THE IMPACT OF SERVICE QUALITY TOWARD CUSTOMER LOYALTY THROUGH CUSTOMER SATISFACTION AND TRUST AS A MEDIATING VARIABLE
(Case Study R+ & RD Dental Clinic Yogyakarta)

A JOURNAL

Presented as Partial Fulfillment of the Requirements
To Obtain the Bachelor Degree in Economics Department

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2017
ABSTRACT

The purpose of the research was to identify the influence of service quality to the customer satisfaction and trust toward customer loyalty. Population and samples of this study were customers who come to R + and RD Dental Clinic, Yogyakarta. The result of this study found that there were positive and significant impact of service quality toward customer loyalty through customer satisfaction and trust.

Key words: Service Quality, Dental clinic, Customer Loyalty, Customer Satisfaction

INTRODUCTION

The development of the world increase rapidly. Human needs are increasing every day. The need for health that was not initially considered important at this time becomes very important and has become one of the basic human needs. Awareness of the health is important nowadays because it is one of the things that support human activities every day. If a person is not healthy, their daily activities will be disrupted and will not run properly. Health sector is the main service sector in various countries because it plays a vital role in maintaining and improving public health to achieve the goals of a country. Health industry is also included in service industry. Today the healthcare services industry is one of the promising business opportunities with high competition and fast growth.

According to Caruana (2002), nowadays, where people are hardly to satisfy, the demand to a satisfying service is even more challenging. When it comes to marketing, the main goal of the entire marketing strategy is to achieve customer satisfaction. Today, in our modern world, customer’s expectation and perception toward product and/or service change rapidly. As well as aspects on how they achieve the satisfaction of a product and/or service. Definition of service quality is the result of the comparison that customers make between their expectation about services and their perception of the way the services has been performed.
Nowadays customers become more critical and clever in selecting a brand that provides excellent service quality. Customer is the key to win the competition among other business practitioners. They tend to use the brand that they trust to avoid risk. The service firm may provide a standardized service as a commitment technique. This means, the firm is committed to guaranteeing a predetermined level of quality to their customers (Boulding and Kirmani, 1993). Trust is likely to become an important factor when the service offer is less predefined (Coelho and Henseler, 2012). Many marketing scholars have highlighted the importance of trust as a key predictor of loyalty (Sirdeshmukh et al., 2002 and Agustin & Singh, 2005).

Behaviour intention is defined as the behaviour of the patient that leads to the desire to return that can be triggered by the quality of service and patient satisfaction (Maqsood et al., 2017). Service quality plays an essential part in creating customer satisfaction. The connection between service quality and customer satisfaction has been well established in service marketing literature. Many researchers have found that service quality determines significantly customer satisfaction which affects customer loyalty.

Customer loyalty in general can be defined as a strong commitment of the customer to re-purchase consistently favoured products/services in the future, even though the influence of the marketing situation and efforts from competitor has the potential to generate behaviour to move to other company. Customer loyalty is a continuation of customer attitudes to their satisfaction in using services provided by the company. Loyalty is a proof that customers always become customers who have positive attitude toward the company.

Many researchers have found that service quality determines significantly customer satisfaction which, in turn, affects customer loyalty. In particular, customer satisfaction is suggested to be a mediating variable between service quality and customer loyalty. Consequently, providing high levels of service quality in order to achieve the highest customer satisfaction is regarded as the most important goal for many businesses in order to gain customer loyalty (Quddus & Hudrasyah, 2014).

In pursuing the research, researcher has decided to take health care industry, dental care clinic in particular as the interesting object. There is a rapid growth in market behaviour these days. People nowadays has started to realize how important to maintain their health especially starting from their smile.
LITERATURE REVIEW

RESEARCH METHOD
This research used quantitative approach. In this quantitative research, the researcher formulated new problems through the hypothesis that is a temporary answer to the formulation of research problems. According to Given (2008), research with quantitative method is an approach to empirical studies to collect, analyzes, and display data in numerical form rather than narrative.

