Service Quality and Price Perception as Predictors of Customer Satisfaction in Logistics Services

Ahmad Qory Mudzakir[1], Rizky Muyasar[2], Syamsudin Baharsyah[3], Hasanudin[4], Herdian Farisi[5]
[1,2,3,4,5]Universitas Medika Suherman, Bekasi, Indonesia
Email: rizkymuyasar@gmail.com

Abstract

This study aims to examine the influence of service quality and price on customer satisfaction at a logistics service company. Using a quantitative approach with an associative design, data were collected through a Likert-scale questionnaire from a group of customers selected through purposive sampling. The data were then analyzed using multiple linear regression after all classical assumption tests were met. The results show that, partially, price perception has a positive and significant relationship with customer satisfaction. In contrast, service quality shows a positive relationship but has no statistically significant effect after controlling for price. Simultaneously, the two factors together contribute significantly to explaining variation in customer satisfaction. The indicator evaluation shows that price perception is the dominant determinant in the model, while the company's consistency in fulfilling service promises is assessed as the weakest point requiring special attention. Given the limited sample size and the non-probability method of selecting respondents, the results of this study should not be widely generalized to the entire logistics service industry beyond the scope of the study.

Keywords: *Customer Satisfaction, Logistics Services, Price, Service Quality.*

A. INTRODUCTION

Customer satisfaction in logistics services is formed through an evaluation of the accuracy of service delivery, the clarity of information, the handling of problems, and the value received relative to the cost paid. Customers assess operational outcomes as well as the process that accompanies them: a delivery completed as promised can lose its value when communication is poor, while competitive rates do not necessarily satisfy when the service cannot be relied upon. A cross-border logistics study by Hui et al. (2025) found that delivery service quality, return services, and cross-border shopping experience were significantly related to satisfaction, whereas price fairness and certain aspects of information or delivery stability were not always significant. Rashid and Rasheed (2024) also reported that product quality and information had a positive effect on product satisfaction, while availability, delivery time, and shipping costs showed no significant effect in the Pakistani e-commerce context. These differences confirm that the contribution of service and price dimensions depends on the service context and the satisfaction construct being measured. In the context of Indonesian logistics services, Aziz et al. (2025) found that reliability and responsiveness were strongly related to JNE customer satisfaction, while Hidayat et al. (2026) showed that the contribution of logistics quality dimensions differs according to the service aspects tested in cross-border e-commerce.

The relationship between service quality and satisfaction is not always uniform across types of service, so the relative strength of service quality and price needs to be tested in a specific customer context. Among customers of the JNE Sales Counter at PT Forty Resource, Saputra and Maftuchach (2025) reported that service quality was positive but not significant, while price had a positive and significant effect. A similar pattern was found by Ulinuha (2021) among Grab users in Magelang: service quality was positive but not significant, while price had a positive and significant effect on satisfaction. In contrast, Kurniawan et al. (2024) found that service quality and price both had a significant effect on the satisfaction of Kopi Nako Bandung customers. In the retail context, Muyasar and Baharsyah (2026) found that service excellence, customer satisfaction, and promotion had a positive and significant effect on the loyalty of retail MSME customers. Although the dependent variable and business context differ, that study reinforces the importance of managing service and satisfaction in customer retention strategies. Variation across contexts shows that the relationship of the two predictors cannot be assumed to be the same across all types of service.

Theoretically, service quality can be examined through the dimensions of reliability, responsiveness, assurance, empathy, and tangibles developed in the SERVQUAL framework (Parasuraman et al., 1988). In logistics services, these dimensions relate to the consistency of service delivery, the ability to respond to questions or problems, and customers' confidence in operational promises. Evidence from food delivery services shows that the contribution of service quality dimensions can differ by context: Afrianingsih et al. (2024) reported that reliability, responsiveness, and empathy had a significant effect on GrabFood customer satisfaction in Banyumas Regency, while tangibles and assurance were not significant partially. Price is also part of value evaluation, because customers consider costs together with the benefits and performance they receive. Hasibuan et al. (2022) position pricing strategy as an important part of marketing related to a company's profitability and competitive position. Ulinuha (2021) provides relevant empirical evidence that price can show a significant relationship with satisfaction when service quality is not significant partially. Oliver's (1980) satisfaction framework places the evaluation of experience and expectations as part of the process through which satisfaction is formed, so that service quality and price perception may relate to satisfaction through different evaluative aspects.

