The Influence of Nationality and Service Quality on Positive Affect, Negative Affect and Delightedness

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ABSTRACT

This study examined the interaction effect of nationality and dimensions of service quality on positive affect, negative affect and delightedness. Participants (n=216) viewed eight video clips of staged service encounters. Video clips ranged from 5-8 minutes in duration. Based on an orthogonal design, each video depicted a unique combination of levels of five service quality dimensions: reliability, responsiveness, empathy, tangibles, and assurance (Parasuraman, Zeithaml, and Berry 1988). Following each clip, participants were asked to complete self-report measures of positive affect, negative affect and delightedness. Data were analyzed using linear mixed model procedures. The presence or absence of each service quality dimension in the model was indicated with dummy vectors. Results indicate that service experience of guests is substantially affected by the five service quality dimensions; those dimensions did interact with culture/nationality. The interaction between nationality and reliability, assurance, and empathy was significant for all three outcome variables (delightedness, positive affect, and negative affect). In the analysis of positivity of affect, the interaction of tangibles and nationality was also significant. For negative affect, significant interactions were observed for four of the five service quality factors: reliability, responsiveness, assurance, and empathy. For delightedness, significant interactions were observed for reliability, assurance, and empathy. This study suggests that service providers might optimize guest experiences by focusing on preparation of staff to meet empathy, reliability, and assurance needs of guests, in addition to the other service quality dimensions.

Key words: Service Quality, Nationality, Experimental Design, Positive affect, Negative affect, and Delightedness

INTRODUCTION

The hospitality and tourism industry depends heavily on the quality of affective guest experiences (emotional states) that result from service encounters (e.g., Stauss and Mang, 1999; Williams and Buswell, 2003). Thus, customer emotion (pleasure/positive) is one of the significant antecedents of customer loyalty and intention to purchase (Barsky, & Nash, 2002; Han & Back, 2008; Jang, & Namkung, 2009; Ryu, & Jang, 2007). This guest experience provides a positive effect on the customer purchases. Moroni-Hall observed that “People buy based on emotion, and people rebuy based on an emotional connection” (Gunter, 2006). According to Ellis and Rossman (2008), “it is clear that the extent to which consumers value purchases they make is
determined not only by the utility that is acquired through their purchases, but, often more importantly, for the emotional and motivational states that are associated with the purchase process and with ownership experiences”(p.2).

As a result, a significant body of literature has been developed to describe service quality strategies that may ensure that guest experiences are positive. Among the more notable of these strategies are derived from the SERVQUAL (Parasuraman, Zeithaml, and Berry 1988) and SERVPERF (Cronin and Taylor 1994) perspectives. These models underscore the importance of five dimensions of service quality: reliability, responsiveness, assurance, tangibles, and empathy. When services are provided correctly (reliability), timely (responsiveness), with a sense of competence and commitment (assurance), with obvious concern for the individual guest (empathy), and in an attractive, orderly, and functional setting, guests are expected to exhibit pleasure (positive affect) and a sense of satisfaction with the service encounter. In the absence of such service performances, negative affect is expected, along with low positive affect and low satisfaction.

The service quality factors that are assumed to elicit these immediate guest experiences may, however, function very differently, depending on the personal values and expectations of guests from different cultures (Ladhari, Bressolles, & Zins, in press; Ueltschy, Laroche, Zhang, Cho, & Yingwei,.2009). Many previous research studies (Donthu and Yoo, 1998; Furrer, Liu, & Sudharshan, 2000; Imire, Durden, & Cadogan, 2000; Kettinger, Lee, & Lee, 1995; Malhotra, Ulgado, Agarwal, Shaineshe, & Wu, 2005; Matilla, 1999; Shih, 2006; Winstead, 1997) have found specific service quality dimensions to be of particular importance to people of different cultures (Reynolds and Smith, 2010). As such, it is reasonable to assume that culture may interact with service quality dimensions in terms of its effect on immediate affective experiences of guests. An
important question for service quality in the hospitality and tourism industry, then, is identification of service quality performance elements that are particularly sensitive to people from different cultures. With such information, hosts may structure encounters that produce optimal experiences for guests with diverse cultural backgrounds.

In one study of the effect of culture on service quality judgments, Shih (2006) found a significant effect of culture on guest reports of service quality in a Taiwanese restaurant. That design, however, failed to take into account the confounding effect of the habit of Western travelers/guests to provide gratuities to service providers. This study extended previous research (Shih, 2006; Lee, 2008) on service quality and culture by using an experimental design and controlling for nuisance variables that have not been previously controlled in correlational investigations of the relationships among service quality, culture, and guest experiences with international guests’ perspective. Specifically, this study examined the effect of culture and dimensions of service quality on positive affect, negative affect and delightedness of tourists/guests following a service encounter.

