

## Service Quality On Electricity Customer Satisfaction Prepay In North Gunungsitoli District

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### Informasi Artikel

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### Abstract

*The purpose of the study was to determine the Quality of Service affecting Prepaid Electricity Customer Satisfaction in North Gunungsitoli District, Gunungsitoli City, to realize this goal, data collection techniques were carried out by distributing questionnaires to respondents of prepaid electricity customers. This type of research is quantitative based on obtaining data in the form of numbers obtained by distributing questionnaires. From the results of the hypothesis test (t test) it was found that the accepted hypothesis was  $H_a$ , where there was an influence of service quality on prepaid electricity customer satisfaction in North Gunungsitoli District, Gunungsitoli City, and from the results of the Determination coefficient test obtained a value of 71.1%. This can be interpreted that the satisfaction of Prepaid Electricity customers in North Gunungsitoli District, Gunungsitoli City is influenced by service quality by 71 percent. Based on the results of the T Variable X test of service quality, a calculated value = 7.515 was obtained with a signification level of 0.000. Using a signification limit of 0.05 we get a table t of 1.697. Which signifies that  $t_{count} > t_{table}$ , which means  $H_0$  rejected  $H_a$  accepted.*

### Keywords:

Quality of service  
 customer satisfaction  
 prepaid electricity

### Abstrak

Tujuan penelitian adalah untuk mengetahui Kualitas Pelayanan berpengaruh terhadap Kepuasan Pelanggan Listrik Pra Bayar di Kecamatan Gunungsitoli Utara Kota Gunungsitoli, untuk mewujudkan tujuan tersebut dilakukan teknik pengumpulan data dengan cara menyebarkan angket kepada para responden pelanggan listrik prabayar. Jenis penelitian adalah kuantitatif yang didasari dengan mendapatkan data berupa angka yang di dapat dengan cara menyebarkan angket. Dari hasil uji hipotesis (uji t) didapatkan bahwa hipotesis yang diterima adalah  $H_a$ , dimana ada pengaruh kualitas pelayanan terhadap kepuasan pelanggan listrik pra bayar di Kecamatan Gunungsitoli Utara Kota Gunungsitoli, dan dari hasil uji koefisien Determinasi diperoleh nilai 71,1%. Hal ini dapat diartikan bahwa kepuasan pelanggan Listrik Pra Bayar di Kecamatan Gunungsitoli Utara Kota Gunungsitoli dipengaruhi oleh kualitas pelayanan sebesar 71 persen. Berdasarkan hasil uji T Variabel X kualitas pelayanan diperoleh nilai thitung = 7,515 dengan tingkat signifikansi 0,000. Dengan menggunakan batas signifikansi 0,05 didapat t tabel sebesar 1,697. Yang menandakan bahwa thitung > t tabel, yang berarti  $H_0$  ditolak  $H_a$  diterima.

**Kata Kunci :** Kualitas pelayanan, kepuasan pelanggan, listrik prabayar.

### INTRODUCTION

In today's era of globalization, the quality of company services is an important element in an effort to increase customer satisfaction. The company's service is fairly satisfactory if it can meet the criteria of consumer expectations and needs. Consumers who have been satisfied will then have emotional closeness with the company so that they become loyal consumers. Loyal consumers can improve the company's business performance and improve the company's image in the eyes of the public. Quality has a close relationship with customer satisfaction, where quality provides an encouragement to customers to establish a close relationship with the company. This allows the company to thoroughly understand customer expectations as well as customer needs. Quality should start from customer needs and end at customer perception. This means that a good quality image is not based on the perception of the service provider, but based on the perception of the customer. Customer perception of service quality is a comprehensive assessment of the excellence of a service. In Assegaft's earnings (2019: 173), stated

that the quality of service is described as a statement about attitudes, relationships resulting from, among others, past experiences, opinions of friends, information and company promises.

Customer satisfaction needs to be implemented clearly, because it is included in part of the quality of service for the success of a company. The purpose of holding prepaid electricity is to meet customer expectations to develop service quality. Therefore, accurate information is needed that there are advantages for prepaid electricity users. In this case, PT. PLN (Persero) can understand well what customers expect and want.

