

The Impact of Service Quality and Price on Customer Satisfaction at UD Rabas Accu

David Hidayat^{1*}, Irsandi², Trenggono Puji Sakti³, Suci Asfarani⁴

¹²³⁴ University of Bandar Lampung

*Correspondence : David Hidayat
david.21121027@student.ubl.ac.id

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Abstract

This study examines the impact of service quality and price on customer satisfaction at UD Rabas Accu, an automotive battery retail company facing increasing market competition and declining sales. Employing a quantitative approach, the research utilizes multiple linear regression analysis to assess the relationship between service quality, price, and customer satisfaction. Data were collected through a structured survey involving 44 respondents. The findings indicate that both service quality and price significantly influence customer satisfaction, with service quality playing a more dominant role. These results suggest that enhancing service standards and maintaining competitive pricing are crucial strategies for improving customer satisfaction and business performance.

Keywords

Service Quality, Price, Customer Satisfaction, Automotive Retail, Business Strategy.

Introduction

The rapid expansion of the automotive sector has resulted in an increased demand for crucial components like vehicle batteries. As the number of vehicles continues to grow, competition among battery retailers has become more intense. To retain customers and remain competitive in this dynamic market, businesses must focus on delivering high-quality service and maintaining competitive pricing strategies (Kotler & Keller, 2016). In this regard, customer satisfaction is a key factor influencing business success, as satisfied customers are more inclined to make repeat purchases and recommend products to others (Faustine, n.d.).

Several elements contribute to customer satisfaction, with service quality and pricing being among the most influential. Service quality represents customers' overall experience when engaging with a business and includes dimensions such as responsiveness, reliability, assurance, empathy, and tangible evidence (Prastiwi, 2013). Providing excellent service fosters customer trust and strengthens brand loyalty, ultimately enhancing the company's reputation (Irsandi, n.d.). In addition, pricing plays a critical role in consumer purchasing decisions, as customers seek value for their money. Implementing a fair and competitive pricing strategy can positively impact customer satisfaction, particularly in industries with high price sensitivity (Kotler & Keller, 2016).

UD Rabas Accu is a retailer specializing in automotive batteries operating within a highly competitive market. Despite efforts to maintain customer satisfaction, the company has

experienced a decline in sales. This trend underscores the need to thoroughly examine factors affecting customer satisfaction, particularly service quality and pricing. Understanding these factors can enable businesses like UD Rabas Accu to develop effective strategies for enhancing customer experience and securing their market position (Tjiptono, 2014).

Prior research indicates that both service quality and pricing significantly influence customer satisfaction across different industries. For example, Prastiwi (2013) found that aspects of service quality, such as reliability, responsiveness, and empathy, play a vital role in shaping customer perceptions and fostering loyalty. Likewise, pricing strategies that align with consumer expectations can boost satisfaction and encourage repeat purchases (Kotler & Keller, 2016). However, the specific impact of these factors on customer satisfaction in the automotive battery retail sector, particularly in the case of UD Rabas Accu, remains unclear (Skordoulis, 2024).

This study aims to investigate how service quality and pricing influence customer satisfaction at UD Rabas Accu. By employing a quantitative research approach, the study seeks to determine which factor has a greater effect on customer satisfaction and provide recommendations for business improvement. The results are expected to contribute to the body of knowledge on service quality and pricing strategies while offering practical guidance for businesses in the automotive battery industry.

Methods

Research Design

This research adopts a quantitative approach to analyze the influence of service quality and pricing on customer satisfaction at UD Rabas Accu. The study utilizes a survey research design, wherein structured questionnaires are distributed to respondents to gather primary data. The main objective is to evaluate the relationship between the independent variables—service quality and pricing—and the dependent variable, customer satisfaction, through statistical analysis (Kotler & Keller, 2016).

