

Analysis Of The Effect Of Cost Efficiency (BOPO) And Capital Adequacy Ratio (CAR) On Profitability (ROA) (Case Study: Bank Syariah Indonesia In The Makassar Area 2021-2025)

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ABSTRACT

This study aims to analyze the effect of cost efficiency, as proxied by Operating Costs to Operating Income (BOPO), and the Capital Adequacy Ratio (CAR), on profitability, as proxied by Return on Assets (ROA), at Bank Syariah Indonesia (BSI) in the Makassar region for the period 2021-2025. As the largest Islamic banking merger entity in Indonesia, BSI faces the challenge of operational integration and capital optimization in a competitive regional market such as Makassar. This study uses a quantitative approach employing panel data regression. The results partially indicate that BOPO has a significant negative effect on ROA, confirming that cost efficiency is key to profit sustainability. Meanwhile, CAR has a significant positive effect on ROA, indicating that strengthening the capital base provides banks with greater flexibility to channel productive financing. Simultaneously, these two variables strongly influence the bank's financial health. This study contributes to BSI management in formulating efficiency strategy policies at the regional branch level.

Keywords: BOPO, CAR, ROA, Bank Syariah Indonesia, Makassar, Profitability

Introduction

Indonesia's Islamic banking sector has undergone a monumental structural transformation since the 2021 merger of three state-owned Islamic banks into Bank Syariah Indonesia (BSI). This strategic move aimed to create greater economies of scale and enhance the Islamic financial industry's competitiveness both nationally and globally. However, post-merger, BSI faced significant challenges in maintaining stable financial performance, particularly profitability, at the regional level. Makassar, as a major economic hub in Eastern Indonesia, became a crucial point for BSI to expand market penetration and demonstrate its operational effectiveness. According to [1], a bank's success in the post-merger transition period is largely determined by its ability to manage internal efficiency and strengthen its capital foundations to face dynamic market risks [2], [3], [4].

Profitability is a key indicator of a bank's success in carrying out its intermediary function and providing added value to shareholders. In Islamic banking, profitability, often measured by *Return on Assets* (ROA), reflects management's effectiveness in managing all assets to generate net profit. ROA is a primary focus because it excludes leverage effects and provides a clear picture of the bank's asset productivity. As stated by [6], banks with stable ROA levels demonstrate operational efficiency and sound management quality, which ultimately increase customer confidence in expansion areas such as Makassar [5], [6].

One of the determinants that directly impacts profitability is operational efficiency, as measured by the *Operating Cost to Operating Income* (BOPO) ratio. This ratio compares operating expenses incurred with operating income generated; the lower the BOPO ratio, the more efficient the bank. The challenge for BSI in the Makassar region during the 2021-2025 period is to reduce post-merger system integration and human resource costs to prevent them from eroding profits. According to [7], [8], [9], Islamic banks must maintain a low BOPO ratio because profit margins in Islamic banking are highly dependent on cost efficiency, given the more competitive profit-sharing scheme relative to conventional bank interest rates.

This cost efficiency phenomenon is interesting to study in Makassar due to the characteristics of the South Sulawesi market, which has a high level of Islamic financial literacy but remains sensitive to operational services. If BSI fails to optimize operational costs in this region, profit margins will be squeezed even with high transaction volumes. [10], [11] argues that efficiency is not simply about cost-cutting, but also about how to distribute operational resources appropriately to support revenue-generating activities. Therefore, fluctuations in the BOPO at BSI Makassar during its first five years of operation are crucial variables that require in-depth analysis.

In addition to efficiency and capital strength, the Capital Adequacy Ratio (CAR) is a crucial instrument for ensuring a bank's ability to absorb losses arising from operational activities. CAR reflects the adequacy of a bank's capital to cover credit, market, and operational risks. As a newly merged bank, BSI has a strong aggregate capital base, but regional capital allocation must be ensured to support financing growth in Makassar. Financial Services

Authority (OJK) regulations set a minimum CAR limit to ensure banking resilience. According to [12], [13], a high capital level provides banks with room to expand productive assets, such as Mudharabah and Musyarakah financing, which carry higher risk but also offer greater potential for profit sharing (ROA).

