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Impact of Bank Super App as Game Changer to Improve Funding Structure and Bank Wide Financial Performance: Case Study in BNI Super App (Wondr By BNI)

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ABSTRACT

Based on performance in 2023, the share of Loans and Third-Party Funds from BNI decreased compared to 2022. In the profit and loss statement, BNI's net interest income decreased by 0.1% (IDR 45.0 billion) compared to 2022. BNI's Net Interest Margin (NIM) fell from 4.8% in 2022 to 4.6% in 2023. As a trusted financial institution, to address these business challenges, BNI launched a Super App in early July 2024. This research aims to analyze the correlation and evaluate the impact of the BNI Super App on BNI's funding structure and financial performance. This study employs both qualitative and quantitative research methods. The qualitative data analysis uses a content analysis approach, while the quantitative methods include correlation and paired samples t-test analyses. Data collection combines interviews and secondary data from BNI's Annual Report and financial performance records. Based on the correlation results, Hypothesis 1 for CASA Ratio, Cost of Fund, NIM, and ROA is accepted. For impact results, Hypothesis 1 is accepted for Cost of Fund, NIM, and ROA, while it is rejected for CASA Ratio. There is a positive correlation between the BNI Super App—in terms of the number and volume of transactions—and CASA Ratio, NIM, and ROA, and a negative correlation with Cost of Funds. The results also show a significant impact after the launch of the Super App in reducing Cost of Fund and increasing NIM and ROA. However, the CASA Ratio has not yet increased significantly.

KEYWORDS *CASA ratio, correlation, cost of funds, financial performance, funding structure, impact, NIM, ROA, super app, transaction*

INTRODUCTION

Digital transformation is essential for addressing business challenges and opportunities. One industry that urgently needs to undergo digital transformation is the banking industry (Krisnamurti et al., 2022). Indonesian banking today faces significant threats from newcomers, mainly digital banks and fintech companies (Jameaba, 2020). Entrepreneurs require substantial capital, a well-established reputation, and compliance with strict rules and regulations, making entry into the next generation of banks highly competitive (Hwang et al., 2019). Consequently, customers are increasingly focused on Super App mobile banking services. Changes in the banking industry are not only altering consumer behavior but also driving the development of more innovative and adaptive business models aligned with current market opportunities.

To adapt to the prevailing trends in Indonesian banking in the digital era, Indonesian banks have begun building Super Apps with the main objective of capturing market share, especially in third-party funds (Jameaba, 2020). A Super App is a platform that consolidates numerous products and services to provide customers with a one-stop shop experience, unlike standalone apps that focus solely on delivering their core product, service, or experience (Deloitte, 2024). Over the next decade, the trend among consumers and businesses is clearly

moving toward Super Apps. In recent years, major banks have built and launched the following Super Apps:

Table 1. Banking Super App

Bank	BNI	mandiri	BCA	BRI
Super App	Wondr by BNI	Livin	MyBCA	BRImo

Based on 2023 performance, the market share of Loans and Third-Party Funds from BNI in 2023 decreased compared to the previous year. In terms of profit and loss performance, BNI's net interest income was Rp41.3 trillion, a decrease of -0.1% or Rp45.0 billion compared to 2022. Although interest income increased by 12.5% compared to 2022, it was offset by a significant increase in interest expense of 51.4% compared to 2022. When viewed from the 2023 key ratios, BNI's Net Interest Margin (NIM) in 2023 saw a slight decrease from 4.8% in 2022 to 4.6% in 2023. The Loan to Deposit Ratio (LDR) reflects the ratio of loans disbursed to deposits collected. BNI's LDR in 2023 was 85.8%, an increase of 1.5% compared to 84.2% the previous year. This was mainly due to loan disbursement growth (7.0% YoY) compared to Third Party Funds (TPF), which grew only by 5.1% YoY, mainly due to tightening market liquidity (2023 Annual Report BNI, 2024). As a comprehensive and trusted financial institution, to address the business issues above, BNI launched *Super App* in early July 2024. Therefore, the research objectives of this study are to analyze the correlation between the number and volume of BNI *Super App* transactions with BNI's funding structure and bank-wide financial performance, and to evaluate the impact of increasing the number and volume of BNI *Super App* transactions on BNI's funding structure and bank-wide financial performance (2023 Annual Report BNI, 2024).

