed that even in the presence of strong marketer generated information signals, eWOM valence evokes different levels of service expectations based on the cultural orientation of individual consumers.

5. **Discussions**

5.1 Findings

Collectively, the findings from Study 1 and further insights from Study 2 provide an enhanced understanding of how expectations are influenced by PWOM or NWOM by identifying a significant moderating effect in the case of two cultural value variables. Specifically, it shows that cultural dimensions of power distance and long-term orientations moderate eWOM valence- service expectation relationships. For low power distance and short-term oriented consumers, the service expectations are much higher when they encounter NWOM versus PWOM as compared to high power distance and long-term oriented consumers. Low power distance consumers believe equality in society and the opinion of all individuals to be considered for decision-making. Hence, NWOM and PWOM have a greater impact on their expectations and the change from negative to positive is much more significant. Similarly, short-term oriented consumers focus more on present conditions they are likely to experience rather than any future improvement potentials. Hence, NWOM reduces and PWOM increases their expectations significantly.

However, the study does not find any moderating influence of uncertainty avoidance in eWOM valence-expectations relationship. This implies that irrespective of the difference in consumers in terms of their risk averseness, toleration to the ambiguity that represents their uncertainty avoidance (high versus low) characteristics, the positive and negative influence of PWOM and NWOM work in similar fashion. Extant research on the role of uncertainty avoidance on information seeking is rather mixed. One stream of research posits that high uncertainty avoidance individuals tend to rely more on interpersonal information source such as WOM from close associates (e.g. Dawar et al., 1996; Schumann et al., 2010). On the other hand, another stream of research suggests universality of risk avoidance and uncertainty reduction behavior across culture (e.g. Mooradian and Swan, 2006; Hwang et al, 2013). It appears that the trait of risk aversion having a more homogenous influence across cultures may well provide a more appropriate conceptualization. It may well be that in an online review context, even high uncertainty avoidance consumers are not inclined to treat such material as immutable truths and do not, therefore, regard them as a key risk mitigation tool. Further research is required to bring clarity and enhanced understanding to such a finding.

5.2   *Contributions*

This study contributes to prior research in two ways. First, there is a significant body of research that examines how online reviews (PWOM or NWOM) influence various aspects of consumer behavior such as their product evaluations (Kim and Gupta, 2012), trustworthiness of the vendor (Sparks and Browning, 2011) or information needs (Berger et al, 2010). However, there is little research that explores how online reviews influence pre-purchase service expectations of consumers from an unknown service firm. This is an important research gap as service purchase is risky due to its inherent intangibility and the degree of uncertainty increases if the firm is not well known. This research shows that online reviews are an important source of information that consumers use to develop expectations towards

an unknown service vendor. However, the positive impact of PWOM or the negative impact of NWOM is not homogeneous across all consumers. The results of Study 1 (when consumers are exposed to only online reviews that is generated by existing customers) and Study 2 (when consumers are exposed to both online reviews and a marketer led advertisement photo) demonstrate that the influence of online reviews on service expectations is contingent on certain individual characteristics.

Second, past research has often explored the role of several individual consumer characteristics such as their information processing goals (Relling et al, 2016) or the belief certainty of the receivers (Dubois et al, 2011) as contingency factors on how consumers process information in online reviews. However, there is limited research that explores the influence of culture. This is an important research gap as culture often dictates consumers' approach and avoidance behavior towards uncertainty. This research shows that two dimensions of culture (power distance and long-term orientations) moderate consumers' use of online reviews and influence how they generate pre-purchase expectations towards an unfamiliar service firm. Such a finding is important, not least as it opens a new vista for related and further research to establish how culture of individual consumers influence their online review usage in decision-making.

5.2   Managerial implications

Managers are aware that consumers' evaluations of their stay at a hotel are a function of prior expectations and perceptions of service received. The study reported here concerns itself with particular influences on the level of expectations consumers' will form *ex-ante* based on NWOM and PWOM and cultural orientations of consumers. Methods of manipulating eWOM to ensure that reviews develop a more positive hue are well rehearsed and include (but are not limited to) robust online postings defending the hotel's position in the face of

critical eWOM and inducements and encouragement of PWOM. The research reported here suggests that such strategies are even more critical in country or other contexts where those with a lower power distance orientation are in the majority and where there are more short term oriented consumers. This recommendation may be particularly pertinent in the face of limited resources to deal with such issues in real time.

Beyond that, it is acknowledged that it would not be practical or feasible for managers to establish *ex ante* the cultural orientation of customers in terms of power distance and long term orientation and use such information as a likely guide to expectation levels. However, the knowledge that such traits influence expectation levels is still useful and may assist in areas such as staff training. For instance, those with a high power distance orientation may well exhibit certain behavioral traits in a consistent manner, such as more perfunctory and transactional interactions with staff. Staff could be trained to identify such traits and could be instructed as to the attendant implications for expectations and evaluations on the part of consumers.

6. **Limitations, future research and conclusion**

The study has some limitations that must be acknowledged. First, this study manipulated PWOM and NWOM in equal numbers and similar wordings to reflect the similar intensity of the positive or negative message in them. Future research can vary both the number and intensity of positive or negative reviews to find out their influence on service expectations. Second, the study uses the context of a fictitious service firm to remove the influence of extraneous factors such as brand familiarity or the past experience with the brand. Future studies can incorporate real-life service firms to understand the influence of culture on WOM versus other previous notions of the service brand and compare the influence between well-

known versus lesser known brands. Third, there might be an argument that low power distance individuals, being more self-conscious, are more reluctant to rely on others' advice and this might decrease the influence of eWOM on their expectations. However, this study proposes and empirically verifies the contrary. Future studies can include controls such as situational factors (like offering service guarantee to reduce purchase risk or the message characteristics) and then test the direction of a relationship between cultural variables and service expectations in the context of eWOM.

In conclusion, this research set out to contribute to the understanding of the role of culture on the effects of PWOM and NWOM on service expectation formation. The findings suggest the differential impact of PWOM and NWOM as per the cultural value orientation of consumers. It provides directions to the managers on the use of customer profiling techniques using individual cultural dimensions as the focus.

Appendix

A. Manipulated scenarios (Used in both Study 1 and Study 2)

<u>Imagine that you are the customer involved</u>

You have decided to take a holiday with your friend at an island hotel. You check out several hotels online using a travel guide website that hosts user reviews and offers people 'real advice from real travelers'. You find the following detailed review of the Hamilton Beach Hotel, which is one of the hotels you are considering.

Scenario to represent positive word of mouth with a sample of comments

My friends and I stayed at the Hamilton Beach Hotel in January, and we had a great time.

The food is very good overall, particularly the main dish, and the soup. Traditional local dishes were especially good.

Excellent spa with good service.

Staff is very polite and friendly. They always responded to our requests with a smiling face.

Scenario to represent negative word of mouth with a sample of comments

My friends and I stayed at the Hamilton Beach Hotel in January, and we had a horrid time.

The food was very bad overall, particularly the main dish, and the soup. Traditional local dishes were especially bad.

Bad spa with poor service.

Staff is very rude and unfriendly. They always responded to our requests with a grumpy face.

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