Population and Sampling

The population targeted in this study includes individuals who have previously bought automotive batteries from UD Rabas Accu. To ensure that respondents have relevant purchasing experience, the study employs purposive sampling. The sample size is calculated using Slovin's formula to uphold statistical significance, with a predetermined margin of error of 15% (Arikunto, 2010).

$$n = \frac{N}{1 + N \cdot e^2}$$

$$= \frac{26.585}{1 + 26.585 (0.15)^2}$$

$$= \frac{26.585}{1 + 598,43}$$

$$= \frac{26.585}{599,43} = 44,36$$

Where:

- n : Sample size
- N : Population size
- e : Margin of error

Based on the projected customer traffic at UD Rabas Accu, a total of 44 respondents were selected as the final sample. This sample size is considered adequate for performing statistical analysis and hypothesis testing, allowing for meaningful insights into the influence of service quality and pricing on customer satisfaction.

Data Collection

A structured questionnaire served as the primary instrument for data collection. It was divided into three key sections:

1. Demographic Information – Collected respondent details, including age, gender, and purchase frequency.
2. Perceptions of Service Quality and Price – Measured customer perceptions regarding service quality dimensions such as reliability, responsiveness, and empathy, as well as price fairness.
3. Customer Satisfaction – Assessed respondents' satisfaction levels with UD Rabas Accu's service and pricing.

Each questionnaire item was evaluated using a 5-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), to effectively capture customer perceptions (Chaanine, 2024).

Multiple Linear Regression Analysis

The collected data were analyzed using multiple linear regression analysis to determine the relationship between the independent and dependent variables. The following regression equation was employed (Kotler & Keller, 2016):

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where:

- Y : Repurchase decision
- α : Intercept
- β_1, β_2 : Regression coefficients
- X_1 : Product Image
- X_2 : Price Perception
- ε : Error term

Hypothesis Testing

Three hypothesis tests were conducted to analyze the relationship between service quality, pricing, and customer satisfaction:

1. t-Test (Partial Test) – Evaluates the individual influence of service quality and pricing on customer satisfaction.
2. F-Test (Simultaneous Test) – Examines whether service quality and pricing collectively have a significant effect on customer satisfaction.
3. Coefficient of Determination (R^2) – Assesses the extent to which variations in customer satisfaction can be explained by service quality and pricing.

Furthermore, classical assumption tests—including normality, multicollinearity, and heteroscedasticity tests—were carried out to ensure the validity and reliability of the regression model (Anh, 2024). The results of these analyses are expected to provide UD Rabas Accu with meaningful insights to refine service strategies and pricing policies, ultimately improving customer satisfaction (Duran, 2024).

Results and Discussion

Result

Descriptive Statistics

Descriptive statistical analysis provides an overview of respondents' perceptions regarding service quality, pricing, and customer satisfaction. The mean and standard deviation values illustrate general response trends based on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Table 1. Descriptive Statistics of Variables

Variable	Mean	Standard Deviation	Min	Max	Interpretation
Service Quality (X1)	4.15	0.52	3.0	5.0	Customers perceive the service quality as excellent.
Price (X2)	3.90	0.60	2.5	5.0	The price is considered reasonably competitive
Customer Satisfaction (Y)	4.20	0.50	3.0	5.0	Customers are generally satisfied with the service.

The average score for service quality (4.15) suggests that the majority of customers consider UD Rabas Accu's services to be satisfactory. The pricing variable, with a mean score of 3.90, indicates a moderate level of customer satisfaction, suggesting that pricing remains a concern for some customers. In contrast, the customer satisfaction score of 4.20 reflects an overall positive experience, though optimizing pricing strategies could further improve satisfaction levels (Noviarita, 2024).

