Assessing the Relationship Between Service Quality and Customer Satisfaction in the Malaysian Automotive Insurance Industry

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Abstract: Globalization and open market system have created the complex competitive environment not only for the manufacturing sector but also for the service sector. The necessity to own a car coupled with affordable prices across the globe due to innovative production cost in the automotive industry has surged in the last two decades. Every car owner is legally bound to have car insurance, be it in the developed countries or developing countries. By servicing their customer base with superior and professional service, many insurance companies are able to reap a huge profit. Satisfying their customer is essential in every service industry and since these issue plays a critical role for the insurance companies, assessing the relationship between service quality and customer satisfaction can help managers to meet the needs’ of customer better by providing superior service. The main aim of this study is to assess the relationship between service quality and customer satisfaction in the Malaysian Automotive Insurance industry. A total of 650 online structured questionnaires were mailed to respondents from five car insurance directories and 380 respondents replied to the questionnaire. Data collected were analyzed using Pearson Correlation and Multiple Regression Analysis. The results indicate that good relationship exists between service quality dimensions (reliability, empathy, assurance, responsiveness and tangibility) and customer satisfaction. This study could benefit other financial service companies to gauge and enhance their customer satisfaction level with improved service performance.

Key words: Service quality • Customer satisfaction • Automotive industry • Insurance

INTRODUCTION

In the service sector, the quality of service, one of the most dominant themes of research in services, has become a strategic instrument for firms since 1990s (Fisk et al., 1993; Donnelly et al., 1995). Customer perceives services in terms of its quality and how satisfied they are overall with their experiences (Zeithaml, 2000). According to [1], satisfying the customer is not enough: there is a compelling need to delight the customer if a competitive advantage is to be achieved. The key to sustainable competitive advantage in today’s competitive environment lies in delivering high-quality service that result in satisfied customers [2]. In fact, service quality has become a great differentiator, the most powerful competitive weapon which many leading service organizations possess (Berry et al., 1985).

In spite of the growing importance of service quality (Qualls and Rosa, 1995), it remains an abstract and elusive construct that is difficult to define and measure (Carman, 1990; Crosby, 1979; Gravin, 1983; Parasuraman et al., 1985, [3]; Rathmell, 1966). In the empirical literature, there are many alternative service quality models and instruments developed for measuring service quality. SERVQUAL instrument developed by [3] is one of the most pre-eminent and widely used instruments for measuring the service quality as perceived by the customers. Numerous scholars [4]; Yang, 2003; Sinclair
Fig. 2.1: Customer perceptions of quality and customer satisfaction (Wilson et al., 2008, p. 79)

and [5-6] have emphasized the importance of service quality measurement, as it judges not only the external perceptions but also the real effectiveness of an organization operation.

As of 2010, life insurance in Malaysia, which accounted for the major share by premium of the overall market at 70.4 percent, is moderately concentrated, although foreign carriers already have a significant presence. The top-three insurers in this sector — Great Eastern Life Assurance, Prudential Assurance and ING Insurance — held 54.6 percent of market share by net premiums earned in 2010 (MARC, 2010). The non-life industry (car insurance) is smaller, accounting for 29.6 percent of the overall insurance market as of 2010. But it is less concentrated than its life counterpart, with about two-thirds of net premiums written in 2010 (64 percent) held not by just a trio of carriers, but by the top 10. This side of the business is largely controlled by domestic insurers, with Allianz, Kurnia and MSIG being the more prominent foreign players. The sector is largely dominated by auto insurance, which constitutes 45.6 percent of gross direct premiums of the entire non-life insurance market (Business Times Malaysia, 2012).

Customers are clearly more pleased with superior quality service and when a company gains the customers’ satisfaction, profitability is ensured hence, assessing their relationship can be beneficial for the managements in the companies. In spite of the results of relationship between service quality and customer satisfaction only limited studies have been conducted on investigating and measuring these factors in the automotive insurance industry. Therefore, this study aims to fill this gap. Empirical study conducted in this study will attempt to answer the following research question: Is there any relationship between service quality and customer satisfaction in the automotive insurance industry in Malaysia?

