ABSTRACT

This research attempts to find the impact of service quality on customer satisfaction and retention in Maldives tourism industry. To measure the variables used in the research, a 5-point Likert type questionnaire for performance-only-measure was developed, as in SERVPERF model. A total of 30 questions, including the 22 questions in original SERVQUAL scale, along with additional questions to measure the dependant variables, Customer Satisfaction was included. The independent variables used were, Responsiveness, Assurance, Tangibles, Empathy and Reliability. A descriptive and explanatory research design was selected for this study. A total of 120 samples from different types of tourist establishments, such as Resorts, Guest Houses and Safari Boats were taken using random probability sampling. The data collected was analysed using SPSS 21.0 software, performing descriptive, regression and correlation analysis. The results of this study confirmed three aspects of service quality, Responsiveness, Tangibles and reliability to have positive and significant impact on customer satisfaction. According to the analysis done, Assurance and Empathy does not show an impact on customer satisfaction and retention. As this study was done across all types of tourist establishments in Maldives, a general view is portrayed, and to determine the exact impact of a dimension on a particular tourist establishment, future study is anticipated.

Key terms: Service Quality, Responsiveness, Assurance, Tangibles, Empathy, Reliability, Satisfaction, Tourism Industry, Maldives
1. **Introduction**

The Purpose of this research is to investigate the impact of service quality on tourist satisfaction and retention in Maldives. Service quality is a prevalent topic in the literature on which many researchers have conducted numerous investigations (Kotler & Keller, 2012; Solomon, 2009; Jain & Gupta, 2004; Getty & Getty, 2003; Zeithaml, 2000; Juran & Godfrey, 1999; Zeithaml, 1988; Berry et al., 1985; Parasuraman et al., 1985; 1988; Grönroos, 1984). Service quality is believed to influence the behaviours and attitudes of the customers towards the business. Likewise, many studies can be found that analyse the impact of service quality on customer satisfaction and retention (Minh et al., 2015; Rao & Sahu, 2013; Bhat & Qadir, 2013; Albayrak et al., 2010; Karunaratne & Jayawardena, 2010; Ibáñez et al., 2006). Among them, many studies have found positive relationship between service quality and customer satisfaction and retention (Tawinunt et al., 2015; Khan & Fasih, 2014; Bhat & Qadir, 2013; Karunaratne & Jayawardena, 2010; Ibáñez et al., 2006).

The importance of service quality is mounting at a rapid pace in all aspects of businesses and especially in the service oriented businesses. And current competitive conditions demand businesses to incorporate strategies to improve their service quality to survive in the ever escalating competition (Palić et al., 2011; Scanlan & McPhail, 2000). It is a decisive factor in the service industry, especially in an industry like tourism which gives high importance to provide quality service.

As customer satisfaction is a concept in the limelight nowadays, many businesses today devise strategies to achieve this objective to enhance business growth and revenue (Tawinunt, et al., 2015; Bhat & Qadir, 2013; Hapenciuc & Condratov, 2007). Hence, the businesses integrate innovative approaches to gain more customers, and among these one of the most effective ways to address this issue is through the retention of old customers (Reichheld & Sasser, 1990), the cornerstone of which is customer satisfaction (Keshavarz & Nezakati, 2013). Therefore, businesses should plan their marketing tactics considering these facts, along with the purpose of creating value for customers (Hapenciuc & Condratov, 2007) and emphasize on relational marketing approaches (Palić et al., 2011) besides targeting to attract new prospective customers to create a substantial customer base. This is a more indirect but strategic form of marketing to retain customers and to reap the benefits in the long run (Tawinunt et al., 2015; Ojo, 2010; Hapenciuc & Condratov, 2007).