A banking *super app* through mobile applications unifies multiple financial services into one convenient platform (Fasnacht, 2021). The application exists to simplify financial management by integrating multiple features within a unified system (Uña et al., 2019). It offers users a convenient and seamless experience by allowing access to many services through one platform instead of multiple different platforms (Lucas et al., 2023). *Super apps* have become pervasive in Asian regions, establishing themselves as global digital service platforms that transform consumer interaction with online services (Steinberg, 2020). Traditional banking experiences are transforming via the introduction of all-in-one platforms through banking *super apps* that not only supply financial services but also merge diverse scopes into unified ecosystems within each application. These businesses lead fintech market advancements and develop innovative solutions for financial management (Malyshev, 2024).

Bank third-party funds are bank liabilities owed to residents in rupiah and foreign exchange. Generally, the funds collected by banks from the public are used to finance real sector activities through lending (Kustina et al., 2019). Third-party funds (TPF) are public funds, both from individuals and business entities, obtained by banks through various deposit product instruments (Kasmir, 2014). According to Tuovila (2024), the Current Account Savings Account (CASA), offered by some banks, combines the functions of a checking account and a savings account. Customers receive little or no interest on the current account money used routinely to pay bills but earn interest on the savings portion. Thus, CASAs are a cheaper source of funding for banks. The CASA ratio indicates how much of a bank's total deposits are in both current and savings accounts. A higher CASA ratio means a bank has a

higher proportion of stable deposits available for lending. The ratio can be calculated as follows (Tuovila, 2024):

CASA Ratio = CASA Deposits ÷ Total Deposits.

The term "cost of funds" refers to how much banks and financial institutions spend to acquire money to lend to their customers (Saputera et al., 2021). The spread between the cost of funds and the interest rate charged to borrowers represents one of the main sources of profit for many financial institutions. Lower cost of funds generally generates better returns for banks when used for short-term and long-term loans to borrowers (Kagan, 2024). Based on this concept, the Cost of Fund formula is (Sofyan, 2022):

Average Cost of Fund = Total Cost of Funds ÷ Amount of Funds.

Financial performance is defined as the achievement of a company within a certain period that describes the company's health level and its ability to manage resources (Agillera et al., 2022). The profitability ratio assesses the company's ability to generate profits within a given period (Rashid, 2021). It also measures management's effectiveness by the profits generated from sales or investment income (Theresa, 2021). According to the Circular Letter of the Financial Services Authority (OJK) No. 14/SEOJK.03/2017 about Health Level Assessment of Commercial Banks (OJK, 2017), there are two ratios for analyzing bank earnings: Net Interest Margin (NIM) and Return on Assets (ROA). Based on the OJK Circular Letter, the NIM formula is Net Interest Income ÷ Average Total Earning Assets, and the ROA formula is Earnings Before Taxes ÷ Average Total Assets × 100%. The conceptual framework of this research is as follows:

