



Effect of Service Quality on Customer Satisfaction at PT. PLN (Persero) Rayon Siborong Borong Sibolga Area

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ABSTRACT

This study aims to determine and analyze how the influence of service quality on customer satisfaction at PT. PLN (Persero) Rayon Siborong Borong Sibolga Area. Data analysis method used is simple correlation analysis method, simple linear regression analysis and t test. The population in this study were all customers who use KWH (kilo watt hour) 1300va rates as many as 375 customers. The sample can be determined using the Slovin formula with an error rate of 10%. So the sample in this study was 79 people. The data obtained from questionnaires distributed to a sample of 79 people obtained a correlation with the results that $r_{count} (0.611) > r_{table} (0.221)$ concluded that there was a significant relationship between service quality (X) and customer satisfaction (Y) at PT. PLN (Persero) Rayon Siborongborong Sibolga Area. Based on table 3.2 of the correlation coefficient interpretation guidelines, the coefficient found is 0.611 which means the strong category. So there is a strong relationship between service quality (X) and customer satisfaction at PT.PLN (Persero) Siborong Borong District Sibolga. R Square is 0.373. This shows that the impact of Service Quality (X) customer satisfaction (Y) at PT PLN (Persero) is 37.30% and the remaining 62.70% is influenced by other factors that are not discussed in this study. The regression equation is $Y = 14.412 + 0.810X$. Based on the regression equation above, it can be explained that if the Service Quality $X = 0$ then the value of customer satisfaction or Y will increase by 14,412. The significance of variable correlation is 6,774. Then the value is compared with t table with an error rate of 5% $df = n-2 = 77$. The t table value of (1.668) is in accordance with the requirements of testing the hypothesis that $t (6.744) > t \text{ table } (1.668)$ can be concluded that Service Quality (X) has a positive and significant effect on customer satisfaction (Y) at PT PLN (Persero).) Siborong Borong Rayon then the research hypothesis is accepted.

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1. Introduction

BUMN must be able to provide satisfaction to the community as consumers and provide a good image in the eyes of the community by providing quality services. Seeing this situation, the government is trying to make BUMNs try to improve the situation by providing the best service to the community.

With good service, it is hoped that the community will feel valued and not feel neglected by their rights and in the end the community as users or customers of the services offered by these government-owned companies will feel satisfied, so based on the Indonesian Constitution No. 30 of 2009 concerning electricity that, electricity has a very important and strategic role in realizing the goals of national development.

The electricity supply business is controlled by the state and its supply needs to be continuously improved in line with development developments so that electricity is available in sufficient quantity, equality and quality. For this reason, PT. PLN (Persero) pays special attention to service activities in terms of meeting customer needs so that in their implementation they can satisfy customers.

If the services provided meet customer demands, the customer will feel satisfied and if the service is below the expected level, the customer will feel less / dissatisfied.

Customers who feel dissatisfied with the quality / service provided will automatically tell others as a complaint for their dissatisfaction. PT. PLN (Persero) Rayon Siborong borong Sibolga Area is a State-Owned Enterprise (BUMN) that serves the public interest and is engaged in electricity bill payment services, new installation services and power changes, customer complaint services regarding meter reading, and



connecting facilities in the form of transmission lines. , while the services provided are in the form of electricity. PT.

PT. PLN (Persero) seeks to play a role:

(1) as driving, driving and supporting national development; (2) as a means of increasing productivity and efficiency; (3) to support the smooth running of economic and government activities. The need for electricity services in Siborong Borong District from year to year shows an increase. The increase in the need for electrical services is a positive impact to support the channeling of the potential that PT. PLN (Persero). In general, electrical services at PT. PLN (Persero) is dominated by electricity bill payment services.

2. Literature review

2.1 Service quality

According to Wyckof, service quality is the level of excellence expected and control over that level of excellence is to fulfill customer wants. Service quality is not seen from the point of view of the service provider or service provider, but is based on the perception of the community (customers) who receive the service. It is the customers who consume and feel the services provided, so they are the ones who should assess and determine the quality of service.