The tourism sector is no different in this regard, but as it’s becoming more service oriented and customer conscious, it is more geared than other industries towards improving service quality and satisfying their customers. Tourism industry in Maldives is growing at a rapid pace, and also the biggest contributor of its GDP (Ministry of Tourism, 2014). The subject of service quality and customer satisfaction is of utmost importance to a country like Maldives which depends heavily on tourism. But as of now, no research in this topic has been conducted specifically in the context of Maldivian tourism industry, but there are lots of research done on other developing nations, for instance on Jordan (Al-Rousan, et al., 2010; Hersh, 2010), on India by Rao & Sahu (2013), Sri Lanka (W.H.D.P, 2014), Pakistan (Shafiq, et al., 2012), Malaysia (Ali, 2015) and on Vietnam by Minh, et al. (2015). But tourism related research on other topics for Maldives can be seen in the literature, but not found in plenty (citation) (Kundur, 2012, Niyaz, 2011, Auvray, 2010, Domroes, 2001).

The subject of service quality and customer satisfaction and retention has been cited frequently in the literature, but the impact of service quality on customer satisfaction and retention in Maldives tourism industry has never been investigated to date by any researcher.

As tourism is the biggest contributor to its GDP, and this sector creates the most employment opportunities for the citizens (Ministry of Tourism, 2014), the industry should be analysed in various aspects to find the current state of the industry in order to come up with strategies to counteract the developing issues proactively, as this is how development is made and how competitive advantage is gained through research.
2. Literature review

Service is an intangible act that acts as an essential medium for a company offer to reach the customers, where it does not transfer the ownership from the service providing party to the customer (Kotler & Keller, 2012). Quality has been defined in numerous ways by different authors. Solomon (2009) defines it as one of the things that the customer seeks when they pursue an offer. In Japanese philosophy is translates to zero defects in what is presented (Jain & Gupta, 2004). A description of ‘Quality’ which closely relates to the context of this research is articulated by (Juran & Godfrey, 1999) which debates quality as the ‘features of an offer’ that fulfils customer requirements and brings customer satisfaction. In this regard, they argue customer satisfaction as the anticipated outcome by providing higher quality. ‘Service Quality’ is defined by Zeithaml (1988) as the excellence or brilliance of a service, and further goes on to describe ‘perceived service quality’ as the appraisal of the overall merit of an entity by a customer. In the context of hotel industry, service quality is defined as confirmation to requirements while satisfying customer expectations (Mbuthia et al., 2013). Service quality is more complex to be quantified and verified in a direct manner as product quality (Senge & Olivia, 1993; Mbuthia, et al., 2013). Especially in service industry, a big challenge is faced in measuring service quality due to its subjectivity and intangibility (Senge & Olivia, 1993). The intangible nature of service has brought forth the recognition that service quality perceptions results from customers comparison of their expectation and the actual service they experienced from the service provider (citation). One of the earliest conceptualizations on Service quality was made by Gronroos (1982, 1984) where Service Quality was defined using technical and functional dimensions (Baharun & Feiz, 2012). Parasuraman et al. (1985; 1988) emphasizes on “gaps” between expectations and actual service delivery when defining service quality, and this is the most widely used model until now (Minh et al., 2015). SERVQUAL is designed to measure service quality as perceived by the customer and customer expectations are measured in assessing the overall service quality (Asubonteng et al., 1996). But (Cronin & Taylor, 1992) eliminated the “expectation” component from SERVQUAL model and made SERVPERF scale which solely measures the “performance” to evaluate service quality. SERVPERF was considered more enhanced since it has 50 percent less items than SERVQUAL scale (Minh et al., 2015). However, the requirement of generalizing on certain areas while taking into account the impact of other external factors, like the environment etc. directed criticism on this scale (Jain & Gupta, 2004). And since SERVQUAL is generic, Knutson, et al. (1990) developed LODGSERV to be used specifically in the hotel industry to measure service quality. But since service quality should not be measured only from customer's perspective, as it won't give the real picture of the service quality level (Cronin & Taylor, 1992) It measured Service Quality based on how customers perceive the service, wherein when the performance exceeds customer expectation, the service quality is rated high and if the performance falls below expectation, the quality is classified as low (Parasuraman et al., 1985; 1988). SERVPERF came into existence after some researchers did not fully approve the fundamental idea behind SERVQUAL model of measuring the “gaps” in service delivery as the most accurate method to assess service quality (Minh et al., 2015). They claimed that “Performance” should be used instead of “Expectations”, and as a result, a new model called SERVPERF, a single-item scale which centred on performance rather than “gaps” to measure the Service Quality, was recommended by Cronin & Taylor (1992). They were the first researchers to theoretically justify and discard the “expectations” of SERVQUAL to measure service quality only by using performance measures.