Empirical evidence from logistics services and delivery-based services shows that service dimensions do not always make a uniform contribution. Hidayat et al. (2026), in a study of cross-border e-commerce consumers, found that delivery stability, availability, return services, and cross-border shopping experience had a significant effect on satisfaction, whereas delivery service quality, delivery information, and price fairness were not significant for satisfaction. Aziz et al. (2025), on JNE customers, conversely highlighted reliability and responsiveness as important dimensions. In food delivery services, Wu et al. (2024) found that reliability, assurance, maintenance of food quality, system operations, traceability, and perceived service value were

related to satisfaction and intention to reuse the service. Arli et al. (2024) also showed that not all SERVQUAL dimensions affect satisfaction and loyalty in food delivery services. Although these contexts are not identical to the company's logistics services, this evidence supports the need to test service quality and price among customers of PT Trisindo Asrikarya without assuming that results from other sectors will be repeated identically.

The empirical gap raised in this article is the lack of uniform evidence on the relative contribution of service quality and price to customer satisfaction in services. This study tests the partial effect of each variable and their simultaneous contribution among customers of PT Trisindo Asrikarya in Bogor. The hypotheses tested are: H1, service quality affects customer satisfaction; H2, price affects customer satisfaction; and H3, service quality and price simultaneously affect customer satisfaction.

B. RESEARCH METHOD

This study uses a quantitative approach with an associative design. Data were collected from customers of PT Trisindo Asrikarya in the IPI area, Karanggan, Gunung Putri, Bogor, during May–August 2026. The target population was customers who had used the company's services. The sample consisted of 40 respondents selected through non-probability purposive sampling; the reported inclusion criteria were having used the company's services and being willing to complete the questionnaire. Because respondents were not selected randomly, the findings are limited to the observed sample.

Primary data were collected through a five-point Likert scale questionnaire. The instrument contained 26 statements: 10 service quality items, 8 price items, and 8 customer satisfaction items. Service quality was measured using the dimensions of reliability, tangibles, responsiveness, assurance, and empathy. Price covered affordability, the conformity of price with benefits, competitiveness, and conformity with quality. Customer satisfaction was operationalized through satisfaction with the service, conformity with expectations, intention to reuse, and recommendation.

The analysis was conducted using descriptive statistics and multiple linear regression. Instrument quality was evaluated through item correlations and Cronbach's alpha; assumption checks covered normality, multicollinearity, and heteroskedasticity. Partial effects were tested with the t-test and the simultaneous effect with the F-test, while the explanatory power of the model was assessed through R^2 and Adjusted R^2. The estimated equation is $Y = a + b_1X_1 + b_2X_2 + e$, with service quality as X_1, price as X_2, and customer satisfaction as Y. The source manuscript reports the use of SPSS, but the software version needs to be rechecked against the original analysis file before it is stated.

C. RESULTS AND DISCUSSION

1. Respondent Profile and Instrument Quality

The sample composition was dominated by male respondents (82.5%), aged 20–30 years (67.5%), with a bachelor's degree (52.5%), and with corporate customer

status (75.0%). In total, 42.5% of respondents had been customers for more than three years, while transportation/fleet services were the most widely used type of service (72.5%). This profile indicates that the assessments collected came mainly from customers who are relatively familiar with the company's service processes. However, the dominance of corporate customers and the sample size of 40 limit the representativeness of the results for other customer segments.

Table 1. Main Characteristics of Respondents (n = 40)

Characteristic	Largest category	n	%
Gender	Male	33	82.5
Age	20–30 years	27	67.5
Education	Bachelor's degree (S1)	21	52.5
Customer status	Corporate	30	75.0
Service use per year	4–6 times	16	40.0
Length of time as customer	> 3 years	17	42.5
Service type	Transportation/fleet	29	72.5
Frequency of use	Irregular	16	40.0

Note: The table shows the category with the highest frequency for each characteristic. Source: research data, processed (2026).

All items were declared valid based on the reported item correlation ranges: 0.667–0.906 for service quality, 0.690–0.813 for price, and 0.618–0.836 for customer satisfaction, compared with an r-table value of 0.312. The overall Cronbach's alpha of 0.975 indicates very high internal consistency. An alpha value close to one still needs to be interpreted carefully because it may reflect strong consistency but also the possibility of excessive similarity among items. For final reporting, alpha per construct should be included, not only the combined value for all 26 items.

2. Overview of Respondent Assessments

The mean service quality was 3.765, price 3.481, and customer satisfaction 3.644. In the service quality construct, employees' ability to respond to questions or problems obtained the highest mean (4.475), while the consistency of service in line with promises obtained the lowest mean (2.750). This contrast shows that direct responses to customers were rated well, but the consistency of service realization remains a weak point. This implication is in line with the character of logistics services, which requires companies to maintain communication while ensuring that operational promises are fulfilled.

