The influence of quality of services and hospital facilities on patient satisfaction (Case study at dr. Chasbullah Abdul Majid Hospital, Bekasi City)

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ABSTRACT

This study aims to determine how much influence the quality of hospital services and facilities have on patient satisfaction (a case study at dr. Chasbullah Abdul Majid Hospital, Bekasi city). The population in this study were outpatients at RSUD dr. Chasbullah Abdul Majid, Bekasi city. The sample in this study amounted to 100 patients, with the technique of determining the sample using nonprobability sampling and the sampling technique using accidental sampling, namely by looking for patients who happened to be having a doctor's examination. The results of data processing indicate the quality of hospital services and facilities and affect patient satisfaction, this is indicated by the account of service quality 4.714 with a significant level of 0.000 and t-count hospital facilities of 13.491 with a significant level of 0.000, the data above shows that the t-count value is greater than t table 1.660 and the significant value of both variables is below 0.05, then service and price have a very strong influence on patient satisfaction at RSUD dr. Chasbullah Abdul Majid Bekasi City which is shown by the coefficient of determination which shows the R2 value is 80.8%.

Keywords: Service Quality, Hospital Facilities, Patient Satisfaction

1. INTRODUCTION

The condition of competition in the healthcare industry is currently very tight. This is due to the increasing number of existing clinics and hospitals, as well as the increasing number of people using hospital facilities to obtain health services. This is proportional to the increasing knowledge and awareness of the community about health services. The demand for comfortable and quality services is increasing, in line with the increasing awareness of healthy living. One of the health service facilities that have a very important role in providing health services to the community is a hospital. Hospitals are health service providers where health is one of the business opportunities that is quite good to date. This is evidenced by the increasing number of hospitals or private clinics that are established. The quality of service in this era is an important factor and is one of the keys to competitive advantage in the world of marketing. Service quality can be used as an indicator to measure customer satisfaction with the company. The hospital is one form of organization that is engaged in health services where one of its efforts is to become a referral destination for lower-level services, such as Community Health Centers (Puskesmas), private practice doctors, and other hospitals. For this reason, as one of the goals of health service referrals, hospitals need to maintain the quality of their services to people in need. This health service is always demanded by service users in the health sector to always improve and in the end, the organization's goals in providing excellent and quality services can be realized.

Efforts to increase public awareness of health can lead to demands on health services. For this reason, it is necessary to know the side of the shortage of health services. The service function needs to be improved to provide patient satisfaction. Patient assessment hopes to get the level of service received
with the level of service expected. The quality of health services refers to the level of perfection of health services, the more perfect the needs and demands of each patient, the better the quality of health services. The quality of hospital services as health services as users of hospital services. Patients want good facilities from the hospital, the friendliness of the doctor, as well as the friendliness, ability, and sincerity of the hospital staff. Service quality is a comparison between the services expected by consumers and the services they receive. In addition to service quality, another thing that is no less important so that services can be provided by hospitals is the existence of health support facilities. The existence of supporting facilities such as suggestion boxes and complaints will help the hospital in obtaining information about what things are desired and become consumer needs. Consumers will find it easier to convey things that become their dissatisfaction in obtaining services 

2. LITERATURE REVIEW

“Many aspects can provide customer satisfaction and not just provide the best. In the current free-market era, only quality goods are offered, but the ongoing and continuous relationship between the seller and the customer has not been properly considered” (Frimayasa, 2017b) Service can be defined as any form of activity or activity provided by one party or more to other parties who have a relationship with the aim of being able to provide satisfaction to the second party concerned for the goods and services provided. Service is an activity or sequence of activities that occur indirect interaction between a person and another person or a physical machine, and provides customer satisfaction (Frimayasa, 2017a). According to (Kotler, Keller 2016), the notion of service is any action or activity that one party can offer to another that is essentially intangible and does not result in any ownership. According to (Tjiptono, 2016) service can be viewed as a system consisting of two main components, namely service operations which are often invisible or unknown to customers (back office or backstage) and service delivery which is usually visible (visible). ) or known to the customer (often called the front office or frontstage).

Service quality is a measure of how well the level of service provided can meet customer expectations (Tjiptono, 2016). Another definition of service quality according to (Wyckof, 2012) is the level of expected excellence and control over these advantages to meet customer desires. Furthermore, the definition of service quality according to (Mauludin, 2001) suggests that service quality is how far the difference between reality and customer expectations for the subscriptions they receive or obtain.

