

Analyzing Paint Consumer Satisfaction with SERVQUAL, CSI, and IPA

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Article Information	ABSTRACT
Article History Received: April 16, 2026 Revised : April 23, 2026 Published : April 28, 2026 Keywords: Service Quality; Customer Satisfaction; Servqual; CSI; IPA.	Service quality is a critical factor in maintaining customer satisfaction and competitiveness in a dynamic business environment. This study aims to analyze customer satisfaction by integrating the Service Quality (SERVQUAL), Customer Satisfaction Index (CSI), and Importance Performance Analysis (IPA) methods. Data were collected through questionnaires distributed to 113 respondents and analyzed using validity and reliability tests. The SERVQUAL results indicate positive gaps across all five dimensions: tangibles, reliability, responsiveness, assurance, and empathy, suggesting that perceived service exceeds customer expectations. Responsiveness shows the highest gap (0.55), while empathy records the lowest (0.48). The CSI value of 79.36% places overall customer satisfaction in the “Satisfied” category. Furthermore, IPA mapping identifies priority attributes for improvement as well as those that should be maintained. These findings imply that although service quality is generally good, enhancing empathy and sustaining responsiveness are necessary to achieve a Very Satisfied level of customer satisfaction. Finally, this research contributes to decision-making strategies for short-term service improvement by offering a clear prioritization map that can support more effective and targeted managerial actions.

INTRODUCTION

Service quality constitutes a critical requirement across industries, particularly in the context of increasingly intense business competition. Companies are required to deliver optimal service performance in order to ensure customer satisfaction and achieve a sustainable competitive advantage (Sari & Widodo, 2022). Customer satisfaction is achieved when the services provided meet or exceed customer expectations, which in turn fosters customer loyalty and encourages positive word-of-mouth that benefits the company. Therefore, service quality becomes a key factor that must be continuously evaluated and improved by organizations in order to remain competitive in the market (Usiawan & Vikaliana, 2025). Within the service industry, customer satisfaction plays a crucial role in determining organizational success. Customers tend to feel satisfied when the perceived performance of a service aligns with their expectations. To measure and evaluate service quality and customer satisfaction, several quantitative approaches have been widely used, including Service Quality (SERVQUAL), Customer Satisfaction Index (CSI), and Importance–Performance Analysis (IPA) (Carvajal-trujillo et al., 2022). SERVQUAL is used to identify gaps between customer expectations and perceived performance, CSI measures the overall level of customer satisfaction, while IPA helps determine priority attributes that require improvement. The integration of these methods is considered effective in providing a comprehensive evaluation of service performance and supporting managerial decision-making (Muhamad Imron Zamzani et al., 2025).

Several empirical studies have applied these methods across various sectors. Research in the retail sector shows that, although customers are generally satisfied, several service attributes still require improvement, according to IPA analysis (Rahmatia et al., 2024). Similarly, studies in digital service platforms indicate that SERVQUAL and IPA are effective in identifying service performance gaps and determining improvement priorities (Muhamad Imron Zamzani et al., 2025). In addition, the use of CSI has been proven to provide a quantitative representation of customer satisfaction levels, thereby facilitating more accurate evaluation and strategic planning (Yudha et al., 2025).

However, despite the extensive application of these methods, several research gaps remain. Previous studies predominantly focus on general service sectors such as retail, logistics, and digital services, while limited research has specifically examined the paint distribution industry. Furthermore, prior studies tend to emphasize general service evaluation without considering industry-specific attributes such as product availability, delivery timeliness, and technical consultation services (Christopher, 2021). Additionally, the relationship between service quality and sales fluctuations has not been extensively explored, despite the fact that sales performance can reflect customer satisfaction levels. This indicates the need for further research that integrates service quality analysis with business performance in a specific industrial context (Anam et al., 2022).

In this context, PT. Tirta Kencana Tatawarna, a distributor of interior and exterior wall paint, has not previously conducted a comprehensive evaluation of customer satisfaction. The company's sales data from March 2024 to August 2024 shows noticeable fluctuations, indicating potential inconsistencies in service quality and customer satisfaction. Therefore, it is necessary to conduct a systematic analysis to evaluate service quality and its impact on customer satisfaction (Rahmatia et al., 2024).

