Factor Analysis of Perceived Service Quality of Hospitality Industry in Jaffna District: An Application of Servqual Model

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Abstract- This study seeks to advance the application of SERVAUAL tool for measuring the service quality of hospitality industry in the Northern Province of Sri Lanka. Tourism and hospitality industry played and play significant role to promote the Sri Lankan economic. Quality of the hospitality industry is most significant factor to sustain the business in the contemporary world. In order to realize the maximum share it is imperative to examine as to what factors are determining the service quality of hospitality industry so that strategies can be worked out to get the best. In the analysis it was found that the generic nature of original five dimensional SERVAUAL model was not supported and instead a three factor and two factors was emerged to explain the quality determinants of employees of hospitality Industry.

Keywords: service quality, servqual model, hospitality industry, strategies.

GJMBR-G Classification: JEL Code: M19

Strictly as per the compliance and regulations of:
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I. INTRODUCTION

In modern business environment, the hospitality industry makes a substantial contribution to Sri Lanka’s economic. However, the industry is facing strong competition. Thus every organization pays more attention to create a foundation for their survival in the market by satisfying customers while they are providing quality services which are being extremely perceived by their target customers (Dominici & Guzzo, 2010). In the competitive business world, every organization is trying to define their products and services in terms of its customers’ needs and wants by providing better quality products and services to satisfy them and gain competitive advantage (Zaibaf, Taherikia & Fakhrarian, 2013). As noted by Zeithaml, Berry and Parasuraman (1996), and Cronin, Brady, Hult, (2000), perceived service quality and customer satisfaction are the immense and curious factors in order to be succeeded in the market by gaining competitive advantage among other competitive service providers.

Asubonteng, Mcleary & Swan, (1996) pronounce that service quality is the difference between customers’ expectation before consuming the service and the experience after consuming it. Similarly, Adil, Ghaswyneh & Albkour (2013) point out that service quality is central for organizational success and it needs to be assessed continuously. Meanwhile Grande, Valejo and Moya, (2002) articulate that delivering quality services in the hospitality industry is considered as a differentiating factor to achieve competitive advantage among rivals. Cronin and Taylor (1992) reveal the fact that the perceived service quality significantly effects on customer satisfaction. Baker, and Crompton, (2000), and Magi and Julander, (1996) highlight that in the tourism industry, service quality and customer satisfaction have been a well thought out for the improvement of organizations’ whole performance. In this study Gronroos’ model (SERVQUAL model) has been used to measure the perceive service quality. This model consists of technical and functional quality. Parasuraman, Zeithaml and Berry (1985) categorize ten service quality dimensions under SERVQUAL model as reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding customers and tangibility which are categorized under the functional quality of this model. In this model, technical quality dimensions which was neglected in measuring service quality.

As described by Gronroos (1984), technical quality means what customers’ are given while having the interaction with that service organization and the functional quality means how the service is received by the customers from the service providing organization. Gronroos’ model is a significant method to evaluate service quality however it has a criticism. For example Kang and James (2004) criticize that this model failed to contemplate the direct influence of functional and technical quality on customer satisfaction. Again in 2006, Gronroos point out that a firm must understand consumer’ perception of the service quality to compete effectively and the way perceived service quality is influenced (Gronroos, 2006).

Within the literature number of studies has been conducted in measuring of the perceived service quality all over the world in different countries, context and situation, there are few studies have been conducted regarding this relationship in hospitality industry in Northern Province of Sri Lanka. This study provides valuable insights to the service quality literature by investigating the SERVQUAL model in Northern Province in hospitality industry.
II. Literature Review