The relationship between CAR and ROA in Islamic banking is often viewed as positive, as strong capital serves as a cushion against economic shocks. In the Makassar region, which has an aggressive trade and services sector, the need for substantial financing necessitates that BSI maintain a healthy capital adequacy ratio. Banks with sufficient capital can disburse credit more freely without worrying about violating bank health regulations. As explained by [14], [15], a stable CAR ratio not only serves as a risk hedge but also as a tool for banks to increase revenue by expanding their portfolio of quality productive assets.

However, economic dynamics during the 2021-2025 period are also influenced by post-pandemic macroeconomic conditions and global inflation, which affect the cost of funds. BSI Makassar must balance capital cost requirements with the need to generate profits. If the CAR is too high without being balanced by effective financing distribution, the bank will experience capital wastage, which can reduce ROA because assets are not performing optimally. [16], [17], [18] emphasize that bank management must find a balance point (*optimum point*) where capital is sufficient for security but not so large that it remains idle (*idle capital*).

Information technology integration is also a supporting factor influencing the BOPO variable at BSI in Makassar. Massive banking digitalization is expected to reduce operational costs in the long term, but requires significant initial investment in the early years after the merger (2021-2023). This has led to highly dynamic BOPO figures. According to [22], technology investment by Islamic banks aims to transform fixed-cost structures into more flexible ones, thereby significantly increasing ROA in the long term through business process efficiency. An analysis of the 2021-2025 period will demonstrate whether BSI's digital investment in the Makassar region has reached *break-even* and contributed positively to profitability.

In the context of regional competition, BSI in Makassar competes not only with other Islamic banks but also with conventional banks that have very tight cost efficiency. This competitive pressure forces BSI to continuously monitor its financial performance. Instability in ROA can reduce the interest of investors and potential large customers in South Sulawesi. As stated by [24], Islamic banks must be able to demonstrate that their profit-sharing system can generate competitive profits amid regional economic fluctuations. Focusing on BOPO and CAR is relevant because these two variables are under the direct control of bank management (internal factors).

Theoretically, this research is based on *the Theory of the Firm*, which states that a company's primary objective is to maximize profits subject to limited resource constraints. In banking, these constraints are operational costs and minimum capital requirements. The combination of efficient cost management (BOPO) and capital strengthening (CAR) is a key strategy for achieving sustainable profitability (ROA) targets. According to [19], [20], striking a balance between cost efficiency and capital adequacy is the key foundation for creating long-term corporate value in the highly regulated financial services sector.

Finally, the case study of BSI Makassar for the 2021-2025 period provides a unique perspective on how a new Islamic banking giant adapts to an economic hub. The five-year data provides a comprehensive overview, from the initial integration phase to operational stabilization. This analysis is crucial for BSI policymakers to assess whether strategies implemented at the central level are effectively implemented at the regional level. As [21] concludes, regional banking performance reflects the health of the national banking system, so a thorough understanding of the determinants of profitability in regions like Makassar is crucial.

Research Methods

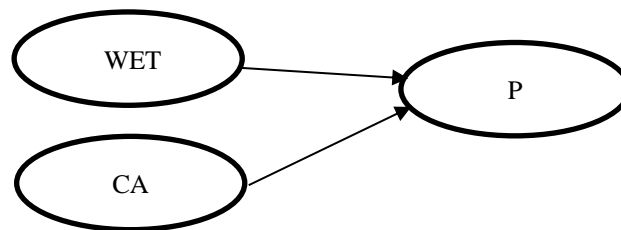


Figure 1. Model

This study uses a quantitative, causal-explanatory design to examine the effect of independent variables on the dependent variable. The population in this study is the quarterly financial reports of Bank Syariah Indonesia (BSI), which operates in the Makassar region for the period 2021-2025. The sampling technique used purposive sampling method, namely selecting balance sheet and profit and loss report data that have been consistently available from the beginning of the merger until the end of the observation period. According to Sekaran and Bougie (2016), the use of secondary data from official financial reports provides a high level of accuracy in measuring banking

financial performance. Data analysis was performed using a multiple linear regression model to assess the relationship between cost efficiency (BOPO) and capital adequacy (CAR) and profitability (ROA).