There are many service quality models that are used in measuring service quality (Grönroos, 1984; Parasuraman et al., 1985; 1988; Cronin & Taylor, 1992; Dabholkar, et al., 1996; Brady and...
Cronin, 2001). The first attempt towards formulating such a model was made by Grönroos in 1984 which was based on technical and functional dimensions. The earliest recorded model of service quality measurement was developed by Grönroos (1984), where service quality is described in terms of features associated with outcome or technical aspects and functional or process related aspects (Kang & James, 2004; Balasingh, et al., 2006; Laroche et al., 2004). This model is based on disconfirmation theory and compared observed performance versus expected service. This model is criticized for lacking the means to measure technical and functional quality apart from being too general to depict specifics of service quality, for instance, lacked components like social responsibility, service tangibles and inadequate description of service encounter (Kang & James, 2004; Balasingh et al., 2006). Retail Service Quality Scale (RSQS) is a model proposed by Dobholkar, Thorpe, & Rentz (1996) after they tested the effectiveness of SERVQUAL model in measuring service quality and found out it's incapacity to measure service quality in retail store environment. Even though this finding was against using SERVQUAL in retail environment setting, it does not prevent the model from being applied to setting of this research, where this model will be used to measure service quality in tourism service industry. A Hierarchical and Multidimensional model to measure Service Quality was proposed in 2001 by Brady and Cronin by combining four models. The four models combined are, the Nordic model (Grönroos, 1984), SERVQUAL model (Parasuraman, et al., 1988), Three Components Model by Rust and Oliver (1994) and Multilevel Model by Dabholkar et al. (1996). This model is comprised of three primary level dimensions, which are interaction, environment and outcome quality (synonymously named as, functional quality and technical quality for interaction quality and outcome quality, respectively). These three dimensions are further categorized into three sub dimensions per each dimension. According to Pollack (2009) this model proposed by Brady & Cronin in 2001 addressed the issue of measuring service outcomes which was deficient in SERVQUAL. Results show the hierarchical instrument as the most beneficial approach to service quality assessment to date (Pollack, 2009). HOLSERV is a new variant derived from the SERVQUAL scale with some additions and omissions of items to the original SERVQUAL scale. It is considered more reliable instrument than SERVQUAL to measure service quality in hotel industry. This is a questionnaire arranged in a single-column design, where total of eleven items are changed from original SERVQUAL model, leaving total 27 items in the final scale. It is shorter in length and also considered more user-friendly (Mei et al., 1999).

Conceptual Framework

Based on the findings of this study, a conceptual framework is proposed below to carry out this study, taking into consideration the contextual setting of Maldivian tourism industry, where the variables of this study will be tested.

![Conceptual Framework](image)

Reliability means the ability of a service provider to deliver the promised services honestly and consistently (Blery et al., 2009). Customers seek services upon which they can depend on (Khan & Fasih, 2014). For this reason, reliability is a crucial factor that is measured while gauging service quality (Mei et al., 1999). It's a very common dimension used in almost all of the service quality measuring models, showing it's relation with customer satisfaction and retention. The relation between dimensions of service quality and customer satisfaction was examined by Ibáñez et al. (2006) where they found a substantial association between reliability and customer satisfaction (Khan & Fasih, 2014). In fact, reliability was pointed out by many researchers as one of the most
influential dimension inducing customer satisfaction. In the tourism setting, reliability of service can be broken down into sub dimensions like employee specialisation, hotel security, and accurate maintenance of account information detail (Chang, 2011).

