

The Influence of Digital Banking Through Self-Service Technology on Customer Satisfaction of Indonesian Islamic Banks

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ABSTRACT

Self-service technology (SST), including automated teller machines (ATMs), mobile banking services, and online banking, has made digital banking a popular trend that enhances the effectiveness and convenience of financial transactions. This study aims to determine how digital banking using SST affects customer satisfaction at Bank Syariah Indonesia, specifically among UIN SU Islamic banking students. The research adopts a quantitative methodology, involving a sample of 90 respondents from UIN SU. Data was gathered by distributing questionnaires via the WhatsApp application. The data analysis was performed using SmartPLS Version 4.0 with the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique. The findings indicated that digital banking has a positive and significant impact on customer satisfaction at Bank Syariah Indonesia, particularly among UIN SU students. Furthermore, digital banking also positively and significantly influences the implementation of Self-Service Technology (SST) in banking, which in turn positively and significantly affects customer satisfaction.

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INTRODUCTION

Prioritizing customer satisfaction is a key factor for banking companies to compete, survive, and dominate the market in a highly competitive environment. (Bahtiar et al., 2024). Most banks are competing to develop better technology and information systems to provide services that meet customer needs. Accurate and meticulous service can create a positive impression and satisfy customers. (Fauzan et al., 2023) In the banking industry, customer satisfaction affects loyalty and becomes a key competitive advantage amid fierce competition.

With the increasing use of digital banking and computers as a means of financial transactions, the role of Information Technology (IT) has become very important. (Fatikha et al., 2025). Banks can leverage information technology by developing supporting infrastructure independently or in collaboration with bank partners. By using IT, banks are expected to provide services to customers without time and place limits, at low costs, and provide the best level of comfort that suits customer preferences. (Bahtiar et al., 2024). Therefore, the implementation of banking IT will facilitate operational activities and services for customers and the general public.

Banking today leverages technology to promote, market, and provide technology-based payment tools, known as digital banking (Sari et al., 2023). The most commonly used service is Self-Service Technology (SST), which includes Internet Banking, Mobile Banking, and ATMs. ATMs allow customers to withdraw money and check balances without



the help of bank staff. Meanwhile, Mobile Banking allows transactions anytime and anywhere for 24 hours (Simatupang, 2021), so Mobile Banking uses a mobile phone-like communication network and offers similar features to ATMs, but does not support cash withdrawal transactions (Fasa et al., 2024). Meanwhile, Internet Banking is a banking service that allows customers to make transactions, access information, and communicate via the internet (Ayuningtyas et al., 2023). This service is very flexible because it can be accessed without time and place limits, in contrast to services in the office. These three SST services allow the measurement of customer satisfaction with digital services through the SST facility. The better the quality of SST services, the greater the impact on customer behavior and satisfaction (Rosano et al., 2023).

In Indonesia, Bank Syariah Indonesia (BSI) is one of the Islamic banks, formed by the consolidation of Bank Syariah Mandiri, BNI Syariah, and BRI Syariah on February 1, 2021 (Fatimah, 2024). This merger aims to combine the strengths of the three banks, so that they can provide better, complete, extensive, and have greater capital capacity. Islamic banks operate without using an interest system, but based on contracts and agreements by Islamic law, such as profit-sharing schemes. This difference distinguishes Islamic banks from conventional banks, which use an interest system in their operations. (, 2022).

Socialization is vital for the growth of Islamic financial institutions, as it has significantly raised public awareness of these institutions through the efforts made by the organizations themselves. The Islamic financial sector is witnessing sustained growth, marked by the increasing presence of Sharia Bank offices, Sharia People's Credit Banks, and Baitul Maal Wat Tamwil. (Ningrum et al., 2023). Since 2013, more and more banks have been operating by Sharia principles, showing significant growth in the sector. (Arsih et al., 2022).