Service quality is an economic activity whose output is not a product of consumption, along with production time and provides added value (such as enjoyment, entertainment, leisure) which is intangible and if the service received by the customer is as expected, the service quality is perceived as good (ideal), and conversely, if the service received is lower than what consumers expect, then the quality of service will be perceived as bad (less than ideal), so that the needs and desires of consumers feel that they have not been fulfilled. Two main factors affect service quality, namely expected service and perceived service or the quality of service expected and the quality of service received or perceived. If the service received or perceived is as expected, then the service quality is perceived as good and satisfactory. Conversely, if the service received is lower than expected, the service quality is perceived as poor quality. Quality must start from customer needs and end at customer perception. Service quality provides an impetus to customers to establish strong ties with institutions or agencies providing services. This good relationship bond will enable service agencies to understand carefully customer expectations and their needs.

According to Spillane (Frimayasa & Lawu, 2019) facilities are "facilities and infrastructure that support the operation of tourist objects to accommodate all tourist needs, not directly encouraging growth but developing at the same time or after the attraction develops". According to (Tjiptono, 2014) "facilities are physical resources that must exist before service is offered to consumers. Facilities are very important in a service business, therefore the existing facilities, namely the condition of the facilities, the completeness of the interior and exterior designs, and the cleanliness of the facilities must be considered, especially those that are closely related to what consumers feel directly. So it can be concluded that facilities are everything that makes it easier for consumers, in businesses engaged in services, then all existing facilities, namely the condition of facilities, completeness, interior design, exterior dams, and cleanliness of facilities must be considered, especially those closely related to what is felt or obtained. consumers directly.

Every company, especially in the field of health or hospital has physical standards which include: 1. Parking Area The existence of a parking space in the hospital environment makes guests/patients comfortable. 2. Lobby A place to wait for guests/patients to receive services from the receptionist or hospital staff. 3. Room The main facilities for inpatients are usually a bed, cupboard, bathroom, fan or air conditioner, and so on. Measurement of facilities in this study needs to be done to determine the extent to which the facilities that have been provided can meet expectations and provide satisfaction to guests/patients.

3. RESEARCH METHODS

This study uses associative research, which is research
that proves and finds a relationship between two or more variables (Sugiono, 2017). This study to analyze and examine the effect of the independent variables (product quality and service quality) and the dependent variable (consumer loyalty). Research data processing is assisted by SPSS 21.0 application program tools and various tests carried out include:

1. Descriptive Analysis Method
   The descriptive analysis method is a method used to present quantitative data in descriptive form. The descriptive analysis describes or describes the data as it is.

2. Classical Assumption Test
   The classical assumption test is a prerequisite for multiple regression analysis, this test must be met so that the parameter and regression coefficient estimates are not biased. This classical assumption test includes normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test.

3. Normality Test
   In this study, the normality of the data was tested using the Kolmogorov-Smirnov test (Kolmogorov-Smirnov Test) by looking at the significance of the resulting residuals and the normal probability plot graph approach. Detect normality by looking at the spread of data (points) on the diagonal axis of the graph.

4. Multicollinearity Test
   Multicollinearity test is a test carried out to determine whether in a regression model there is a correlation or collinearity between independent variables.

5. Heteroscedasticity Test
   The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another observation. If the variance of the residual from one observation to another observation remains, it is called homoscedasticity and if it is different it is called heteroscedasticity. A good regression model is a model that does not occur heteroscedasticity (Ghozali, 2016).

6. Multiple Linear Regression Analysis
   In this study, the normality of the data was tested using the Kolmogorov-Smirnov test (Kolmogorov-Smirnov Test) by looking at the significance of the resulting residuals and the normal probability plot graph approach. Detect normality by looking at the spread of data (points) on the diagonal axis of the graph.

7. Individual Significance Test (Test Statistical t)
   The t statistical test shows how far the influence of one independent variable is individually in explaining the dependent variable. This partial test is done by comparing the value of (alpha) with the p-value. If the p-value < (0.05), then H0 is rejected. So it can be said that there is a partial influence between the independent variable and the dependent variable, and vice versa.

8. Simultaneous Significance Test (F)
   The F statistical test shows how far the influence of the independent variables simultaneously in explaining the dependent variable. This simultaneous test is carried out by comparing the value of (alpha) with the p-value. If the p-value < (0.05), then H0 is rejected. So it can be said that there is a simultaneous influence between the independent variable and the dependent variable, and vice versa. If the p-value > (0.05), then H0 is accepted, which means that there is no effect between the independent variables on the dependent variable simultaneously.