On the problem of customer service disruption PT. PLN (Persero) complained about problems when buying and charging electricity tokens, where there were frequent disruptions in the communication network system which resulted in a number of electricity transactions failing to send. The service system needs to be supported by quality service, adequate facilities and ethics or manners, because the purpose of providing services is to provide satisfaction to consumers, resulting in the generation of added value for the company. Consumer satisfaction is the main indicator of the standard of an electrical facility and is a measure of service quality, low customer satisfaction will have an impact on the number of customers that will affect the profitability of the electricity facility, while the attitude of officers towards consumers will also have an impact on consumer satisfaction where consumer needs from time to time will increase, as well as demands for the quality of services provided.

Based on initial observations, the main problem that many consumers have experienced so far is dissatisfied service related to the use of prepaid meters. One of the things that disappoints consumers is the use of power that is too fast where there is a mismatch between the price of tokens (electricity pulses) and the available power capacity. Therefore, UP3 PLN Nias is required to always maintain consumer trust and satisfaction by improving service quality so that customer satisfaction increases. It is expected that service officers in the office provide information needed by the customer concerned in terms of electricity payments, installation of new meters, information about the ease of using prepaid electricity, while field officers are quick to respond and respond well in the event of electrical damage. Services in smart electricity service units are closely related to smart electricity customer satisfaction. Services in smart electricity service units also encourage customers to establish strong bonds with the company.

Literally, Fajri (2018: 520), states that the meaning of the word service is to help take care of or prepare all the needs that someone needs, serving. While service is a way of serving. If the service expected by consumers is greater than the service actually received by consumers, it can be said that the service is not of good quality, while if the service expected by consumers is lower than the service actually received by consumers, then it can be said that the service is of good quality, and if the service received is the same as the expected service, the service can be said to be satisfactory.

According to Arosmiati (2016: 60), said that service can be defined as the activity of a person, group and or organization either directly or indirectly to meet needs. Service is the process of meeting needs through the direct activities of others. Standards in service are measures that have been determined as a good service bookkeeping. In this service standard, there is also a service quality book. According to Rianto (2010: 212), said that quality is a dynamic condition related to products, services, people, processes and the environment that meet or exceed the expectations of those who want. Meanwhile, according to Julian (2011: 23), said that service standards are set according to the wishes and expectations of consumers so that there is no gap between the services provided and consumer expectations. According to Arianto (2018: 83), said that service quality can be understood as a focus on meeting needs and prerequisites, as well as on punctuality to meet customer expectations. This quality

of service applies to all types of services provided by the company to its consumers which can be measured by indicators of physical evidence, reliability, responsiveness, assurance and empathy.

Customer satisfaction has become a central concept in business and management discourse. Customers are the main focus of discussion on satisfaction, satisfaction and service quality. Therefore, customers play an important role in measuring satisfaction with the products and services provided by the company. According to Kotler (2010: 52), satisfaction is the level of a person's feelings after comparing with his expectations. From the definition above, it can be concluded that customer satisfaction reviewed from the customer side is about what customers have felt for the service they have provided compared to what they want. Meanwhile, according to Tjiptono's income (2016: 349), said that satisfaction is the level of a person's feelings after comparing the performance or results he feels compared to his expectations while dissatisfaction arises if the results (outcomes) do not meet expectations. Customer satisfaction with a product or service, is actually something that is difficult to get if the service company or industry does not really understand what consumers expect. Similarly, one of the customer satisfaction in the research of Lase, et al (2023) Customers who feel that their complaints are handled quickly and with a good response tend to be more satisfied with their experience and have a tendency to remain loyal customers.

From the theory stated above, this study leads to the theory proposed by Lupiyoadi (2011: 35), revealing that there are five main factors that must be considered by companies in determining the level of customer satisfaction, with the following indicators:

1. Product quality is a product's ability to perform its functions, that ability includes durability, reliability, accuracy, which the product obtains in harmony.
2. Service quality can be interpreted as focusing on meeting needs and requirements, as well as on punctuality to meet customer expectations. Quality of Service applies to all types of services provided by the company while the client is in the company
3. Emotional is a characteristic feeling and thought, a biological, psychological state and a series of tendencies to act.
4. Price is the value of a good or service measured by the amount of money.
5. Cost is the sacrifice of economic resources measured in units of money, which has occurred or may occur to achieve a specific goal.