As a result of HSBC's closure in the United States during the global reorganization of its parent bank, the number of Sharia Business Units (SBU) decreased to 23, whereas the number of Sharia Commercial Banks (SCB) stayed at 11, matching the previous year's figure. (Abubakar et al., 2022). At the same time, the number of Sharia People's Credit Banks (SPCB) increased to 163 from 158, due to four new business establishment permits and one conversion permit from ordinary SPCB (Sharia People's Credit Banks). In addition, in 2012, one SPCB (Sharia People's Credit Banks) business license was canceled. The office network has also increased by 565 offices, including 326 new offices from BUS and SBU, as well as one new SPCB (Sharia People's Credit Banks) office. The growth of Islamic financial institutions is a source of pride for Muslims and beneficial to the Indonesian people, showing that this institution is a benchmark for progress. (Fadhliah et al., 2024).

In its development, Bank Syariah Indonesia (BSI) has adopted a new strategy to increase profits by expanding fee-based income services in addition to credit distribution and fundraising activities throughout Indonesia. (Widyayanti et al., 2022). BSI offers services such as mobile banking and ATMs to increase the ease of transactions for customers (Latif et al., 2024). With the incorporation of banks into the ATM and mobile banking network, a national payment system can be realized, allowing for seamless interbank transactions. This demonstrates BSI's commitment to expanding access and improving the efficiency of banking services. (Rinjani et al., 2024).

Students of Sharia Banking at UIN Sumatra Utara (UIN SU) are an important group for Bank Syariah Indonesia (BSI) because they possess a thorough understanding of Islamic banking principles and practices and act as catalysts in increasing public awareness of sharia banking. Being part of a young, technology-savvy generation, these students are a strategic focus for implementing digital banking and Self-Service Technology (SST) to boost customer satisfaction. The ongoing phenomenon reveals that many people still have doubts about Islamic banking due to a lack of knowledge, highlighting the vital role of these students in promoting Sharia financial literacy and helping to expand the relatively small market share of Islamic banks compared to conventional banks. For this reason, choosing Sharia Banking students from UIN SU as respondents is

appropriate for studying the influence of digital banking and SST on enhancing customer satisfaction at BSI among young individuals who are potential future customers and contributors to the Islamic banking sector.

Research conducted by Izma Fazlun, Inayatillah Djakfar, and Azimah Dianah (2022) entitled "The Effect of Digital Banking Quality on Customer Satisfaction at BNI Syariah Banda Aceh Branch" shows that the quality of website design and information does not have a significant effect on customer satisfaction of digital banking users at BNI Syariah Banda Aceh Branch. Meanwhile, another study by Fachri Baasalem, Munawir Lobubun, and Akhmad Amiruddin Natsir (2023) found that security and additional costs hurt customer satisfaction at PT. Bank Negara Indonesia (Persero) Tbk. The results of the analysis show that security and additional costs contribute negatively to customer satisfaction, with a calculated t value showing a significant influence. (Baasalem et al., 2023)

According to the law, customers are parties who use bank services, not only those who have an account, but also those who do not use an account. (Lydia, 2021). Customer satisfaction is essential for the development and progress of the company. (Rosyidah et al., 2021). Customer satisfaction impacts repurchases, loyalty, complaint behavior, and positive recommendations. (Rika Widianita, 2023). Satisfied customers tend to make repeat purchases, have the possibility of up-buying and cross-buying, and are more loyal and tolerant of company mistakes. They are also more likely to recommend the product to others. (Permana, 2024). Customer satisfaction occurs when the performance of the product meets the customer's expectations. (Fadhliyah et al., 2024). If the performance of the product meets or exceeds expectations, the customer will be satisfied. (Yoseph Halim et al., 2021). On the other hand, buyers are satisfied or very happy if their performance meets or exceeds expectations. (Ilmiah et al., 2024) Overall, customer satisfaction is a positive attitude that a customer has after using a product or service. (Rinjani et al., 2024).

Digital banking

Digital banking is a banking operational activity that is carried out independently using digital or electronic resources owned by banks and customers. (Dani Kiswara et al., 2022). Digital banking allows customers to register, access information, initiate account transactions, and close accounts without the help of bank employees. (Masitoh et al., 2023). Through electronic banking facilities, customers can access various information and make transactions not only for banking products, but also other services such as financial consulting, investment information, e-commerce transactions, and other specific needs. (Rochmah et al., 2022).

