Assessing Customer Satisfaction in Relation to Service Quality at PLN in Cimahi City

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Abstract

The purpose of this study is to determine the effect of service quality on PLN customer satisfaction at PT. Haleyora Powerindo Cimahi Kota. This research method uses a quantitative approach to the survey method. The population in this study is the average monthly PLN customer at PT. Haleyora Powerindo Cimahi City, namely 652 customers. Questionnaires using a Likert scale were distributed to a sample of 87 customers determined by the Slovin formula (error rate of 10%). As for statistical data analysis using simple linear regression analysis by testing the t test. The results of the study concluded that Service Quality affects PLN Customer Satisfaction at PT. Haleyora Powerindo Cimahi Kota. The magnitude of the contribution of service quality to PLN customer satisfaction at PT. Haleyora Powerindo Cimahi Kota amounted to 61.6% while the remaining 38.4% was influenced by other factors not examined in this study. This study highlights the crucial role of service quality in customer satisfaction at PT. Haleyora Powerindo Cimahi Kota, underscoring the need for focused improvements in this area to significantly enhance overall customer experience.

Article Info

1. Introduction

The State Electricity Company (PLN) is PLN (State Electricity Company) which is one of the state-owned companies that provides services to potential customers and the public in providing services related to the sale of the only electricity in Indonesia (Kurniawati, 2022; Neolaka et al., 2022). The increase in electricity demand in Indonesia is soaring and fast which is accompanied by demands for a high level of satisfaction from society (Yenni, 2019). Therefore, it is essential for PLN to continuously innovate and upgrade its service delivery systems to meet the growing expectations and ensure reliable and efficient electricity supply across Indonesia (Maidin et al., 2022).

The State Electricity Company (PLN) is one of the state-owned companies that provides services to the community, both lower class and upper class. PLN provides many services to the community, including new electrical installation services, additional electrical power, providing street lighting and electrical disturbance services in offices, homes, companies, hospitals, schools, parks and others (Maulana, 2019). With such a diverse range of services, PLN plays a critical role in ensuring equitable access to electricity, thereby contributing significantly to the social and economic development of various communities across Indonesia (Guerreiro & Botetzagias, 2018; Fathoni et al., 2021).

Customer satisfaction is a requirement for a company to survive and is very important because by maintaining customer satisfaction it will create a good image for the company itself, as well as a good relationship between the company and customers (Sulistyan & Budiyanto, 2019). Customer satisfaction is the key to a company's success. The higher the level of customer satisfaction, the higher the company's image or success in the eyes of customers or the company can even gain good trust in the eyes of the government (Mi'raji et al., 2020). This emphasis on customer satisfaction not only strengthens the company's reputation but also fosters customer loyalty and trust, which are essential for long-term business sustainability and growth.

PLN in managing the company uses the services of subsidiaries or suppliers. One of them is PT. Haleyora Powerindo Cimahi Kota. Based on the results of a preliminary study conducted at PT. Haleyora Powerindo Cimahi City, there are several problems regarding customer satisfaction. In the postpaid program, there were problems with differences in meter reading data, so customers paid more. Apart from that, new customers often do not change the names of old customers, which results in discrepancies in the NIK of customer data because the system data is not updated. Other problems were found to be failures in electricity bill settlement transactions which resulted in payments not yet being paid (pending), but there were also those who were late in paying electricity bills, causing temporary power cuts. Data is presented on the number of customers making transactions in 2022 (average per month of 652 customers). The amount of customer arrears is Rp. 1,829,619,392,-.

Along with the development of information and communication technology (ICT), PLN provides electronic-based services using the "PLN Mobile" application as a step to improve the quality of its services, where customers can submit reports or complaints regarding electricity through this application. However, this actually creates new problems because not all customers understand how to use the application.

The research results of Yusnita at al., (2022) show that customer satisfaction is significantly influenced by service quality at PT PLN (Persero) Aceh Region Main Unit. Previously, Fitriani's research results (2021) confirmed that service quality had a positive and significant effect on customer satisfaction at PT. PLN (Persero) UP3 Purwakarta. Based on this, this research aims to support and expand the results of research regarding PLN customer satisfaction which is influenced by service quality at PT. Haleyora Powerindo Cimahi City, as a subsidiary that handles electricity bill payments in Cimahi City.