Based on these considerations, this study aims to analyze customer satisfaction at PT. Tirta Kencana Tatawarna using an integrated approach of SERVQUAL, Customer Satisfaction Index (CSI), and Importance–Performance Analysis (IPA). This research is expected to identify service quality gaps, measure the level of customer satisfaction, and determine priority attributes for improvement, thereby providing strategic recommendations to enhance service quality and support business performance (Munir & Sulistiyowati, 2024).

Table 1 Customer Count from March 2024 to August 2024

No.	Number of Customers
March	5.728
April	4.773
May	4.535
June	4.425
July	4.570
August	5.245
Total	29.276

Source : PT. Tirta Kencana Tatawarna

Based on Table 1, it can be observed that the highest number of customers during the period from March 2024 to August 2024 occurred in March, with a total of 5,728 customers, while the lowest was recorded in June, with 4,425 customers. During this period, the total number of customers reached 29,276. To identify the trend in the number of customers at PT. Tirta Kencana Tatawarna, Figure 1 presents a monthly customer graph.

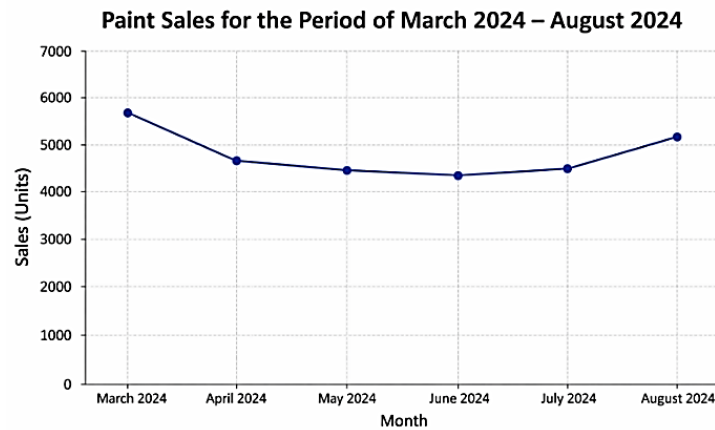


Figure 1. Graph of Customer Numbers from March 2024 to August 2024

As illustrated in Figure 1, paint sales during the observed period fluctuated. To assess customer satisfaction, a service quality analysis is required to enhance the company's service performance, especially in areas where customers perceive deficiencies, thereby maintaining its competitive advantage. Measuring service quality enables the identification and improvement of underperforming service indicators, thereby contributing to increased customer satisfaction (Usiawan & Vikaliana, 2025).

The service quality approach. A notable strength of this approach is its ability to accommodate subjective perceptions gathered through questionnaire-based data collection. Furthermore, it enables the identification of critical variables that must be continuously improved based on customer satisfaction assessments, allowing organizations to prioritize service attributes or facilities that are most relevant. Emphasis is placed only on attributes deemed significant and having a measurable impact on customer satisfaction with the services delivered (Andersson et al., 2024).

In addition, the Customer Satisfaction Index (CSI) is employed, calculated using the CSI formula, to evaluate the overall level of customer satisfaction (Andersson et al., 2024). Previous studies of (Muhamad Imron Zamzani et al., 2025) indicate that the integration of service quality methods with CSI is effective in identifying factors contributing to customer dissatisfaction and in measuring the overall level of customer satisfaction. Moreover, the approach, *Importance-Performance Analysis* (IPA), can be utilized to prioritize corrective actions based on the elements of service quality. As shown in the study by (Munir & Sulistiyowati, 2024) which prioritizes essential service aspects through the *Importance-Performance Analysis* (IPA) approach. *Servqual*, *CSI*, and *Importance Performance Analysis* (IPA) are the most effective tools for evaluating service quality and prioritizing improvements across various service providers. Customer satisfaction can be measured using *SERVQUAL* and *Importance-Performance Analysis* (IPA) (Carvajal-trujillo et al., 2022; Munir & Sulistiyowati, 2024; Paloma et al., 2024).

In this study, the analysis begins with the *SERVQUAL* method, which is used to measure the gap between customer expectations and their perceptions of the service quality received. Through *SERVQUAL*, an overview of respondents' satisfaction levels across each service dimension and indicator is obtained. The results of this measurement then serve as the basis for calculating the Customer Satisfaction Index (CSI). The CSI method is used to determine the overall level of customer satisfaction by considering the importance weight of each evaluated service attribute. After the overall level of customer satisfaction has been measured, the analysis is continued using *Importance-Performance Analysis* (IPA). The IPA method is employed to map service attributes into four quadrants, enabling the identification of attributes that are highly important but exhibit low performance and therefore require priority improvement. With this sequence, the analytical process is conducted systematically, starting from measuring service quality, calculating the overall satisfaction level, and finally determining service improvement strategies. Therefore, this study is titled *Analysis of Customer Service Quality on Consumer*

Satisfaction of Paint Using the Integration of SERVQUAL, CSI, and IPA Methods(Putu et al., 2022).