Self-Service Technology

Technology that allows clients to conduct transactions or services independently, without relying on staff, is called Self-service technology (SST) (Fatikha et al., 2025). SST includes online platforms, internet banking, and mobile banking, which are typically mobile-based or other devices (Fitri et al., 2019). SST services include ATMs, internet banking, and mobile banking, which allow customers to transact independently, making it easier to access banks without queues, and can be used at any time (Mahmuda et al., 2023). The ease of use of information technology is key, where users feel that using technology is simple and does not require much effort. (Tangiduk et al., 2024).

METHODS

This study uses a quantitative associative approach to examine the impact of digital banking on customer satisfaction, mediated by Self-Service Technology (SST), among 991 Sharia Banking students at UIN Sumatra Utara. Using Slovin's formula with a 10% margin of error, the required sample size was calculated to be approximately 91 respondents. Accordingly, 90 respondents who have used Bank Syariah Indonesia's digital services for

at least six months were selected. This sample size is sufficient to ensure reliable and valid results in exploring how SST influences customer satisfaction in this group.

Data was collected through questionnaires that included questions about self-service technology use and customer satisfaction levels. Before being used, the questionnaire was tested for validity and reliability to ensure that the research instrument could accurately capture the intended variable. Data analysis was performed using path analysis with Smart PLS to assess the impact of digital banking on customer satisfaction via self-service technology. The analysis involved evaluating outer models, inner models, and conducting hypothesis testing. The results of this analysis are anticipated to provide a comprehensive insight into the relationship between the utilization of digital technology in Islamic banking and the level of customer satisfaction at Bank Syariah Indonesia, specifically among Islamic Banking students at UIN SU.

RESULTS AND DISCUSSION

Evaluation of Measurement Models

The measurement model (outer model) was evaluated to assess the relationship between latent variables and manifest variables using three key criteria: reliability, discriminant validity, and convergent validity.

Convergent validity

The relationship between item/indicator scores and construct scores reflects the convergent validity of the measurement model using reflexive indicators. An indicator is deemed reliable if its correlation value is greater than 0.70, although during scale development, loadings between 0.50 and 0.60 are also acceptable. According to the outer loading results, some indicators have loads below 0.60 and lack significance, indicating that they might need to be revised or eliminated.

The structural model in this study can be seen in the following figure.