2. Methods

This research uses a quantitative approach with a survey method. This research aims to analyze the influence of service quality on customer satisfaction. The service quality variable is measured using service quality dimensions according to Zeithaml & Berry (2002) in Sarjono & Natalia (2014), and customer satisfaction is measured using customer satisfaction dimensions according Endrawati & Juliani (2018) which includes the quality of goods/services, customer relations, complaint handling system and service conformity guarantee.

The population in this study is the average monthly PLN customers at PT Haleyora PowerIndo Cimahi City, namely 652 customers. A questionnaire using a Likert scale was distributed to a sample of 87 customers determined by the Slovin formula (error rate of 10%). The data analysis method used in this research is descriptive statistics to measure the average (mean) and standard deviation of each variable, and inferential statistics to analyze the influence between variables. Data was processed using SPSS version 25. Using SPSS version 25, this analysis would involve fitting a linear equation to the observed data and computing the regression coefficients, which indicate the strength and type (positive or negative) of the relationship. The regression model would also provide essential metrics like the R-squared value, which represents the proportion of variance in customer satisfaction that can be explained by service quality. This method would complement the descriptive statistics by providing a predictive understanding of the relationship and inferential statistics by testing the significance of the relationship, thus offering comprehensive insights into how service quality improvements might enhance customer satisfaction.

3. Results and Discussion

3.1. Results
Respondent Characteristics
The characteristics of the respondents in this study can be described as follows:

Table 1. Respondent characteristics based on gender, age, education and occupation.

No	Information	Responden	Percentage %
Gender			
1	Man	50	57%
2	Women	37	43%
Age			
1	< 20 Years	9	10%
2	21 - 40 Years	68	78%
3	41 - 59 Years	10	11%
Education			
1	Junior High School	4	5%
2	Senior High School	51	59%
3	Diploma	10	11%
4	S-1	22	25%
Work			
1	Housewife	3	3%
2	Private sector employee	42	48%
3	Civil servants	10	11%
4	Self-employed	17	20%
5	Student/Students	15	17%

Source: Data Processed (2023)

From the table above, it can be seen that of the 87 respondents in the sample, the majority of respondents were male, 50 or 57%. Regarding the age of the respondents, the majority were in the 21-40 year age range, 68 people or 78%, the educational level of the respondents had the most high school education, 51 people or 59%, and the type of work of the respondents was mostly private employees, 42 people or 48%.

Validity and Reliability Test
For the level of validity, a significance test is carried out by comparing the calculated r value with the r table for degree of freedom (df) = n-k, in this case n is the number of samples and k is the number of constructs. In this case, the df value can be calculated as 87-2 or df=85 with an alpha of 0.05 to get an r table of 0.2108 if the rcount (for each item which can be seen in the Corrected Item Total Correlation column) is greater than the rtable and the r value is positive then the item or question is said to be valid.

Table 2. Validity and Reliability Test Results

Item	r test	r table	Cronbach's alpha	Information
Service Quality			0,845	Reliable
X1	.504	0.2108		Valid
X2	.660	0.2108		Valid
X3	.735	0.2108		Valid
X4	.809	0.2108		Valid
X5	.613	0.2108		Valid
Customer Satisfaction			0,862	Reliable
Y1	.686	0.2108		Valid
Y2	.832	0.2108		Valid
Y3	.835	0.2108		Valid
Y4	.534	0.2108		Valid

Source: Data Processed (2023)

Based on the table above, each statement item on the service quality and customer satisfaction variables is declared valid because the r-count is > 0.2108. The results of the reliability test for the service quality and customer satisfaction variables show that the Cronbach's Alpha value is > 0.60, so the research instrument is declared reliable for the two variables studied.

Normality Test

The Normality Test is used to determine whether the data is normally distributed or not, parametric analysis such as linear regression requires that the data must be normally distributed. The test used in this research used the Kolmogorov-Smirnov Normality Test method.

Table 3. Normality Test Results

		Unstandardized Residual
N		87
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	2,34239893
Most Extreme Differences	Absolute	,020
	Positive	,020
	Negative	-,063
Test Statistic		,041
Asymp. Sig. (2-tailed)		**,105[c,d]**

Source: Data Processed (2023)

Based on the table above, the Asymp. Sig. (2-tailed) Residual Unstandardization of 0.105 is greater than 0.05, so it can be concluded that the regression data in this study is normally distributed.

