Indonesia International Journal of Integrated Economic and Management Research (IIJIEMR) Vol. 1 No.1 (2026)

OPEN ACCESS

The Effect of Service and Product Quality on Customer Satisfaction at a Private Commercial Bank Branch in Batam

Nando Wirawinata
Universitas Putera Batam, Kepulauan Riau, Indonesia
*Corresponding e-mail : pb150910390@upbatam.ac.id

A B S T R A C T

Purpose: Intensifying competition among commercial banks makes service quality and product attractiveness decisive factors in retaining customers. This study analyzes the effect of service and product quality on customer satisfaction at a private commercial bank branch in Batam.

Methods: A quantitative causal design was used, with multiple linear regression applied to a sample of 263 active customers selected through simple random sampling using the Slovin formula at a five-percent error margin.

Findings: Service quality has a positive and significant partial effect on customer satisfaction ($t = 7.993 > 1.652$, Sig. = 0.000), product quality also has a positive and significant partial effect ($t = 6.358 > 1.652$, Sig. = 0.000), and the two variables jointly explain 71.2 percent of the variance in customer satisfaction ($F = 320.903 > 3.04$, Sig. = 0.000; R-squared = 0.712).

Originality/value: The study contributes branch-level regression evidence, still limited in the Indonesian private-banking segment, indicating that satisfaction strategies should treat frontline service delivery and product design as complementary levers rather than substitutes, offering practical guidance for branch managers seeking to strengthen customer retention.

Keywords : Service Quality; Product Quality; Customer Satisfaction; Commercial Banking; Multiple Linear Regression
JEL codes : G21, M31, M11

Received: 26/05/2026 Revised: 29/06/2026 Accepted: 30/07/2026

1. INTRODUCTION

Competition among commercial banks in Indonesia has intensified as customers gain access to a widening set of alternatives, from state-owned and private national banks to digital-only challengers, making customer satisfaction an increasingly decisive determinant of a branch's ability to retain its deposit and transaction base (Kadir et al., 2023). Within this competitive landscape, banks compete not only on price and interest terms but on the quality of the service customers experience at the counter and through digital channels, and on the attractiveness of the savings, credit, and transactional products offered (Mainardes & Freitas, 2023). A private commercial bank branch operating in the Palm Spring area of Batam illustrates this competitive pressure directly: as a mid-sized branch competing against both larger national banks and nimble digital entrants for a similar local customer base, its ability to sustain satisfaction depends heavily on how consistently it delivers reliable, responsive service alongside competitive products. Service quality has long been established in the marketing literature as a multidimensional construct - encompassing reliability, responsiveness, assurance, empathy, and tangibles - that directly shapes how customers evaluate their experience with a service provider (Parasuraman et al., 1988). In the banking sector specifically, these dimensions matter because trust and consistent service delivery directly influence whether a customer continues to consolidate their financial activity with a given bank (CDC Journal, 2025). Recent evidence from online and mobile banking contexts confirms that efficiency, dependability, responsiveness, and security remain the factors most strongly associated with customer satisfaction, with reliability frequently identified as the most influential dimension (Rahman & Hasan, 2024). Product quality operates alongside service quality as a second, complementary determinant: customers evaluate not only how a service is delivered but also whether the underlying financial product - a savings account, credit facility, or transactional service - meets their needs on terms they consider competitive (Dias & Dissanayake, 2023).

Despite the breadth of research on service quality and customer satisfaction internationally, relatively few studies quantify the joint and separate contribution of service and product quality specifically at the individual-branch level within Indonesia's private banking segment, where local competitive dynamics and customer demographics can differ meaningfully from national aggregate patterns (Islam, 2023). This study addresses that gap by examining, at a single private commercial bank branch in Batam, how service quality and product quality each affect customer satisfaction, and how much of the variance in satisfaction they jointly explain, with the aim of providing branch management with an empirically grounded basis for allocating improvement efforts between frontline service investment and product development.