**H1: Reliability has a positive significant impact on customer satisfaction**

It is believed that if employees of organizations display trustworthy behaviour, the satisfaction level of customers can be enhanced significantly (Khan & Fasih, 2014). It may also encourage repurchase or retention intention of customers (Ndubisi, 2006; and Ndubisi & Wah, 2005). Customers pursue approaches to assure quality in service delivery in order to maximize their satisfaction about the service experience and recuperate from service disappointments (Youngdahl & Kellogg, 1997). Significance of Assurance attribute in customer satisfaction was proven by many researchers (Bhat & Qadir, 2013; Karunaratne & Jayawardena, 2010) who empirically tested satisfaction in relation to service quality.

**H2: Assurance has a positive significant impact on customer satisfaction**

Tangibles rank amongst the top aspects that bring customer satisfaction according to many researchers (Rao & Sahu, 2013; Bhat & Qadir 2013; Canny, 2013; Karunaratne & Jayawardena, 2010). In their study on the relationship between tangible and intangible components within tourism industry on customer satisfaction, Albayrak et al. (2010) found that tangible elements play a more significant role in overall customer satisfaction than the intangible elements, as adaption and renewal of tangibles is considerably more simple and straightforward. To further strengthen this idea, Jones and Lockwood (2002) have recommended paying special attention on tangible elements in a hotel setting to increase the likelihood of customer satisfaction.

**H3: Tangibility has a positive significant impact on customer satisfaction**

In their study, Iglesias & Guillén (2004) reported the close connection empathy has with customer satisfaction along with other researchers like Al-Marri et al. (2007) asserting the same relation. This dimension not only made the customers happy, but also served as a crucial forecaster in enhancing the economic performance of the company in the future. The empathetic attitude towards the customer incites a sense of importance in the customer and hence, leads to retention behaviour and also customers to recommend the business to others (Wieseke et al., 2012). Empathy was found as the most important factor leading to customer satisfaction in the research done by Minh et al. (2015).

**H4: Empathy has a positive significant impact on customer satisfaction and retention.**

Responsiveness is the enthusiasm of the staff to assist customers and provide prompt service to them (Parasuraman et al., 1985). According to (Kotler & Bloom 1984) customer satisfaction mainly originates from the excellence of responsiveness from service staff towards a customer during service delivery. Responsiveness, specifically in the context of room booking system, was a major attribute that counted towards overall customer satisfaction about the Hotel (Parvin et al., 2014). Many research conducted on tourism industry highlights the important role of responsiveness in promoting customer satisfaction (Karunaratne & Jayawardena, 2010) and lack of it leading to customer dissatisfaction (Berry et al., 1985).

**H5: Responsiveness have a positive significant impact on customer satisfaction**

3. **Methodology and Design**

A research is a study conducted in a systematic manner by collecting data and evaluating results in order to find answers to the questions suggested in the study (Krauss, 2005). This section will expound on the way this study will be carried out, by explaining the research paradigm, research design and research methodology that will be followed to find answers to the research questions that are put forward.

Since this research is aimed at finding the causal relationship between the different variables used in the study, an explanatory or analytical approach will be adopted to address this part of the study. This will make the research to be very structured in order to reach a conclusion. Also since the study aims to provide an accurate and valid representation concerning the research variables, denoting its descriptive nature a descriptive approach also will be incorporated. Therefore, the proposed
research will be explanatory. For this study, a quantitative method will be adopted, since quantitative data will be collected by administering Likert type survey questionnaires. Secondly, the study is conducted to find the causal relationship between variables, service quality and customer satisfaction. By adopting this method, it will enable to test theories pertaining to the research and the hypotheses proposed by researcher regarding service quality dimensions and its impact on customer satisfaction and retention. It will further enable to collect large amounts of data which can give a more clear and accurate view to address the research problem. It also eliminates the biases and personal influences from affecting the outcome of the research when presenting the results.