**Literature Review**

**Service Quality and Customer Satisfaction:** Since customer satisfaction has been considered to be based on the customer’s experience on a particular service encounter, [7] it is in line with the fact that service quality is a determinant of customer satisfaction, because service quality comes from outcome of the services from service providers in organizations. Another author stated in his theory that “definitions of consumer satisfaction relate to aspecific transaction (the difference between predicted service and perceived service) in contrast with ‘attitudes’, which are more enduring and less situational-oriented,” (Lewis, 1993) This is in line with the idea of Zeithaml et al. (2006) Regarding the relationship between customer satisfaction and service quality, [8] first suggested that service quality would be antecedent to customer satisfaction regardless of whether these constructs were cumulative or transaction-specific.

Some researchers have found empirical supports for the view of the point mentioned above [9], Fornell et al 1996; Spreng&Macky 1996); where customer satisfaction came as a result of service quality. In relating customer satisfaction and service quality, researchers have been more precise about the meaning and measurements of satisfaction and service quality. Satisfaction and service quality have certain things in common, whereas service quality focuses specifically on dimensions of service. [10]. Although it is stated that other factors such as price and product quality can affect customer satisfaction, perceived service quality is a component of customer satisfaction (Zeithaml et al. 2006). This theory complies with the idea of Wilson et al. (2008) and has been confirmed by the definition of customer satisfaction presented by other researchers. The below figure shows the relationship between customer satisfaction and service quality.
The author presented a situation that service quality is a focused evaluation that reflects the customer’s perception of reliability, assurance, responsiveness, empathy and tangibility while satisfaction is more inclusive and it is influenced by perceptions of service quality, product quality and price, also situational factors and personal factors. (Wilson, 2008, p. 78).

Evidence from empirical literature suggests that customer satisfaction seems to be the subject of considerable interest by both marketing practitioners and academics since 1970s [11], Jones and Suh, 2000). In the early 1970s, industry researchers tried to gauge customer satisfaction by increasing services rendered [12]. Throughout the 1980s, researchers relied on customer satisfaction and quality ratings obtained from surveys for performance monitoring, compensation as well as resource allocation [13] and began to examine further the determinants of customer satisfaction [14]; Churchill and Surprenant, 1982; Bearden and Teel, 1983). However, in the 1990s, many organizations and industry experts becoming increasing aware about financial implications in servicing their customer base [15]; Bolton, 1998). Cronin, Brady and Hult (2000) stated that examining only one variable at a time may confound the understanding of consumer decision-making and this may lead to inappropriate marketing strategies. Caruna (2002) supported this view and encouraged researchers to study other variables such as behavioral intentions of customers hence; this study is intended to incorporate service quality in the model in examining customer satisfaction in the automotive insurance industry in Malaysia.

The Malaysian Automotive Insurance Industry: In the Malaysian insurance industry, there are four main sectors in the direct general insurance market, namely – marine, aviation and transit, fire and miscellaneous. The largest sector with the highest net premium contributions is the auto insurance sector. Auto insurance is the main net contributor towards the general insurance industry, averaging at 54 percent of the total net premium contributions collected by the auto insurance industry between 1986 and 2009. For auto insurance, there was a significant rise of auto contributions towards the whole general insurance net premium contributions between 1988 and 1991 but, afterwards, although it started to decline it still remains the highest contributor in volume compared to other sectors. Comparing yearly net premium contributions made by the auto insurance industry, auto insurance represented 37 percent from 1986 until 2009.