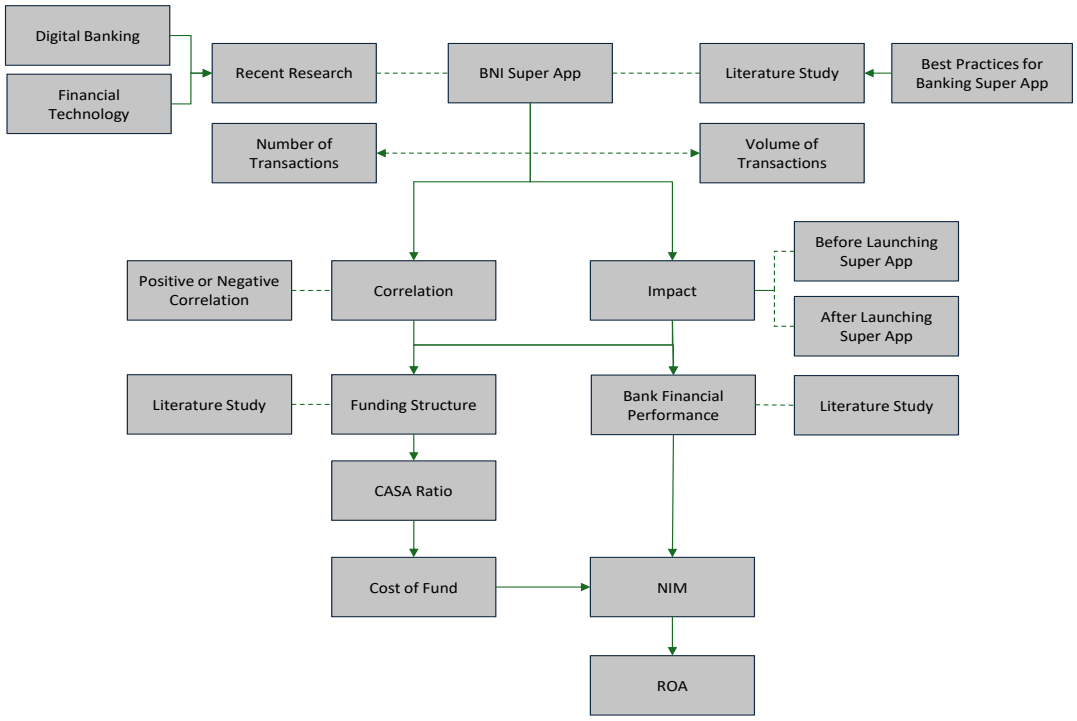

Figure 1. Conceptual Framework

This framework posits that BNI Super App transactions (measured by both number and volume) influence bank performance through two primary channels: funding structure (CASA ratio and cost of funds) and profitability metrics (NIM and ROA). The framework is grounded in several theoretical mechanisms: 1. The convenience and engagement effects of super apps

may increase transaction frequency and deposit inflows, improving CASA ratios. 2. The lower operational costs of digital channels compared to branches may reduce the overall cost of funds. 3. Improved funding structure directly enhances net interest margins through reduced interest expenses. 4. The combined effects of higher transaction volumes, improved funding mix, and operational efficiencies contribute to overall ROA improvement.

The specific research questions guiding this study are: 1. What is the correlation between BNI Super App transactions and BNI's funding structure (CASA ratio and cost of funds)? 2. What is the correlation between BNI Super App transactions and BNI's financial performance (NIM and ROA)? 3. What is the impact of BNI Super App launch on BNI's funding structure? 4. What is the impact of BNI Super App launch on BNI's financial performance?

The expected contributions of this research include: (1) providing empirical evidence on the effectiveness of super apps in improving bank performance in emerging markets, (2) offering practical insights for banking executives on super app implementation strategies, (3) contributing to the theoretical understanding of platform economics in financial services, and (4) informing regulatory policy on digital banking innovation and competition.

RESEARCH METHOD

This research takes mixed methods research with combine elements of qualitative and quantitative research method. For this research, Authors consider qualitative research method through interviews with key stakeholders to validate findings in quantitative research method. The aims of the quantitative research method that used in this research is to quantify the relationship and post impact after launching of BNI Super App on BNI's funding structure (CASA Ratio & Cost of Fund) and bank wide financial performance (NIM & ROA). The data collection method of this research uses the combining of primary and secondary data. For primary data, authors took 14 (fourteen) participants. For a broader perspective, interview subject criteria in this research are divided into senior leader/employees and customers. Secondary data used for this research are BNI Annual Report, BNI Corporate Presentation, and BNI Financial Performance which is publicly available. To capture correlation and the pre and post effect of BNI Super App, data collected for the period before the launch of BNI Super App (from July 2023 to December 2023) and after the launch of BNI Super App (from July 2024 to December 2024).