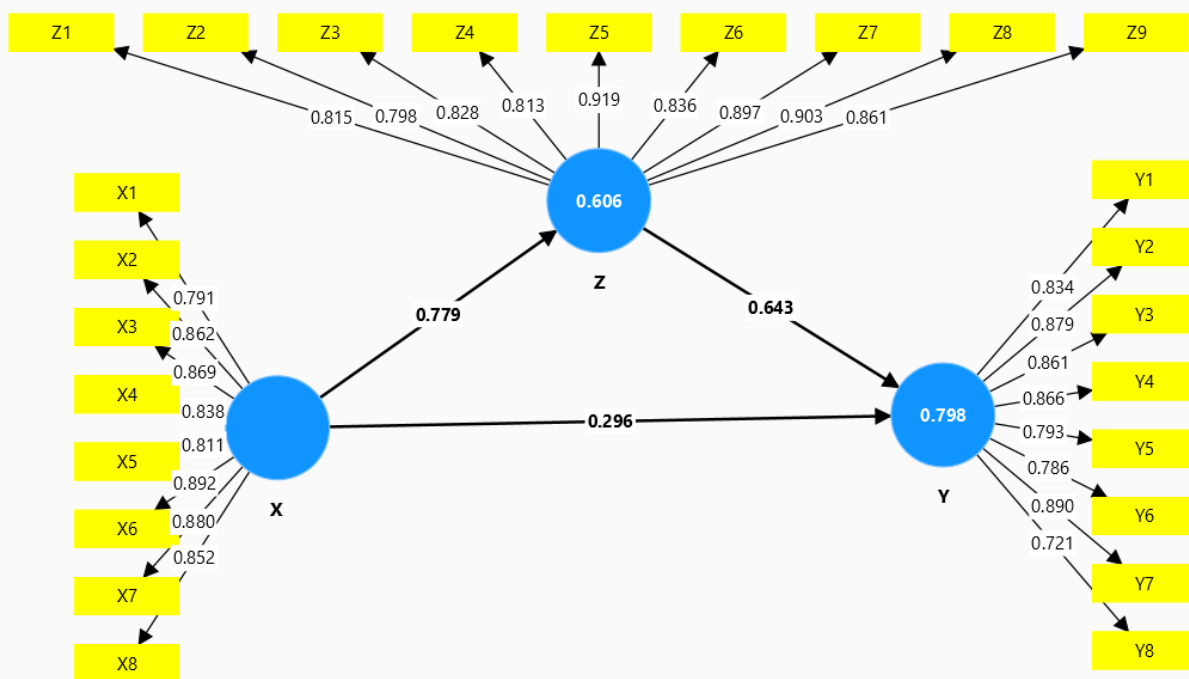


Figure 1. Path Diagram

Source: data that has been processed by the researcher (2025)

Table 1. Outer Loading Value

Variable	Indicator	Outer Loading	Ket.
Digital Banking (X)	X1	0,791	Valid
	X2	0,862	Valid
	X3	0,869	Valid
	X4	0,838	Valid
	X5	0,811	Valid
	X6	0,892	Valid
	X7	0,880	Valid
	X8	0,852	Valid
Customer Satisfaction (Y)	Y1	0,834	Valid
	Y2	0,879	Valid
	Y3	0,861	Valid
	Y4	0,866	Valid
	Y5	0,793	Valid
	Y6	0,786	Valid
	Y7	0,890	Valid
	Y8	0,721	Valid
SelfService Technology (Z)	Z1	0,815	Valid
	Z2	0,798	Valid
	Z3	0,828	Valid
	Z4	0,813	Valid
	Z5	0,919	Valid
	Z6	0,836	Valid
	Z7	0,897	Valid
	Z8	0,903	Valid
	Z9	0,861	Valid

Source: processed data by the researcher (2025)

Table 1 indicates that all the indicators mentioned are considered valid and worthy of scrutiny because the outer loading value of each variable exceeds 0.6.

Discriminant Validity

Discriminant validity ensures that indicators of one construct are not overly correlated with those of another. When the correlation between a construct and its measurement item exceeds that with another construct, the latent construct more accurately predicts block size. A loading factor above 0.70 is deemed valid for measuring constructs, though a value between 0.50 and 0.60 is acceptable in the early stages of scale development.

Table 2. Construct Reliability and Validity

Variable	Average Variance Extracted (AVE)	Composite Reliability (rho_a)	Cronbach`s Alpha
Digital Banking (X)	0,722	0,949	0,945
Self-Service Technology (with)	0,728	0,955	0,953
Customer Satisfaction (Y)	0,690	0,939	0,935

Source: processed data by the researcher (2025)

Table 2 shows that the Average Variance Extracted (AVE) for the digital banking, customer happiness, and SST variables each has a value of more than 0.50. This shows that all constructs have good reliability. Thus, the discriminant validity of each variable can be said to be strong.

Table 2 shows that the composite reliability value for each variable has a construct value greater than 0.60. The results of this research are presented clearly and supported by data processing and good illustrations in the discussion of the research article. No data is displayed repeatedly. Based on these findings, it can be concluded that all variables have a high degree of dependency because they have met composite reliability standards.

As shown in the table, the Cronbach's Alpha values for each variable are above 0.70, satisfying the criteria for reliability. Consequently, it is concluded that all variables exhibit a high degree of reliability.

Thus, it is concluded that the indicators employed in this study demonstrate strong discriminant validity in aggregating individual variables.

Structural Model Evaluation (Inner Model)

Coefficient of determination (R²)

The coefficient of determination measures how much variation in the endogenous variable can be explained by the model, known as the R-squared value. Structural models (inner models) are used to predict causal relationships between latent variables in the structure.

Table 3. R² Value

Variable	R-square
Self-Service Technology (Z)	0,606
Customer Satisfaction (Y)	0,798

Source: processed data by the researcher (2025)

According to Table 3, the R-squared for Self-Service Technology is 0.606, indicating that 60.6% of its variation is explained by the model. This reveals that Digital Banking accounts for approximately 60.8% of the influence on Self-Service Technology, with other factors contributing the remaining 39.4%. In contrast, the R-squared for customer satisfaction is 0.798, meaning that 79.8% of its variation is explained by the model. This shows that Digital Banking and Self-Service Technology collectively explain 79.8% of customer satisfaction, leaving 20.2% to be influenced by other variables..