4. RESEARCH RESULT

Validity test
A valid instrument means that the measuring instrument used to obtain data (measures) is valid, valid means that the instrument can be used to measure what should be measured. Statistical techniques for validity testing are:

1. Correlate the score of a questionnaire number with the total score of all items
2. If the correlation value (r) obtained is positive, it is possible that the item being tested is valid
3. However, even though it is positive, it is also necessary to see whether the calculated correlation value is significant or not.

The criteria for concluding to determine whether the instrument is valid or not are as follows:
- Reject H0 if the calculated probability set probability is 0.05 (sig.2-tailed 0.05)
- Accept H0 if the calculated probability set probability is 0.05 (sig.2-tailed 0.05)

Of the 10 product quality statement items above, it shows all product of service quality statements with probability < 0.05, this means that HO is rejected. Ha is accepted.

Of the 10 price statement items above, it shows all product of service quality statements with probability < 0.05, this means that HO is rejected. Ha is accepted.
Of the 10 price statement items above, it shows that all of the Customer Loyalty statement items have a probability < 0.05, which means that the HO is rejected. Ha is accepted.

Reliability Test
A reliable instrument is an instrument that, when used several times to measure the same object, will produce the same data. Then the product-moment correlation technique is said to be reliable if the results of Cronbach’s alpha > 0.60. Statistical techniques for reliability testing are:
1. Split the instrument into two parts (Odd and even instruments).
2. Correlate odd total scores, with even total scores, with the product-moment correlation statistic (r).
3. Enter the correlation value (r) obtained into the spearman brown formula.

The criteria for concluding to determine whether the instrument is reliable or not is if the reliability coefficient value (spearman brown/RI) is 0.6 then the instrument has good/reliable/trustworthy reliability.

From the results of the reliability test above, the reliability value is > 0.60, meaning that all instrument variables are good and reliable.

Classic assumption test
The normality test aims to see whether, in the regression model, the dependent variable (product quality and service quality) and the independent (customer loyalty) has a normal distribution or not. The normality test can be seen on the probability value, the data is normal if the Kolmogorov Smirnov value is not significant (Asymp.sig(2-tailed) > 0.05 and If the data spread around the diagonal line and follows the direction of the diagonal line, the regression model fulfills the assumption of normality. The results of the normality test in this research study use the PP plot and the results can be seen in the following figure:

From the results of the Kolmogorov-Smirnov test above, it can be seen that the Amp.Sig. (2-tailed) value of 0.235 > 0.05 can be concluded that this regression model data is normally distributed

Multicollinearity Test
The multicollinearity test aims to test whether there is a strong correlation between the independent variables. A good regression model should have multicollinearity. To detect the presence or absence of multicollinearity by looking at the value of the variance inflation factor (VIF) and the tolerance value. The value to indicate the presence or absence of multicollinearity is if the tolerance value is 0.10 or equal to the VIF value 10 then there is no multicollinearity between the independent variables. The following are the results of the multicollinearity test:

Multicollinearity Test Results

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Beta</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>3.450</td>
<td>1.843</td>
<td>1.871</td>
<td>0.064</td>
<td>62</td>
</tr>
<tr>
<td>Product quality</td>
<td>0.177</td>
<td>0.079</td>
<td>0.255</td>
<td>0.000</td>
<td>62</td>
</tr>
<tr>
<td>Service quality</td>
<td>0.766</td>
<td>0.067</td>
<td>0.729</td>
<td>0.000</td>
<td>62</td>
</tr>
</tbody>
</table>

a Dependent Variable: customer loyalty
Source: data processed by SPSS 21.0

Test Criteria:
1. There is multicollinearity if the Tolerance value is < 0.10 or VIF value < 10
2. There is no multicollinearity if the Tolerance value is > 0.10 or VIF value > 10. From the table above, it can be seen that the independent variable, namely product quality, has a tolerance value of 0.682 0.10, service quality has a tolerance value of 0.682≥ 0.10, and a VIF value. product quality is 1,467 and service quality is 1,467 (not exceeding 4 or 5) so that there is no multicollinearity in the independent variables (product quality and service quality) of this study.
**Heteroscedasticity Test**

Heteroscedasticity aims to test whether, in the regression model, there is an inequality of variance from the residuals from another observation. If the residual variation from one observation to another observation remains, it is called homoscedasticity, and if the variance is different it is called heteroscedasticity. A good model is that there is no heteroscedasticity.