Data analysis methods used for qualitative method and primary data in this research are a content analysis approach. On the other hand, due to this research aims to compare BNI's funding structure (CASA Ratio & Cost of Funds) and bank wide financial performance (NIM & ROA) before and after launching of BNI Super App. Statistical analysis tools that used in this research are correlation analysis and Paired Samples T-Test Analysis. Correlation analysis techniques to analyze correlation of BNI's Super App on BNI's funding structure (CASA Ratio & Cost of Funds) and bank wide financial performance (NIM & ROA) meanwhile Paired Samples T-Test Analysis techniques to evaluate post impact after launching of BNI Super App to BNI's funding structure (CASA Ratio & Cost of Fund) and bank wide financial performance (NIM & ROA). Therefore, research hypothesis are as follows:

Table 2. Hypothesis of Correlation Analysis

Variable	Hypothesis 0 (H0)	Hypothesis 1 (H1)
Number of Transaction of BNI Super App	There is no positive correlation on CASA Ratio	There is positive correlation on CASA Ratio
Volume Transaction of BNI Super App	There is no positive correlation on CASA Ratio	There is positive correlation on CASA Ratio

Variable	Hypothesis 0 (H0)	Hypothesis 1 (H1)
Number of Transaction of BNI Super App	There is no negative correlation on Cost of Fund	There is negative correlation on Cost of Fund
Volume Transaction of BNI Super App	There is no negative correlation on Cost of Fund	There is negative correlation on Cost of Fund
Number of Transaction of BNI Super App	There is no positive correlation on NIM	There is positive correlation on NIM
Volume Transaction of BNI Super App	There is no positive correlation on NIM	There is positive correlation on NIM
Number of Transaction of BNI Super App	There is no positive correlation on ROA	There is positive correlation on ROA
Volume Transaction of BNI Super App	There is no positive correlation on ROA	There is positive correlation on ROA

Source: Author Analysis (2025)

Table 3. Hypothesis of Paired Impact Analysis

Indicators	Hypothesis 0 (H0)	Hypothesis 1 (H1)
CASA Ratio	There is no significant impact on CASA Ratio after launching of BNI Super App	There is a significant impact on CASA Ratio after launching of BNI Super App
Cost of Fund	There is no significant impact on Cost of Fund after launching of BNI Super App	There is a significant impact on Cost of Fund after launching of BNI Super App
NIM	There is no significant impact on NIM after launching of BNI Super App	There is a significant impact on NIM after launching of BNI Super App
ROA	There is no significant impact on ROA after launching of BNI Super App	There is a significant impact on ROA after launching of BNI Super App

Source: Author Analysis (2025)

RESULT AND DISCUSSION

Correlation analysis is intended to analyze correlation of Number of Transaction dan Volume Transaction of BNI Super App on BNI's funding structure (CASA Ratio & Cost of Funds) and bank wide financial performance (NIM & ROA) from July 2024 to December 2024 to process determines the correlation coefficient (r) of each financial ratio with results and scatter plots figure based on JASP calculation as follows:

Table 4. Pearson Correlation between Super App Transaction and Selected Ratios

Ratio	Number of Transaction		Volume Transaction	
	r	Level of Correlation	r	Level of Correlation
CASA	0,073	Very Weak Positive Correlation	0,046	Very Weak Positive Correlation
Cost of Fund	-0,898	Very Strong Negative Correlation	-0,900	Very Strong Negative Correlation
NIM	0,961	Very Strong Positive Correlation	0,965	Very Strong Positive Correlation
ROA	0,302	Weak Positive Correlation	0,238	Weak Positive Correlation