Data Collection

Primary data collection method will be adopted for this study. This makes the data used in the research more accurate and up-to-date that will represent the population more closely from the samples retrieved primarily, in contrast to the data obtained upon depending on another source, like published materials or even from unpublished resources. (Hox and Boeiji, 2005)

Sample Size and Sampling Techniques

Since the scope of this study encompasses the tourism industry of Maldives as a whole, primary samples were collected randomly from different groups belonging to different types of tourism establishments throughout the nation. This is a form of quantitative sampling which is typical of descriptive researches. Random sampling is when a sample of the population has the equal chances of being chosen (Delice, 2010). For data collection, a total of 150 questionnaires were distributed and got adequate data from 120 questionnaires, with a response rate of 80%. Hence, these 120 qualifying questionnaires were used for the analysis of this research. The respondents comprised of tourists who had stayed in a Resort, Guest House or a Safari Boat, which comprise the overwhelming major of tourists visiting Maldives.

<table>
<thead>
<tr>
<th>Establishment</th>
<th>Location / Island</th>
<th>Qty Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Airport</td>
<td>K. Atoll, Hulhule’ Island</td>
<td>75</td>
</tr>
<tr>
<td>Reveries Diving Village</td>
<td>L. Atoll, Gan Island</td>
<td>10</td>
</tr>
<tr>
<td>Islandway Etoos Guest House</td>
<td>K. Atoll, Guraidhoo Island</td>
<td>15</td>
</tr>
<tr>
<td>Beachwood Hotel Blue Shark</td>
<td>K. Atoll, Maafushi Island</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>120</td>
</tr>
</tbody>
</table>

Random probabilistic sampling technique was incorporated as it curtails biases and will be more representative of the target population, increasing the chances of a selected draw from belonging to the sample, which will enable to further project the results more accurately constructed upon the sample population (Delice, 2010).

As shown in the table, the majority of respondents were from International airport, and permission from the Maldives Airports Company Limited was obtained prior to conducting survey in airport. For this, the researcher went to the Airport and approached tourists at random, at first by asking permission from them to participate in filling up the questionnaire. At first, the questionnaire was only in English language as it will be understood by most of the tourists, but since the majority of tourists at airport were from Chinese and there was a language gap, the questionnaire was reprinted in dual languages with Chinese translations included. This speedup the process very much and saved a lot of time compared to the first day at airport. But it took few weeks to collect the information from respondents at the airport. However, to some Guest houses situated in K. Maafushi, Guraidhoo
and L. Gan, the questionnaires were sent to the Guest Houses, and management was very helpful in administering this questionnaire to their tourists.

**Ethical Issues and Management**

Due to various circumstances a researcher might face on the process, it is of utmost importance to follow the ethical guidelines for the interest of both the parties. One crucial factor in this regard is obtaining consent prior to conducting research, explaining the purpose of the study and whether any risks, if any, are involved in taking part in the research (Fouk & Mantzorou, 2011).

First, norms promote the aims of research, such as knowledge, truth, and avoidance of error. Second, since research often involves a great deal of cooperation and coordination among many different people in different disciplines and institutions, ethical standards promote the values that are essential to collaborative work, such as trust, accountability, mutual respect, and fairness.

**Data Analysis Plan**

Quantitative approach was incorporated and data collected was converted into numerical form before analysing. As such, to analyse the data collected for the research, many statistical and data analysis software's were considered. Among them, IBM SPSS software was chosen since it’s very reliable software effectively used by many researchers and institutions having a good history of accurate results (PALLANT, 2005), along with easy user interface and wide variety of options. After data entry into the SPSS software, descriptive statistics of the questionnaire will be generated using SPSS to confirm its normality using the two main indicators of normality, skewness and kurtosis value. Afterwards, reliability testing will be carried out, which will give the Cronbach’s Alpha coefficient that determines the reliability and validity of the scale in measuring the data collected. Then to find the suitability of the sample collected in generating a meaningful outcome for the purpose of this research, in this context, the impact of service quality on customer satisfaction and retention in Maldives tourism industry, correlation and regression will be conducted using the SPSS software.
4. Results and Discussion