Normality Test

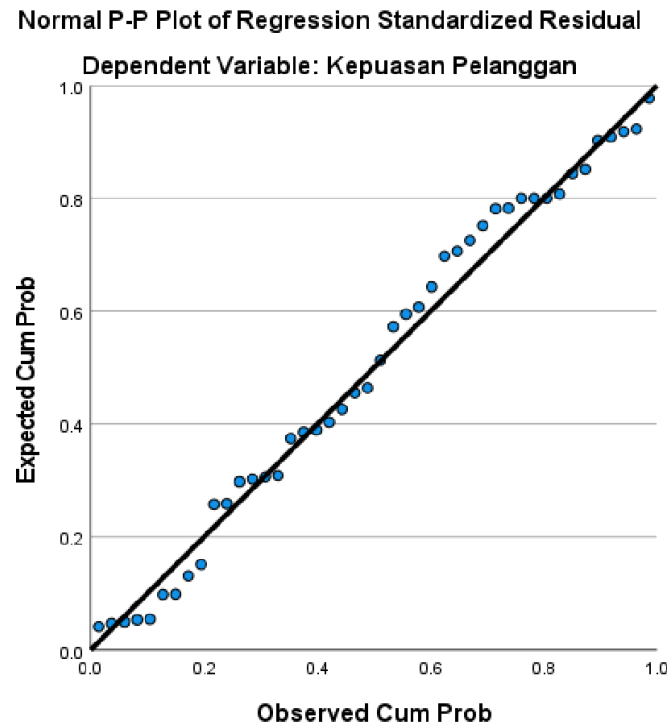


Figure 1. Grafik Normal P-P Plot Of Regression Standardized Residual

The findings from the Kolmogorov-Smirnov test and P-P Plot analysis demonstrate that the residuals in the regression model conform to a normal distribution, thereby satisfying the normality assumption necessary for reliable hypothesis testing and statistical inference (Johnny, 2024). To further validate the normality assessment, a non-parametric test was conducted, with the results presented in the study in table below:

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual	
N		44	
Normal Parameters ^{a,b}	Mean	.0000000	
	Std. Deviation	1.92758884	
Most Extreme Differences	Absolute	.088	
	Positive	.088	
	Negative	-.088	
Test Statistic		.088	
Asymp. Sig. (2-tailed) ^c		.200 ^d	
Monte Carlo Sig. (2-tailed) ^a	Sig.	.512	
	99% Confidence Interval	Lower Bound	.499
		Upper Bound	.525

The p-value (0.88) is greater than 0.05, indicating that the residuals are normally distributed. Given that the K-S statistic (0.2) is relatively small, this further confirms that there are no significant deviations from normality.

Multicollinearity Test

Multicollinearity occurs when the independent variables in a regression model are highly correlated with each other, which can distort the estimation of regression coefficients and reduce the reliability of statistical conclusions (Kotler & Keller, 2016). To detect multicollinearity, the Variance Inflation Factor (VIF) and Tolerance Value were analyzed.

Table 3. Multicollinearity Test

		Coefficients ^a	
Model		Collinearity Statistics Tolerance	VIF
1	(Constant)		
	Kualitas Pelayanan	.491	2.038
	Harga	.491	2.038

All tolerance values are greater than 0.1, indicating that there is no significant multicollinearity (Tjiptono, 2014). All VIF values are below 10, confirming that there is no strong correlation between the independent variables (Kotler & Keller, 2016). Since the tolerance values are above 0.1 and VIF values are below 10, no multicollinearity exists within the regression model (Sugiyono, 2010). This suggests that service quality and pricing are independent of each other, ensuring the accuracy and reliability of the regression analysis (Aydemir, 2024).

Heteroscedasticity Test

Heteroscedasticity occurs when the variance of residuals is not constant across all levels of the independent variables, which can lead to inefficient and biased regression estimates (Tjiptono, 2014). To detect heteroscedasticity, the Glejser test and Scatterplot analysis were conducted.