Table 2. Descriptive Statistics of Research Variables

Variable	Mean	SD	Highest item (mean)	Lowest item (mean)
Service quality	3.765	0.709	X1.5 (4.475)	X1.4 (2.750)
Price	3.481	0.984	X2.8 (4.075)	X2.3 (3.100)
Customer satisfaction	3.644	0.747	Y.8 (4.300)	Y.4 (2.875)

Note: SD = standard deviation. Item codes follow the research instrument. Source: research data, processed (2026).

In the price construct, the conformity of rates with service quality had the highest mean (4.075), while the conformity of benefits with costs received the lowest mean (3.100). This pattern implies that customers tend to accept the relationship

between rates and quality, but are not yet fully convinced that the economic benefits received are commensurate with the costs. In the satisfaction construct, willingness to recommend the service to business associates received a high mean (4.300), while the item on the conformity of service quality with the company's promises was among the lowest ratings (2.875). Descriptively, the main issue appears to lie in service consistency and perceived value, not merely in response speed.

3. The Effect of Service Quality on Customer Satisfaction

The service quality coefficient was positive (B = 0.219; β = 0.216) but not significant at the 5% level (t = 1.808; p = 0.079). Therefore, H1 is not statistically supported. The direction of the coefficient indicates a tendency toward a positive relationship, but the evidence from this sample is not sufficient to state that service quality makes a significant partial contribution once price is controlled. This lack of significance does not mean that service quality is unimportant substantively; the result may relate to sample size, variation in responses, overlap among variables, or the characteristics of the observed customers, but these explanations need to be tested and cannot be established from the available analysis.

Table 3. Results of Multiple Linear Regression and Partial Testing

Predictor	B	SE	β	t	p	Decision
Constant	7.468	4.241	—	1.761	0.087	—
Service quality	0.219	0.121	0.216	1.808	0.079	Not significant
Price	0.482	0.091	0.633	5.305	<0.001	Significant

Note: B = unstandardized coefficient; SE = standard error; β = standardized coefficient. A value of p < 0.001 is reported for the output Sig. = 0.000. Source: research data, processed (2026).

This pattern is in line with the reports of Saputra and Maftuchach (2025) and Ulinuha (2021), who found a positive but non-significant service quality coefficient, while price had a positive and significant effect on satisfaction. In contrast, Hasdiansa and Hasbiah (2025) found that all five SERVQUAL dimensions were positively and significantly related to satisfaction at a courier and parcel delivery company. Aziz et al. (2025) also position reliability and responsiveness as important dimensions in the JNE customer context. Non-uniform results also appear in the international literature: Arli et al. (2024) reported that responsiveness did not affect satisfaction or loyalty in the food delivery context, while Wu et al. (2024) found contributions from several aspects of delivery service quality to satisfaction and reuse intention. Falatouri et al. (2025), in the context of physical food retail in Austria, identified personal interaction, store policy, and product aspects as drivers of satisfaction, while reliability was a trigger of dissatisfaction. Differences in results may relate to the type of service, measurement indicators, respondent composition, or model specification. Because the PT Trisindo Asrikarya model tests service quality as a composite construct, its results cannot be used to conclude which SERVQUAL dimension has the strongest partial effect.

The clearest operational priority comes from the low score on consistency in fulfilling service promises. Management can review the match between

communicated schedules and actual delivery, the mechanism for notification when delays occur, and the recording and resolution of complaints. Afrianingsih et al. (2024) showed that reliability and responsiveness are related to satisfaction in the food delivery context, so these two aspects are relevant as a conceptual comparison, although the GrabFood context differs from corporate logistics services. From a marketing mix perspective, Farisi et al. (2024) position people, process, price, promotion, place, physical evidence, and product as part of the marketing strategy of service businesses. This reference supports an improvement approach that focuses not only on employee behavior but also on service processes and supporting physical conditions. The operational recommendations above are implications of the descriptive pattern, not evidence that any particular intervention was tested in this study.

4. The Effect of Price on Customer Satisfaction

Price showed a positive and significant relationship with customer satisfaction (B = 0.482; $\beta = 0.633$; t = 5.305; $p < 0.001$), so H2 is supported. The standardized beta coefficient of price is larger than that of service quality, which means price is a relatively stronger predictor in the estimated model. A value of $\beta = 0.633$ does not mean that price explains 63.3% of satisfaction; the overall explanatory power of the model is shown by the coefficient of determination.