**METHOD**

Data were collected on-site at universities from students, faculty, and staff in three respective countries: China (n = 74), Korea (n=99), and the United States (n=43). The university affiliated population was considered to be acceptable (but not ideal) for the purpose of this study. Substantial cultural differences exist across these three groups. University affiliated populations (students, faculty, and staff) are a group of frequent travelers and guests of hotels. It is important to note, however, that this population is not representative of broader populations of travelers. Direct generalization from this sample to international business and vacation travelers is, of course, not scientifically justifiable. The absence of scientific sampling and differences in age,
current personal income, family composition, travel motives, and a host of other variables render such generalizations to be tenuous at best. The sample does, though, vary by the key concept of interest (nationality), and it does include individuals who have the proclivity to travel. The average number of days of staying at hotel in the past year for this sample was 10.79. The average age was 26.21 years old (range from 18 to 54 years old for US citizen, from 19 to 53 years old for Korean, from 20 to 50 years old for Chinese). The sample consisted of 87 males and 126 females.

Outcome measures included five-item measures of positivity of affect and negativity of affect (Watson and Clark 1994), along with a single item measure of delightedness. Examples of positivity of affect items included “happy,” “friendly,” and “pleased.” The alpha reliability coefficient for the positivity of affect scale was .94. Five items were also used to assess negativity of affect (Watson and Clark 1994). Examples of these items included “upset,” “hostile,” and “distressed.” Cronbach’s alpha for this scale was .91.

Based generally on Kano’s model (Kano, Serku, Takahashi, and Tsuji 1984), a single-item delightedness scale was created by using a graphic of a temperature thermometer. Kano’s model of guest satisfaction asserts that product features that deliver unanticipated value elicit delight; a state of high satisfaction. These features have been described as “Exciting Quality” features in the Six Sigma literature (e.g., Pyzdek, 2003). An example of an Exciting Quality feature would be the unexpected addition of a free breakfast or an upgraded, contour pillow following purchase of a hotel room. Delightedness resulted from unexpected/surprising features of an offering that add value to the experience (Oliver, Rust, & Varki, 1997; Oliver, 2010). The delight of the customer has been identified as essential to survival in a fierce market environment (Whittaker, 1991; Oliver et al., 1997). Delight is considered as resulting from this “high level of surprisingly
positive disconfirmation” (Rust, & Oliver, 2000, p. 87). Oliver et al. (1997) cite another definition of delight from Schlossberg (1993): “Customer delight...is a strong, positive, emotional reaction to a product or service” (p. 314). This identification of delightedness as an emotion is consistent with prior research linking delight to customers’ emotional state (Oliver et al., 1997).

Five descriptors of delightedness levels were positioned at different “mercury levels” on the thermometer: “fully delighted”, “satisfied,” “indifferent,” “dissatisfied,” and “disgusted.” Scores on the single-item measure could range from 0 to 10. Lee, Ellis, and Ralston’s study (in press) supported the validity of inferences that may be made from scores produced by the single-item measure.

Each participant viewed eight video clips of staged service encounters and reported her or his experiences (affect measures and delightedness) following viewing of each clip. Video clips ranged from 5-8 minutes in duration and were recoded in English. To clarify participants’ understanding of the content of video, researchers and interpreters provided vocabularies that are relevant to check-in and check-out procedures before watching the each video. In addition, while viewing the first video clip, interpreters briefly explained the story line. Based on an orthogonal array (See Table 1), each video depicted a unique combination of levels of five service quality dimensions: reliability, responsiveness, empathy, tangibles, and assurance (Parasuraman, Zeithaml, and Berry 1988). In a given video clip, for example, the service encounter portrayed might reflect high reliability, low responsiveness, high empathy, low assurance, and high (positive) tangibles. All video clips included the same actors, the same service encounter, and the same setting, but the script and set were modified to manipulate the service quality dimensions. The video clips were professionally produced. Actors in the video were thee volunteers from the
United States. After each video clip, respondents were asked to imagine that they were in the role of the guest depicted in the scene and then complete the questionnaire containing the positive and negative affect items and the single item measure of delightedness. The English version of the questionnaire was translated into Korean and Chinese. A minimum of three bilingual people for each language examined the accuracy, clarity and naturalness in translation for the questionnaire.