RESEARCH METHODS

The research methodology begins with a literature review and field study, followed by problem identification and formulation to determine the research objectives. Subsequently, a Service Quality (SERVQUAL) questionnaire was developed, and data were collected through the distribution of questionnaires to the company's customers. The sampling process was conducted to determine the number of respondents using an appropriate sampling technique. The collected data were then analyzed using the SERVQUAL method to identify gaps between customer expectations and perceived performance, followed by the calculation of the Customer Satisfaction Index (CSI) to measure overall satisfaction levels, and Importance-Performance Analysis (IPA) to determine priority attributes for service improvement(Carvajal-trujillo et al., 2022).

The respondents in this study were customers of PT. Tirta Kencana Tatawarna during the period of March 2024 to August 2024, totaling 113 individuals. The sampling technique used in this research was simple random sampling, where each customer had an equal opportunity to be selected as a respondent. This technique was chosen to ensure that the sample represents the overall population objectively and to minimize selection bias. The sampling process was carried out by randomly selecting customers from the company's customer data during the specified period.

The determination of the number of respondents was based on the Bernoulli sampling formula, which is commonly used when the population size is unknown or large. This method aims to determine the minimum sample size required to ensure that the data obtained are representative and statistically reliable. The Bernoulli formula is expressed as:

$$N \geq \frac{Z^2 \left(1 - \frac{\alpha}{2}\right) \cdot p \cdot q}{e^2}$$

Note :

n = minimum sample size

Z = Z-score corresponding to the desired confidence level

(e.g., 95% confidence level = 1.96)

p = probability of success (commonly assumed to be 0.5 if unknown)

q = probability of failure ($q = 1 - p$)

e = margin of error (e.g., 0.05 or 5%)

In this study, the values of p and q were assumed to be 0.5 in order to obtain the maximum sample size. The confidence level used was 95% with a margin of error of 5%. Based on this calculation, the minimum required sample size was determined and subsequently adjusted to 113 respondents. where n represents the minimum sample size, Z is the Z-score corresponding to the confidence level (e.g., 1.96 for 95%), p is the probability of success (assumed to be 0.5 when unknown), q is $1 - p$, and e is the margin of error. Based on the Bernoulli data adequacy test, a minimum of 73 respondents was required; therefore, 113 respondents were included in this study. Data were collected through questionnaires using a five-point Likert scale (1 = very unimportant/very dissatisfied to 5 = very important/very satisfied) to measure customer perceptions and the importance of service attributes(Ahmad & Halim, 2023)SERVQUAL, a widely used method for assessing service quality, measures the gap between customer expectations and perceived performance. The SERVQUAL gap is calculated using the following formula:

$$SQ = P - E$$

Where SQ represents service quality, P denotes perceived performance, and E denotes customer expectations. This method effectively captures subjective perceptions and helps identify priority service attributes for improvement, enabling companies to enhance customer satisfaction (Hardani, 2021). After distributing the questionnaires, data collection was conducted for further analysis, beginning with validity and reliability testing. These tests are essential to ensure that the quality of the collected data meets the required standards. Validity testing refers

to the degree of conformity between the collected data and the actual data within the data source. If the data collection instrument is valid, the data obtained are considered appropriate for further processing in the data analysis stage. The validity test is conducted by correlating the scores obtained from each item with the total score of all items. The resulting correlation must be statistically significant based on specific criteria. The validity test is performed using the Pearson Product–Moment correlation method, supported by SPSS software, with a confidence level of 95% and a significance level of 5% and a significance level of 5%.

Reliability testing is conducted after validity testing. Reliability refers to the extent to which a measurement instrument demonstrates consistency and stability in the data obtained from the data collection process (Ghozali, 2022). Reliability testing is generally used to assess the stability and consistency of an instrument. In this study, Cronbach's Alpha is employed as the method for reliability testing. When the data are in the form of a range or scale, such as those standardized using a Likert scale, Cronbach's Alpha is appropriate for determining the reliability level of the data. A variable is considered reliable if the Cronbach's Alpha value exceeds 0.60; the higher the Cronbach's Alpha value, the more reliable the data (Ghozali, 2022). In this study, reliability testing was performed using SPSS software.