Correlation Analysis

The below table depicts the results of the correlation analysis generated using a two-tailed significance test on all the dimensions of service quality to determine Pearson’s Correlation coefficients. The service quality dimensions which comprise Responsiveness (RS), Tangibles (TG), Assurance (AS), Empathy (EM) and Reliability (RL) were chosen as independent variables while satisfaction and retention (CS) was taken as the dependant variable.

| Table 2: Correlations Analysis-Customer Satisfaction |
|---------|---------|---------|---------|---------|---------|
|         | RS      | AS      | TG      | EM      | RL      | CS      |
| Pearson | 1       | .2      | .56     | .30     | .43     | .58     |
| Correlation | 5       | 4**     | 5**     | 0**     | 8**     |
| Sig. (2-tailed) | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    |
| N       | 120     | 120     | 120     | 120     | 120     |

| Pearson | 1**     | .00     | 2       | 9**     |
| Correlation | 8       | 12      | 12      | 12      |
| Sig. (2-tailed) | .00    | 0.93    | 0.09    | 0.00    |
| N       | 120     | 120     | 120     | 120     |

| Pearson | .03     | .43     | .51     |
| Correlation | 2       | 3**     | 2**     |
| Sig. (2-tailed) | 12     | 0.00    | 0.00    |
| N       | 120     | 120     | 120     |

| Pearson | 1       | .00     | 0       |
| Correlation | 8       | 0       | 0       |
| Sig. (2-tailed) | 1       | .25     | .17     |
| N       | 120     | 120     | 120     |

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Correlation is carried out to find the relationship between variables. The correlation coefficients span on a range of -1 to +1 where -1 represents perfect negative correlation and +1 representing perfect positive correlation (Landau & Everitt, 2004). The correlation coefficient value should be within a certain range for it to be considered valid and accurate, as such it should not exceed 0.75, likewise correlations are assumed problematic if the value reaches or exceeds beyond 0.8. By analysing the results of the correlation table, most dimensions of service quality have strong relationship with customer satisfaction and retention except Empathy and Assurance, which had values of 0.177 and 0.235 respectively. The ‘Responsiveness’ dimension correlated with a value of R=0.588, making it the dimension with the strongest association with dependant variable customer satisfaction amongst the five service quality dimensions. Responsiveness has a positive effect on customer satisfaction and retention. Responsiveness plays a key role in satisfying customer in tourism related services, for instance in the context of room booking system, responsiveness in service delivery induced satisfaction in customer (Parvin et al., 2014). There are more support to this notion in the literature from numerous researchers (Karunaratne & Jayawardena, 2010). Tangibles had a score of R=0.512 followed by Reliability with a score of R=0.488 in the hierarchy of strongest connection with dependant variable. Tangibles rank high among the top dimensions that bring customer satisfaction according to many scholars (Rao&Sahu, 2013; Bhat&Qadir 2013; Canny, 2013; Karunaratne &Jayawardena, 2010). By analysing the correlation matrix, it shows service quality dimensions of Responsiveness, Tangibles and Reliability has a solid relationship with customer satisfaction and retention. According to the correlation analysis, a value of R = 0.588 signifies a strong and positive relationship with customer satisfaction and retention. Reliability holds a solid association customer satisfaction (Khan & Fasih, 2014) and is one of the crucial aspects of service quality that derived customer satisfaction (Chang, 2008). The value of R = 0.48 from correlation analysis denotes a positive relationship between reliability and customer satisfaction and retention. Therefore, according to the correlation analysis done on the Service Quality dimensions on the dependant variable Customer Satisfaction and Retention, strong Pearson correlation coefficients were found in three dimensions, Responsiveness, Tangibles and Reliability while Assurance had a positive but lower correlation compared to these three dimensions. Empathy was found to correlate weakly (R = 0.177) with the dependant variable.