The descriptive scores give context to this relationship. Respondents gave relatively high ratings to the conformity of rates with service quality, but lower ratings to benefits relative to costs. This means price perception is not only about cheap or expensive, but also about evaluating whether the costs incurred are commensurate with the benefits and certainty of the service. This result is in the same direction as Saputra and Maftuchach (2025) and Kurniawan et al. (2024), who reported a significant relationship between price and satisfaction in different service contexts. However, the relationship between price and satisfaction is not always consistent across contexts. Hui et al. (2025) found that price fairness had no significant effect on satisfaction in the cross-border e-commerce context, although it was positively related to repurchase intention. Rashid and Rasheed (2024) also reported that shipping costs had no significant effect on product satisfaction in a sample of Pakistani e-commerce. These differences reinforce the need to interpret price as part of value evaluation in a specific context, rather than assuming that lowering rates always increases satisfaction.

From a managerial perspective, managing service quality and customer satisfaction is also important for sustaining relationships with consumers. Muyasar and Baharsyah (2026) found that service excellence, customer satisfaction, and promotion had a positive and significant effect on the loyalty of retail MSME customers. Although the context of that study differs from logistics services and its dependent variable is loyalty, it reinforces the relevance of managing the customer experience as part of a long-term relationship strategy. This implication needs to be

distinguished from the test results for PT Trisindo Asrikarya, which focus on customer satisfaction.

The managerial implication is that the company needs to clarify the rate components and service benefits included in the fee, and evaluate the price structure by type of service and the needs of business customers. Hasibuan et al. (2022) position pricing strategy as a marketing decision related to a company's profitability and competitive position; the implication is that rate adjustments need to consider value for customers as well as business sustainability. Farisi and Rahmawati (2025) found that positive emotion mediated the relationship between price perception and impulsive buying among cosmetics consumers, but did not mediate the relationship between social media and impulsive buying. Because the outcome variable and context differ from logistics customer satisfaction, this reference only supports the argument that price perception can work together with consumers' psychological evaluations, not direct evidence about the customer satisfaction of PT Trisindo Asrikarya. In B2B distribution, Sucipto et al. (2026) showed that trade promotion and price margins are related to the procurement decisions of retail partners; this context also differs from logistics customer satisfaction, but it is a reminder that price plays a role in inter-organizational business decisions. Rate decisions still need to consider operating costs, service reliability, and company margins.

Simultaneous effect and explanatory power of the model

The simultaneous test yielded $F = 23.351$ with $p < 0.001$, so service quality and price together are significantly related to customer satisfaction. An Adjusted R^2 of 0.534 indicates that the model explains 53.4% of the variation in satisfaction scores in the sample, while the remaining 46.6% lies outside the model. This figure is not a measure of causal contribution, but a measure of the variation that can be explained by two predictors in a regression.

Table 4. Model Fit and Simultaneous Testing

R	R^2	Adjusted R^2	F	p	Conclusion
0.747	0.558	0.534	23.351	<0.001	Significant model

Note: R^2 = coefficient of determination. Adjusted R^2 = adjusted coefficient of determination. Source: research data, processed (2026).

Overall model significance can still appear when one predictor is not significant partially. In this case, price contributes a stronger statistical relationship, while the service quality coefficient remains positive. The model supports a management approach that combines price value perception with service consistency, but it has not tested other factors such as trust, communication, punctuality, claims handling, or long-term relationships with customers. Further studies can add these constructs and involve larger samples from several logistics companies.

D. CONCLUSION

Based on the results of the data analysis, it can be concluded that service quality does not have a statistically significant effect on customer satisfaction at the logistics service company observed, although it shows a positive direction of relationship.

Meanwhile, price was shown to have a positive and significant relationship, and acts as a much stronger and more dominant predictor in shaping customer satisfaction than service quality. However, when tested together, service quality and price simultaneously make a significant contribution to explaining customer satisfaction. Operationally, management's main area for improvement lies in fulfilling the consistency of service promises, which customers still rate as low, as well as in the importance of clarifying the components of economic benefit received by customers so that they are commensurate with the rate structure offered.

REFERENCES

Afrianingsih, F., Farisi, H., & Safitri, A. (2024). Pengaruh kualitas pelayanan jasa driver GrabFood terhadap kepuasan pelanggan (Studi di Kabupaten Banyumas). *Jurnal Dinamika Ekonomi dan Bisnis, 21*(2), 195–208. https://doi.org/10.34001/jdeb.v21i2.7128

Arli, D., van Esch, P., & Weaven, S. (2024). The impact of SERVQUAL on consumers' satisfaction, loyalty, and intention to use online food delivery services. *Journal of Promotion Management, 30*(7), 1159–1188. https://doi.org/10.1080/10496491.2024.2372858

