Escalate: Economics and Business Journal

https://journal.takaza.id/index.php/escalate

Vol. 4, No. 4, 2026, pp. 350-356
E-ISSN: 3025-4213

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Service Quality and Banking Program Variety Effects on Customer Satisfaction at Bank BPD Bali

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Article History:
Received : 24-08-2026
Revised : 18-10-2026
Accepted : 19-10-2026

Keywords: ***Service Quality; Banking Program Variety; Customer Satisfaction; Digital Banking; Banking Services***

Abstract: *This study examines the effects of service quality and banking program variety on customer satisfaction at PT Bank Pembangunan Daerah Bali, Medistra Hospital Sub-Branch, Denpasar. A quantitative associative survey involved 100 customers selected through simple random sampling from a population of 9,935. Data were collected using a five-point Likert-scale questionnaire and analyzed with SPSS 23 using instrument tests, classical assumption tests, multiple linear regression, t-tests, an F-test, and R^2. The results show that service quality has a positive and significant effect on customer satisfaction ($B = 0.525$; $t = 6.663$; $p < 0.001$), as does banking program variety ($B = 0.384$; $t = 4.823$; $p < 0.001$). The model is jointly significant ($F = 36.239$; $p < 0.001$) and explains 42.8% of customer satisfaction variance ($R^2 = 0.428$). The findings indicate that responsive service and adaptive savings and digital banking programs should be strengthened simultaneously.*

How to Cite: Pantes, I. K., Widiantara, I. M., & Susanti, L. A. (2026). *Service Quality and Banking Program Variety Effects on Customer Satisfaction at Bank BPD Bali*. *4*(4), pp.350-356. https://doi.org/10.61536/escalate.v4i4.770

https://doi.org/10.61536/escalate.v4i4.770

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Introduction

Customer satisfaction is a central performance outcome in retail banking because customers evaluate not only the financial product itself but also the entire service experience surrounding access, transactions, problem resolution, and digital interaction. In a competitive banking market, satisfied customers are more likely to continue using services, adopt additional products, and maintain a favorable relationship with the bank. Evidence from electronic and mobile banking research consistently shows that service quality is closely associated with satisfaction and subsequent loyalty-related outcomes (Amin, 2016; Ayinaddis et al., 2023). The

growing use of digital channels has therefore expanded the meaning of banking service quality from face-to-face service alone to a combination of physical, relational, and technology-enabled experiences.

Service quality reflects the customer's assessment of whether the service received is reliable, responsive, assuring, empathetic, and supported by adequate physical or technological facilities. In banking, these dimensions are especially important because customers entrust institutions with sensitive financial activities and expect accurate, secure, and timely transactions. Studies of digital banking further indicate that ease of use, efficiency, reliability, privacy, and responsiveness affect customer satisfaction and retention intentions (Egala et al., 2021). Recent evidence also confirms that the quality of mobile and digital banking remains multidimensional and continues to shape customer-centered outcomes as banking technologies evolve (Palamidovska-Sterjadovska et al., 2025).

Customer satisfaction is also influenced by the breadth and relevance of programs offered by a bank. In this study, banking program variety refers to the diversity of savings programs and digital banking programs available to customers. A wider and more adaptive portfolio provides customers with alternatives that better match different transaction patterns, financial needs, and levels of digital readiness. This concept is closely related to service innovation because banks increasingly compete through new service concepts, new delivery procedures, and technology-based distribution systems. Research in banking contexts shows that service innovation can improve customer satisfaction by creating greater value, convenience, and flexibility (Kanwal & Yousaf, 2019; Yusheng & Ibrahim, 2019; Nguyen et al., 2024).

A preliminary assessment at PT Bank Pembangunan Daerah Bali, Medistra Hospital Sub-Branch in Denpasar identified practical issues that may reduce customer satisfaction. Routine services were not always perceived as fully consistent with established service procedures, peak service periods could create long queues, and responses to customer complaints were not always sufficiently fast. In addition, some customers had limited understanding of available digital banking programs and continued to rely on basic or manual services. The setting is particularly demanding because customers associated with a hospital environment often require fast, clear, and dependable financial transactions. These conditions suggest that improving service quality alone may be insufficient when customers are not simultaneously supported by banking programs that are varied, accessible, and easy to use.

