

JURNAL ILMIAH MANAJEMEN BISNIS DAN INOVASI  
UNIVERSITAS SAM RATULANGI (JMBI UNSRAT)

THE EFFECT OF THE SERVQUAL DIMENSION ON CUSTOMER  
SATISFACTION OF PT PLN (PERSERO) UID SULUTTENGGO, ULP SOUTH  
MANADO

Priscilla Natali Tresyia Musak, Willem J. F. A. Tumbuan, Djurwati Soepeno

Universitas Sam Ratulangi

ARTICLE INFO

**Keywords:** *Tangibles, Reliability, Responsiveness, Assurance, Empathy, Customer Satisfaction*

**Kata Kunci:** *Bukti Nyata, Keandalan, Daya Tanggap, Jaminan, Empati, Kepuasan Pelanggan*

Corresponding author:

**Priscilla Natali Tresyia Musak**

**Abstract.** *Marketing in the Development of New and Renewable Energy (NRE) is currently focused on enhancing public understanding, acceptance, and utilization of clean energy sources. In line with this, the present study aims to analyze the influence of the SERVQUAL dimensions on customer satisfaction at PT PLN (Persero) UID Suluttenggo, specifically at the South Manado Customer Service Unit (ULP Manado Selatan). The sample for this study was determined using purposive sampling, drawn from a population of 103,093 customers. The sample size was calculated using Slovin's formula, resulting in 100 respondents. A quantitative research method was employed, with data analysis techniques including validity and reliability tests, classical assumption tests, hypothesis testing, and multiple linear regression analysis. The results of the study indicate that all five SERVQUAL dimensions-Tangibles, Reliability, Responsiveness, Assurance, and Empathy-simultaneously have a positive and significant effect on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan. Individually, each dimension also shows a positive and significant impact on customer satisfaction.*

**Abstrak.** *Pemasaran dalam Pengembangan Energi Baru dan Terbarukan (EBT) saat ini difokuskan pada peningkatan pemahaman, penerimaan, dan pemanfaatan sumber energi bersih oleh masyarakat. Sejalan dengan hal tersebut, penelitian ini bertujuan untuk menganalisis pengaruh dimensi-dimensi SERVQUAL terhadap kepuasan pelanggan di PT PLN (Persero) UID Suluttenggo, khususnya di Unit Pelayanan Pelanggan Manado Selatan (ULP Manado Selatan). Sampel penelitian ini ditentukan secara purposive sampling dari populasi sebanyak 103.093 pelanggan. Besar sampel dihitung menggunakan rumus Slovin, sehingga diperoleh 100 responden. Metode penelitian yang digunakan adalah kuantitatif dengan teknik analisis data meliputi uji validitas dan reliabilitas, uji asumsi klasik, uji hipotesis, dan analisis regresi linier berganda. Hasil penelitian menunjukkan bahwa kelima dimensi SERVQUAL yaitu Tangibles, Reliability, Responsiveness, Assurance, dan Empathy secara simultan berpengaruh positif dan signifikan terhadap kepuasan pelanggan di PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan. Secara individual, setiap dimensi juga menunjukkan dampak positif dan signifikan terhadap kepuasan pelanggan.*

## INTRODUCTION

### Background

The development of energy in Indonesia represents a strategic initiative aimed at increasing capacity and diversifying energy resources to meet the growing demand for electricity. In addition, this initiative seeks to reduce reliance on fossil fuels by transitioning toward new and renewable energy (NRE) sources. According to Dewi L. E (2024), NRE is derived from naturally renewable sources, is inexhaustible, and can be utilized continuously without causing environmental pollution. The current development of NRE is guided by Presidential Regulation No. 5 of 2006, which outlines the direction and strategy of the National Energy Policy. Under this policy, it is targeted that by 2025, NRE will contribute 17% to the national primary energy mix. This contribution includes 5% from biofuels, 5% from geothermal energy, 5% combined from biomass, nuclear, hydro, solar, and wind energy, and an additional 2% from liquefied coal.