Goodness of Fit Assessment (GoF)

The model's suitability (goodness of fit) can be assessed based on the NFI value, which needs to be ≥ 0.662 to be deemed suitable. Using SmartPLS 4.0 for data processing, the following Model Fit values are obtained:

Table 4. Model Fit

	Saturated Model	Estimated Model	Model
SRMR	0,063	0,063	Fit
d_ULS	1.282	1,282	Fit
d_G	1.747	1,747	Fit
Chi-Square	733.672	733.672	Fit
NFI	0.740	0.740	Fit

Source: processed data by the researcher (2025)

As shown in Table 4, the PLS model conformity test yields an NFI value of 0.740, indicating that the model is a good fit. Consequently, it can be concluded that the research

model demonstrates strong suitability and is suitable for hypothesis testing.

Hypothesis Testing

After evaluating the inner model, the next step is to examine the relationships between latent constructs as proposed in this study. Hypothesis testing was performed by analyzing the T-statistics and P-values. A hypothesis is confirmed if the T-Statistics value is greater than 1.96 and the P-value is less than 0.05. The results of the path coefficients for direct effects are as follows:

Table 5. Path Coefficients (Direct effect)

	Direct Effect	Original Sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-Statistics	P Values	Result
H1	Digital banking (X) -> Customer satisfaction (Y)	0,296	0,297	0,106	2,786	0,005	Accepted
H2	Digital banking (X) -> SST (Z)	0,779	0,781	0,046	16.853	0,000	Accepted
H3	SST (Z) -> Customer Satisfaction (Y)	0,643	0,644	0,096	6.718	0,000	Accepted

Source: processed data by the researcher (2025)

Based on the table above, the three hypotheses that had a direct impact were confirmed because their T-Statistics values were greater than 1.96 and their P-values were less than 0.05.

Table 6. Path Coefficients (Indirect effect)

	Direct Effect	Original Sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-Statistics	P Values	Result
H4	Digital banking (X) -> SST (Z) -> Customer satisfaction (Y)	0,501	0,503	0,080	6,297	0,000	Accepted

Source: processed data by the researcher (2025)

DISCUSSION

The Influence of Digital Banking on Customer Satisfaction

This study demonstrates that digital banking positively and significantly affects customer satisfaction at Bank Syariah Indonesia, especially among Islamic Banking students at UIN SU. This suggests that increased digital banking adoption will lead to higher customer satisfaction. The results support the findings of Tomi Alifandi & Muhammad Iqbal Fasa (2024), which also highlight the positive impact of digital banking on customer satisfaction. The primary factors influencing customer satisfaction in this study are ease of use, security, and transaction speed. Although digital banking offers advantages like accessibility and efficiency, it faces challenges such as technical constraints and technological understanding that must be overcome to maximize user experience. Both this study and previous research show that improving digital banking services can enhance customer satisfaction, ultimately fostering customer loyalty to Islamic banks.

The Influence of Digital Banking on Self-Service Technology

This study indicates that digital banking positively influences Self-Service Technology at Bank Syariah Indonesia, suggesting that increased digital banking usage will lead to greater adoption of Self-Service Technology. These results align with the findings of Nurjuni Arnita, Miti Yarmunida, & Yenti Sumarni (2023), which highlight the positive impact of services like ATMs and Mobile Banking on customer satisfaction among users of Islamic banking digital services. Furthermore, this study shows that digital banking positively affects customer satisfaction at Bank Syariah Indonesia, especially among Sharia Banking students at UIN SU. The researcher stresses that technologies such as ATMs and mobile banking improve efficiency and provide customer convenience, thereby increasing satisfaction. This research emphasizes the importance of innovation in digital services to meet customer needs and improve their experience with Islamic banking services. (Arnita et al., n.d.)