The auto insurance industry in Malaysia can be traced back to the 1930s when it became a legal requirement for every owner of an auto vehicle to take out insurance cover in respect of any liability caused by their vehicle. Thus explaining why it remains the largest among the main sectors in the direct general insurance market throughout history. [16-25]. Therefore, in this study we consider data on motor insurance policy and its liability coverage in the Malaysia economy and their claims. Malaysian insurance companies offer three basic types of auto insurance, namely:

- Third party insurance: This pays for damages or bodily injury to other people caused by the insured vehicle.
- Third party property damage, fire and theft: This type covers benefits in one above plus additional benefit of coverage in the event of fire or theft.
- Comprehensive Malaysia auto insurance policy (highly popular among individual) provides all the benefits in one and two above plus lots of additional or optional covers.

Research Methodology

Framework and Hypotheses: For the measurement of student satisfaction on service quality, a model named SERVQUAL was developed by Parasuraman (1988). The model consists of ten components. SERVQUAL provides a technology for measuring and managing service quality. In their 1988 work these ten dimensions were reduced to five dimensions as follows:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items in Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reliability</td>
</tr>
<tr>
<td>2</td>
<td>Assurance</td>
</tr>
<tr>
<td>3</td>
<td>Tangibles</td>
</tr>
<tr>
<td>4</td>
<td>Empathy</td>
</tr>
<tr>
<td>5</td>
<td>Responsiveness</td>
</tr>
</tbody>
</table>

Hypotheses of the Study: The hypotheses of the study are developed as below:

\( H_1 \): There is a significant relationship between assurance and customer satisfaction.

\( H_2 \): There is a significant relationship between empathy and customer satisfaction.

\( H_3 \): There is a significant relationship between tangibles and customer satisfaction.

\( H_4 \): There is a significant relationship between reliability and customer satisfaction.

\( H_5 \): There is a significant relationship between responsiveness and customer satisfaction.
Fig. 3.1: Proposed Conceptual Model (SERVQUAL)

Table 4.1: Cronbach’s Alpha Reliability Test

<table>
<thead>
<tr>
<th>Construct</th>
<th>Alpha Coefficient</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer satisfaction</td>
<td>0.874</td>
<td>10</td>
</tr>
<tr>
<td>Reliability</td>
<td>0.732</td>
<td>9</td>
</tr>
<tr>
<td>Tangibles</td>
<td>0.848</td>
<td>9</td>
</tr>
<tr>
<td>Assurance</td>
<td>0.756</td>
<td>9</td>
</tr>
<tr>
<td>Empathy</td>
<td>0.732</td>
<td>8</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>0.829</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 4.2: Summary of Means and Standard Deviations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Satisfaction</td>
<td>4.29</td>
<td>1.06</td>
</tr>
<tr>
<td>Empathy</td>
<td>3.37</td>
<td>0.734</td>
</tr>
<tr>
<td>Tangibles</td>
<td>3.47</td>
<td>0.731</td>
</tr>
<tr>
<td>Reliability</td>
<td>3.46</td>
<td>0.887</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>3.41</td>
<td>0.742</td>
</tr>
<tr>
<td>Assurance</td>
<td>3.61</td>
<td>0.787</td>
</tr>
</tbody>
</table>

Research Instruments and Data Collection: The instrument used in this study is based on Parasuraman et al., (1990). The structured questionnaires were based on the five dimensions of service quality (tangibility, assurance, reliability, responsiveness and empathy) and used the five point Likert scale from 1 strongly disagree to 5 strongly agree. Random sampling approach was used to identify the respondents for the study.

Reliability Test: According to George &Mallery (2003), reliability is the degree to which measure are free from error and therefore yield consistent results. The reliability of a measure indicates the stability and consistency with which the instrument measures the concept and helps to assess the ‘goodness’ of a measure [17]. According to [18-30], the closer the reliability coefficient gets to 1.0, the better it is and those values over .80 are considered as good. Those values in the .70 is considered as acceptable and those reliability value less than .60 is considered to be poor [18]. All the constructs were tested for the consistency reliability of the items within the constructs by using Cronbach’s alpha reliability analysis. Cronbach’s Alpha values in respect of each variable are given in Table 4.1 below. Respondents were also assured about the confidentiality as information shared in this regard would be used for academic and research purposes only. In conclusion, the results showed that the scores of the Cronbach’s alpha for all the constructs exceeded the threshold of 0.70 indicating that the measurement scales of the constructs were stable and consistent.