PT PLN South Manado Customer Service Unit (ULP Manado Selatan) faces several operational challenges that directly affect the quality of services provided to the public. According to Kotler and Keller (2024), customer satisfaction is a feeling of pleasure or disappointment resulting from comparing a product or service's perceived performance to expectations. One of the main issues in maintaining the electricity network-such as tree trimming and installation repairs-lies in the ineffective communication of information to the public. As a result, power outages often occur without prior notice, disrupting residents' daily activities. Service quality is a critical factor in determining customer satisfaction with the services delivered. Zeithaml (2024) notes that the measurement of service quality has evolved significantly with advances in digital technology. Therefore, the SERVQUAL dimensions can serve as a useful framework for identifying and analyzing service-related issues at ULP Manado Selatan.

**Table 1. Complaint Data of PT PLN (Persero) ULP South Manado**

PLN	Month/Year	Number of Complaints
South Manado ULP	January 2025	351
	February 2025	360
	March 2025	446
	April 2025	341
	May 2025	372
	June 2025	362
<b>Total</b>		<b>2.232</b>

Source: PT PLN ULP South Manado (2025)

Based on Table 1, it is evident that the number of complaints received by PT PLN (Persero) South Manado Customer Service Unit (ULP Manado Selatan) during the period from January to June 2025 fluctuated. These complaints reflect various issues faced by customers in accessing PLN services, including power outages, technical disruptions, and billing discrepancies. The highest number of complaints was recorded in March 2025, with a total of 446 cases, while the lowest occurred in April 2025, with 341 cases. On average, the monthly number of complaints was approximately 372. This variation in the number of complaints indicates differences in service quality or power grid stability over time.

A study conducted by Bramantya et al. (2023) demonstrated that the use of the PLN Mobile Application positively influences customer satisfaction at PT PLN (Persero) Paniki Customer Service Unit (ULP Paniki) through the SERVQUAL dimensions, with service quality contributing 70% to the increase in customer satisfaction. Similarly, research by Lengkey et al. (2022) revealed that electronic service quality contributed 56.4% to customer satisfaction at PT PLN ULP Tomohon. The differing levels of contribution found in these studies highlight the existence of a research gap, thereby justifying the need for this study to re-examine previous findings while also providing updated insights into the SERVQUAL dimensions.

This research is expected to make a positive contribution to PT PLN ULP Manado Selatan, particularly in efforts to continuously improve service quality and customer satisfaction. Therefore, the researcher is motivated to conduct a study entitled: “The Influence of SERVQUAL Dimensions on Customer Satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.”

### **Research Purposes**

This study aims to analyze the following:

1. To analyze the collective influence of the SERVQUAL dimensions on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.
2. To analyze the influence of the tangibles dimension on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.
3. To analyze the influence of the reliability dimension on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.
4. To analyze the influence of the responsiveness dimension on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.
5. To analyze the influence of the assurance dimension on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.
6. To analyze the influence of the empathy dimension on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.

## **LITERATURE REVIEW**

### **Marketing Management**

According to Kotler and Keller (2024), marketing management is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives. They further emphasize that marketing management is not solely focused on selling products but also aims to build long-term relationships with customers through value creation and customer satisfaction.

### **Customer Satisfaction**

Kotler and Keller (2024) define customer satisfaction as a feeling of pleasure or disappointment resulting from comparing a product's perceived performance or outcome against customer expectations. If the performance exceeds expectations, the customer is highly satisfied; conversely, if it falls short, the customer experiences dissatisfaction.

### **Customer Satisfaction Indicators**

According to Kotler and Keller (2024), customer satisfaction can be measured through several key indicators that reflect how well a company meets or exceeds customer expectations. These