Numerous examples from within the literature emphasize the importance of service quality and customer satisfaction, especially in the hotel industry. Academics and international organizations have conceptualized and used the term service quality in different ways. Adil, Alghaswyneh, and Albkour (2013) point out that service quality is being considered as a main factor for strategic value adding for the organizations. As noted by Henning-Thurrau, Langer, and Hansen (2001), service quality determines consumer behavior and induces customers to fix a level of relationship between organization and customers. Consequently this relationship leads to customer loyalty. Service quality significantly has an effect on consumers’ behavior in order to differentiate a particular service provider from other rivals which are in the same industry and to make customers satisfied (Kandampully, 2000; Parasuraman et al., 1985). Zeithaml and Bitner (1996) articulate that service quality is about providing superior service than customers’ expectations. Service quality is a result of an assessment done between customers’ expectations and perception from the service consumed (Gronroos, 1994; Caruana, 2002). Overall impression on an organization’s service offerings is called as service quality (Johnston, 1995). Wisniewski and Donnelly (1996) reveal that the service quality means at what extent the service encounters customers’ expectations. Parasuraman, Zeithaml, and Berry (1988) state that service quality is an overall evaluation of either an organization or its services over a period of time. According to Bala (2013) customer satisfaction is an emotional state that emerges either from customers’ perceived benefits or expectations of services. If expectations exceed perceived benefits customers will be satisfied, on the other hand if perceived benefit exceed expectations customers will be satisfied (Chi Lin, 2003). Generally, if customers are satisfied with the product or service offerings they will continue to buy and also they will willingly spread information about their consumption, consequently it will lead to positive word of mouth (Oanda, 2015).

Much of marketing literature to date makes the point that conceptualization of customer satisfaction is difficult (Edvardsson, Johnson, Gustaffson, & Standvik, 2000; Gustaffson, Johnson, & Roos, 2005). Onda (2015) argues customer satisfaction is just satisfying customers but it means to retain customers for longer period of time. Satisfaction is customers’ attitude that changes time to time (Eshghi, Haughton, & Topi, 2007). As noted by Kotler & Armstrong, (2012), satisfaction is reflected in the evaluation of post-purchase in terms of pre-purchase expectations. Likewise Severt (2002) describes that satisfaction is a customers’ emotional state that emerges from the relationship with the service providing organization. Pedraja Iglesias and Jesus Yagüe Guillén (2004) reveal the fact in their research that the satisfaction is felt when the perceived rewards exceed the sacrificed experience which includes monetary expenses to buy the service, time spent, energy expended to reach the hotel. Consumers feel two kinds of satisfactions. First one is, they are satisfied by the serving manner and behavior of employees and the second one is the overall impression on the firm (Jones & Suh, 2000).


The hospitality industry faces challenges due to the advancements in technology and globalization. Thus it needs to adapt the ways to deliver the service in accordance with new line of attracting to get the best out of customer satisfaction (Murasirawa, Nield & Ball, 2010). Service quality as a determining factor that is responsible for customer satisfaction or dissatisfaction (Tripathi, 2013) which will result in word of mouth spreading, customer retention and loyalty (Gopalakrishnan, Mishra, Gupta, & Vetrivel, 2011).

Generally SERVQUAL model can be applied in any service sector to evaluate service quality (Parasuraman et al., 1988). SERVQUAL model leads to measure customer satisfaction in the respective context of the study (Harr, 2008). In 1985, Parasuraman and his colleagues (1985) developed ten dimensions of service quality. Three years later Parasuraman et al., (1988) narrowed down these ten dimensions into five dimensions such as tangibility, reliability, responsiveness, assurance and empathy. Zaibaf et al. (2013) indicate in their study that the functional quality includes the ten SERVQUAL model dimensions of service quality. In order to fulfill customers’ perception, organizations should understand clearly that what customers expect from them and how they can deliver the service effectively.

Naresh, Francis, James and Imad (1994) stated that the service reliability means providing the service consistently and accurately. Reliability is delineated as “the ability to perform the promised service dependably and accurately” or delivering on its promises” (Zeithaml, Bitner & Gremler, 2006, p.117). Responsiveness means a promptly and adequate response to the enquiries, requests, questions and complaints made by customers (Zeithaml et al., 2006). Parasuraman et al., (1988) stated
that responsiveness means an organizational employees' consideration in timely solving problems. Naresh et al., (1994) said that in order to provide the quality service, service providers with adequate knowledge and skills is essential that is called as competence. Inseparability as a characteristic of service, it means that it is difficult to separate the production and consumption of services. Thus access as one of the service quality dimensions, it is essential to contact the service provider on time (Naresh et al., 1994).