Heteroscedasticity can be detected in several ways, including using the scatterplot test. In the scatterplot test, if there is a certain pattern. Such as dots that form a regular pattern (wavy, widen, and then narrow), indicates that heteroscedasticity has occurred. If there is no clear pattern, and the points spread above and below the number 0 on the Y axis, then there is no heteroscedasticity.

**Heteroscedasticity.**

The picture above shows the points spread randomly, do not form a clear/regular pattern, and are spread both above and below the number 0 on the Y-axis. Thus, there is no heteroscedasticity in the regression model.

Multiple Linear Regression Analysis

Multiple linear regression analysis to analyze whether the regression model used in the study is the best.

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From the calculations using the SPSS version 21.0 program in the form of a multiple linear regression model as follows:

\[ Y = a + b1X1 + b2X2 + \epsilon \]

\[ a = 3,450 \]
\[ b1 = 0.187 \]
\[ b2 = 0.766 \]

So the multiple linear regression equation for product quality and service quality on Indihome Witel Tangerang Customer Loyalty is

\[ Y = 3,450 + 0.187 X1 + 0.766 X2 \]

Information:

- **Y** = Customer Loyalty
- **X1** = Product quality
- **X2** = Service Quality

From these equations it can be explained that:

a. If \( X1 = 0, X2 = 0 \), \( Y = 3,450 = a \)
This means that the quality is not good, the quality of service is not valuable, then customer loyalty increases by 3,450 and it is not significant, which means it is not true that the quality of service is bad and customer loyalty is not worth increasing significantly.

b. If \( X1 = \) increases then \( Y \) changes by \( b1 = 0.187 \)
This means that if the quality of the product increases then customer loyalty will increase by 1.87 or in a percentage of 100% to 18.7% this is revealed based on the results of the answers to the questionnaire statements answered by consumers that consumers will look for good quality products.

c. If \( X2 \) changes then \( Y \) changes by 0.766
This means that if the quality of service increases, then customer loyalty will increase by 0.766 or in a percentage of 100% to 76.6% this is revealed based on the results of the answers to statements from the questionnaires answered by consumers who are looking for satisfactory service so that customer loyalty can be maintained.

Partial Correlation Test (t-Test)

Partial Correlation Test (t-test) shows how far the influence of one explanatory variable is individually in explaining the variation of the dependent variable. With the SPSS program the test is carried out using a significance level of 0.05 (\( \alpha = 5\% \)). Value for \( n = 100 - 2 = 98 \) is 1.660

**Multiple Linear Regression Results**

<table>
<thead>
<tr>
<th>Coefficientsa</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>( Y ) (Constant)</td>
<td>3.450</td>
<td>1.843</td>
<td>-</td>
<td>1.871</td>
<td>.064</td>
</tr>
<tr>
<td>Product Quality</td>
<td>.187</td>
<td>.039</td>
<td>.255</td>
<td>4.714</td>
<td>.000</td>
</tr>
<tr>
<td>Service Quality</td>
<td>.700</td>
<td>.057</td>
<td>.729</td>
<td>13.491</td>
<td>.000</td>
</tr>
</tbody>
</table>

\( a \) Dependent Variable: Customer Loyalty  
Source: data processed by SPSS 21.0
a) The Effect of Product Quality on Customer Loyalty

Based on the results in the table above, it can be partially described as follows:

1) Hypothesis:
   \[ H_0: r_{x_1y} = 0 \] (There is no correlation between product quality and customer loyalty of Indihome Witel Tangerang).
   \[ H_1: r_{x_1y} \neq 0 \] (there is a correlation between product quality and customer loyalty of Indihome Witel Tangerang).

2) Partial Correlation Test (t-test) as follows:

\[
 t = \frac{r_{x_1y}}{\sqrt{1-r^2}} = 4.714
\]

With \( t_{table} = \pm t(\alpha/2, 1) = 1.660 \) where \( \alpha = 5\% \) degree of error.

1) Test Criteria:
   a) Accept \( H_0 \) if \( -t_{table} < t < t_{table} \) and Hallain Rejects \( H_0 \) if \( t < -t_{table} \) or \( t > t_{table} \).

It turns out that \( -1.660 < 4.714 > 1.660 \) means rejecting \( H_0 \)

b) Or in the normal distribution \( t \)

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- 1.660  1.660  4.714
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Hypothesis Testing Criteria Partial correlation test Product quality.