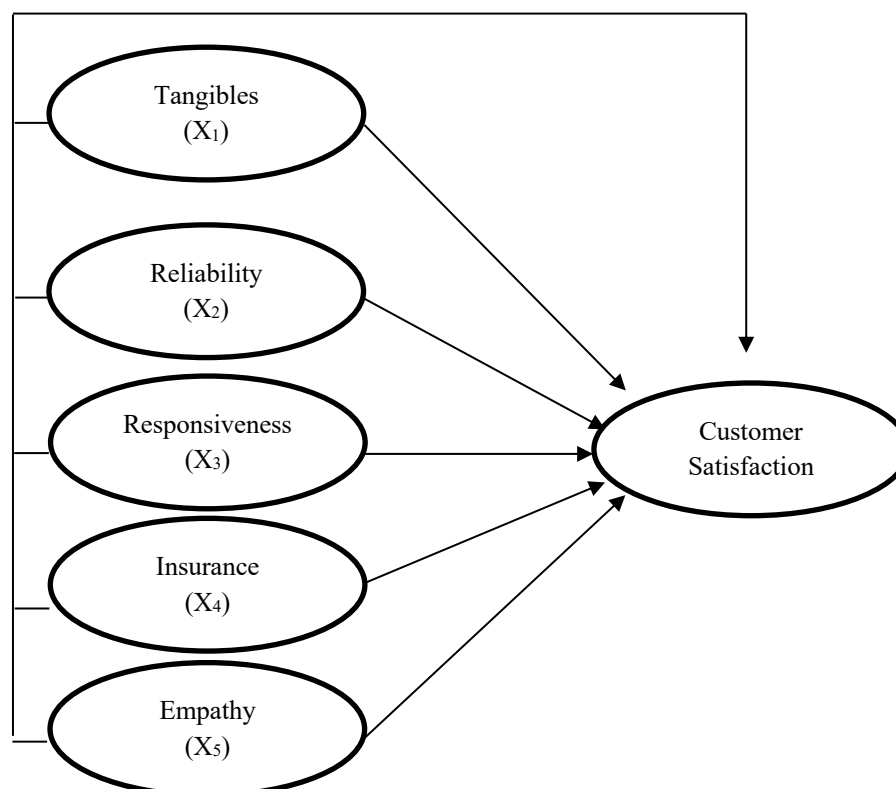
indicators include: Overall satisfaction level, Fulfillment of expectations, Intention to repurchase, Willingness to recommend and Tolerance for imperfections

### SERVQUAL Dimensions

According to Lovelock and Wirtz (2023), SERVQUAL is an effective framework for assessing customer perceptions of service quality, particularly within the service industry. According to Parasuraman et al. (1988), supported by Tjiptono (2020), the SERVQUAL model consists of five main dimensions, each with specific indicators used to comprehensively measure service quality: Tangibles, Reliability, Responsiveness, Assurance and Empathy.

### Previous Research

Bramantya et al. (2023), in their study entitled “The Influence of Service Quality on Customer Satisfaction at PT PLN (Persero) Paniki Customer Service Unit through the PLN Mobile Application,” found that the dimensions of service quality-comprising Tangibles, Reliability, Responsiveness, Assurance, and Empathy-have a positive and significant effect on customer satisfaction at the Paniki Customer Service Unit of PT PLN (Persero). Lesmana and Balqiah (2023), in their research titled “Enhancing E-Customer Loyalty and E-WOM: The Role of Electronic and Non-Electronic Service Quality on Customer Satisfaction (PLN Mobile Application),” demonstrated that electronic service quality has a positive and significant influence on the satisfaction of electronic customers at PT PLN UID West Java. Triatmojo et al. (2025), in their study entitled “Exploring the Relationship Between Electronic Service Quality and Electronic Promotion on E-Customer Loyalty: The Mediating Role of Electronic Customer Satisfaction,” concluded that electronic service quality positively influences electronic customer satisfaction at PLN UP3 Bukittinggi, West Sumatra.



**Figure 1. Research Model**

Source: Theoretical Studies and Empirical Studies (2025)

## Hypotheses

1. It is hypothesized that the SERVQUAL dimensions collectively have a significant influence on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.
2. It is hypothesized that the tangibles dimension has a significant influence on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.
3. It is hypothesized that the reliability dimension has a significant influence on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.
4. It is hypothesized that the responsiveness dimension has a significant influence on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.
5. It is hypothesized that the assurance dimension has a significant influence on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.
6. It is hypothesized that the empathy dimension has a significant influence on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan.

## RESEARCH METHODS

According to Sugiyono (2024), a research method is a scientific approach used to collect data for specific purposes and benefits. This method serves as a guide in the process of data collection, processing, and analysis to ensure that the research findings are credible, valid, and scientifically accountable.