The Influence of Self-Service Technology on Customer Satisfaction

This study demonstrates that Self-Service Technology positively and significantly influences customer satisfaction at Bank Syariah Indonesia, especially among Islamic Banking students at UIN SU. This suggests that improvements in Self-Service Technology will result in increased customer satisfaction. These results align with the research by Siti Faatimah & Ema Ema (2024), which also highlights the positive impact of Self-Service Technology on customer satisfaction. By providing services such as ATMs and Mobile Banking, customers can conduct transactions independently, leading to greater comfort and satisfaction due to the ability to access banking services at any time and place without needing bank staff. Enhancing the quality of SST services, including transaction speed and security, further boosts customer satisfaction. Consequently, investing in self-service technology can be a strategic approach for Islamic banks to improve customer experience and foster loyalty. (Fatimah et al., 2024)

The Influence of Digital Banking through Self-Service Technology on Customer Satisfaction

This study demonstrates that digital banking through Self-Service Technology positively and significantly affects customer satisfaction at Bank Syariah Indonesia, especially among Sharia Banking students at UIN SU, thus validating the hypothesis. The SmartPLS analysis shows significant indirect effects, indicating that Self-Service Technology partially mediates the relationship between digital banking and customer satisfaction. This supports the mediation role as outlined by Baron and Kenny (1986), which suggests that if independent variables significantly influence mediating variables, the results support partial mediation. The researcher emphasizes that SST, including ATMs and Mobile Banking, offers customers the convenience of independent transactions. As a result, improving digital banking services enhances not only accessibility but also overall customer satisfaction. These findings highlight the importance of investing in self-service technology to enhance the customer experience in Islamic banks and stress the need for banks to innovate continuously in their digital services to meet the evolving expectations of customers. (Baron et al., 1986).

CONCLUSION

The results indicate that digital banking positively and significantly impacts customer satisfaction at Bank Syariah Indonesia, especially among UIN SU students. Improvements in digital services like mobile and internet banking have made transactions easier and enhanced the customer experience. Additionally, digital banking positively affects the use of Self-Service Technology (SST), suggesting that increased accessibility and features encourage greater SST adoption by customers. SST also positively affects customer

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Tasya Salsabila^{*1}, Aqwa Naser Daulay¹, Wahyu Syarvina¹

satisfaction through services such as ATMs and mobile banking apps. The study further reveals that SST partially mediates the relationship between digital banking and customer satisfaction, reinforcing the beneficial influence of digital banking. Overall, these findings emphasize the need for continued investment in digital services and self-service technologies to improve customer satisfaction and loyalty at Bank Syariah Indonesia. For future research, it is advisable to expand the sample to include diverse customer groups for more generalizable results, delve deeper into the quality of digital services, and incorporate moderating or mediating variables like customer trust. Moreover, subsequent studies could investigate the challenges of adopting digital banking and SST, using qualitative or mixed-method approaches to better understand customer experiences with Islamic digital banking services.