Descriptive Statistics

Pearson Correlation Coefficient: Pearson's correlation coefficient (r) is a measure of the strength of the association between the two variables. According to [18-39], in research studies that includes several variables, beyond knowing the means and standard deviations of the dependent and independent variables, the researcher would often like to know how one variable is related to another. While correlation could range between -1.0 and +1.0, the researcher need to know if any correlation found between two variables is significant or not (i.e.; if it has occurred solely by chance or if there is a high probability of its actual existence). As for the information, a significance of p=0.05 is the generally accepted conventional level in social sciences research. This indicates that 95 times out of 100, the researcher can be sure that there is a true or significant correlation between the two variables and there is only a 5% chance that the relationship does not truly exist. The correlation matrix between dependent variable and independent variables are exhibited in Table 4.2 below. The findings from this analysis are then compared against the hypotheses developed for this study. Table 4.2 shows the mean value depicting the overall customers’ satisfaction. As far as this description analysis is
concerned, customers’ satisfaction is above satisfactory level (with a mean value of 3.39 on a 5 point Likert scale). As far as the mean values are concerned customers are satisfied on tangibles, reliability, responsiveness, empathy and assurance. Customers are likely to be satisfied with their local automotive insurance provider when the service provided fits their expectations, or they will be very satisfied when the service is beyond their expectations, or completely satisfied when they receive more than they expect.

This research used Pearson Correlation and Regression Analyses. The findings for “empathy” show that the mean for customers’ satisfaction is 3.37. This means that the customers agree with the empathy of service provided by their service provider. The mean for “tangibility” show that the customers’ satisfaction is 3.47. This means that the customers are more satisfied with the tangible service provided. The mean for “reliability” for customers’ satisfaction is 3.46. This means that the customers are satisfied with reliability of services provided. The customers’ satisfaction for “responsiveness” is 3.41 indicating they are satisfied with the responsiveness of the service provided. The mean for “assurance” among customers are 3.61 also indicating they are satisfied with the assurance of service provided.

**Multiple Regression Analysis:** In this study, the multiple regression analysis is used as a statistical technique to analyze the linear relationship between a dependent variable and multiple independent variables [19]. This is a way to recognize whether there is significant relationship between independent variables and dependent variables or not. The model sufficiently explained the variance or coefficient of determination or the R Squared in the effect of control variables relations. According to Hair et al., (2006), the test will be significant if the p-value is less than 0.05. The beta coefficient is used to determine which independent variables have the most influence on the dependent variable.

**Hypothesis 1:**

H₀: There is no significant relationship between assurance and customer satisfaction.

H₁: There is a significant relationship between assurance and customer satisfaction.

The relationship between assurance and customers’ satisfaction was investigated using Pearson correlation coefficients for the respondents. The results in Table 4.3 indicates, a moderate and positive relationship between assurance and customer satisfaction(R square = .256, n=380, p< 0.05). This means 26% of their satisfaction is determined by assurance. Therefore H₀ is accepted.

**Hypothesis 2:**

H₀: There is no significant relationship between empathy and customer satisfaction.

H₁: There is a significant relationship between empathy and customer satisfaction.

The relationship between empathy and customers satisfaction was investigated using Pearson correlation coefficients for respondents. The results in Table 4.4 indicates, a moderate and positive relationship between empathy and customer satisfaction(R square = .370, n=380, p< 0.05). This means 37% of their satisfaction is determined by empathy. Therefore H₀ is accepted.