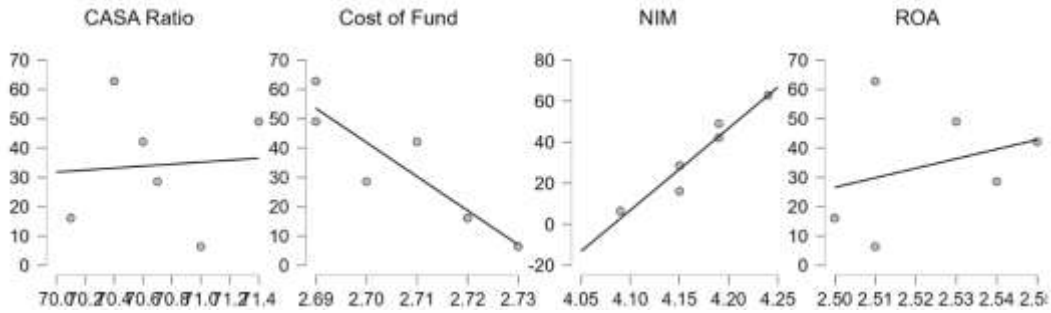

Figure 2. Scatter Plots: Correlation between Number of Transaction and Selected Ratios

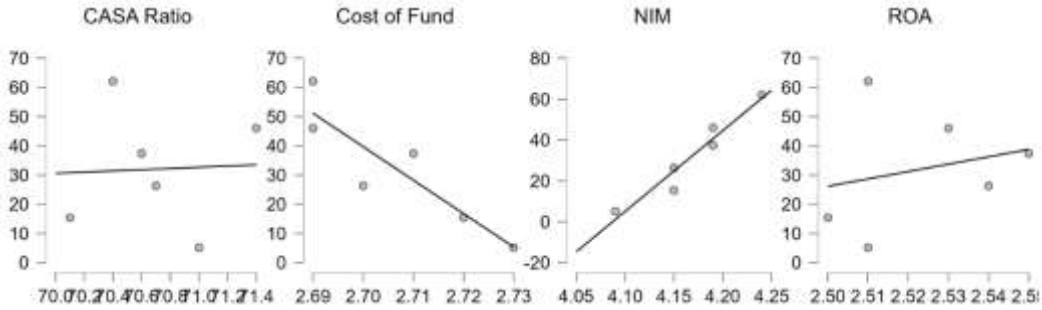

Figure 3. Scatter Plots: Correlation between Volume Transaction and Selected Ratios
Source: JASP Calculation by Author, 2025

Based on the JASP calculation above, several points and the conclusion of hypothesis testing regarding correlation between Number of Transaction and Volume Transaction of BNI Super App on BNI's funding structure (CASA Ratio & Cost of Funds) and bank wide financial performance (NIM & ROA) from July 2024 to December 2024 can be concluded as follows:

1. Number of transaction BNI Super App has very weak positive correlation with CASA Ratio. It means when number of transaction increase, CASA is increase by 0,073 coefficient factor. Therefore, the Hypothesis 1 (H1) for CASA Ratio is accepted.
2. Number of transaction BNI Super App has very strong negative correlation with cost of fund. It means when number of transaction increase, cost of fund is decrease by 0,898 coefficient factor. Therefore, the Hypothesis 1 (H1) for cost of Fund is accepted.
3. Number of transaction BNI Super App has very strong positive correlation with NIM. It means when number of transaction increase, NIM is increase by 0,961 coefficient factor. Therefore, the Hypothesis 1 (H1) for NIM is accepted.
4. Number of transaction BNI Super App has weak positive correlation with ROA. It means when number of transaction increase, ROA is increase by 0,302 coefficient factor. Therefore, the Hypothesis 1 (H1) for ROA is accepted.
5. Volume transaction BNI Super App has very weak positive correlation with CASA Ratio. It means when volume transaction increase, CASA is increase by 0,046 coefficient factor. Therefore, the Hypothesis 1 (H1) for CASA Ratio is accepted.
6. Volume transaction BNI Super App has very strong negative correlation with cost of fund. It means when volume transaction increase, cost of fund is decrease by 0,900 coefficient factor. Therefore, the Hypothesis 1 (H1) for cost of Fund is accepted.
7. Volume transaction BNI Super App has very strong positive correlation with NIM. It means when number of transaction increase, NIM is increase by 0,965 coefficient factor. Therefore, the Hypothesis 1 (H1) for NIM is accepted.