This study employs a quantitative research method, as it aims to examine a specific population or sample and test hypotheses. The independent variables in this study consist of five SERVQUAL dimensions: Tangibles ( $X_1$ ), Reliability ( $X_2$ ), Responsiveness ( $X_3$ ), Assurance ( $X_4$ ), and Empathy ( $X_5$ ).

### Research Location and Object

This research was conducted at a location where all research activities were carried out. The selected site is PT PLN (Persero) Distribution Main Unit (UID) Suluttenggo, specifically the South Manado Customer Service Unit (ULP Manado Selatan). This location was chosen because ULP Manado Selatan directly interacts with customers, making it a relevant setting for examining the impact of service quality on customer satisfaction.

### Data Collection Method

The data collection was carried out using a questionnaire, a technique that involves distributing a set of written questions for respondents to complete independently. The questionnaire targeted household customers of PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan, who had previously submitted service-related complaints. Responses were measured using a Likert scale to assess the respondents' level of perception. The collected data were analyzed using descriptive statistics and multiple linear regression.

### Population and Sample

According to Sugiyono (2024), the population is a group of objects or subjects within a generalization area that share specific characteristics determined by the researcher to serve as a data source for drawing research conclusions. ULP Manado Selatan serves 30,940 postpaid and 72,153 prepaid customers, bringing the total population to 103,093 customers. The sample size was determined using the Slovin formula with a margin of error of 10% (0.10):  $n = N / (1 + N(e)^2)$ . Based on this calculation, the sample consisted of 100 respondents.

### **Research Instrument Scale**

According to Sugiyono (2024), the Likert scale is used to measure attitudes, opinions, and perceptions of individuals or groups toward a social phenomenon. It consists of statements followed by a set of responses that reflect the degree of agreement or disagreement. The five-point Likert scale includes: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

### **Validity Test**

Sugiyono (2024) defines validity as the degree to which an instrument accurately measures the intended concept. If the obtained correlation value is significant and the calculated r-value exceeds the critical r-table value, the instrument is considered valid.

### **Reliability Test**

According to Sugiyono (2024), the reliability test determines the consistency of a research instrument when used under similar conditions. If the Cronbach's Alpha coefficient exceeds 0.60, the instrument is deemed reliable.

### **Normality Test**

Sugiyono (2024) states that the normality test is used to determine whether the data are normally distributed. This test can be conducted using statistical methods such as Kolmogorov-Smirnov, Shapiro-Wilk, or through graphical representations such as histograms and normal probability plots.

### **Multicollinearity Test**

According to Sugiyono (2024), the multicollinearity test is conducted to detect any linear relationships among independent variables in a regression model. It is typically assessed using the Variance Inflation Factor (VIF) and Tolerance values. A model is considered free of multicollinearity if  $VIF < 10$  and  $Tolerance > 0.1$ .

### **Multiple Linear Regression Analysis**

Sugiyono (2024) explains that multiple linear regression analysis is a statistical technique used to examine the simultaneous influence of two or more independent variables on a single dependent variable. This method helps determine the extent to which each independent variable contributes to explaining the dependent variable.

### **Coefficient of Determination ( $R^2$ )**

According to Sugiyono (2024), the coefficient of determination ( $R^2$ ) indicates how well the regression model explains the variation in the dependent variable caused by the independent variables. A higher  $R^2$  value (up to a maximum of 1 or 100%) reflects a greater proportion of explained variance in the outcome variable.

### **Simultaneous Significance Test (F-test)**

Sugiyono (2024) states that the F-test is used to assess whether all independent variables collectively have a significant effect on the dependent variable. If the significance level is less than 0.05, the regression model is considered statistically significant.

### Partial Significance Test (t-test)

According to Sugiyono (2024), the t-test is used to evaluate the individual effect of each independent variable on the dependent variable. If the calculated t-value exceeds the critical t-table value and the significance value is less than 0.05, the effect is considered positive and significant.

## RESULTS OF RESEARCH AND DISCUSSION

### Research Results

#### Validity and Reliability Test

The results of the validity and reliability tests of the research instrument are presented in Table 2 below.