Table 1. Orthogonal array of customer service performance represented in video clips

<table>
<thead>
<tr>
<th>Video Clip</th>
<th>Tangibles</th>
<th>Reliability</th>
<th>Responsiveness</th>
<th>Assurance</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>2</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>3</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>4</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>High</td>
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<tr>
<td>5</td>
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<td>6</td>
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<tr>
<td>7</td>
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<td>Low</td>
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<tr>
<td>8</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

Data were analyzed using linear mixed model procedures. The linear mixed model approach can provide many benefits compared to repeated measures. According to de Bruin, Smits, Rikers, and Schmidt (2008), the benefit of linear mixed model that “Regular repeated measures analyses of variance typically cannot cope with missing data, and only take into account participants with complete data,... Also, these analyses [linear mixed model] estimate group effects,…These models include random regression effects that account for the influence of participants on repeated measurements…,”(p.481).
The orthogonal design of this study included five factors (i.e., tangibles, assurance, empathy, reliability, and responsiveness) and interactions between nationality and each of the five service quality factors. A full model (all main effects and interactions) would involve 11 separate hypothesis tests. Replication across three outcome variables (positivity of affect, negativity of affect, and delightedness) would yield 33 hypothesis tests. At the .05 level of significance, the experiment-wise error rate would be .82.

An approach is required that balances the need for some degree of control of experiment-wise error with the need to retain sufficient power to detect treatment effects given the limited resources available to complete the investigation. The approach taken was a compromise between the need for control of experiment-wise alpha and the need to avoid Type II error (i.e., failure to reject a false null). The approach was to consider the sets of five tests of interaction effects for each outcome variable (positivity and negativity of affect and delightedness) to represent a separate family of comparisons. This is consistent with Maxwell and Delaney’s (2004, p. 291) position that families of comparisons represent “conceptually distinct questions.” By testing each hypothesis within each family at the .05 level of significance, the family-wise error rate was controlled to .226 (i.e., 1-(1-.05)^5). It is notable that the experiment-wise alpha was .537, given this approach.

**RESULTS**

Results are presented in Table 2. Significant service quality-by-nationality interaction effects were identified in all three models. For delightedness, significant interactions were with reliability, assurance, and empathy. For positive affect, significant interactions between nationality and tangibles, reliability, assurance, and empathy were found. For negative affect, nationality interactions were significant for all service quality factors except tangibles.
$R^2_{PRE}$ (proportional reduction in error) values provide evidence of the relative strength of these relationships. The empathy-by-nationality interaction effect is particularly notable. These values were .29, .35, and .38 for delightedness, positive affect, and negative affect, respectively. For delight and positive affect, all other $R^2_{PRE}$ values were less than .05. For negative affect, $R^2_{PRE}$ values were all .18 or higher. These results indicate that individuals representing the three nationalities had very different responses to empathy in the service encounters. Further, the $R^2_{PRE}$ values indicate that, cross-nationality differences in responses to service encounters have much greater effect on negative affect than on delightedness and positive affect.

Table 2. Result of linear mixed model for delightedness

<table>
<thead>
<tr>
<th>Interaction effect</th>
<th>Delightedness</th>
<th>Positive Affect</th>
<th>Negative Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$F$ $R^2_{PRE}$</td>
<td>$F$ $R^2_{PRE}$</td>
<td>$F$ $R^2_{PRE}$</td>
</tr>
<tr>
<td>Tangibles * Nationality</td>
<td>2.46 .01</td>
<td>5.817* .02</td>
<td>1.19 .19</td>
</tr>
<tr>
<td>Reliability * Nationality</td>
<td>3.25* .04</td>
<td>7.42* .04</td>
<td>3.67* .22</td>
</tr>
<tr>
<td>Responsiveness * Nationality</td>
<td>0.16 .04</td>
<td>2.27 .04</td>
<td>3.98* .18</td>
</tr>
<tr>
<td>Assurance * Nationality</td>
<td>14.83* .03</td>
<td>15.26* .02</td>
<td>18.60* .21</td>
</tr>
<tr>
<td>Empathy * Nationality</td>
<td>4.16* .29</td>
<td>3.12* .35</td>
<td>37.68* .38</td>
</tr>
</tbody>
</table>

*p < .05

Interaction plots are presented in Figure 1. Review of those tables reveals the nature of cross-nationality sensitivity to service quality factors. With respect to the interaction involving assurance, participants who were Chinese were less sensitive to assurance changes, as compared to participants from the United States and Korea.
Figure 1. Mean comparisons by nationalities for dimensions of service quality on positive affect, negative affect, and delightedness