Population and Samples
Population is the whole subject of research (Arikunto, 2010). In this research, the population were all patients of R+ and RD dental clinic in Yogyakarta

Data collection method
Hair et al. (2010) stated about the size of the sample. If it is too large, it will make it difficult to get a suitable model and suggested appropriate sample size between 100-200 respondents in order to use interpretation estimation with Structural Equation Model (SEM). For that reason, the number of samples was determined based on the results of the minimum sample calculations. The determination of the minimum sample size for SEM according to Hair et al. (2010) is: (Number of indicators + number of latent variables) x (estimated parameters) Based on the guideline, the minimum sample size for this research is: Minimum sample = (22 + 7) x 5 = 145 respondents. Based on the formula above, the minimum sample size in this research was 145 respondents.
Data Analysis Method
Research model was analyzed by using Structural Equation Model (SEM), by utilizing AMOS software. SEM is an analytical technique that allows complicated and complex variable relationships simultaneously. In simple explanation, SEM provides an adequate estimation technique and efficient estimation technique for multiple regression equations and it is estimated simultaneously (Ghozali, 2011).

Descriptive statistical analysis techniques were used to analyze data by describing the data that has been collected by not intending to make general conclusions (Sugiyono, 2010). This analysis is a description explaining the identity of the respondents.

Validity and Reliability
Validity test is a measurement that shows the validity level of an instrument. An instrument is considered valid if it is able to measure what is desired. The method used for the validity test is the Pearson correlation test. The item can be said as valid if its \( r_{\text{count}} \) (Pearson Correlation Value) is higher than \( r_{\text{table}} \) (Simamora, 2004). Researcher spread 45 respondents for checking each validity and reliability test.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator Code</th>
<th>( r_{\text{count}} )</th>
<th>( r_{\text{table}} )</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>TAN1</td>
<td>0.798</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>TAN2</td>
<td>0.820</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>TAN3</td>
<td>0.830</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td>Reliability</td>
<td>REL1</td>
<td>0.716</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>REL2</td>
<td>0.847</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>REL3</td>
<td>0.652</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>RES1</td>
<td>0.812</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>RES2</td>
<td>0.746</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>RES3</td>
<td>0.655</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td>Assurance</td>
<td>ASS1</td>
<td>0.445</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>ASS2</td>
<td>0.497</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>ASS3</td>
<td>0.666</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>ASS4</td>
<td>0.533</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td>Empathy</td>
<td>EMP1</td>
<td>0.834</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>EMP2</td>
<td>0.856</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>CS1</td>
<td>0.916</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>CS2</td>
<td>0.875</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>CS3</td>
<td>0.703</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td>Customer Loyalty</td>
<td>CL1</td>
<td>0.937</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>CL2</td>
<td>0.920</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>CL3</td>
<td>0.883</td>
<td>0.287</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>CL4</td>
<td>0.860</td>
<td>0.287</td>
<td>VALID</td>
</tr>
</tbody>
</table>
The criteria used in finding valid statements in this research were as follow: trust level = 95 percent ($\alpha = 5$ percent), output of $r$ table obtained from 45 respondents = 0.287. If its $r$ count (Pearson Correlation Value) is higher than $r$ table the item can be said as valid.

<table>
<thead>
<tr>
<th>Trust</th>
<th>TRUST1</th>
<th>0.972</th>
<th>0.287</th>
<th>VALID</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRUST2</td>
<td>0.971</td>
<td>0.287</td>
<td>VALID</td>
<td></td>
</tr>
<tr>
<td>TRUST3</td>
<td>0.985</td>
<td>0.287</td>
<td>VALID</td>
<td></td>
</tr>
<tr>
<td>TRUST4</td>
<td>0.960</td>
<td>0.287</td>
<td>VALID</td>
<td></td>
</tr>
</tbody>
</table>

Based on the results of hypothesis testing, it can be concluded that the test of each hypothesis was as follow:

1. First Hypothesis
   The testing of the first hypothesis aims to prove that tangibility has a positive impact on customer satisfaction. From table 4.17 above, customer satisfaction was formed by tangibility that generate positive coefficient of 0.211 and $p$-value of 0.026. Based on the result of analysis, $p$-value < 0.05. It can be concluded that tangibles had positive impact on customer satisfaction. Thus, it can be concluded that, the first hypothesis of this research was accepted.