**Table 2. Validity and Reliability Test Results**

Dimension	Items	Person Correlation	Itself	Status	Cronbach's Alpha	Status
Tangibles (X <sub>1</sub> )	X <sub>1.1</sub>	0.921	0.000	Valid	0.911	Reliabel
	X <sub>1.2</sub>	0.937	0.000	Valid		
	X <sub>1.3</sub>	0.912	0.000	Valid		
Reliability (X <sub>2</sub> )	X <sub>2.1</sub>	0.781	0.000	Valid	0.739	Reliabel
	X <sub>2.2</sub>	0.812	0.000	Valid		
	X <sub>2.3</sub>	0.701	0.000	Valid		
	X <sub>2.4</sub>	0.707	0.000	Valid		
Responsiveness (X <sub>3</sub> )	X <sub>3.1</sub>	0.933	0.000	Valid	0.864	Reliabel
	X <sub>3.2</sub>	0.945	0.000	Valid		
Insurance (X <sub>4</sub> )	X <sub>4.1</sub>	0.768	0.000	Valid	0.725	Reliabel
	X <sub>4.2</sub>	0.750	0.000	Valid		
	X <sub>4.3</sub>	0.728	0.000	Valid		
	X <sub>4.4</sub>	0.640	0.000	Valid		
	X <sub>4.5</sub>	0.645	0.000	Valid		
Empathy (X <sub>5</sub> )	X <sub>5.1</sub>	0.923	0.000	Valid	0.845	Reliabel
	X <sub>5.2</sub>	0.940	0.000	Valid		
Customer Satisfaction (Y)	Y <sub>1.1</sub>	0.786	0.000	Valid	0.702	Reliabel
	Y <sub>1.2</sub>	0.921	0.000	Valid		
	Y <sub>1.3</sub>	0.859	0.000	Valid		
	Y <sub>1.4</sub>	0.252	0.000	Valid		
	Y <sub>1.5</sub>	0.353	0.000	Valid		

Source: Data Processing (2025)

Based on Table 2, the results of the validity and reliability tests conducted on the questionnaire using data from 100 respondents indicate that all question items for each variable meet the criteria for validity. This is evidenced by the correlation values for each item exceeding the critical r-table value of 0.195 (with 100 respondents) and a significance level of less than 0.05. The reliability test results show that all items in the instrument have Cronbach's Alpha values

greater than 0.60, indicating a high level of internal consistency and reliability. Therefore, all questionnaire items are considered valid and reliable for use in this study.

### Normality Test Results

The normality test, based on the non-parametric Kolmogorov-Smirnov statistical method, is presented in Table 3 below.

**Table 3. Results of the Normality Test Using the One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		100
Normal	Mean	0.0000000
Parametersa,b	Hours of deviation	1.17286761
Most	Absolute	0.055
Extreme	Positive	0.055
Differences	Negative	-0.034
Test Statistic		.055
Asymp. Sig. (2-tailed)		.200c,d

Source: Data Processing (2025)

Based on Table 3, the results of the One-Sample Kolmogorov-Smirnov test show a significance value of 0.200. Since this value is greater than the significance level of 0.05, it can be concluded that the data are normally distributed.

### Multicollinearity Test Results

The multicollinearity test was conducted by analyzing the Tolerance and Variance Inflation Factor (VIF) values for each independent variable, namely Tangibles ( $X_1$ ), Reliability ( $X_2$ ), Responsiveness ( $X_3$ ), Assurance ( $X_4$ ), and Empathy ( $X_5$ ).

The detailed results of the analysis are presented in Table 4 below.

**Table 4. Results of the Multicollinearity Test**

(Constant)	Collinearity Statistics	
	Tolerance	VIF
Tangible	0.798	1.254
Reliability	0.785	1.274
Responsiveness	0.419	2.389
Insurance	0.427	2.342
Empathy	0.527	1.895

Source: Data Processing (2025)

Based on the results in Table 4, the multicollinearity test indicates that all SERVQUAL dimensions have Tolerance values greater than 0.1 and VIF values less than 10.00. Therefore, it can be concluded that the variables do not exhibit multicollinearity.

