The Implementation of Basel III and Asset Liability Management on Financial Performance: The Moderating Role of Bank Size

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ABSTRACT

Facing global economic dynamics and systemic risks, implementing Basel III and Asset Liability Management is crucial for banking resilience. Basel III enhances capital and risk management, while Asset Liability Management sustains asset–liability balance amid market fluctuations. This study analyzes their impact on the financial performance of 20 conventional banks listed on the IDX (2019–2023), with bank size as a moderating variable, using PLS-SEM. Results show both Basel III and Asset Liability Management significantly improve performance, while bank size enhances performance and strengthens the Basel III–performance link. These findings underline the importance of capital, Asset Liability Management, and bank scale for sustainable profitability.

Keywords: Asset Liability Management; Basel III; Conventional Commercial Banks; Financial Performance; Bank Size.

Implementasi Basel III dan Asset Liability Management Terhadap Kinerja Keuangan: Peran Moderasi Ukuran Bank

ABSTRAK

Menghadapi dinamika ekonomi global dan risiko sistemik, penerapan Basel III dan Manajemen Aset dan Kewajiban sangat krusial bagi ketahanan perbankan. Basel III meningkatkan manajemen permodalan dan risiko, sementara Manajemen Aset dan Kewajiban menjaga keseimbangan aset dan kewajiban di tengah fluktuasi pasar. Studi ini menganalisis dampaknya terhadap kinerja keuangan 20 bank konvensional yang terdaftar di BEI (2019–2023), dengan ukuran bank sebagai variabel moderasi, menggunakan PLS-SEM. Hasil menunjukkan bahwa Basel III dan Manajemen Aset dan Kewajiban secara signifikan meningkatkan kinerja, sementara ukuran bank meningkatkan kinerja dan memperkuat hubungan Basel III dan kinerja. Temuan ini menggarisbawahi pentingnya permodalan, manajemen aset dan kewajiban, dan skala bank untuk profitabilitas berkelanjutan.

Kata Kunci: Asset Liability Managemnt; Basel III; Bank Umum Konvensional; Kinerja Keuangan; Ukuran Bank.

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INTRODUCTION

The banking industry is main pillars of a country's financial system. It plays a strategic function in promoting economic expansion and maintaining macroeconomic stability. Banks act as financial intermediaries. They collect funds from the public as deposits and channel them back to the productive sector through credit. This process serves as channel for monetary transmission, and drives real economic activity that creates added value, expands employment, and promotes comprehensive national development (Herlina et al., 2023).Therefore, the sustainability and banking's operation sector are important indicators in assessing overall economic health (Azzabi & Lahrichi, 2023).

Financial performance reflects a bank's ability to optimally manage its resources to achieve financial goals, particularly in maintaining stability, profitability, and regulatory compliance. In this study, bank financial performance is measured using profitability indicators, as profitability reflects the extent to which a bank generates profits from its managed assets and capital. Commonly used profitability indicators are Return on Assets (ROA) and Return on Equity (ROE), which reflect a bank's ability to manage asset base and capital structure to generate income (Nguyen, 2021) Return On Assets (ROA) describes the efficiency of management in utilizing all assets to obtain profits, while Return on Equity (ROE) measures the rate of return obtained by shareholders from invested capital. Optimal financial performance indicates that a bank is able to maintain a balance between profit growth, risk management, and fulfillment of liquidity and capital requirements in accordance with regulatory provisions. Conversely, a decline in profitability ratios may indicate efficiency problems, a decline in asset quality, or external pressures affecting the bank's operations (Ngo & Trinh, 2025).

Basel III is an international banking regulatory framework developed by the Basel Committee on Banking Supervision (BCBS) in response to the 2008 global financial crisis. This regulation seeks to strengthen the resilience of the banking sector by improving the quality and quantity of core capital, controlling leverage, and managing liquidity and systemic risks ((Mdandalaza & Jeke, 2025). Basel III emphasizes the importance of the Capital Adequacy Ratio (CAR/CRAR) as a measure of the adequacy of capital relative to risk-weighted assets and introduces new liquidity instruments such as the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR) to ensure the availability of liquid assets in the face of short- and long-term financial pressures ((Puspa Widitha & Usman, 2024). The implementation of Basel III in Indonesia has been gradually carried out since 2019 by the Financial Services Authority (OJK), making this regulation one of the main references for maintaining national banking stability and increasing public confidence in the banking industry (OJK, 2023).

Asset Liability Management (ALM) is a banking financial management strategy that focuses on managing a balanced asset and liability structure to achieve optimal profitability and minimize risk. ALM plays a strategic role in maintaining a bank's financial stability, particularly in controlling liquidity risk, interest rate risk, and the risk of asset-liability maturity mismatch (Akinselure et al., 2025). Through effective ALM, banks can ensure the availability of high-quality liquid assets to meet their short-term obligations while maintaining efficient long-term capital management. In the context of Basel III implementation, ALM directly

contributes to the achievement of key indicators, particularly the Liquidity Coverage Ratio (LCR), which measures a bank's ability to cope with short-term liquidity pressures (Puspa Widitha & Usman, 2024). Therefore, ALM not only supports compliance with international regulations, but also strengthens banks' competitiveness to generate sustainable financial performance.