Based on some of the definitions above, the researcher came to an understanding that service quality is a form of measurement of the value of service that has been received by consumers and the dynamic conditions of a product or service. Services are basically activities offered by organizations or individuals to consumers (being served) that are intangible and cannot be owned.

2.2 Customer satisfaction

Customer satisfaction is one of the keys to the success of a company from the overall activities carried out which ultimately boils down to the value that the customer will provide regarding the perceived satisfaction. Therefore, customers play an important role in measuring satisfaction with the company's products and services.

According to Kotler and Keller (2009: 139): "Satisfaction (satisfaction) is a feeling of pleasure or disappointment in someone who arises because of comparing the perceived performance of the product (or results) against their expectations". Sangadji and Sopiah (2013: 180): "Satisfaction or dissatisfaction is a feeling of pleasure or disappointment from a person who comes from a comparison between his impression of the real / actual product performance with the expected product performance".

3. Research methods

The population is all customers who use KWH (kilo watt hour) 1300va rates, amounting to 375 customers of Siborong Borong Rayon consisting of 21 villages in 2020. The sampling technique is carried out by sampling techniques, Determination of the number of samples is determined by the Slovin formula with an error rate 10%:

$$n = \frac{375}{1 + 375(10\%)^2}$$

$$n = 78.9 \text{ or rounded up to } 79 \text{ people.}$$

Data collection techniques are Questionnaires, documentation and interviews. Types and sources of data are primary and secondary data. The data collection technique uses the following methods:

a. Simple Correlation Coefficient Analysis

This analysis is to determine whether there is a correlation variable X (Service Quality and Variable Y (Customer Satisfaction) through the formula according to Sugiyono (2008: 276) as follows:

$$r = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{\{n\sum X^2 - (\sum X)^2\}\{n\sum Y^2 - (\sum Y)^2\}}}$$

b. Simple Linear Regression Analysis

Simple regression analysis is used to predict the relationship between a variable and other variables, the value of Y (customer satisfaction) if the variable X (Service Quality) is improved. The formula used according to Sugiyono (2005: 270 + 272)

$$Y = a + bX$$

$$a = \frac{(\sum Y)(\sum X^2) - (\sum X)(\sum XY)}{n\sum X^2 - (\sum X)^2}$$



$$b = \frac{n(\sum XY) - (\sum X)(\sum Y)}{n\sum X^2 - (\sum X)^2}$$

- c. Significant Analysis of Correlation Coefficient (t test)
Analysis of Significance Product moment correlation coefficient (t test) is used to determine the significance of the relationship between variables.

$$\text{Thitung} = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

4. Results and Discussion

Correlation analysis (r) aims to determine the variable service quality (X) to customer satisfaction (Y) using the SSS method version 17.00 as follows:

Table 1
Correlation Coefficient of Service Quality (X) Against Customer Satisfaction (Y)

		Correlations	
		Customer satisfaction	Service quality
Pearson Correlation	Customer satisfaction	1,000	.611
	Service quality	.611	1,000
Sig. (1-tailed)	Customer satisfaction	.	.000
	Service quality	.000	.
N	Customer satisfaction	79	79
	Service quality	79	79

Based on the table above, we can compare rcount with rtabel for decision making where rcount is obtained of 0.611. The criteria for decision making are taken by comparing the value of rcount with rtabel if rcount > rtabel, then there is a significant relationship between variable X and variable Y, on the other hand, if rcount < rtabel, there is no significant relationship between variable X and variable Y. Based on the data above, then rcount (0.611) > rtabel (0.221) concluded that there is a significant relationship between Service Quality (X) and Customer Satisfaction (Y) at PT. PLN (Persero) Rayon Siborong-borong Sibolga Area.