2. LITERATURE REVIEW

Customer satisfaction is commonly defined as the evaluative outcome of comparing a customer's expectations of a product or service against their perceived experience of it, such that satisfaction rises when perceived performance meets or exceeds expectations and falls when it does not (Kotler & Keller, 2016). In banking, satisfaction is widely treated as an antecedent of customer loyalty and retention: customers who are satisfied with a bank's service and products are more likely to consolidate additional financial activity with that bank and to resist competitors' offers (Kadir et al., 2023). Because satisfaction is inherently subjective and cumulative, it is typically measured through customer surveys capturing perceptions across multiple service encounters rather than a single transaction.

Service quality is most influentially conceptualized through the SERVQUAL framework, which evaluates service delivery across five dimensions - reliability, responsiveness, assurance, empathy, and tangibles (Parasuraman et al., 1988). Reliability, the capacity to deliver services accurately and dependably, is frequently identified as the dimension most strongly associated with customer satisfaction in banking settings (Rahman & Hasan, 2024), while responsiveness and assurance jointly reflect a bank's capacity to resolve customer needs promptly and to be trusted with financial matters. Product quality, by contrast, concerns the intrinsic attractiveness of the financial product itself, including interest rates, transaction fees, product features, and the ease with which a product can be tailored to a customer's financial situation (Dias & Dissanayake, 2023). While service and product quality are conceptually distinct, empirical work consistently finds that both variables independently and jointly predict customer satisfaction in financial-services settings (Mainardes & Freitas, 2023; Bhattacharya et al., 2023).

Building on this theoretical foundation, this study proposes that service quality and product quality each exert a positive, significant partial effect on customer satisfaction, and that the two variables jointly exert a positive, significant simultaneous effect on customer satisfaction, consistent with the pattern documented across multiple national banking contexts where SERVQUAL dimensions and product attributes jointly explain a substantial share of the variance in satisfaction outcomes (Yoeung et al., 2023; Kadir et al., 2023).

3. METHOD

This study uses a quantitative causal design intended to test the effect of two independent variables - service quality and product quality - on customer satisfaction as the dependent variable, at a private commercial bank branch located in the Palm Spring area of Batam. The population consists of the branch's active customers, and the sample was drawn using simple random sampling, with sample size determined by the Slovin formula at a five-percent margin of error, yielding a sample of 263 respondents.

Data were collected through a structured questionnaire using a Likert scale, carefully designed to capture respondents' perceptions of service quality (reliability, responsiveness, assurance, empathy, and tangibles), product quality (product features, cost competitiveness, and suitability to customer needs), and overall satisfaction. Prior to the main analysis, the instrument was tested for validity and reliability; multicollinearity was also checked among the independent variables, and tolerance and variance-inflation-factor values confirmed no multicollinearity problem (tolerance greater than 0.10 and VIF below 10 for both predictors).

The data were analyzed using multiple linear regression, with partial (t) tests used to assess the individual effect of each independent variable, an overall (F) test used to assess their joint effect, and the coefficient of determination (R-squared) used to quantify the proportion of variance in customer satisfaction explained by the two predictors combined. All statistical analyses were performed using SPSS.

4. RESULTS AND DISCUSSION

The regression analysis shows that service quality has a positive and statistically significant partial effect on customer satisfaction, with a calculated t-value of 7.993, exceeding the critical t-table value of 1.652, and a significance value of 0.000, below the 0.05 threshold. This finding is consistent with SERVQUAL-based evidence from other banking contexts showing that reliability and responsiveness are typically the dimensions most strongly associated with customer satisfaction (Rahman & Hasan, 2024; CDC Journal, 2025); at the branch studied here, customers appear to place particular weight on how consistently and promptly their transactions are handled, which aligns with the reliability-centered pattern documented in comparable commercial-bank settings (Business Perspectives, 2024).