The object of this study is the customer satisfaction of clients of PT. Tirta Kencana Tatawarna was measured using the five SERVQUAL dimensions through 25 statements, with each dimension adapted from different sources. The tangibles dimension is adopted from the reliability dimension from (Handayani, 2021), the responsiveness dimension from (Muhamad Imron Zamzani et al., 2025), the assurance dimension from (Widodo, 2024) and the empathy dimension from (Anam et al., 2022). The development of the questionnaire was carried out with the approval of the company.

The SERVQUAL method is employed to measure the gap between customers' perceived satisfaction and their expectations (Hutabarat & Utara, 2025). The following formula is used to calculate the average SERVQUAL score :

$$\bar{Y}_i = \frac{(5 \cdot \sum SP) + (4 \cdot \sum P) + (3 \cdot \sum C) + (2 \cdot \sum TP) + (1 \cdot \sum STP)}{n}$$

Notes:

$\bar{Y}_i$ = Average score of the i-th variable

$\sum ST$ = Number of respondents who answered Very Satisfied/Very Important

$\sum P$ = Number of respondents who answered Satisfied/Important

$\sum C$ = Number of respondents who answered *Neutral*

$\sum TP$ = Number of respondents who answered *Less Satisfied/Less Important*

$\sum STP$ = Number of respondents who answered *Very Dissatisfied/Very Unimportant*

If When the gap is positive (perception > expectation), it indicates 'delight' or that the service is highly satisfactory. If the gap is zero (perception = expectation), the service is considered acceptable. However, if the gap is negative (perception < expectation), the service is unsatisfactory and reflects poor service quality (Widodo, 2024). After obtaining the SERVQUAL scores, the data can be further processed to determine the overall level of customer satisfaction. The Customer Satisfaction Index (CSI) requires satisfaction scores for each attribute, along with their corresponding importance weights; therefore, it is logically applied after the SERVQUAL analysis.

Table 2 *The Criteria* Customers Satisfaction Index

Score	Description
0.00 – 0.34	Very Dissatisfied
0.35 – 0.50	Dissatisfied
0.51 – 0.65	<i>Fairly Satisfied</i>
0.66 – 0.80	<i>Satisfied</i>
0.81 – 1.00	<i>Very Satisfied</i>

Source : (Usiawan & Vikaliana, 2025)

Subsequently, the prioritization of improvement initiatives is conducted using a Cartesian diagram within the framework of Importance–Performance Analysis (IPA), to systematically identify critical variables across the five dimensions of service quality that warrant immediate managerial attention. The IPA methodology entails the measurement of the degree of conformity between the importance and performance attributes of each dimension, operationalized through a comparative assessment of customers' perceived satisfaction and their corresponding expectations. Furthermore, the resulting conformity index serves as an analytical basis for establishing a hierarchical prioritization of service quality enhancement strategies, thereby facilitating the formulation of targeted and effective managerial interventions aimed at optimizing service performance and, ultimately, elevating overall customer satisfaction (Yudha et al., 2025).

RESULTS AND DISCUSSION

SERVQUAL Data Processing

A total of 113 respondents participated in this study, with a significance level of 0.05 and an r-table value of 0.197. Prior to further data analysis, the questionnaire items were subjected to validity testing to ensure that they accurately represent the underlying constructs and can be considered appropriate measurement indicators. The validity test was conducted by comparing the calculated correlation value (r-count) of each item with the critical value (r-table). An item is considered valid if $r\text{-count} > r\text{-table}$. The results of the validity test were obtained using IBM SPSS version 24 (Molli Wahyuni, 2021).

The results indicate that all questionnaire items have r-count values greater than 0.197, meaning that all items are valid and suitable for further analysis. This finding confirms that the instrument used in this study is capable of accurately measuring customer perceptions and expectations regarding service quality.

Furthermore, reliability testing was conducted using Cronbach's Alpha to assess the internal consistency of the measurement instrument. A variable is considered reliable if the Cronbach's Alpha value exceeds 0.60. The results show that all variables meet this criterion, indicating that the instrument is reliable and consistent in measuring service quality.