Courtesey is defined by Naresh et al., (1994) that service suppliers' physical appearance, behavior and the numbers of them will determine in respecting customers’ precious values and norms. Service providing organizations cheer positive word of mouth communication which is one of the dimensions of perceived service quality. In many circumstances, customers are willing to get opinions and suggestions from others before consuming. Thus detailed information need to be communicated to consumers (Naresh et al. 1994). Credibility of service provider comes as a determinant of getting benefits by customers but it is difficult to assess the service before consuming it due to the intangibility and inseparability characteristics (Naresh et al. 1994). Under service quality dimensions, the security is viewed into two such as: physical and functional security which must be ensured to customers while getting and using service benefits (Naresh et al.1994).

Customer as the king in the business world, firms must understand customers’ perception of the service quality to compete it fruitfully (Naresh et al.1994). Tangibility is defined as the physical facilities, equipment, personnel and written documents (Zeithaml et al., 2006). Tangibility as a service quality dimension, it includes physical building of organization, physical features of employees and facilities which have been offered (Hurley & Estelami, 1998). A promise to offer physical benefits along with core benefits is called as tangibility (Naresh & Francis, 1994).

Gronroos (1984) mentions that service quality have two types of qualities. First one is what the customer is offered that referred as technical quality and how the customers are offered that referred as functional quality. Parasuraman, Zeithaml and Berry (1985) refer the functional quality as "process-related" dimensions of service quality and technical quality as "outcome-related" dimensions of service quality (p 41-50). Functional quality dimension influences more on perceived service quality than technical quality dimension (Parasuraman et al., 1985).

Gronroos (1984) says that customers and service providers can easily appraise the functional quality compared with technical quality of service quality dimensions. Functional service quality dimensions have more influence on perceived service quality than the influence of technical quality on perceived service quality. Technical quality as one of the service quality dimensions that involves with both the human and physical resources. Technical human resources dimension includes the technical knowledge and ability required to perform the service and the technical physical resource dimension includes the machines, materials, facilities and the technology necessary to perform the service (Brogowicz, Andrew, Linda &David, 1990).

III. Research Design

The present study is based on tourists’ opinion in measuring the quality of hospitality industry. This study draws empirical inferences based on the primary data collected from the tourist respondents through a structured questionnaire. The questionnaire consists two parts. The first part deals with the variable in the statement format. Here respondents are requested to give their rating about the traits, characteristics and behavior of the employees considered and felt by them to be the most ideal and effective at the hotel they are consuming. The response collected on different variable were on a five point scale ranging from strongly agree to strongly disagree. The second part of the questionnaire aims at elucidating information pertaining to respondents themselves like their gender, age, home country and staying period. Purposive sampling method has been used to collect the data. In total 230 questionnaires were issued out of which 164 were complete in all respects and were used for the final study. Reliability analysis is done using Alpha (Cronbach). This is a model internal consistency, based on the average inter – item correlation. A reliability score of 0.796 was achieved. Any score above 0.7 can be considered to be a good score for the reliability of the instrument.

IV. Discussion

An Exploratory Factor Analysis (EFA) of the factor structure of the SERVQUAL scale used undertaken with SPSS to examine the factor structure of variables. The EFA procedure employed is “principle components method” for extraction with “varimax rotation” and factors with eigen values greater than one were alone retained (Hair, Anderson, Tatham and Black, 1998). Factor analysis is the permutation of multi – variate statistical methods primarily used to identify the underlying structure in data. Factor analysis refers to the cluster of inter – dependence techniques whereas it summarizes the information from a large number of variables into factors, depending on their relationship (Hair et al., 1998). As noted by Hair et al., (1998), conservative factor loadings of greater than 0.50 were to be considered significant at 0.05 levels of significance.
In order to study the suitability of construct for taking up factor analysis, Bartlett’s test of sphericity (which tests the hypothesis that the matrix is an identity matrix) should be significant. It is a statistical test for estimating the overall significance of all correlations within a correlation matrix. The test result as shown in tables 1 shows that it is highly significant (Sig. = 0.000), which indicates that the factor analysis processes is correct and suitable for testing multi-dimensionality.