Regression Analysis

A regression was performed to predict the impact of service quality on customer satisfaction and retention in Maldivian tourism industry centred on five service quality dimensions as the independent elements. The dependant variable selected for this study remains unchanged as used throughout this analysis, the Customer Satisfaction.

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>.662a</td>
<td>.438</td>
<td>.493</td>
<td>.967</td>
<td>.438</td>
<td>46.036</td>
</tr>
</tbody>
</table>

As illustrated in the above model summary table which predicts the customer satisfaction, dependant variable is CS (Customer Satisfaction) while RSP, ASR, TGB, EMP and RLB are used as independent variables. It shows R value of 0.662, R square value as 0.438, and Adjusted R square value of 0.413. This suggest 49.3% of variance of CS (Customer Satisfaction) can be used to forecast the independent variables, RSP (Responsiveness), TGB (Tangibles), ASR (Assurance), EMP (Empathy) and RLB Reliability used in the study. Though, it is stated that a good fit will be able to forecast a variation of dependant variable which is not less than 60%, nevertheless due to the fact that results of this regression falls just below the minimum rate by few decimals, this model can be considered as a suitable one. Also, looking at the Model Summary, a high autocorrelation can be identified and a very high F Change value of 46.036 can be seen from the regression results, therefore owing to these
facts, the regression model can be ruled out as significant. The Durbin Watson result shows that there is no auto correlation between respondents chosen for this study.

### Table 4: Beta Coefficient for CS

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.630</td>
<td>2.374</td>
<td>1.108</td>
<td>.270</td>
<td></td>
</tr>
<tr>
<td>RS</td>
<td>.388</td>
<td>.092</td>
<td>.379</td>
<td>4.201</td>
<td>.000</td>
</tr>
<tr>
<td>AS</td>
<td>.048</td>
<td>.075</td>
<td>.048</td>
<td>.644</td>
<td>.521</td>
</tr>
<tr>
<td>TG</td>
<td>.209</td>
<td>.101</td>
<td>.186</td>
<td>2.065</td>
<td>.041</td>
</tr>
<tr>
<td>EM</td>
<td>-.038</td>
<td>.084</td>
<td>-.034</td>
<td>-.454</td>
<td>.650</td>
</tr>
<tr>
<td>RL</td>
<td>.246</td>
<td>.084</td>
<td>.237</td>
<td>2.924</td>
<td>.004</td>
</tr>
</tbody>
</table>

Multicollinearity is regarded as the extent of correlation that exists among the independent variables (Ringim, et al., 2012). As such, for the independent variables used in this study, multicollinearity was examined for Tolerance test and Variance Inflation Factor. The reference range for both the tests posited by Hair et al. (2010) propose that Tolerance test should give a value above 0.10 and VIF (Variance Inflation Factor) should not go beyond 10, in order for multicollinearity to be in acceptable range. Hence, the model can be equated as follows,

\[
CS = \beta_1 RS + \beta_2 AS + \beta_3 TG + \beta_4 EM + \beta_5 RL + C
\]

The beta coefficient results of RS (0.379, p=0.000), AS = (0.186, p=0.041) and RL (0.237, p=0.004) shows a significant and positive relationship on customer satisfaction, while EM (Empathy) is not significant and negative with values (0.034, p=.650) along with Assurance which had (0.075, p=0.644) is also not significant. In addition, the constant should also be omitted from the original equation since it is also not significant.

None of the tolerance statistics is less than 0.20 (Menard, 2010), therefore it implies that variable does not have collinear relationship with rest of the predictor variables. Hence the empirical model can be demonstrated as shown below.

\[
CS = 2.63 + 0.379 RS + 0.186 AS + 0.237 RL \ldots (1)
\]

So according to this model, a change of 1 unit in RS, AS and RL while other items kept constant will change CS by 0.802 unit. The insignificant factors, AS and EM are not included in the formulation of the equation.