Linear Regression Analysis

Regression analysis is used to analyze multivariate data. This analysis is used to predict the value of the dependent variable, with more than one independent variable. This analysis is used to find out how much influence service quality has on customer satisfaction. The results of simple linear regression analysis can be seen as follows:

Table 4. Regression Analysis

No	Analysis	Information
1	Constant	t = 1,518
		Sig. 0,133
2	Service Quality -> Customer Satisfaction	t = 11,681
		Sig. 0,000
3	Model	a = 1,897
		b = 0,684
4	Determination	R = 0,616

Source: Data Processed (2023)

A simple linear regression equation using two independent variables is as follows:
$$Y = a + bX + e$$
$$Y = 1.897 + b1(0.684) + e$$

Information:
Y = Customer Satisfaction
a = Constant
b = Coefficients of the predictor X regression equation
X = Service Quality

This equation can be interpreted as constant (a): 1,897, the constant value is positive, meaning that if the Service Quality variable score is considered non-existent or equal to 0, then the Customer Satisfaction score will increase. Coefficient b: The value 0.684 is a regression

coefficient which means that if the variable increases by 1 unit, then customer satisfaction will increase by 0.684 units regardless of other variables, or without other independent variables.

Based on table 4, the calculated t value of the service quality variable with a significant value of 0.000 is smaller than 0.05. So it can be concluded that H1 is accepted and it can be concluded that the service quality variable has a significant effect on the customer satisfaction variable. The value (R Square) is 0.616. It can be concluded that the contribution of the independent variable in simple linear regression is 61.6%, while the remaining 38.4% is influenced by other factors not examined in this research.

3.2. Discussion

The research results stated that the quality of service provided by PLN through PT. Haleyora Powerindo Cimahi City can be said to be very good, while customer satisfaction is in the good category. Companies must try to understand exactly what customers expect by providing good quality service to meet needs in accordance with what customers expect and want (Kotler and Keller, 2016). PT employee. Haleyora Powerindo Cimahi City does not yet have full responsiveness so it is an important part that needs to be improved in service quality. PLN customer satisfaction at PT. Haleyora Powerindo Cimahi Kota has not fully met the promised service compliance with customer expectations so it needs to be improved.

This research confirms that service quality influences PLN customer satisfaction at PT. Haleyora Powerindo Cimahi City. The contribution of service quality to PLN customer satisfaction at PT. Haleyora Powerindo Cimahi City amounted to 61.6% while the remaining 38.4% was influenced by other factors not examined in this research. The results of this research are in line with research by Yusnita, et al. (2022), Mi'raji et al. (2020) and Rahman (2019) who state that there is an influence of service quality on customer satisfaction.

An important implication of the findings of this research is the need for PT. Haleyora Powerindo Cimahi Kota to improve their responsiveness and service quality in order to achieve a higher level of customer satisfaction. Although the quality of the service provided is currently considered to be very good, there is still room for improvement, particularly in terms of the suitability of the service to customer expectations. This suggests that companies should focus more on deeper understanding of customer needs and desires, which will not only increase customer satisfaction but also strengthen the company's image and build greater trust.

4. Conclusion

Based on the research results and discussion, it can be concluded in this research that service quality influences PLN customer satisfaction at PT. Haleyora Powerindo Cimahi City. The magnitude of the contribution of service quality to PLN customer satisfaction at PT. Haleyora Powerindo Cimahi City amounted to 61.6% while the remaining 38.4% was influenced by other factors not examined in this research. The suggestions for this research are for PT. Haleyora Powerindo Cimahi City should maintain and improve the quality of service provided to customers so that customers feel satisfied. Increasing the suitability of promised services according to customer expectations needs to be improved. Employees should also be equipped with special skills so they are able to handle customer complaints well and quickly. And for further research, this model can be further developed by adding other variables that are still closely related.

The main limitation of this research lies in its narrow focus on HEIs. Haleyora Powerindo Cimahi Kota, which may not fully represent conditions in other PLN units in Indonesia. Therefore, these findings may not be generalizable to all PLN branches. In addition, this research only considers 61.6% of the factors that contribute to customer satisfaction related to service quality, while 38.4% of other factors that influence customer satisfaction have not been identified and researched. This may lead to an incomplete understanding of all factors influencing customer satisfaction. The methodological approach is also a limitation. This study used a survey method with a limited sample and may be subject to bias in sample selection or in the interpretation of responses. Quantitative methods may not fully capture the subjective

nuances of customer satisfaction that can be uncovered through qualitative approaches. Finally, time and resource limitations may also limit the depth and scope of this research, leaving room for further more extensive and thorough research.

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