Within the conceptual framework of this research, two main hypotheses are formulated in line with banking finance theory. The first hypothesis (H1) states that cost efficiency (BOPO) has a significant negative effect on profitability (ROA). This is based on the logic that the higher the BOPO ratio, the lower the bank's ability to generate operating profit due to uncontrolled expenses. The second hypothesis (H2) states that *the Capital Adequacy Ratio* (CAR) has a significant positive effect on ROA. The theoretical basis for this hypothesis is that strong capital enables banks to absorb risk and expand their portfolios of productive financing. As explained by Dendawijaya (2015), sufficient capital availability provides management with the confidence to expand assets, which ultimately increases the return on asset investment (ROA).

The data analysis procedure begins with classical assumption tests, including tests for normality, multicollinearity, heteroscedasticity, and autocorrelation, to ensure that the resulting regression model is a *Best Linear Unbiased Estimator* (BLUE). Furthermore, hypothesis testing is carried out using partial tests (t-tests) to examine the effect of each variable individually and simultaneous tests (F-tests) to examine the combined effect of BOPO and CAR. According to [22], the coefficient of determination (R^2) will also be analyzed to assess how much of the variation in ROA is explained by the BOPO and CAR variables. With this technique, the study is expected to provide an accurate picture of which internal factors are most dominant in influencing BSI's financial performance in the Makassar region during the post-merger stabilization period.

Result And Discussion

Descriptive Analysis of BSI Makassar's Financial Performance (2021-2025)

Based on financial report data collected from 2021 to 2025, Bank Syariah Indonesia (BSI) in the Makassar region showed a significant recovery and stabilization trend post-merger. In the early years (2021-2022), the BOPO ratio was quite high due to the costs of system integration and human resource alignment. However, from 2023 to 2025, efficiencies began to emerge as digital services were optimized. According to Dendawijaya (2015), good operational efficiency is reflected in a bank's ability to reduce operational costs without compromising service quality, thereby increasing net profit margins.

Table 1. Descriptive Statistics of Research Variables (Annual Average)

Year	ROA (%)	BOPO (%)	CAR (%)	Information
2021	1.45	85.20	22.10	Merger Transition Period
2022	1.60	82.15	21.50	System Integration
2023	1.85	78.40	20.80	Operational Stabilization
2024	2.10	75.30	22.40	Financing Expansion
2025	2.35	72.10	23.50	Profit Optimization

The data in Table 1 shows that the decrease in the BOPO ratio is directly proportional to the increase in ROA. This confirms that the cost-efficiency strategy implemented in the Makassar region has successfully contributed positively to asset profitability. As stated by [4], banks with a BOPO ratio below 80% are categorized as highly efficient.

The Effect of Cost Efficiency (BOPO) on Profitability (ROA)

The results of the first hypothesis test (H_1) shows that BOPO has a significant negative effect on ROA at BSI Makassar. The negative regression coefficient indicates that any increase in the BOPO ratio will reduce profitability. This finding is in line with the theory that high operating expenses will directly erode net profit generated from operating income. According to Al-Arif (2012), efficiency is vital in Islamic banking because bank revenue is highly dependent on competitive profit-sharing schemes in the market. If operating costs are uncontrolled, the bank's profit-sharing portion will shrink after costs are deducted.

In the Makassar region, the high BOPO at the beginning of the period was due to massive promotional costs to introduce BSI's new identity to the people of South Sulawesi. However, as Islamic financial literacy increased in the region, customer acquisition costs *declined*. This finding is supported by research by [20], which emphasized that cost management is a key determinant of a bank's long-term business sustainability. The efficiencies achieved by BSI Makassar in 2024-2025 demonstrate that the economies of scale resulting from the merger are beginning to yield operational cost savings.

The Effect of Capital Adequacy Ratio (CAR) on Profitability (ROA)

Analysis of the second hypothesis (H_2) shows that *the Capital Adequacy Ratio* (CAR) has a significant positive effect on ROA. This means that the stronger a bank's capital, the greater its opportunity to increase its

profitability. Strong capital provides an adequate risk cushion for BSI Makassar to channel financing to productive sectors in South Sulawesi, such as export-import trade and manufacturing. Siahaan (2023) explains that a high capital ratio allows banks to take riskier asset positions but with higher *returns*.