These findings are consistent with previous studies, which state that validity and reliability testing are essential steps in ensuring the accuracy and consistency of measurement instruments in service quality research (Yudha et al., 2025).

Table 3 Validity Test Results of the Customer Satisfaction and Expectation Instruments

Item	R _{count}		Remarks	Item	R _{count}		Remarks
	Level of Satisfaction	Level of Importance			Level of Satisfaction	Level of Importance	
1	0.2067	0.2520	Valid.	14	0.4265	0.3856	Valid.
2	0.3485	0.3337	Valid.	15	0.3009	0.4999	Valid.
3	0.4589	0.3130	Valid.	16	0.2596	0.2589	Valid.
4	0.3948	0.4196	Valid.	17	0.2218	0.3377	Valid.
5	0.3281	0.3617	Valid.	18	0.2162	0.3957	Valid.
6	0.3405	0.3798	Valid.	19	0.3197	0.3311	Valid.
7	0.3129	0.5388	Valid.	20	0.4294	0.3116	Valid.
8	0.4206	0.2734	Valid.	21	0.2293	0.2354	Valid.
9	0.3384	0.2943	Valid.	22	0.3686	0.2225	Valid.
10	0.2003	0.4888	Valid.	23	0.2881	0.3658	Valid.
11	0.4138	0.3108	Valid.	24	0.2421	0.2686	Valid.
12	0.4037	0.3957	Valid.	25	0.2312	0.3886	Valid.
13	0.3280	0.3901	Valid.				

Source: Processed Primary Data, 2025.

Subsequent to the validity assessment, reliability testing was performed employing Cronbach's Alpha using IBM SPSS version 24. The results of the reliability analysis are presented in Table 5.

Table 4 Reliability Test Results

<i>Cronbach alpha Kuesioner Servqual</i>		Ket.
Tingkat Kepuasan	Tingkat Kepentingan	
0.638	0.700	Reliabel

Source: Processed Primary Data, 2025.

The results presented in Table 4 show that the Cronbach's Alpha values for both satisfaction (0.638) and importance (0.700) variables are greater than the acceptable threshold of 0.60, indicating satisfactory internal consistency. Hence, the measurement instrument is deemed reliable and appropriate for subsequent data analysis.

Table 5 Service Quality Analysis Results

No.	Code	Mean Score		Gap	No.	Code	Mean Score		Gap
		<i>Level of Satisfaction</i>	<i>Level of Importance</i>				<i>Level of Satisfaction</i>	<i>Level of Importance</i>	
1	A1	4.43	3.94	0.49	14	C4	4.51	3.94	0.57
2	A2	4.53	3.96	0.57	15	D1	4.55	4.02	0.53
3	A3	4.46	3.90	0.56	16	D2	4.49	4.02	0.47
4	A4	4.41	3.99	0.42	17	D3	4.42	3.90	0.52
5	A5	4.43	3.99	0.44	18	D4	4.51	3.91	0.60
6	B1	4.50	3.94	0.56	19	D5	4.49	4.15	0.34
7	B2	4.44	3.82	0.62	20	E1	4.48	3.96	0.52
8	B3	4.50	4.08	0.42	21	E2	4.54	3.97	0.57
9	B4	4.46	3.95	0.51	22	E3	4.43	4.06	0.37
10	B5	4.55	4.05	0.50	23	E4	4.46	3.99	0.47
11	C1	4.44	3.89	0.55	24	E5	4.42	3.99	0.43
12	C2	4.44	3.89	0.55	25	E6	4.51	3.97	0.54
13	C3	4.44	3.92	0.52					
Mean Gap of the Tangibles Dimension									0.50
Mean Gap of the Reliability Dimension									0.52
Mean Gap of the Responsiveness Dimension									0.55
Mean Gap of the Assurance Dimension									0.49
Mean Gap of the Empathy Dimension									0.48

Source: Processed Primary Data, 2025.

As presented in Table 6, the data processing results across all service quality dimensions reveal positive gap values, namely Tangibles (0.50), Reliability (0.52), Responsiveness (0.55), Assurance (0.49), and Empathy (0.48). These positive gap values indicate that the perceived service performance has exceeded customer expectations across all evaluated dimensions. Among the five dimensions, Responsiveness exhibits the highest gap value, suggesting that the organization performs particularly well in delivering prompt and helpful services to customers. Conversely, the Empathy dimension shows the lowest gap value, indicating relatively lower performance compared to other dimensions and highlighting an area that may require further managerial attention for improvement.