1) Conclusion:
   \( H_0 \) is rejected, meaning that there is a correlation between product quality and customer loyalty at Indohome Witel Tangerang. Or hypothesis testing, in this case, is carried out with the help of SPSS program data processing, it is said to be significant if the value of \( \sigma = 5\% \) and it turns out to be \( 0.000 < 5\% \) then there is a significant influence between service quality and customer loyalty at Indohome Witel Tangerang.

Simultaneous correlation test (F test)
A simultaneous correlation test (F test) was carried out to find out whether the independent variables (Product Quality and Service Quality) which were included in the model had a joint effect on the dependent variable (customer loyalty) Indihome Witel Tangerang. The step to perform the F test was to determine the value The calculated \( F \) and the calculation table are \( F \) table \( dk = 100-2-1=97, = 5\% F \) table = 3.09.

b) Influence of Price on Purchase Decisions

Based on the results in the table above, it can be partially described as follows:

1) Hypothesis:
   \[ H_0: r_{x_1y} = 0 \] (There is no correlation between service quality and customer loyalty of Indihome Witel Tangerang).
   \[ H_1: r_{x_1y} \neq 0 \] (there is a correlation between service quality and customer loyalty of Indihome Witel Tangerang).

2) Partial Correlation Test (t-test) as follows:

\[
 t = \frac{r_{x_1y}}{\sqrt{1-r^2}} = 13,491
\]

With \( t_{table} = \pm t(\alpha/2, 1) = 1.660 \) where \( \alpha = 5\% \) degree of error.

1) Test Criteria:
   a) Accept \( H_0 \) if \( -t_{table} < t < t_{table} \) and Hallain Rejects \( H_0 \) if \( t < -t_{table} \) or \( t > t_{table} \).

It turns out that \( 13,491 > 1.660 \) means rejecting \( H_0 \)

b) Or in the normal distribution \( t \)
1) Hypothesis
Ho: \( r_{x1x2y} = 0 \) (There is no correlation between product quality and service quality with Indohome Witel Tangerang customer loyalty)
H1: \( r_{x1x2y} \neq 0 \) (there is a correlation between product quality and service quality with Indohome Witel Tangerang customer loyalty)

The statistical test used is the F simultaneous correlation test

\[
F_{cal} = \frac{R^2/k}{(1-R^2)/(n-k-1)}
\]

With \( F_{table} = F(a/2, - k1) \), \( dk = 100-2-1=97 \), \( = 5\% \), \( F_{table} = 3.09 \)

1) Test Criteria:
   a) Accept H0 If \( F_{cal} \) Calculate \( F_{Table} \), other things Reject H0 If \( F_{cal} \) Calculate \( F_{Table} \) it turns out that 202.438 > 3.09 means rejecting H0

   a) Or in the F curve distribution

Hypothesis Testing Criteria Simultaneous correlation test

2) Conclusion:
Reject H0. This means that there is an influence of product quality and service quality on the loyalty of Indohome Witel Tangerang customers. Or testing this hypothesis is done by processing SPSS program data, it is said to be significant if the value of \( \text{Sig} < a = 5\% \) and it turns out 0.000 <5% means a significant effect of product quality and service quality on customer loyalty Indihome Witel Tangerang.

**Coefficient of Determination (R2)**

The coefficient of determination knows how much the percentage contribution variable product quality and service quality in explaining variations in customer loyalty variables. Furthermore, by looking at the R-Square, it can be seen how the actual value of the contribution of the two independent variables. Product quality and service quality to the dependent variable of customer loyalty.

The result of the coefficient of determination (R2)

### Model Summary

<table>
<thead>
<tr>
<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>0.899</td>
<td>0.808</td>
<td>0.804</td>
<td>2.62997</td>
</tr>
</tbody>
</table>

From the table above, it can be seen that the R-Square value is 0.808 or 80.8%. This means that the contribution of rice quality and price to purchasing decisions is 80.8%, the remaining 19.2% is influenced by other variables not examined in this study, namely brand image, service quality, and location.

### 5. CONCLUSION

Based on the results of the research and discussion that have been stated previously, the following conclusions can be drawn:

1. There is a significant influence between product quality on Indihome Witel customer loyalty which is marked with 0.000 < 5%, this is shown if good product quality and service quality are maintained and even improved it will affect customer loyalty.
2. There is a significant influence between service quality on customer loyalty which is marked with 0.000 < 5%, this is indicated if better service quality can affect customer loyalty.
3. There is a joint influence between product quality and service quality on customer loyalty at Indihome Witel Tangerang in terms of the coefficient of determination (R2) of 80.8%, this shows what if good product quality and service quality will affect loyalty.
REFERENCES