2. Second Hypothesis
   The testing of the second hypothesis aims to prove that reliability has a positive impact on customer satisfaction. From table 4.17 above, customer satisfaction was formed by reliability that generate positive coefficient of 0.255 and $p$-value of 0.036. Based on the result of analysis, $p$-value < 0.05. It can be concluded that reliability had positive impact on customer satisfaction. Thus, it can be concluded that the second hypothesis of this research was accepted.
3. Third Hypothesis
The testing of the third hypothesis aims to prove that assurance has a positive impact on customer satisfaction. From table 4.17 above, customer satisfaction was formed by assurance that generate positive coefficient of 0.347 and p-value of 0.041. Based on the result of analysis, p-value < 0.05. It can be concluded that assurance had positive impact on customer satisfaction. Thus, it can be concluded that the third hypothesis of this research was accepted.

4. Fourth Hypothesis
The testing of the fourth hypothesis aims to prove that empathy has a positive impact on customer satisfaction. From table 4.17 above, customer satisfaction was formed by empathy that generate positive coefficient of 0.773 and p-value of 0.000. Based on the result of analysis, p-value < 0.05. It can be concluded that empathy had positive impact on customer satisfaction. Thus, it can be concluded that the fourth hypothesis of this research was accepted.

5. Fifth Hypothesis
The testing of the fifth hypothesis aims to prove that responsiveness has a positive impact on customer satisfaction. From table 4.17 above, customer satisfaction was formed by responsiveness that generate positive coefficient of 0.183 and p-value of 0.029. Based on the result of analysis, p-value < 0.05. It can be concluded that responsiveness had positive impact on customer satisfaction. Thus, it can be concluded that the fifth hypothesis of this research was accepted.

6. Sixth Hypothesis
The testing of the sixth hypothesis aims to prove that customer satisfaction has positive impact on trust. From table 4.17 above, trust formed by customer satisfaction that generate positive coefficient of 0.354 and p-value of 0.003. Based on the result of analysis, p-value < 0.05. It can be concluded that customer satisfaction had positive impact on trust. Thus, it can be conclude that the sixth hypothesis of this research was accepted.

7. Seventh Hypothesis
The testing of the seventh hypothesis aims to prove that customer satisfaction has positive impact on customer loyalty. From table 4.17 above, customer loyalty formed by customer satisfaction that generate positive coefficient of 0.804 and p-value of 0.000. Based on the result of analysis, p-value < 0.05. It can be concluded that customer satisfaction had positive impact on customer loyalty. Thus, it can be conclude that the seventh hypothesis of this research was accepted.

8. Eighth Hypothesis
The testing of the eighth hypothesis aims to prove that trust has positive impact on customer loyalty. From table 4.17 above, customer loyalty formed by trust that generate positive coefficient of 0.122 and p-value of 0.028. Based on the result of analysis, p-value < 0.05. It can be concluded that trust had positive impact on customer loyalty.
customer loyalty. Thus, it can be conclude that the eighth hypothesis of this research was accepted.