### Results of Multiple Linear Regression Analysis



The results of the multiple linear regression analysis, processed using SPSS version 25, are presented in Table 5, which contains the test results for the variables examined in this study.

**Table 5. Results of the Multiple Linear Regression Analysis**

Model	Unstandardized Coefficients	
	B	Std. Error
(Constant)	2.697	1.256
Tangible	0.280	0.068
Reliability	0.152	0.058
Responsiveness	0.435	0.128
Insurance	0.214	0.079
Empathy	0.475	0.109

Source: Data Processing (2025)

Based on the results of Table 5 above, it can be seen that the regression equations formed are:  
 $Y = 2.697 + 0.280 X_1 + 0.152 X_2 + 0.435 X_3 + 0.214 X_4 + 0.475 X_5 + e$

### Results of Correlation and Coefficient of Determination Tests

The coefficient of determination test is used to measure the extent to which the independent variables can explain the variation in the dependent variable within the regression model. The results of this test are presented in Table 6.

**Table 6. Determination Results**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.874	0.764	0.752	1.204

Source: Data Processing (2025)

Based on the results shown in Table 6, the Adjusted R Square value of 0.752 indicates that approximately 75.2% of the variation in customer satisfaction can be explained by the dimensions of Tangibles ( $X_1$ ), Reliability ( $X_2$ ), Responsiveness ( $X_3$ ), Assurance ( $X_4$ ), and Empathy ( $X_5$ ). The remaining 24.8% is explained by other factors not examined in this study.

### Results of the Simultaneous (F) Test

The simultaneous hypothesis testing using the F-test is presented in Table 7 below.

**Table 7. Test Results (F)**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	444.924	5	88.385	61.006	0.000b
Residual	136.186	94	1.449		
Total	578.110	99			

Source: Data Processing (2025)

Based on the test results shown in Table 7, it was obtained that the Fcal value was 61.006, while the Ftable value was 2.46. Because the Fcal > Ftable ( $61.006 > 2.31$ ) and the significance value of  $0.000 < 0.05$ , it can be concluded that the dimensions of SERVQUAL together (simultaneously) have a significant effect on Customer Satisfaction of PT PLN (Persero) UID Sulutenggo, ULP South Manado. Thus, the first hypothesis (H1) is declared accepted.

## Results of the Partial (t) Test

The partial hypothesis testing using the t-test is presented in Table 8 below.

**Table 8. Test Result (t)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.697	1.256		2.147	0.034
Tangible	0.280	0.068	0.229	4.090	0.000
Reliability	0.152	0.058	0.147	2.607	0.011
Responsiveness	0.435	0.128	0.271	3.506	0.001
Insurance	0.214	0.079	0.207	2.704	0.008
Empathy	0.475	0.109	0.301	4.367	0.000

Source: Data Processing (2025)

Based on the hypothesis testing results presented in Table 8, the dimensions of Tangibles, Reliability, Responsiveness, Assurance, and Empathy all have  $t$  values greater than the  $t$ -table value of 1.660 and significance levels ( $p$ -values) less than 0.05. This indicates that each of these SERVQUAL dimensions has a positive and significant partial effect on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan. Therefore, hypotheses  $H_2$ ,  $H_3$ ,  $H_4$ ,  $H_5$ , and  $H_6$  are accepted.

## Discussion

### The Influence of SERVQUAL Dimensions on Customer Satisfaction

The SERVQUAL dimensions have been proven to have a significant simultaneous effect on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan. This is evident from the condition of the PLN office facilities and environment, which appear clean, orderly, and visually appealing. Customers express satisfaction and demonstrate a willingness to recommend PLN's services to others. These findings are consistent with those of Bramantya, Tumbuan, and Soepeno (2023), who indicated that the use of the PLN Mobile Application positively influences customer satisfaction through the implementation of SERVQUAL dimensions at PT PLN (Persero) ULP Paniki. Furthermore, Rizky and Narundana (2024) also found that SERVQUAL dimensions significantly contribute to improving customer satisfaction, particularly among customers with 900 VA electricity capacity at PT PLN ULP Wayhalim.