Customer Satisfaction Index (CSI) Data Processing

The Customer Satisfaction Index (CSI) is computed to assess the overall level of customer satisfaction. The results of the CSI calculation are presented in Table 7.

Table 6 Calculating the score of CSI

Attribute No.	Avg Satisfaction (X)	Avg Importance (Y)	Score (X x Y)	No Atribut	Avg Satisfaction (X)	Avg Importance (Y)	Score (X x Y)
1	4.43	3.94	17.45	14	4.51	3.94	17.77
2	4.53	3.96	17.94	15	4.55	4.02	18.29
3	4.46	3.90	17.39	16	4.49	4.02	18.05
4	4.41	3.99	17.60	17	4.42	3.90	17.24
5	4.43	3.99	17.68	18	4.51	3.91	17.63
6	4.50	3.94	17.73	19	4.49	4.15	18.63
7	4.44	3.82	16.96	20	4.48	3.96	17.74
8	4.50	4.08	18.36	21	4.54	3.97	18.02
9	4.46	3.95	17.62	22	4.43	4.06	17.99
10	4.55	4.05	18.43	23	4.46	3.99	17.80
11	4.44	3.89	17.27	24	4.42	3.99	17.64
12	4.44	3.89	17.27	25	4.51	3.97	17.90
13	4.44	3.92	17.40				
Total Avg Satisfaction							111.84
Total Avg Importance							99.2
Total score							443.80

Source: Processed Primary Data, 2025.

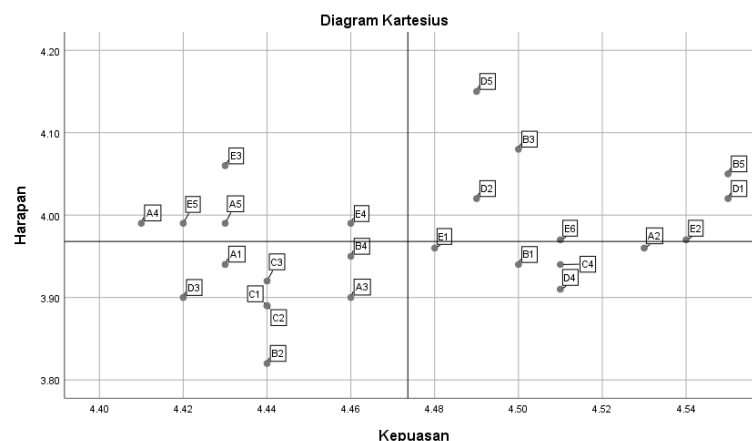
Referring to Table 7, the Customer Satisfaction Index (CSI) value is computed as follows:

$$\begin{aligned}
 \text{CSI} &= T / (5TY) \\
 &= 443.80 / (5 \times 111.84) \\
 &= 443.80 / 559.20 \\
 &= 0.7936 \text{ atau } 79.36\%
 \end{aligned}
 \tag{6}$$

The results of the Customer Satisfaction Index (CSI) calculation reveal a satisfaction index of 79.36%, indicating that customers are generally satisfied, as the value lies within the predefined satisfaction range of 66% to 80%.

Data Processing of Importance–Performance Analysis (IPA)

Moreover, the Cartesian diagram is utilized to formulate service quality improvement strategies based on priority classification across quadrants. This is achieved by examining the relationship between organizational performance, or the degree of service execution, and the level of customer satisfaction expected by customers. The Cartesian diagram for each station is presented as follows:

**Figure 2** Diagram Kartesius

The results of data processing indicate that the questionnaire employed in this study is both valid and reliable. Validity is reflected in the significant item correlation values, while reliability is demonstrated by a Cronbach's Alpha coefficient exceeding 0.6. This implies that the instrument is appropriate for measuring service quality. Therefore, the findings derived from the questionnaire can be considered reliable for concluding. Based on the SERVQUAL results, all service dimensions exhibit positive gap values (Yudha et al., 2025). This indicates that the level of customer satisfaction exceeds their expectations. Such a condition suggests that the services provided by the company have surpassed customer expectations, although there remains room for further improvement to enhance satisfaction levels. The Tangibles dimension obtained an average gap value of 0.50. This reflects that customers are satisfied with the physical evidence of the service, such as the strategic location, the neatness of employee uniforms, the comfort of the environment, and the adequacy of facilities. These aspects contribute to a professional impression and enhance customer comfort in interacting with the company. The Reliability dimension demonstrates an average gap value of 0.52. This reflects the company's ability to fulfill its commitments, deliver services promptly, and maintain accurate record-keeping systems. The speed and accuracy of service delivery have proven to be critical factors in sustaining customer trust (Hossan et al., 2025).