Product quality similarly shows a positive and statistically significant partial effect on customer satisfaction, with a calculated t-value of 6.358, also exceeding the critical value of 1.652, and a significance value of 0.000. This result is consistent with evidence that product attributes - including fee structure, interest competitiveness, and feature fit - meaningfully shape customer satisfaction independently of service delivery quality (Dias & Dissanayake, 2023; Mainardes & Freitas, 2023). Although its effect is somewhat smaller than that of service quality in this sample, the significant partial effect confirms that product design decisions are not secondary to service-quality investment but operate as a complementary satisfaction driver in their own right.

Tested simultaneously, service quality and product quality jointly exert a significant effect on customer satisfaction, with a calculated F-value of 320.903, exceeding the critical F-table value of 3.04, and a significance value of 0.000. The coefficient of determination indicates that the two variables together explain 71.2 percent of the variance in customer satisfaction (R-squared = 0.712; adjusted R-squared = 0.709), leaving approximately 28.8 percent of the variance attributable to factors outside the model, such as pricing perceptions, physical branch environment, digital-channel convenience, or brand trust accumulated over time (Kadir et al., 2023; Islam, 2023). This proportion of explained variance is broadly consistent with regression results reported in comparable single-institution banking studies, where service- and product-related predictors typically account for roughly two-thirds to three-quarters of satisfaction variance (Yoeung et al., 2023). Table 1 summarizes the hypothesis-testing results for both the partial and simultaneous effects.

Table 1. Summary of Hypothesis Testing Results

Hypothesis	*Test Statistic*	*Conclusion*
Service quality -> Customer satisfaction (partial)	*t = 7.993 > 1.652; Sig. = 0.000*	*Positive and significant*
Product quality -> Customer satisfaction (partial)	*t = 6.358 > 1.652; Sig. = 0.000*	*Positive and significant*
Service and product quality -> Customer satisfaction (simultaneous)	*F = 320.903 > 3.04; Sig. = 0.000; R^2 = 0.712*	*Positive and significant*

Source: Processed primary survey data (n = 263), 2026.

5. CONCLUSIONS

This study finds that both service quality and product quality have a positive and significant effect on customer satisfaction at the private commercial bank branch studied, whether tested individually or jointly, with the two variables together accounting for 71.2 percent of the variance in customer satisfaction. Service quality shows a somewhat larger partial effect than product quality, suggesting that frontline reliability, responsiveness, and assurance remain the more immediate lever for improving satisfaction at the branch level, but the significant independent contribution of product quality confirms that product design and competitiveness cannot be treated as secondary. Branch management should therefore pursue improvements on both fronts simultaneously - strengthening staff training and service consistency while continuing to refine product features and pricing - rather than prioritizing one dimension at the expense of the other. Because the study is limited to a single branch and a cross-sectional sample, future research could usefully extend the analysis across multiple branches or over time to test whether the relative weight of service and product quality shifts with local market conditions.

ACKNOWLEDGMENT

The authors thank Universitas Putera Batam and the customers who participated in this survey. This research received no external or internal grant funding.

REFERENCES

Bhattacharya, P., Mukhopadhyay, A., Saha, J., Samanta, B., Mondal, M., Bhattacharya, S., & Paul, S. (2023). Perception-satisfaction based quality assessment of tourism and hospitality services in the Himalayan region: An application of AHP-SERVQUAL approach. International Journal of Geoheritage and Parks, 11(2), 259-275.

Business Perspectives. (2024). Service quality and customer satisfaction: Empirical evidence from the Nepalese banking industry. Banks and Bank Systems, 19(2), 1-12.

CDC Journal. (2025). Customer satisfaction of bank: A comparative study of two commercial banks. CDC Journal, 33(47). https://doi.org/10.3126/cdj.v33i47.83410

Dias, S. N. R. F., & Dissanayake, W. D. M. B. K. (2023). The impact of mobile banking services on the customer satisfaction of commercial banks in Sri Lanka. Wayamba Journal of Management, 14(1), 1-15.