Previous studies provide strong evidence for the effect of digital service quality on satisfaction, including Indonesian banking settings (Susilawaty & Nicola, 2020; Christiaji et al., 2024; Bhuvaneswari & Maruthamuthu, 2024). However, fewer studies examine service quality together with the diversity of banking programs at a specific sub-branch where customers use both conventional and digital services. This study therefore investigates three hypotheses: H1, service quality has a positive and significant effect on customer satisfaction; H2, banking program variety has a positive and significant effect on customer satisfaction; and

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H3, service quality and banking program variety simultaneously have a positive and significant effect on customer satisfaction. The study aims to provide evidence that is directly useful for improving customer-facing operations at Bank BPD Bali, Medistra Hospital Sub-Branch.

Research Methods

This study employed a quantitative associative research design with a survey approach at PT Bank Pembangunan Daerah Bali, Medistra Hospital Sub-Branch, Denpasar. The population consisted of 9,935 customers. A sample of 100 respondents was determined from the population and selected using simple random sampling so that each eligible customer had an equal opportunity to participate. Data were collected using a structured questionnaire with a five-point Likert scale. Service Quality (X1) was measured through tangibles, reliability, responsiveness, assurance, and empathy. Banking Program Variety (X2) was represented by the availability and suitability of savings programs and digital banking programs. Customer Satisfaction (Y) reflected fulfillment of customer expectations and willingness to recommend the bank based on service experience.

Data analysis was conducted using SPSS version 23. Instrument quality was evaluated through item validity and Cronbach's alpha reliability. The regression assumptions were examined through the Kolmogorov-Smirnov normality test, tolerance and variance inflation factor (VIF) for multicollinearity, and the Glejser procedure for heteroscedasticity. Multiple linear regression was then used to estimate the partial effects of Service Quality and Banking Program Variety on Customer Satisfaction. The t-test was used for partial hypothesis testing, the F-test assessed the simultaneous effect of both predictors, and R^2 was used to determine the proportion of variation in customer satisfaction explained by the model. Statistical decisions were evaluated at the 5% significance level.

Result and Discussion

The measurement and diagnostic tests indicate that the dataset was suitable for multiple linear regression. All 15 questionnaire items had item-total correlations above 0.30 and were statistically significant at $p < 0.001$. Reliability was also strong, with Cronbach's alpha values of 0.948 for Service Quality, 0.875 for Banking Program Variety, and 0.928 for Customer Satisfaction. The Kolmogorov-Smirnov test produced an Asymp. Sig. value of 0.991, indicating that the residual distribution met the normality criterion. Tolerance values of 0.995 and VIF values of 1.005 for both predictors showed no multicollinearity. The Glejser test generated significance values of 0.817 for Service Quality and 0.066 for Banking Program Variety; because both values were above 0.05, heteroscedasticity was not indicated.

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Table 1. Measurement Quality and Classical Assumption Tests

Test	Service Quality (X1)	Program Variety (X2)	Customer Satisfaction (Y)	Interpretation
Validity	Items valid	Items valid	Items valid	All 15 items: r > 0.30; p < 0.001
Cronbach's alpha	0.948	0.875	0.928	Reliable
Normality	-	-	K-S p = 0.991	Normal distribution
Multicollinearity	Tol. 0.995; VIF 1.005	Tol. 0.995; VIF 1.005	-	No multicollinearity
Heteroscedasticity	p = 0.817	p = 0.066	-	Homoscedastic

The multiple regression model was estimated as Y = 1.433 + 0.525X1 + 0.384X2. The positive coefficient for Service Quality indicates that higher service quality is associated with higher customer satisfaction when Banking Program Variety is held constant. Likewise, the positive coefficient for Banking Program Variety indicates that broader and more suitable banking programs are associated with higher customer satisfaction when Service Quality is held constant. The standardized coefficient for Service Quality (β = 0.513) was larger than that of Banking Program Variety (β = 0.371), suggesting that service quality was the stronger predictor in this sample.

Table 2. Multiple Linear Regression Results

Predictor	B	Std. Error	t	p
Constant	1.433	1.920	0.747	0.457
Service Quality (X1)	0.525	0.079	6.663	< 0.001
Banking Program Variety (X2)	0.384	0.080	4.823	< 0.001

The partial hypothesis tests support both H1 and H2. Service Quality had a positive and statistically significant effect on Customer Satisfaction (t = 6.663; p < 0.001). This result is consistent with the banking literature showing that accurate, responsive, efficient, and dependable service enhances customers' evaluations of their banking experience. Amin (2016) found that internet banking service quality is strongly connected with e-customer satisfaction, while Ayinaddis et al. (2023) demonstrated that electronic banking service quality contributes to both satisfaction and loyalty. The present result extends this pattern to a branch context in which customers experience a combination of direct service and digital service support. Operationally, the finding means that reducing waiting time, improving complaint handling, strengthening employee responsiveness, and maintaining consistent service procedures can directly improve satisfaction.