Based on the above findings, the hypotheses proposed for this study are either accepted or rejected.

### Table 5: Decision on Hypothesis

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Beta Coefficient</th>
<th>Significant (P&lt;0.05)</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Being more responsive will have a positive and significant impact on customer satisfaction and retention.</td>
<td>.379</td>
<td>.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2: Solidifying the Assurance will have a positive and significant impact on customer satisfaction and retention.</td>
<td>.048</td>
<td>.521</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3: Attractive Tangible factors will have a significant and positive effect on</td>
<td>.186</td>
<td>.041</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
customer satisfaction and retention.

H4: Demonstrating empathy will have a significant and positive influence on customer satisfaction and retention.

\[
\begin{array}{ccc}
\text{H4} & -0.034 & 0.650 & \text{Rejected} \\
\end{array}
\]

H5: High level of reliability will have a significant and positive effect on customer satisfaction and retention.

\[
\begin{array}{ccc}
\text{H5} & 0.237 & 0.004 & \text{Accepted} \\
\end{array}
\]

5. Conclusion

This research is intended to measure the impact of Service Quality on customer satisfaction and retention in the context of Maldivian tourism industry. According to the analysis carried out, the following conclusions were reached. Service quality has a positive and significant impact on customer satisfaction and retention in the context of Maldivian tourism industry. At large, service quality is given high importance in Maldivian tourism industry, especially in the case of “Resort Hotels” operated in Maldives, more specifically in luxury tourist Resorts operated by international hotel chains, this is more evident, perhaps in an attempt to uphold the reputation and brand value. Moreover, the resulting outcomes from these practices contribute towards satisfying the tourists and in turn inducing retention behaviour. However, in the case of guest houses, importance given on service quality is perceived lower compared to resorts, and they also focus on a different market than Resorts which target mainly a niche upmarket. The guest houses mostly attract budget travellers who want to experience a truly Maldivian “Sun, Sand and sea” holiday in a tropical island. Looking at specific dimensions of service quality, Assurance does not have a significant influence on customer satisfaction and retention. Previous researchers also have stated similar claims on this dimension, on various contexts including tourism. Therefore assurance is perceived more like a secondary factor that could encourage satisfaction rather than a primary factor that induce it. Hence assurance itself does not arouse satisfaction in customers, but rather need prerequisites, like “Responsiveness”, “Tangibles” and “Reliability” in service to be in place for it to have any positive effect, so this can be regarded as a secondary dimension of service quality according to the analysis carried out.

Implications and Recommendations

Based on the findings from this research, service quality is a very crucial element that all service providers in tourism industry should concentrate in order to induce satisfaction in customers in addition to promoting retention behaviour in them. All the establishments in this industry, regardless of their size need to give high prominence to this fact, especially the dimensions outlined as significant and positive in Maldivian tourism industry, to enhance their business in terms of revenue and growth. As satisfied customers are more likely to return to the same premises, it guarantees a loyal customer base for the smooth running of the business in future while at the same time being strongly marketed by referrals, since satisfied customers communicate their experience to friends and family and recommend the place. Organizations should focus on this strategy of increasing the customer base by retaining the old customers, which will reduce their expenditure on marketing, while accordingly devising proper marketing plans to attract new ones, in order to benefit from this strategy. Service quality is considered as a critical success factor in high-end or luxury resorts more than other tourism segments, since this tourist market spends more and also expects more for what
they have paid for, high level of service quality is demanded. Additionally, the industry is also becoming increasingly service oriented as it advances.

**Future Research**

The impact of service quality on customer satisfaction and retention in different tourist segments, for instance, resorts guest houses and safari boats will differ very much. Particularly, the dimensions and it’s attributes that influence customer satisfaction will vary across the segments. But since this study was targeted for the whole tourism sector, future research on specific sectors is recommended to find the service quality dimensions that are specific to each sector that influences customer satisfaction and retention in Maldivian tourism industry.

**REFERENCES**


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