Fauzi, A. A., & Suryani, T. (2019). Measuring the effects of service quality by using CARTER model towards customer satisfaction, trust and loyalty in Indonesian Islamic banking. Journal of Islamic Marketing, 10(1), 269-289. https://doi.org/10.1108/JIMA-04-2017-0048

Ghazali, E., Mutum, D. S., & Mahbob, N. N. (2023). Islamic banking customer satisfaction: A meta-analytic review. International Journal of Bank Marketing, 41(4), 782-806.

Islam, M. A. (2023). The effects of service quality performance on customer satisfaction for non-banking financial institutions in an emerging economy. International Journal of Financial Studies, 11(1), 33. https://doi.org/10.3390/ijfs11010033

Kadir, A., Paly, M. B., & Abdullah, M. W. (2023). Customer loyalty Islamic banks in Indonesia: Service quality which mediated by satisfaction and customer trust. International Journal of Professional Business Review, 8(4), e01286. https://doi.org/10.26668/businessreview/2023.v8i4.1286

Kotler, P., & Keller, K. L. (2016). Marketing Management (15th ed.). Pearson Education.

Mainardes, E. W., & Freitas, N. P. D. (2023). The effects of perceived value dimensions on customer satisfaction and loyalty: A comparison between traditional banks and fintechs. International Journal of Bank Marketing, 41(3), 641-662.

Nguyen, D. T., Pham, V. T., Tran, D. M., & Pham, D. B. T. (2020). Impact of service quality, customer satisfaction and switching costs on customer loyalty. Journal of Asian Finance, Economics and Business, 7(8), 395-405.

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.

Rahman, M. H., & Hasan, M. K. (2024). Evaluating customer satisfaction with the quality of online banking services after COVID-19: Developing country perspective. Cogent Business & Management, 11(1), 2423057. https://doi.org/10.1080/23311975.2024.2423057

Rusuli, M. S. C., & Tasmin, R. (2021). Knowledge management and customer satisfaction in banking: A review. International Journal of Bank Marketing, 39(2), 232-251.

Sanusi, A. (2011). Metodologi Penelitian Bisnis. Salemba Empat.

Sthapit, A. (2023). Effect of service quality on customer satisfaction in Nepalese banking industry [Master's thesis]. Kathmandu University.

Sugiyono. (2013). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Alfabeta.

Usanti, T. P., & Setiawati, E. (2022). Legal framework of rural bank services in Indonesia. Journal of Legal, Ethical and Regulatory Issues, 25(3), 1-9.

Vencataya, L., Pudaruth, S., Juwaheer, T. D., Dirpal, G., & Sumodhee, N. M. Z. (2019). Assessing the impact of service quality dimensions on customer satisfaction in commercial banks of Mauritius. Studies in Business and Economics, 14(1), 259-270.

Wisniewski, M. (1996). Measuring service quality in the public sector: The potential for SERVQUAL. Total Quality Management, 7(4), 357-366.

Yoeung, S., Hill, S., & Ung, P. (2023). Determinants of customer satisfaction in the Cambodian banking sector. Asian Journal of Business Research, 13(2), 55-71.

Yusuf, A. O., Ibrahim, M. B., & Suleiman, T. (2024). Reliability and customer satisfaction in Nigerian commercial banking. International Journal of Bank Marketing, 42(2), 210-227.

Declaration

Conflict of Interest : The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Funding : This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Data Availability : The survey data supporting this study are available from the corresponding author upon reasonable request.

Ethical Approval and Informed Consent : All respondents participated voluntarily and were informed of the purpose of the study prior to completing the questionnaire; no personally identifying information was collected or reported.

Generative AI Statement : An AI language model (Claude, Anthropic) was used to assist with restructuring, translating, and copy-editing the manuscript into the journal's required format; the authors reviewed, verified, and take full responsibility for all content.

Copyright and License

Published by

Ikatan Sarjana Ekonomi Indonesia (ISEI) Batam – Indonesia