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Banking Program Variety also had a positive and significant effect on Customer Satisfaction ($t = 4.823$; $p < 0.001$), supporting H2. Customers benefit when banking programs provide meaningful options rather than forcing diverse needs into a limited service configuration. The result is compatible with research on banking service innovation. Yusheng and Ibrahim (2019) reported that service innovation is directly related to customer satisfaction, while Kanwal and Yousaf (2019) emphasized that innovation improves satisfaction when it creates customer value. More recent evidence from retail banking likewise shows that new service concepts, procedures, and technological distribution systems can strengthen satisfaction (Nguyen et al., 2024). For Bank BPD Bali, program variety should therefore be accompanied by clear communication and user support so that customers understand and actually use the available digital programs.

The simultaneous F-test produced $F = 36.239$ with $p < 0.001$, supporting H3 and confirming that Service Quality and Banking Program Variety jointly explain Customer Satisfaction. The model produced $R = 0.654$, $R^2 = 0.428$, and adjusted $R^2 = 0.416$. Thus, 42.8% of the observed variance in Customer Satisfaction was explained by the two predictors, while 57.2% was associated with other factors not included in the model. The explanatory power is meaningful for a two-predictor branch-level model, but it also indicates that satisfaction remains influenced by additional elements such as trust, convenience, pricing or interest-rate perceptions, perceived security, digital usability, and prior customer experience. Studies of digital banking similarly show that satisfaction emerges from a combination of service attributes rather than a single dimension (Egala et al., 2021; Bhuvaneswari & Maruthamuthu, 2024).

Taken together, the findings show that customer satisfaction should be managed through an integrated service strategy. Improving the range of banking programs without improving service delivery may leave customers confused or reluctant to adopt new services. Conversely, excellent interpersonal service may not fully satisfy customers if the bank lacks convenient and adaptive programs. Indonesian evidence indicates that digital banking innovation and service delivery can shape customer satisfaction (Susilawaty & Nicola, 2020; Christiaji et al., 2024). The branch should therefore combine reliable frontline service, rapid problem resolution, customer education, and continuous improvement of digital banking features. This integrated approach is especially relevant in a hospital sub-branch where transaction speed and service clarity are important to customers with time-sensitive needs.

Conclusion and Recommendation

This study found that service quality and banking program variety were positively and significantly associated with customer satisfaction at PT Bank Pembangunan Daerah Bali, Medistra Hospital Sub-Branch, Denpasar. Service quality had a significant partial association with customer satisfaction ($B = 0.525$; $t = 6.663$; $p < 0.001$), as did banking program variety ($B = 0.384$; $t = 4.823$; $p < 0.001$). The multiple regression model was also statistically significant ($F = 36.239$; $p < 0.001$), with an (R^2) value of 0.428. This indicates that the two variables jointly explained 42.8% of the variation in customer satisfaction, while the remaining 57.2% was not explained by the model. These findings reflect statistical associations within the sub-

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branch studied and do not establish causal relationships or demonstrate that the same results apply to all Bank BPD Bali branches.

In practical terms, the Medistra Hospital Sub-Branch is recommended to improve service responsiveness, consistency in service procedures, complaint handling, and transaction speed during busy periods. The bank may also improve the communication and accessibility of its savings and digital banking programs to help customers understand and use the available services. These recommendations are practical considerations based on the findings, rather than interventions directly tested in this study.

This study is limited to one sub-branch and uses cross-sectional, self-reported questionnaire data, which may limit the generalizability of the findings and the conclusions that can be drawn about causal relationships. Future research should involve multiple Bank BPD Bali branches and larger samples to examine whether the observed associations are consistent across different settings. Further studies could also incorporate additional variables, such as customer trust, perceived security, digital usability, and customer experience, to provide a broader understanding of factors associated with customer satisfaction.

Acknowledgment

The authors thank PT Bank Pembangunan Daerah Bali, Medistra Hospital Sub-Branch, and all respondents who supported the data collection process.

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