REFERENCES

- Abubakar, L., & Handayani, T. (2022). Penguatan Regulasi: Upaya Percepatan Transformasi Digital Perbankan Di Era Ekonomi Digital. *Masalah-Masalah Hukum*, 51(3), 259–270. <https://doi.org/10.14710/mmh.51.3.2022.259-270>
- Arnita, N., Yarmunida, M., & Sumarni, Y. (n.d.). Pengaruh Self-Service technology (sst) terhadap kepuasan nasabah pengguna layanan digital (studi kasus bank syariah indonesia). *Jurnal Tabarru' : Islamic Banking and Finance*, 6(1), 2023.
- Arsih, Y., Praja, A., Perdian, S., Santoso, S., & Nurhidajat, R. (2022). Penerapan Teknologi Self-Service Dalam Meningkatkan Customer Satisfaction Pada Usaha Ritel Food and Beverage. *Jurnal Administrasi Profesional*, 3(2), 11–24. <https://doi.org/10.32722/jap.v3i2.5125>
- Ayuningtyas, M., & Sufina, L. (2023). Pengaruh Penggunaan Mobile Banking, Internet Banking, dan Atm terhadap Kinerja Keuangan Perbankan (Studi Kasus Sektor Bank Konvensional yang Terdaftar di Bursa Efek Indonesia) Tahun 2017- 2021. *Jurnal Keuangan Dan Perbankan*, 19(2), 119–130. <https://doi.org/10.35384/jkp.v19i2.394>
- Baasalem, F., Lobubun, M., & Natsir, A. A. (2023). Pengaruh Kualitas Layanan Internet Banking Terhadap Kepuasan dan Nasabah PT. Bank Negara Indonesia (Persero) Kantor Kas Waena. *Jurnal Ilmu Ekonomi & Sosial*, 14(2), 94–103. <https://doi.org/10.35724/jies.v14i2.5433>
- Bahtiar, S., Islam, U., Ulama, N., Ansori, M., Islam, U., & Ulama, N. (2024). Analisis layanan digital dan kepuasan. 10(2), 1–14.
- Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations (Vol. 51, Issue 6). Psychological Association, Inc.
- Dani Kiswara, N., Rusdi, D., Studi Akuntansi, P., Ekonomi, F., Islam Sultan Agung Semarang, U., & Researcher, C. (2022). Penerapan Pelayanan Internet Banking Dalam Meningkatkan Kualitas Pelayan Nasabah di Bank Rakyat Indonesia Kantor Cabang Pembantu Mendawai Sukamara. *Jurnal Ilmiah Sultan Agung*, 1(1), 1082–1095.
- Fadhliah, S., & Putra, P. (2024). Analisis Kepuasan Gen Z Dalam Menggunakan Aplikasi BSI Mobile. 10(03), 2532–2542.
- Fasa, M. I., Islam, U., Raden, N., & Lampung, I. (2024). Yang mengubah lanskap perbankan syariah di indonesia digital transformation industry era 4 . 0 service revolution that changes the sharia banking landscape in. November, 7653–7665.
- Fatikha, N., & Septiyani, A. (2025). Mobile Banking Dalam Pengalaman Belanja Konsumen Generasi Z Di Era Digital : Persepsi Dan Preferensi Pengguna. 17(1), 38–44.
- Fatimah, S. (2024). Nasabah Pengguna Layanan Bank Syariah Indonesia. 7(2), 74–88.
- Fatimah, S., & Ema, E. (2024). Pengaruh Self-Service technology terhadap kepuasan nasabah pengguna layanan bank syariah indonesia dengan digitalisasi sebagai variabel moderasi. *Jurnal Manajemen Perbankan Keuangan Nitro*, 7(2), 74–88.