#### Customer Satisfaction Measurement

Tjiptono (2016: 210), identified 4 (four) methods to measure customer satisfaction system complaints and suggestions, ghost shopping, lost customer analysis and customer satisfaction surveys, as follows:

##### 1. Complaints and suggestions system

Every customer-oriented organization needs to provide easy and convenient opportunities and access for its customers to express their suggestions, criticisms, opinions, and complaints. The media used can be in the form of suggestion boxes placed in strategic locations (which are easily accessible or often passed by customers), comment cards (which can be filled directly or sent via post to the company), special toll-free telephone lines, websites and others.

##### 2. Ghost Shopping (mystery shopping)

One way to get an idea of customer satisfaction is to hire several ghost shoppers to play the role or pretend to be potential customers of the company's products and competitors. They are asked to interact with service provider staff and use the company's products/services. Based on their experience, they are then asked to report their findings in accordance with the strengths and weaknesses of the company's and competitors' products. So that it can be predicted the level of customer satisfaction with the product.

### 3. Lost Customer Analysis

As much as possible the company should contact customers who have stopped buying or who have moved suppliers in order to understand why this is happening and to be able to adopt further improvement policies. Not only exit interviews are needed, but monitoring customer loss rate is also important, where an increase in customer loss rate shows the company's failure to satisfy its customers. It's just that the difficulty of applying this method is in identifying and contacting former customers who are willing to provide input and evaluation of company performance.

### 4. Customer Satisfaction Survey

Generally, a lot of research on customer satisfaction is done by survey methods, either by post, telephone, or by direct interview. To measure customer satisfaction can be done by:

- a. Measurement can be done directly with questions such as expressing how satisfied you are with the service.
- b. Respondents were asked to write down the problems they faced with the company's offerings and also asked to write down improvements they suggested.
- c. Respondents were asked how much they expected certain attributes and how much they felt.
- d. Respondents can rank various elements and offers based on the degree of importance of each element how well the company performs in each element.

## METODE

This research was conducted in the North Gunungsitoli District, Gunungsitoli City. According to Arikunto (2017: 234), said that: "quantitative research is research intended to collect information about the status of existing symptoms, namely the state of symptoms according to what they are at the time the research is conducted". In this study, the authors used a type of quantitative descriptive research. Where the author will analyze and draw research conclusions descriptively with statistical methods based on the data and information obtained.

According to Sugiyono (2016: 80), explaining that population is a generalized area consisting of objects / subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions ". The population in this study was 314 (three hundred and fourteen) customer households that used prepaid electricity. Sugiyono (2016: 81), the sample is part of the number and characteristics possessed by the population", using the Slovin formula it was found that the number of samples used in this research amounted to 32 people / respondents.

## RESULTS AND DISCUSSION

**Table 1. Validity Test Results of Variable X Question Items**

Question Point	Pearson Correlation	R- Tabel	Sig. (2-tailed)
<b>x_1</b>	0,652	0,3494	0,000
<b>x_2</b>	0,628	0,3494	0,000
<b>x_3</b>	0,565	0,3494	0,001
<b>x_4</b>	0,455	0,3494	0,001
<b>x_5</b>	0,514	0,3494	0,003
<b>x_6</b>	0,709	0,3494	0,000
<b>x_7</b>	0,418	0,3494	0,002
<b>x_8</b>	0,588	0,3494	0,000
<b>x_9</b>	0,550	0,3494	0,001
<b>x_10</b>	0,539	0,3494	0,001

Table 2. Test Results of Validity of Question Items Variable Y

Question Point	Pearson Correlation	R- Tabel	Sig. (2-tailed)
y_1	0,654	0,3494	0,000
y_2	0,676	0,3494	0,000
y_3	0,656	0,3494	0,001
y_4	0,456	0,3494	0,001
y_5	0,511	0,3494	0,003
y_6	0,871	0,3494	0,000
y_7	0,542	0,3494	0,002
y_8	0,659	0,3494	0,000
y_9	0,544	0,3494	0,001
y_10	0,564	0,3494	0,001

From the results of tables 1 and 2 above, it is known that both variables are equally valid because the calculated r value is greater than the r table value, which is 0.3494.