The Responsiveness dimension exhibits the highest average gap value of 0.55. This finding indicates that customers highly value employees' willingness to respond to their needs, including timeliness, the fulfillment of special requests, and effective complaint handling. Prompt and accurate responses serve as a significant differentiating factor compared to competitors. The Assurance dimension records an average gap value of 0.49. This result suggests that although the company has provided service guarantees, accurate information, and convenient payment systems, aspects related to customer confidence and perceived security still require further enhancement. In addition, consistency in demonstrating courteous, polite, and responsive behavior remains a critical factor in strengthening customer trust. The Empathy dimension shows an average gap value of 0.48, which is the lowest among all dimensions. Although the value remains positive—indicating that customers feel adequately attended to—there is still room for improvement in terms of service personalization and a deeper understanding of individual customer needs. This aspect is crucial, as empathy constitutes the foundation of long-term relationships between the company and its customers. In comparison across dimensions, it can be concluded that Responsiveness represents the company's primary strength, while Empathy emerges as a relatively weaker dimension.

Therefore, managerial strategies should focus on maintaining responsiveness while simultaneously enhancing empathetic service quality to ensure that customers feel more personally valued and understood. Subsequently, the results of the Customer Satisfaction Index (CSI) calculation indicate a value of 79.36%. This value falls within the "Satisfied" category, implying that the majority of customers perceive the company's services as meeting their expectations. Although it has not yet reached the "Very Satisfied" category, this result provides a positive indication that the service quality is relatively competitive. A CSI value approaching 80% suggests that the company possesses a solid foundation in service delivery. However, this figure also signals that there remains considerable room for improvement. Efforts to elevate customer satisfaction to the "Very Satisfied" level are likely to have a direct impact on customer loyalty and positive word-of-mouth recommendations. Furthermore, a more in-depth analysis reveals that the attributes contributing most significantly to the CSI value include service speed, complaint handling, and payment convenience. These attributes are perceived by customers as critical factors directly influencing their satisfaction. In contrast, attributes with relatively lower contributions are associated with personalized attention and the provision of solutions to customer-related problems. This condition indicates that the empathy dimension has not yet fully emerged as a core strength in the company's service delivery (Nurwahid & Khairani, 2025).

Through the integration of these three methods, the company obtains a comprehensive overview of its service quality performance: SERVQUAL indicates positive gaps across all dimensions, CSI confirms that customer satisfaction falls within

the “Satisfied” category, and IPA provides strategic direction regarding improvement priorities. This combination enables the company not only to understand its current performance but also to formulate targeted and effective improvement strategies. Overall, the findings of this study confirm that the company’s service quality is generally good; however, further enhancement is required, particularly in the Empathy dimension, to elevate customer satisfaction to the “Very Satisfied” level. By implementing strategies focused on improving personalized attention, maintaining service consistency, and optimizing resource allocation, the company is expected to enhance its competitiveness while strengthening customer loyalty in the future.

CONCLUSION

Based on the results of the study integrating the SERVQUAL, CSI, and IPA methods, it can be concluded that the company’s service quality has generally been able to meet and even exceed customer expectations, as indicated by positive gap values across all dimensions. The Responsiveness dimension emerges as the primary strength, exhibiting the highest gap value (0.55), while the Empathy dimension represents an area requiring improvement, with the lowest gap value (0.48). The overall level of customer satisfaction, as measured by the Customer Satisfaction Index (CSI), reaches 79.36% and falls within the “Satisfied” category, indicating that although service performance is relatively good, there remains significant potential to elevate satisfaction to the “Very Satisfied” level. Furthermore, the results of the Importance–Performance Analysis (IPA) classify service attributes into priority quadrants, enabling the company to formulate targeted improvement strategies. This includes maintaining high-performing attributes such as service speed and timeliness, while improving attributes that are considered important but exhibit relatively low performance, such as personalized attention to customers. Therefore, by focusing on maintaining responsiveness, consistency, and enhancing empathy, the company is expected to strengthen customer loyalty and improve its competitiveness in an increasingly competitive market environment.

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