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DISCUSSION

Results of this study (taking into account the confounding effect of the habit of Western travelers/guest to provide gratuities to service providers) are consistent with the previous study of Donthu and Yoo (1998) and partially consistent with the study of Mattila (1999). Donthu and Yoo (1998) observed that the “assurance” dimension is an important element for collectivist societies. Assurance was found to interact with culture/nationality for all three variables (positive affect, and negative affect, and delightedness) in this study. Mattila (1999) reported that Western customers place substantial importance on tangible cues. However, this study revealed that tangible was found to interact with nationality for only positive affect and not for negative affect and delightedness.

This study is inconsistent with the studies of Furrer et al. (2000), Malhotra, et al. (2005), and Lee (2008). Furrer, et al. (2000) identified individuals described as “Self-confidents,” who were categorized as possessing small power distance, high individualism, medium femininity, low uncertainty avoidance and long term-orientation, did not put importance on the assurance. However, this study revealed that Chinese participants did not generate a different average score of positive affect, thus good or bad service did not influence assurance. Lee (2008) found no statistically significant service quality-by-culture interaction effect. Perhaps these inconsistent results are a function of different populations studied across these investigations.

Another interesting result in the study is that Korean participants tend to score high on negative affect with all dimensions of service quality. Particularly, the responsiveness for Korean participants scored higher on negative affect than participants from the US and China. This result is not consistent with the study of Malhotra, et al. (2005). That study identified that elements of responsiveness and speed of service were considered as an important attribute by Western
individualist cultures. The result of this study might be related to the Korean cultures’ unique Pali-Pali syndrome (a preference of speed) over service quality.

Overall, this study observed that respondents from the three countries did react differently to manipulations of empathy. Further, it appears that one’s nationality may have a more pronounced impact for negative affect than that of positive affect or delightedness. This observation requires additional research to better understand the role of culture and higher expectation of service quality.

A limitation of this study was participant fatigue. This study required 50 minutes of video viewing and evaluation. Participants were guided to watch the video clips with eight scenarios that were similar in story lines with certain aspects of service quality manipulated. The similarity of the story line may have positively contributed to non-English speaking participants’ understanding of the video but also influenced the boredom and increased fatigue of the all viewers. We observed increased levels of fidgeting and heavy sighs after the fifth scenario. After completing this study, a few participants expressed concerns about the length of this study.

Smith and Reynolds (2002) and Reynolds and Smith (2010) indicated that response bias can be a problem in cross-cultural studies. This study cannot be free from this issue. Response bias includes response sets and response styles. Response sets indicate the respondent’s desire to express a specific image of oneself by the way that they manipulate that image (Watkins & Cheung, 1995). Response style is a habit that provides impact on test participants’ responses. There is clear evidence that response styles differed among people from different cultures. For example, Japanese and Chinese students were more likely to respond at the middle point on the scale than U.S. and Canadian students. U.S. students respond at the extreme value more often than the Japanese, Chinese, or Canadian students (Chen, Lee, & Stevenson, 1995).
The interaction effect of “empathy,” “reliability,” and “assurance” by nationality dimensions on all outcome variables was particularly notable. These results suggest that in preparing frontline personnel in the hospitality industry, managers must not only train workers to maintain an attractive décor, orderly procedures, well maintained environment, accuracy, and responsive service, but they must also attend to communication patterns that communicate assurance and empathy when they encounter international guests/travelers. Practices such as using guests’ names, sharing positive comments about their place of residence, and engaging guests by actively listening and responding to their experiences may be essential for optimizing affective experiences of our guests.

The interactions of tangible and responsiveness by nationality suggest that those who are in the hospitality business might facilitate different needs of both international and domestic guests and then customize their service to enhance their guests’ experiences. Compared to other dimensions of service quality, the interaction effect of empathy and nationality is particularly salient on all three outcome variables. This result indicates that individuals representing three nationalities had very different responses to empathy in the service encounters. In addition, consistent with previous research, the empathy dimension generates significant differences between perceptions of good and bad service (Lee, 2008). Empathy has a notable impact on the positivity of guest’s experience, and the strength of that effect differs by nationality. Therefore, personnel in the hospitality industry need to pay particular attention to empathy. Finally, cross-nationality differences in responses to service encounters have much greater effect on negative affect than on delightedness and positive affect. This result suggests that the failure of accommodating different needs from international and domestic guests will greatly affect guests’ negative experiences.
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