8. Volume transaction BNI Super App has weak positive correlation with ROA. It means when number of transaction increase, ROA is increase by 0,238 coefficient factor. Therefore, the Hypothesis 1 (H1) for ROA is accepted.

Paired Sample T-Test analysis is intended to analyze the impact of Number of Transaction dan Volume Transaction of BNI Super App on BNI's funding structure (CASA Ratio & Cost of Funds) and bank wide financial performance (NIM & ROA) before the launch of BNI Super App which is from July 2023 to December 2023 and after the launch of BNI Super App which is from July 2024 to December 2024. The author did the calculation of paired sample t-test analysis by using JASP to obtained the results of t-table, t-value, and p-value of each financial ratio (CASA, Cost of Funds, NIM, & ROA) with results based on microsoft excel and JASP calculation as follows:

1. For the initial stage, it is necessary to calculate the t-table which is then compared with the t-value based on the table above. The t-table number can then be calculated using excel with the formula "T.INV.2T(p, df)". With p-value is 5% and df from the table data above is 5, the t-table results based on the excel formula calculation is 2.570.
2. After that, the results of paired sample t-test is obtained the results of t-value and p-value. Based on JASP calculations, the results of t-value and p-value are as follows:

Table 5. Paired Sample T-Test Findings

Measure 1		Measure 2	t	df	p
CASA Before	-	CASA After	-1.101	5	0.321
COF Before	-	COF After	-18.130	5	<.001
NIM Before	-	NIM After	12.094	5	<.001
ROA Before	-	ROA After	8.979	5	<.001

Source: JASP Calculation by Author, 2025

3. Afterwards, the results of t-table above and the significance p-value of 5% (0,05) compared with the results of t-value based on table above and the p-value for each variable.
4. Findings of hypothesis testing based on comparison of the results of t-table above and the significance p-value of 5% (0.05) with the results of t-value based on the table above and the p-value for each variable are as follows:

Table 6. Paired Sample T-Test Results of Funding Structure and Financial Performance

Ratio	Result
CASA Ratio	Rejected the H1
Cost of Fund	Accepted the H1
NIM	Accepted the H1
ROA	Accepted the H1

Source: JASP Calculation by Author, 2025

a. There is no significant difference in CASA Ratio in the period before and after the launch of BNI Super App due to the results of t-value < t-table (-1.101 < 2.570) and p-value > significance p-value (0.321 > 0.05). Therefore, the Hypothesis 1 (H1) for CASA Ratio is rejected and the Hypothesis 0 (H0) for CASA Ratio is accepted.
b. There is a significant difference in cost of fund in the period before and after the launch of BNI Super App due to the results of t-value > t-table (-18.130 > 2.570) and p-value < significance p-value (<0.001 > 0.05). Therefore, the Hypothesis 1 (H1) for cost of fund is accepted.

c. There is a significant difference in NIM in the period before and after the launch of BNI Super App due to the results of t-value > t-table (12.094 > 2.570) and p-value < significance p-value (<0.001 > 0.05). Therefore, the Hypothesis 1 (H1) for NIM is accepted.
d. There is a significant difference in ROA in the period before and after the launch of BNI Super App due to the results of t-value > t-table (8.979 > 2.570) and p-value < significance p-value (<0.001 > 0.05). Therefore, the Hypothesis 1 (H1) for ROA is accepted.

For triangulation, the author did an interview with senior leader/employees to validate quantitative findings on descriptive statistics & trends, pearson correlation analysis results, and paired t-test findings. Based on interviews with senior leader/employees, BNI's strategy of launching Super App to improve funding structure and financial performance is appropriate. In addition, BNI's strategy by launching the Super App is also needed to be able to spur performance, provide easy access to banking services to customers, and to remain competitive with peers. Overall, senior leaders/employees believe that there is a positive correlation between the Bank Super App in terms of number of transactions and volume transactions with CASA Ratio, NIM, ROA and believe that there is a negative correlation between the Bank Super App both in terms of number of transactions and volume transactions with cost of funds. On the other hand, senior leaders/employees also believe that there is a significant impact after the launch of BNI Super App on reducing the cost of funds (funding structure) as well as increasing NIM and ROA ratios (bank wide financial performance). However, CASA Ratio has not yet increased significantly as in December 2024 period which requires non-CASA funding probably due to strategic financial management for balancing credit expansion and maintaining the level of Loan to Deposit Ratio (LDR). On the other hand, according to the BNI's senior leader/employees, several things that can be improved from the BNI Super App include the following:

1. Feature development must be tailored to the target market,
2. Feature alignment of BNI Super App with other distribution channels is required,
3. Reliability,
4. Focus on acquisition and activation of the top priority Super App segment needs to be increased and more aggressive,
5. Communication and socialization to the public regarding BNI Super App is needed to increase public awareness of BNI Super App,
6. There needs to be a program to migrate existing customers based from Mobile Banking to Super App.

In addition to conducting interviews with Senior Leaders and BNI Employees, interviews were also conducted with BNI Super App customers with different demographic segments (different generation and gender) to improve validity and gain broader insights. All BNI Super App customers who responded to the interview have used BNI Super App since its launch (July 2024). Apart from using the BNI Super App, these respondents also use other bank Super Apps such as the Super App from Mandiri and BCA so that these respondents also have experience in comparing BNI Super App with other bank Super Apps. On the other hand, there are several considerations from BNI customers using BNI Super App, including easy to use, having a good interface and network, having complete payment access, having promos, and because of their salary (payroll) is distributed through BNI. Based on the experience while using BNI Super App, the respondents were satisfied and helped by BNI Super App in conducting various daily transactions. Some of the features in BNI Super App and transactions that make it easy and helpful include the following:

1. QRIS feature to make digital purchases and payments (food, groceries, clothing, etc.) without having to sign in to the BNI Super App application,

2. Transfer feature both for transfers among BNI accounts and transfers to other bank,
3. Features to make purchases and payments for utilities (electricity, water, internet, taxes, insurance, credit cards, pension funds, etc.),
4. E-wallet feature to top up Tap Cash, GoPay, OVO, LinkAja, etc.,
5. Virtual Account feature for online shopping and school fee payments,
6. Cash in and cash out feature for tracking income and expenses.

Based on the user experience and its user interface, BNI Super App influences the decision of these customers to save and even increase their savings balance at BNI. In addition, these BNI Super App customers are also very willing to refer BNI Super App to others, both to coworkers, college friends, and others because they feel that BNI Super App makes it easier for customers to make transactions. However, there are still several opportunities for improvement that can be done to increase the performance of the BNI Super App include the following:

1. Enhancement of BNI Super App features
2. Reability, Accessibility and Service,
3. Promotion should be intensified in locations with a high number of transactions,
4. BNI Super App maintenance is done at the right time.

Based on its BNI Super App customers experience, several preferences from BNI Super App customers to save and even increase their savings balance at BNI, and opportunities for improvement including feature enhancements from the BNI Super App are expected to further increase transactions of BNI Super App in the future, so that BNI Super App can contribute to increasing CASA Ratio and reducing BNI's Cost of Fund, which in turn can contribute to BNI's profit.

CONCLUSION

The study concludes that the launch of the BNI Super App (Wondr by BNI) significantly improved the bank's financial performance, showing strong positive correlations between Super App transaction metrics and profitability indicators (NIM and ROA), alongside a notable reduction in cost of funds. The paired sample t-test confirmed a statistically significant positive impact post-launch. However, the expected improvement in the CASA ratio was not evident immediately, suggesting that shifting the deposit mix toward cheaper CASA funds may require more time or additional strategies, possibly due to liquidity and credit management considerations. Future research should investigate the reasons behind the stagnant CASA ratio, including customer savings behavior, competing products, and internal fund management. Additionally, exploring customer satisfaction and adoption drivers through technology acceptance models and assessing effective marketing strategies to enhance customer migration to the Super App would provide valuable insights to strengthen its influence on funding structure and competitiveness.

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