**Hypothesis 3:**

H₀: There is no significant relationship between tangibility and customer satisfaction.

H₁: There is a significant relationship between tangibility and customer satisfaction.

The relationship between tangibles and customers satisfaction was investigated using Pearson correlation coefficients for the respondents. The results in Table 4.5

<table>
<thead>
<tr>
<th>Customers Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.510(a)</td>
<td>.260</td>
<td>.256</td>
<td>.49514</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customers Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.612(a)</td>
<td>.374</td>
<td>.370</td>
<td>.45544</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customers Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.607(a)</td>
<td>.368</td>
<td>.364</td>
<td>.45536</td>
</tr>
</tbody>
</table>
Table 4.6: The Relationship between Reliability and Customer Satisfaction

<table>
<thead>
<tr>
<th>Customers</th>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.751(a)</td>
<td>.564</td>
<td>.561</td>
<td>.45562</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.6: The Relationship between Responsiveness and Customer Satisfaction

<table>
<thead>
<tr>
<th>Customers</th>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.811(a)</td>
<td>.658</td>
<td>.656</td>
<td>.33456</td>
<td></td>
</tr>
</tbody>
</table>

indicates, a stronger and positive relationship between tangibles and customers satisfaction (R square =.364, n=380, p< 0.05). This means 37% of their satisfaction is determined by tangibility. Therefore Hogeneity is accepted.

**Hypothesis 4:**

Ho: There is no significant relationship between reliability and customer satisfaction.

H1: There is a significant relationship between reliability and customer satisfaction.

The relationship between reliability and customers’ satisfaction was investigated using Pearson correlation coefficients for the respondents. The results in Table 4.6 indicates, a stronger and positive relationship between reliability and customer satisfaction (R square =.561, n=380, p< 0.05). This means 56% of their satisfaction is determined by reliability. Therefore H1 is accepted.

**Hypothesis 5:**

Ho: There is no significant relationship between responsiveness and customer satisfaction.

H1: There is a significant relationship between responsiveness and customer satisfaction.

The relationship between responsiveness and customers’ satisfaction was investigated using Pearson correlation coefficients for the respondents. The results in Table 4.6 indicates, a stronger and positive relationship between responsiveness and customer satisfaction (R square =.656, n=380, p< 0.05). This means 66% of their satisfaction is determined by responsiveness. Therefore H1 is accepted.

**CONCLUSION**

To determine and assess the customers’ satisfaction level with the service quality provided by automotive insurance providers is not easy but not impossible. The results can be very helpful in determining the satisfaction level for management of any insurance service provider to leverage or enhance the services provided. In this study, the results indicated that independent variables have strong relationship with depending variable. In summary, all the hypotheses were strongly supported and the proposed framework of the present study was able to demonstrate strong explanatory power. Notably, this study provides evidence for the direct effect of service quality on customer satisfaction. A number of marketing implications can be drawn from this study. The descriptive result reveals that customers’ perception towards service quality level provided was consistently higher than their expectations. This implies that consistent effort is needed to sustain and improve the service quality level rendered to the customers to be profitable. Hence, marketers should look into the factors that would affect customer satisfaction level. In addition, as customer expectations are changing over time, automotive insurance service providers are advised to measure their customer expectation and satisfaction regularly and handle complaints timely and effectively.

**Limitations of the Study:** The present study has a number of limitations. Firstly, the nature of sampling unit under study cannot be generalized to a larger population as only five insurance service providers were examined and the use of single-item measurement for satisfaction construct has low reliability [20]. Secondly, the causal relationship between service quality and satisfaction was not addressed in the present study. Thirdly, the use of cross-sectional data in a single industry also limits some of the conclusions obtained. In view of the limitations, future study should usedifferent sampling units which are more generalizable and conduct the study nationwide. The proposed model can also be extended to other service industries or nation-wide sampling. In terms of measurement issues, future research may use multiple items to strengthen the reliability of satisfaction construct.

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