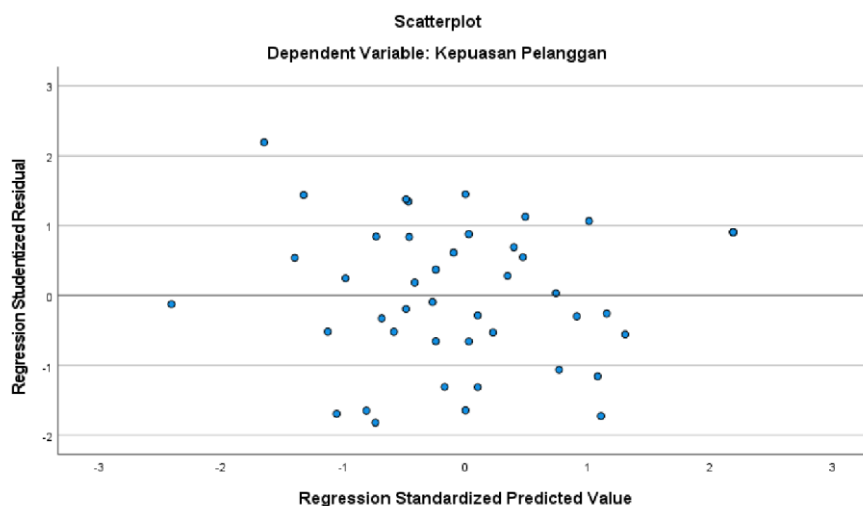


Figure 2. Heteroscedasticity Test Result

Source: Data Processing Result, 2024

A scatterplot of standardized residuals was analyzed to visually detect any signs of heteroscedasticity. The plot shows that the residuals are randomly dispersed without forming a distinct pattern, confirming the absence of heteroscedasticity.

Furthermore, results from the Glejser test and scatterplot analysis indicate no evidence of heteroscedasticity in the regression model. This finding suggests that the variance of the residuals

remains constant, thereby fulfilling the regression assumption and enhancing the reliability of the results (Ruan, 2024).

Multiple Linear Regression

The regression model illustrates the association between the independent variables (X1, X2) and the dependent variable (Y).

Table 4. Multiple Linear Regression Analysis Result

Model	Coefficients ^a		Standardized Coefficients Beta	t	Sig.
	Unstandardized Coefficients B	Std. Error			
1 (Constant)	7.996	3.427		2.333	.025
Kualitas Pelayanan	.639	.109	.600	5.860	.000
Harga	.368	.107	.354	3.454	.001

Sources: Data Processing result, 2024

Regression Equation:

$$Y = 7.996 (\alpha) + 0.639 (X_1) + 0.369 (X_2) + e$$

1. Constant (α) = 7.996: If both service quality (X1) and price (X2) are zero, customer satisfaction (Y) will be 7.996.
2. Coefficient for Service Quality (β_1) = 0.639: For each unit increase in service quality, customer satisfaction increases by 0.639, holding price constant.
3. Coefficient for Price (β_2) = 0.368: For each unit increase in price, customer satisfaction increases by 0.368, holding service quality constant.

Key Findings

1. Service quality and price significantly influence customer satisfaction.
2. Service quality has a greater impact compared to price, as evidenced by the higher regression coefficient.
3. The model emphasizes the importance of improving service quality and maintaining competitive pricing to enhance customer satisfaction.

Partial Test (t Test)

Table 5. Result Of t-Test

Model	Coefficients ^a		Standardized Coefficients Beta	t	Sig.
	Unstandardized Coefficients B	Std. Error			
1 (Constant)	7.996	3.427		2.333	.025
Kualitas Pelayanan	.639	.109	.600	5.860	.000
Harga	.368	.107	.354	3.454	.001

Sources: Data Processing Results, 2024

1. H1 (First Hypothesis)
Since the p-value is less than 0.05, service quality (X1) significantly influences customer satisfaction (Y). This indicates that improvements in service quality will have a significant positive impact on customer satisfaction.

2. H2 (Second Hypothesis)

Because the p-value is less than 0.05, pricing (X2) also significantly affects customer satisfaction (Y). Competitive pricing has a positive impact on customer satisfaction.

Both service quality and pricing significantly influence customer satisfaction at UD Rabas Accu. Service quality (X1) has a greater impact on customer satisfaction than pricing (X2), as evidenced by the higher t-value (Song, 2024).

Simultaneous Test (F Test)

Table 6. F Test Result

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	596.775	2	298.388	76.572	.000 ^b
	Residual	159.770	41	3.897		
	Total	756.545	43			

Sources: Data Processing Results, 2024

1. The p-value (0.001) is smaller than the significance level ($\alpha = 0.05$), indicating that the combined effect of service quality (X1) and pricing (X2) on customer satisfaction (Y) is statistically significant.
2. The calculated F-value (76.572) is greater than the critical F-table value, further confirming the model's significance.

Service quality and pricing, when considered simultaneously, have a significant impact on customer satisfaction at UD Rabas Accu. These findings support the hypothesis that both factors are crucial in determining customer satisfaction and should be addressed together in managerial strategies (Subramanian, 2024).