### The Influence of the Tangibles Dimension on Customer Satisfaction

The Tangibles dimension has been proven to have a positive and significant effect on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan. This is reflected in the PLN office facilities and environment, which appear clean, organized, and visually appealing. As a result, customers generally feel satisfied with the services provided by PLN. These findings are consistent with those of Bramantya, Tumbuan, and Soepeno (2023), who indicated that the utilization of the PLN Mobile Application positively impacts customer satisfaction through the implementation of SERVQUAL dimensions at PT PLN (Persero) ULP Paniki. Additionally, Lengkey, Mandey, and Soepeno (2022) found that the quality of electronic services contributes to customer satisfaction at PT PLN ULP Tomohon.

### **The Influence of the Reliability Dimension on Customer Satisfaction**

The Reliability dimension has been shown to have a positive and significant impact on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan. This is reflected in PLN's ability to deliver services consistently and with a high degree of accuracy. The findings of this study align with those of Bramantya, Tumbuan, and Soepeno (2023), who indicated that the use of the PLN Mobile Application positively influences customer satisfaction through the implementation of SERVQUAL dimensions at PT PLN (Persero) ULP Paniki. Similarly, Dunnas and Afrizoni (2023) found that the reliability dimension significantly influences the satisfaction of premium customers at PT PLN (Persero) UP3 Padang.

### **The Influence of the Responsiveness Dimension on Customer Satisfaction**

The Responsiveness dimension has also been proven to exert a positive and significant influence on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan. This is demonstrated by PLN staff's ability to clearly and accurately communicate service schedules and to promptly respond to customer inquiries and complaints. These findings are consistent with those of Bramantya, Tumbuan, and Soepeno (2023), who reported similar results in ULP Paniki through the use of the PLN Mobile Application. In addition, Anshar et al. (2022) found that responsiveness significantly affects customer satisfaction at PT PLN (Persero) ULP Daya.

### **The Influence of the Assurance Dimension on Customer Satisfaction**

The Assurance dimension has a positive and significant effect on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan. This effect can be attributed to the employees' knowledge and competence in providing services to customers. This study's findings are in line with those of Bramantya, Tumbuan, and Soepeno (2023), who observed similar effects in ULP Paniki through the PLN Mobile Application. Likewise, Wahid and Ratmono (2022) found that e-service quality, particularly the assurance dimension, has a significant positive impact on customer satisfaction at PT PLN ULP Metro.

### **The Influence of the Empathy Dimension on Customer Satisfaction**

The Empathy dimension is shown to have a positive and significant impact on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP Manado Selatan. This influence arises from the employees' efforts to understand the specific needs of each customer, thereby making the service experience feel more personal and relevant. These findings are consistent with those of Bramantya, Tumbuan, and Soepeno (2023), who highlighted similar results at ULP Paniki through the use of SERVQUAL dimensions. Additionally, Guterres et al. (2024) confirmed that service quality, including the empathy dimension, significantly influences customer satisfaction at PT PLN (Persero) UP3 Malang.

### **Conclusion**

1. The SERVQUAL dimensions collectively (simultaneously) have a significant influence on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP South Manado.
2. The Tangibles dimension has been partially confirmed to have a positive and significant effect on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP South Manado.

3. The Reliability dimension has been partially confirmed to exert a positive and significant influence on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP South Manado.
4. The Responsiveness dimension has been partially confirmed to have a positive and significant impact on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP South Manado.
5. The Assurance dimension has been partially proven to contribute positively and significantly to customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP South Manado.
6. The Empathy dimension has also been partially confirmed to have a positive and significant influence on customer satisfaction at PT PLN (Persero) UID Suluttenggo, ULP South Manado.

### Suggestion

1. PT PLN (Persero) UID Suluttenggo, ULP South Manado is advised to maintain and further enhance consistency in the timely delivery of services, particularly in handling outages, new installations, and responding to customer requests.
2. The company is encouraged to continuously improve all dimensions of service quality—especially Tangibles, Reliability, Responsiveness, Assurance, and Empathy as these five aspects have been proven to significantly influence customer satisfaction.
3. Future research is recommended to consider incorporating additional variables such as brand image, customer experience, or perceived value in order to provide a more comprehensive understanding of the factors influencing customer satisfaction and loyalty.

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