Aziz, E. V., Agustin, R., Hendro, J., Pratiwi, R. G., Soegara, Z., & Sugiana, N. S. S. (2025). A computational and statistical assessment of service quality dimensions affecting customer satisfaction in the logistics sector. *Malaysian Journal of Computing and Applied Mathematics, 8*(2), 8–14. https://doi.org/10.37231/myjcam.2025.8.2.159

Falatouri, T., Brandtner, P., Nasseri, M., & Darbanian, F. (2025). Service quality dimensions in Austrian food retailing: A text mining approach for physical retail stores. *The International Review of Retail, Distribution and Consumer Research, 35*(2), 127–162. https://doi.org/10.1080/09593969.2024.2371456

Farisi, H., & Rahmawati, D. (2025). Pengaruh media sosial dan persepsi harga terhadap impulsive buying dengan positive emotion sebagai variabel mediasi [The influence of social media and price perception on impulsive buying with positive emotion as a mediating variable]. *Jurnal Manajemen dan Bisnis Madani, 7*(1), 93–111. https://doi.org/10.51353/jmbm.v7i1.1008

Farisi, H., Yuliana, A., Sukoco, H., & Andini, M. (2024). Optimalisasi strategi pemasaran pada bengkel motor di Purwokerto. *Jurnal GEMBIRA (Pengabdian Kepada Masyarakat), 2*(4), 1256–1261.

Hasdiansa, I. W., & Hasbiah, S. (2025). Service quality and customer satisfaction in last mile logistics: Evidence from a courier and parcel delivery firm. *Fundamental and Applied Management Journal, 3*(1), 34–42. https://doi.org/10.66314/famj.v3i1.469

Hasibuan, R. R., Afifah, H., Purnawati, E., & Farisi, H. (2022). *Manajemen pemasaran*. Tiga Cakrawala.

Hidayat, K. A., Widjaja, F. N., & Wicaksono, A. P. (2026). The role of logistics service quality dimensions in shaping customer satisfaction and repurchase intention

in Indonesia's cross-border e-commerce. *Journal of Enterprise and Development, 8*(1), 1–16. https://doi.org/10.20414/jed.v8i1.14401

Hui, G., Al Mamun, A., Reza, M. N. H., & Hussain, W. M. H. W. (2025). An empirical study on logistic service quality, customer satisfaction, and cross-border repurchase intention. *Heliyon, 11*, e41156. https://doi.org/10.1016/j.heliyon.2024.e41156

Kurniawan, R., Rashela, W., & Widina. (2024). The influence of service quality and price on customer satisfaction at Kopi Nako Bandung, West Java Province, Indonesia. *Sinergi International Journal of Management and Business, 2*(3), 167–176. https://doi.org/10.61194/ijmb.v2i3.249

Muyasar, R., & Baharsyah, S. (2026). Analysis of service excellence, customer satisfaction, and promotion toward customer loyalty of retail MSMEs. *Indonesian Interdisciplinary Journal of Sharia Economics, 9*(2), 12007–12016. https://doi.org/10.31538/iijse.v9i2.9729

Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research, 17*(4), 460–469. https://doi.org/10.2307/3150499

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*(1), 12–40.

Rakhmawati, N., & Farisi, H. (2024). The influence of price value on consumer purchase intention on the food delivery application with the attitude variable as mediation. *Jurnal Akuntansi, Manajemen dan Ekonomi, 26*(4), 27–34. https://doi.org/10.32424/1.jame.2024.26.4.13568

Rashid, A., & Rasheed, R. (2024). Logistics service quality and product satisfaction in e-commerce. *SAGE Open, 14*(1), 1–12. https://doi.org/10.1177/21582440231224250

Saputra, A. D. R., & Maftuchach, V. (2025). The influence of service quality and price on customer satisfaction. *Journal of Economics and Business (JECOMBI), 6*(1), 65–71.

Sucipto, A., Hasanudin, Rosadi, R., Muyasar, R., & Farisi, H. (2026). How trade promotion and price margins drive retailers procurement decisions in the digital distribution era. *Journal of Principles Management and Business, 5*(1), 67–82. https://doi.org/10.55657/jpmb.v5i01.320

Ulinuha, G. (2021). Harga, kualitas pelayanan, citra merek dan kepuasan pelanggan pengguna jasa transportasi online. *Jurnal Manajemen Bisnis, 18*(4), 422–447. https://doi.org/10.38043/jmb.v18i4.3271

Wu, M., Gao, J., Hayat, N., Long, S., Yang, Q., & Al Mamun, A. (2024). Modelling the significance of food delivery service quality on customer satisfaction and reuse intention. *PLOS ONE, 19*(2), e0293914. https://doi.org/10.1371/journal.pone.0293914