Koefisien Determinasi

Table 7. Results Of Coefficient Of Determination Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.888 ^a	.789	.779	1.974

Sources: Data Processing Results, 2024

The R² value of 0.789 indicates that 78.9% of the variation in customer satisfaction (Y) can be explained by service quality (X1) and pricing (X2) combined. The remaining 21.1% of the variation is influenced by factors not included in the model.

This model has strong explanatory power, as the R² value exceeds 50%. While enhancing service quality and pricing strategies can significantly improve customer satisfaction, additional variables (such as product quality or emotional factors) may also contribute to more accurate predictions (Chen, 2024).

Discussion

Effect of Service Quality on Customer Satisfaction

The results of this study indicate that service quality (X1) has a significant effect on customer satisfaction (Y) at UD Rabas Accu. This finding supports the idea that customers prioritize reliable, responsive, and empathetic service. Key factors such as prompt service delivery, staff competence, and effective communication play a vital role in shaping customer perceptions. The substantial t-value (5.860) and low p-value (0.001) underscore the importance of upholding high service standards to cultivate customer loyalty and satisfaction. These results are consistent with the research by Kotler and Keller (2016), which emphasizes that service quality is closely linked to customer trust and retention. Enhancing service quality can increase perceived value for customers, thereby providing a competitive edge in a saturated market.

Impact of Price on Customer Satisfaction

This study also reveals that price (X2) significantly influences customer satisfaction (Y) statistically. Customers consider competitive pricing an essential factor in evaluating the value of products or services. The t-value (3.454) and p-value (0.001) indicate that fair pricing has a positive effect on customer satisfaction. This result aligns with Tjiptono (2014), who argues that customers are more likely to remain loyal if the perceived benefits of a product match its cost. Retailers like UD Rabas Accu must balance affordability and perceived quality to meet customer expectations.

Simultaneous Effect of Service Quality and Price

The F-test results demonstrate that service quality (X1) and price (X2) have a combined significant effect on customer satisfaction (Y). With an F-value of 76.572 and a p-value of 0.001, these findings highlight the importance of adopting an integrated approach to enhance both service and pricing strategies. Together, these variables explain 78.9% of the variance in customer satisfaction ($R^2 = 0.789$). This suggests that while service quality and price are crucial factors, other elements such as product quality, accessibility, or emotional satisfaction may also play a role in shaping customer satisfaction.

Managerial Implications

1. **Improving Service Quality:** UD Rabas Accu should allocate resources towards employee training to enhance their ability to respond quickly to customer needs and elevate the overall service experience.
2. **Competitive Pricing:** Regularly evaluating pricing strategies to ensure alignment with market standards and customer expectations is crucial.
3. **Holistic Strategy:** Addressing both service quality and price simultaneously can maximize customer satisfaction, foster loyalty, and enhance market position.

Comparison with Previous Research

These findings are consistent with prior research, such as Tjiptono (2014) and Kotler & Armstrong (2018), which emphasize that service quality and price are key determinants of customer satisfaction. However, this study reveals that service quality has a more dominant effect than price, suggesting that customers prioritize the overall service experience over cost considerations.

Conclusion

Based on the analysis of the effect of service quality and price on customer satisfaction at UD Rabas Accu, the following conclusions can be made:

1. Effect of Service Quality: Service quality has a significant impact on customer satisfaction. This suggests that factors such as reliability, responsiveness, assurance, empathy, and tangible elements of service play a crucial role in improving customer satisfaction.
2. Effect of Price: Price also affects customer satisfaction, although the study indicates that the influence of service quality is more prominent than that of price.
3. Combined Effect: When considered together, service quality and price significantly affect customer satisfaction, accounting for a substantial portion of the variation in satisfaction. This emphasizes the importance of addressing both factors in tandem to enhance the customer experience and build loyalty.
4. Managerial Implications: The findings suggest that UD Rabas Accu should prioritize enhancing service quality through employee training and improving responsiveness, while also maintaining competitive pricing strategies to optimize customer satisfaction and strengthen its position in the market.

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