- <https://doi.org/10.56858/jmpkn.v7i2.239>
- Fauzan Fauzan, & SonyaFutri Ramafina. (2023). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Nasabah PT. Bank Tabungan Negara (Persero) Tbk Kantor Cabang Sutomo Padang. *OPTIMAL Jurnal Ekonomi Dan Manajemen*, 4(1), 158–177. <https://doi.org/10.55606/optimal.v4i1.2630>
- Fitri, N., & Qamariah, N. (2019). Pemanfaatan Internet Banking Dan Automatic Teller Machine Terkait Peningkatan Usaha Oleh Pelaku Umkm Pasar Induk Wonomulyo. *Sebatik*, 23(2), 469–475. <https://doi.org/10.46984/sebatik.v23i2.800>
- Ilmiah, J., & Islam, E. (2024). Determinasi Loyalitas Generasi Z Terhadap Penggunaan Mobile Banking Syariah Berbasis Kecerdasan Buatan. 10(03), 3001–3012.
- Latif, B. S., & Priyanti, K. N. (2024). Faktor Self-Service Technology Dan Kualitas Pelayanan Terhadap Kepuasan Pelanggan Masalalu Cafe , Rawa Domba. *Journal of Student Research (JSR)*, 2(3), 11–16.
- Lydia, P. N. T. (2021). Analisis Tingkat Kepuasan Nasabah Terhadap Kualitas Pelayanan Jasa (Studi Kasus Pada Nasabah Tabungan IB Hasanah BNI Syariah Cabang Pekanbaru). 1–98.
- Mahmuda, R., Mansur, M., & Slamet, A. R. (2023). Pengaruh Self-Service Technology, Service Quality, Dan Digital Marketing Terhadap Kepuasan Shopeefood (Studi Pada Mahasiswa FEB Unisma Angkatan 2019). *E- Jurnal Riset Manajemen*, 12(02), 106.
- Masitoh, N., Rosidah, E., & Kurniawati, A. (2023). Pengaruh Layanan Digital Banking Terhadap Kepuasan Nasabah pada PT Bank Negara Indonesia (Persero) Tbk Kantor Cabang Tasikmalaya. *Banku: Jurnal Perbankan Dan Keuangan*, 4(1), 11–16. <https://doi.org/10.37058/banku.v4i1.6812>
- Ningrum, C. I., Sujianto, A. E., & Faizin, M. A. (2023). Transformasi Digital Dalam Sistem Informasi Perbankan Dan Keputusan Transaksi Di Bank Syariah: Kasus Di Indonesia. *Peta*, 8(2), 172–187.
- Permana, D. A. (2024). Pengaruh Kualitas Pelayanan Dan Produk Terhadap Kepuasan Nasabah Di Bank Syariah Indonesia KCP Jayapura Abepura Provinsi Papua. *Jurnal Ilmiah Ekonomi Islam*, 10(1), 106. <https://doi.org/10.29040/jiei.v10i1.11364>
- Rika Widianita, et al. 2023. "Structural analysis of covariances on health-related indicators among the elderly at home, with a focus on subjective feelings about health." *AT-TAWASSUTH: Journal of Islamic Economics VIII(I)*: 1–19.
- Rinjani, A. N., Nandika, K. A., Dahnaily, S., Nafisiyah, M., & Fauziyah, I. S. (2024). Pengaruh Bank Digital Terhadap Minat Gen Z. *Indonesian Journal of Economics, Management, and Accounting*, 1(4), 210–215.
- Rochmah, S., & Ernawati, F. Y. (2022). Pengaruh Layanan Automatic Teller Machine (ATM), Internet Banking, Dan Mobile Banking Terhadap Tingkat Kepuasan Nasabah. *Jurnal Ilmiah Infokam*, 18(1), 18–27. <https://doi.org/10.53845/infokam.v18i1.315>
- Rosano, A., & Islami, V. (2023). Peranan Digital Banking pada Kepuasan Nasabah Bank ABC Kantor Cabang Semarang. *REMIK: Riset Dan E-Jurnal Manajemen Informatika Komputer*, 7(4), 1788–1794.
- Rosyidah, N., & Andjarwati, A. L. (2021). Pengaruh Self-Service Technology Quality Terhadap Loyalitas Dengan Kepuasan Sebagai Variabel Mediasi (Studi Pada Pelanggan Mcdonald'S Di Surabaya). *Image : Jurnal Riset Manajemen*, 10(1), 14–27. <https://doi.org/10.17509/image.v10i1.31448>
- Sari, D. M. F. P., Ari, G. Y. K., Martini, I. A. O., & Parasari, N. S. M. (2023). Menelisik kebutuhan nasabah melalui self-service technology pada era transformasi digital. *Journal of Business & Banking*, 13(1), 1. <https://doi.org/10.14414/jbb.v13i1.3676>
- Simatupang, B. M. (2021). *Perbankan Digital : Menuju Bank 4.0*. Jakarta: PT Gramedia Pustaka Utama, 45–67.
- Tangiduk, R., Kantohe, M. S. S., & Marunduh, A. P. (2024). Pengaruh Transaksi Mobile Banking, Internet Banking, dan ATM terhadap Kinerja Keuangan Perbankan. *Journal of Culture Accounting and Auditing*, 3(1), 13. <https://doi.org/10.30587/jcaa.v3i1.7540>

-
- Widyayanti, E. R., & Hamid, M. (2022). Pengaruh Penggunaan Layanan Electronic Banking Terhadap Kepuasan Nasabah Di Daerah Istimewa Yogyakarta. *Jurnal Riset Akuntansi Dan Bisnis Indonesia*, 2(4), 1136–1157.
<https://doi.org/10.32477/jrabi.v2i4.615>
- Yoseph Halim, Sandy Kosasi, Tony Wijaya, & Susanti M. Kuway. (2021). Self-Service Technology Berbasis Android Menggunakan RestFul Web Service Pada Bisnis Restoran. *Journal of Applied Computer Science and Technology*, 2(2), 73–82.
<https://doi.org/10.52158/jacost.v2i2.174>