Table 1: KMO and Bartlett's Test Measure of Perceived Service Quality

<table>
<thead>
<tr>
<th>Kaiser – Meyer – Olkin Measure of Sampling Adequacy</th>
<th>0.952</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett’s test of</td>
<td>3.873E3</td>
</tr>
<tr>
<td>Sphericity</td>
<td>231</td>
</tr>
<tr>
<td>Sig</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The KMO which is a measure of sampling adequacy is found to be 0.952 (see table 1) in the case, the sample used is adequate as the minimum acceptable value of KMO is 0.6 (Kim & Mueller, 1978). Therefore, it can be concluded that the matrix did not suffer from multicollinearity (i.e. variables that are very highly correlated) or singularity (i.e. variable that are perfectly correlated). Small values for the KMO indicate that a factor analysis of the variable may not be appropriate, since the correlations between variables cannot be explained by the other variables (Norusis, 1993). The KMO measure is an index for comparing the magnitudes of the observed correlation coefficients to the magnitudes of the partial correlation coefficients.

Exploratory Factor Analysis—Principal Component Analysis: Perceived Service Quality

On conducting EFA by way of Principal Component Analysis method, three eigen values are extraction sums of squared loadings total, exceeded one with percentage cumulative variance explained was 66.320 in case of perceived service quality.

Table 2: Total Variance Explained - Factor Analysis

<table>
<thead>
<tr>
<th>Perceived Service Quality</th>
<th>Initial Eigen Values</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>1</td>
<td>12.246</td>
<td>55.663</td>
<td>55.663</td>
</tr>
<tr>
<td>2</td>
<td>1.312</td>
<td>5.963</td>
<td>71.777</td>
</tr>
<tr>
<td>3</td>
<td>1.033</td>
<td>4.693</td>
<td>76.797</td>
</tr>
</tbody>
</table>

Factor analysis of Perceived Service Quality

Factor analysis of perceived service quality was conducted and the component matrix was rotated to improve the solution. The result is at table 3. The interpretability of the factors can be improved through Rotation. Rotation maximizes the loading of each variable on one of the extracted factors whilst minimizing the loading on all other factors. Rotations work through changing the absolute values of the variable whilst keeping their differential values constant. As seen from the table 3, original five dimensional models as such are not supported. Factor analysis of Perceived Service Quality is given a two dimensional model. Values of factor loadings less than 0.5 are not selected to be in the final output (Hair et al., 1995). It is seen from the SPSS output that all 22 items were retained implying the contribution of these items to service quality. Also it is seen that some items did not load into their – prior categories. The tangibles dimension having items from Q1 to Q4 was retained as was in original construct.
Table 3: Rotated Component Matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q14</td>
<td>.795</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q10</td>
<td>.766</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q20</td>
<td>.705</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q11</td>
<td>.695</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q18</td>
<td>.673</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q12</td>
<td>.644</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q22</td>
<td>.624</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q21</td>
<td>.622</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q16</td>
<td>.613</td>
<td>.534</td>
<td></td>
</tr>
<tr>
<td>Q15</td>
<td>.578</td>
<td>.549</td>
<td></td>
</tr>
<tr>
<td>Q19</td>
<td>.561</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q13</td>
<td>.519</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q6</td>
<td>.749</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q8</td>
<td>.727</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q17</td>
<td>.669</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q9</td>
<td>.629</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q5</td>
<td>.629</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q7</td>
<td>.619</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>.797</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td>.780</td>
<td>.730</td>
<td></td>
</tr>
<tr>
<td>Q4</td>
<td>.730</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td>.669</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis
Rotation Method: Varimax with Kaiser Normalization
a. Rotation converged in 8 iterations

V. Conclusions

The present study clearly established that the original five dimensional model of SERVQUAL is not generic one and few dimensions of service quality as proved by few researchers were fused to form a factor. At minimum service level the solution emerged was a three factors one and at superior service level it was two factors model. The employees need to draw cues from the individual parameters or items making up the factor and build up the strategies to realize the best potential available. The service provider had to give utmost priority to reliability parameters and Customer Handling items as brought out in the factor analysis. The frontline staff and the marketing personnel need to be sensitized on these items. Quality assessment is not a one time exercise and the service provider need to periodically assess and revisit the service delivery process as the expectations and perceptions of the customers keep changing.

Major limitation of this study has the sample collected was from one geographical area (Northern Province) and limited in member. Though the method applied, Exploratory Factor Analysis is quite adequate for the purpose of deciphering the principal factors that explain the quality, future researchers can work on Confirmatory Factor Analysis and advance the SERVQUAL tool application further to the service industry. Also further research may focus on comparative studies among hospitality industry with regard to the factors determining the choice of an employee.

References Références Referencias