Based on table 1 of the Interpretation guidelines for the Correlation coefficient, the coefficient found is 0.611 which means the strong category. So there is a strong relationship between Service Quality (X) and Customer Satisfaction (Y) at PT PLN (Persero) Rayon Siborong borong Sibolga Area.

Furthermore, to find out how much the contribution of the Service Quality Variable (X) to Customer Satisfaction (Y) at PT PLN (Persero) Rayon Siborongborong Sibolga Area, the coefficient of determination test was used using SPSS version 20.00 as follows.

Table 2
R Square Service Quality (X) with customer satisfaction (Y)

Model Summary b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.611a	.373	.365	2,599	.373	45,891	1	77	.000	1,537

a. Predictors: (Constant), service_quality_
b. Dependent Variable: customer_satisfaction

From the data above, the R Square value is 0.373 or 37.30%, this shows that the influence of service quality (X) customer satisfaction (Y) at PT PLN (Persero) is 37.30% and the remaining 62.70% is influenced by other factors not discussed in this study:



Table 3

Linear regression Service quality (X) with customer satisfaction

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.	95.0% Confidence Interval for B		Correlations		
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part
(Constant)	14,412	3,146		4,581	.000	8,147	20,677			
1 Service quality	.810	.120	.611	6,774	.000	.572	1,048	.611	.611	.611

Based on the table above, a simple linear regression equation is obtained as follows:

$$Y = a + Bx$$

Where:

- y = Subject in the predicted dependent variable
 - a = Y price if X = O (constant price)
 - b = Direction number or Regression Coefficient
 - x = Subject in independent variable that has a certain value
- then $Y = a + bX$
 $= 14,412 + 0.810X$

The regression equation above can be explained that if the Service Quality X = 0 then the value of Customer Satisfaction or Y will increase by 14,412.

4.1 Hypothesis testing (t test)

To find out the hypothesis, the t test is used to determine the extent to which the variable is significant. To calculate the significance of the influence of the variables, a formula is used with the help of the SPSS version 20.00 program as follows:

Table 4
T test

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.	95.0% Confidence Interval for B		Correlations		
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part
(Constant)	14,412	3,146		4,581	.000	8,147	20,677			
1 Service quality	.810	.120	.611	6,774	.000	.572	1,048	.611	.611	.611

a. Dependent Variable: _customer satisfaction

Based on the table above, the significance of the variable correlation is 6.774. Then the value is compared with t table with an error rate of 5% $df = n-2 = 77$. The t table value of (1.668) is in accordance with the hypothesis testing conditions that $t_{count} (6.774) > t_{table} (1.668)$ can be concluded that Service Quality (X) has a positive and significant effect on customer satisfaction (Y) at PT PLN (Persero) Rayon Siborongborong then the research hypothesis is accepted.

5. Conclusion

The conclusion is as follows:

- a. The data obtained from questionnaires distributed to a sample of 79 people obtained a correlation with the results that $r_{count} (0.611) > r_{table} (0.221)$ concluded that there was a significant relationship between service quality (X) and customer satisfaction at PT PLN (Persero) Rayon Siborongborong Sibolga area.
- b. Based on table 3.2 of the correlation coefficient interpretation guidelines, the coefficient found is 0.611 which means the strong category. So there is a strong relationship between Service Quality (X) and Customer Satisfaction at PT.PLN (Persero) Siborong Borong Rayon, Sibolga Area.
- c. R Square of 0.373, this shows that the influence of Service Quality (X) with customer satisfaction (Y) at PT PLN (Persero) is 37.30% and the remaining 62.70% is influenced by other factors not discussed in the study. this.
- d. The significance of variable correlation is 6,774. Then the value is compared with t table with an error level of 5% $df = n-2 = 77$ The t table value is 1.668. In accordance with the hypothesis testing conditions that $t_{count} (6.774) > t_{table} (1.668)$ it can be concluded that Service Quality (X) has a



significant influence positive and significant with customer satisfaction (Y) at PT.PLN (Persero) Rayon Siborongborong Sibolga Area, the research hypothesis is accepted.

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