Figure 1. Variable Reliability Test X

Reliability Statistics				
Cronbach's Alpha	N of Items			
,750	10			

  

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X_1	29,37	8,652	,554	,776
X_2	29,54	8,903	,484	,784
X_3	29,60	8,718	,525	,779
X_4	29,40	8,600	,395	,796
X_5	29,54	8,432	,506	,780
X_6	29,49	8,551	,570	,774
X_7	29,49	8,787	,327	,806
X_8	29,51	8,787	,504	,781
X_9	29,37	8,476	,539	,777
X_10	29,37	8,946	,445	,787

From the results of the reliability test in figure 1 above, it is known that the value of Cronbach's Alpha in the Service Quality variable is 0.750.

Figure 2. Variable Y Reliability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
,785	10



**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Y_1	26,43	5,782	,408	,589
Y_2	26,51	5,551	,297	,607
Y_3	26,31	5,987	,320	,605
Y_4	26,69	5,575	,216	,633
Y_5	26,40	5,482	,430	,578
Y_6	26,54	5,844	,257	,615
Y_7	26,49	5,904	,276	,611
Y_8	26,51	5,728	,328	,600
Y_9	26,43	5,311	,553	,554
Y_10	26,54	6,020	,092	,663

From the results of the reliability test in figure 2 above, it is known that the value of Cronbach's Alpha in the Customer Satisfaction variable is 0.785.

**Figure 3. Test of Correlation Coefficient and Determination****Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,743 <sup>a</sup>	,711	,704	2,318

a. Predictors: (Constant), TOTAL\_X

From the table above shows the influence between the influence of service quality on customer satisfaction there is a correlation coefficient of 0.743. This indicates that there is a positive correlation between service quality and customer satisfaction with a strong level of relationship. And also obtained the value of the coefficient of determination of 0.711 which is entered into the formula:

$$KD = r_{xy}^2 \times 100\%$$

$$KD = 0.711 \times 100\% \quad KD = 71.1\%$$

So it can be concluded that the influence of the independent variable (service quality) on the dependent variable (customer satisfaction) is 71.1%.

**Figure 3. Simple Linear Regression Test****ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12,334	1	12,334	32,296	,000 <sup>b</sup>
	Residual	161,135	30	5,371		
	Total	173,469	31			

a. Dependent Variable: TOTAL\_Y

b. Predictors: (Constant), TOTAL\_X

In the table above explains that F count = 32.296 with a level of significance / probability  $0.000 < 0.05$ , then the regression model can affect customer satisfaction.

**Figure 4. Hypothesis Test (T Test)**

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	
1	(Constant)	22,425	4,872		3,603
	TOTAL_X	7,221	7,146	7,267	7,515
					,000

a. Dependent Variable: TOTAL\_Y

Based on the results of the T test above, Variable X service quality obtained tcalculate value = 7.515 with a signification level of 0.000. Using a signification limit of 0.05 we get a table t of 1.697. Which signifies that tcount > t table, which means H0 rejected Ha is accepted.

## CONCLUSION

Based on the results of the analysis above, it can be concluded that:

From the results of the vailidity test, it was found that each question item item used in the questionnaire was declared valid. Where the value obtained from the results of data analysis of the r value is calculated > from the r value of the table. The results of the reliability test get the croanbachalpha value of each variable croanbach alpha value > 0.60. So it can be concluded that the measuring instrument used is a reliable measuring instrument. The results of a simple linear regression test with the level of significance are,  $0.000 < 0.05$ . Which indicates that the quality of service can affect customer satisfaction Prepaid electricity at the North Gunungsitoli District Office. From the calculation of the T test, it is obtained that t counts > t table or  $7.515 > 1.697$ , it can be concluded that the accepted hypothesis is ha where there is an influence of service quality on customer satisfaction Prepaid electricity in North Gunungsitoli District. Service quality also supports or influences the increase in customer satisfaction Prepaid electricity with an influence of 71.1% while the remaining 28.9% is influenced by other factors that were not studied in this study. The value of the correlation test results between work environment variables to employee performance was 0.743 which was at a strong relationship level. Based on these findings, it is recommended that you pay attention to the quality of service provided to customers, so that the level of prepaid electricity customer satisfaction increases. Conduct performance reviews so that they can continue to make improvements in service to customers and finally set service quality standards for prepaid electricity customers. The same is the case with suggestions in previous research by (Zebua, et al, 2022) And which became advice for PT. PLN (Persero) Nias Service Implementation Unit to always pay attention to and facilitate the need for occupational safety and health for its employees and reduce negligence in work.

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