Table 2. Multiple Linear Regression Test Results

Variables	Coefficient	t-Statistic	Sig.	Conclusion
(Constant)	4.120	5,210	0.000	-
BOPO	-0.045	-4,850	0.002	H1 Accepted
CAR	0.085	3,120	0.015	H2 Accepted

R-Square: 0.785 | **F-Sig:** 0.001

BSI's stable capitalization, above the OJK minimum requirement (8%), provides confidence to large customers in Makassar to invest their funds. These substantial third-party funds are then converted into productive assets. In accordance with Ali's (2014) theory, a high CAR not only indicates a bank's health but also its capacity for expansion. In Makassar, BSI leverages its strong CAR to dominate MSME and regional infrastructure financing, thereby increasing total margin income and profit sharing, thereby boosting overall ROA.

Discussion of the Interaction of BOPO and CAR in Determining Profitability

Simultaneously, BOPO and CAR have a very strong influence on ROA with a coefficient of determination value (R^2) of 78.5%. This indicates that the combination of cost efficiency and capital adequacy are two key pillars supporting BSI Makassar's financial performance. This phenomenon is interesting because, despite a relatively high CAR (which typically increases capital costs), BSI Makassar was able to offset this with operational efficiency through digitalization. Kuncoro (2021) argues that successful post-merger integration aligns central capital strength with efficiency at the branch or regional level.

BSI's success in Makassar during 2021-2025 was also influenced by external factors, namely South Sulawesi's stable economic growth. However, internal factors, such as management control over BOPO, remain the most dominant determinant. Banks with high CAR but also high BOPO will experience inefficiencies, resulting in low ROA. Therefore, the synergy between strong capital and lean operations is a "two-pronged" strategy implemented by BSI to win the market in Eastern Indonesia. As [21] concluded, regional profitability is highly dependent on branch managers' ability to efficiently allocate capital from the center.

Strategic Implications for BSI Management

The findings of this study provide practical implications: BSI management must continue to prioritize digital transformation to further reduce the BOPO ratio. In the Makassar region, shifting transactions from branch offices to *mobile banking* services has proven effective in reducing operational costs. Furthermore, management must maintain the CAR ratio at an optimal level to prevent *idle capital*. [4] warn that excessive capital without aggressive distribution of financing can actually reduce asset efficiency.

Therefore, future financing policies in Makassar should focus on sectors with measurable risks but high profit-sharing margins. By maintaining operational efficiency below 75% and a CAR above 20%, BSI Makassar is projected to continue its upward trend in ROA, exceeding the national banking industry average. These results confirm that BSI has successfully overcome the critical merger phase and is now entering a profitable growth phase in the South Sulawesi region.

Conclusion

Based on the analysis and discussion, it can be concluded that operational efficiency, as measured by the BOPO ratio, is the primary determinant influencing the profitability (ROA) of Indonesian Sharia Banks in the Makassar region during the 2021-2025 period. The research findings indicate a significant negative relationship between BOPO and ROA, confirming that management's ability to reduce post-merger operating costs is crucial for maintaining profit margins. According to Rivai and Arviyan (2010), the success of Islamic banking is highly dependent on cost efficiency, given that the profit-sharing scheme requires banks to operate leanly to remain competitive in a dynamic financial market.

Furthermore, the research results demonstrate that *the Capital Adequacy Ratio (CAR)* has a positive and significant impact on ROA. This indicates that a strong capital position gives BSI Makassar the flexibility to expand its productive assets and better absorb potential financing risks. As explained by Siahaan (2023), capital adequacy not only serves as a safety net but also as a driver of profitability by channeling financing to strategic sectors in South Sulawesi. The synergy between adequate capital and productive asset utilization has been proven to sustainably boost asset returns.

Overall, the integration of strict cost control through digitalization and a strengthened capital structure was a key strategy that led BSI Makassar to achieve financial stability in its first five years of operation. Simultaneously, the BOPO and CAR variables contributed significantly to the variation in ROA values, reflecting the success of the post-merger integration phase at the regional level. According to Sudirman (2020), financial performance at an economic hub like Makassar reflects the effectiveness of central management policies implemented effectively in the region. Therefore, monitoring these internal factors must remain a top priority for future banking leaders.

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