Table 4.17. Hypothesis Testing Results (Direct Effects)

<table>
<thead>
<tr>
<th></th>
<th>RES</th>
<th>EMP</th>
<th>ASS</th>
<th>REL</th>
<th>TAN</th>
<th>CS</th>
<th>TRUST</th>
<th>CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS</td>
<td>.184</td>
<td>.771</td>
<td>.348</td>
<td>.254</td>
<td>.220</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>TRUST</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.354</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>CL</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.743</td>
<td>.122</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 4.18. Hypothesis Testing Results (Indirect Effects)

<table>
<thead>
<tr>
<th></th>
<th>RES</th>
<th>EMP</th>
<th>ASS</th>
<th>REL</th>
<th>TAN</th>
<th>CS</th>
<th>TRUST</th>
<th>CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>TRUST</td>
<td>.065</td>
<td>.273</td>
<td>.123</td>
<td>.090</td>
<td>.078</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>CL</td>
<td>.145</td>
<td>.606</td>
<td>.274</td>
<td>.200</td>
<td>.173</td>
<td>.043</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

9. Ninth Hypothesis

Based on table 4.17 and 4.18 above shows that the direct and indirect affect on the variable customer satisfaction toward customer loyalty through trust was tested using the equation as follows:

Direct effect CS → TRUST = 0.354
Indirect effect CS → CL → TRUST = 0.743 + 0.122 = 0.865

From the equation above it can be concluded that the indirect affect is bigger than direct effect, it means that the customer satisfaction has a positive impact on customer loyalty through customer satisfaction. Thus, it can be conclude that the ninth hypothesis of this research was accepted.

10. Tenth Hypothesis

Based on table 4.17 and 4.18 above shows that the direct and indirect affect on the variable service quality toward customer loyalty through customer satisfaction was tested using the equation as follows:

Direct effect SQ → CS = \( \frac{\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5}{53} \)
\[ \frac{0.184 + 0.771 + 0.348 + 0.254 + 0.220}{5} \]
\[ = 0.356 \]

Direct effect CS and CL = 0.743

Indirect effect SQ → CL = 0.356 + 0.043 = 0.399

From the equation above it can be concluded that the indirect affect is bigger than the direct effect, it means that the service quality has a positive impact on customer loyalty through customer satisfaction. Thus, it can be conclude that the tenth hypothesis of this research was accepted.
CONCLUSION AND RECOMMENDATION

From the results of data analysis, the conclusions in this research are as follows:

1. Tangibility had positive impact on customer satisfaction. The research result showed that the greater the tangibility, the greater the customer or patient satisfaction.
2. Reliability had positive impact on customer satisfaction. The research result showed that the greater the reliability, the greater the customer or patient satisfaction.
3. Responsiveness had positive impact on customer satisfaction. The research result showed that the greater the responsiveness, the greater the customer or patient satisfaction.
4. Assurance had positive impact on customer satisfaction. The research result showed that the greater the assurance, the greater the customer or patient satisfaction.
5. Empathy had positive impact on customer satisfaction. The research result showed that the greater the empathy, the greater the customer or patient satisfaction.
6. Customer satisfaction had positive impact on trust. The research result showed that the greater the customer or patient satisfaction, the greater the trust.
7. Customer satisfaction had positive impact on customer loyalty. The research result showed that the greater the customer or patient satisfaction, the greater the customer loyalty.
8. Trust had positive impact on customer loyalty. The research result showed that the greater the trust, the greater the customer or patient loyalty.
9. Trust had positive influence in mediating customer satisfaction toward customer loyalty. The research result showed that the greater the customer satisfaction, the greater the trust and the greater the trust, the greater the customer loyalty.
10. Customer satisfaction had positive influence in mediating service quality toward customer loyalty. This shows that the greater the service quality, the greater the customer satisfaction and the greater the customer satisfaction, the greater the customer loyalty.

The results of this research were able to prove that the quality of service can create satisfaction and loyalty. Therefore, it is advisable for the clinic to pay more attention to the quality of services such as improving the ability of employees in implementing service quality dimensions such as tangibles, reliability, responsiveness, assurance, and empathy. The future researchers were also suggested to conduct the research in other institution. Different result might be found because those differences can enrich the results of this research. This research will give understanding about the healthcare service industry including which factor that should be considered such as dimensions in SERVQUAL adapted for the health industry especially for dental clinic, for example the
hygiene of the clinic, maintaining up to date equipments, determining the standard operation procedure in handling customer, the time management for the patients, providing reminder for next visit and many more.

References