The implementation of Basel III and ALM strategies is closely linked to banks' financial performance. Basel III regulations, which mandate capital adequacy and liquidity control, primarily aim to strengthen bank stability, which in turn can increase investor confidence and operational efficiency (Grzeta et al., 2023). Similarly, effective ALM implementation enables banks to mitigate potential asset-liability mismatch risks, maintain liquidity balance, and optimize financial resource management. These conditions directly impact banks' ability to generate profits, as reflected in profitability indicators such as return on assets (ROA) and return on equity (ROE) (Priharta & Gani, 2023).Therefore, examining the impact of Basel III and ALM on financial performance is crucial to understanding how regulatory compliance and internal management can significantly contribute to the sustainability and competitiveness of Indonesian banking.

This performance variability indicates that risk management strategies, the implementation of prudential policies such as Basel III, and Asset Liability Management (ALM) play a strategic role in maintaining the resilience and bank profitability in Indonesia (International Monetary Fund, 2024)

The period from 2019 to 2023 will be a challenging time for the banking industry in Indonesia. The global outbreak of covid-19, which has been raging since early 2020, has induced major disruptions to economic activity and put significant pressure on the stability of the financial sector. Prolonged economic uncertainty has led to increased credit risk as many debtors have difficulty paying their obligations, as well as liquidity pressures and declining profitability. Data from the Financial Services Authority (OJK) shows a surge in Non-Performing Loans (NPLs) in several banking groups, reflecting deteriorating asset quality and increased systemic risk (OJK, 2023). To address this situation, strategic policies are needed to strengthen the banking sector's resilience to external shocks, according to research findings that highlight the significant impact of the pandemic on credit risk and bank profitability (Hidayat et al., 2022)

One response from regulators and the industry has been to accelerate the implementation of Basel III as an international compliance framework designed to improve the resilience of banks in the face of crises. Basel III focuses on three main pillars, namely increasing the quality and quantity of core capital, applying a more conservative leverage ratio, and strengthening risk and liquidity management. The aim is to guarantee that banks retain stable operations and have sufficient capital buffers to cover possible losses, and increase public confidence. Previous studies such as (Yamin et al., 2025) show that banks with high core capital ratios tend to have better profitability, while findings (Jaiwani & Gopalkrishnan, 2024) show that the implementation of Basel III can strengthen the operational resilience and efficiency of banks, especially in developing countries.

In addition to capital regulations, an internal managerial approach through Asset Liability Management (ALM) serves a key instrument in matching the maturity mismatch between a bank's liabilities and assets. ALM aim is to keep the

ratio of assets to liabilities balanced while taking into account market risk in general and those related liquidity, interest rates, and exchange rates in particular. In a dynamic and uncertain market environment, effective Asset Liability Management (ALM) management enables banks to maintain financial stability, preserve healthy liquidity, and continue to achieve competitive profit margins. (Akinselure et al., 2025) emphasize that an Asset Liability Management (ALM) strategy integrated with risk management policies can enhance a bank's financial performance, especially in the face of market volatility.

Implementation of Basel III and ALM approach requires consideration of a bank's scale that has the ability to impact interrelationship between regulatory environment and financial performance. For banking companies, firm size a common proxy often represented by total assets, revenues, or number of employees is a strong predictor of firm value. Large banking institutions tend to have certain strengths that draw investors attention, such as better access to capital, higher operational effectiveness, and higher stability (Berliana Elma & Mangifera, 2025) Signaling theory explains that company size may provide investors positive signals and stakeholders regarding the company's financial strength, stability, and managerial capacity. This makes bank size a variable that not only represents economies of scale but also strengthens adaptability to regulations and market changes. (Muntaqiah, 2024) found that the economies of scale possessed by large banks provide competitive advantages in creating efficiency and profitability, while (Fiana & Endri, 2025) highlighted the role of company size functioning as a moderating factor that strengthens the impact of managerial procedures on earnings.

A research investigation conducted by (Veeramoothoo & Hammoudeh, 2022) pertaining to the banking sector in the United States indicates that the liquidity coverage ratio (LCR) substantially influences profitability, further establishing that smaller banking institution exhibit heightened susceptibility to medium to long term liquidity challenges, additionally, research undertaken by (Akinselure et al., 2025) focusing on commercial banks in Nigeria reveals that the risk factors associated with asset-liability managing has a big impact on these institutions' bottom lines. Banks in Indonesia demonstrates that both the adoption of Basel III and effective asset liability management (ALM) exert a notably positive effect on financial performance.

Although there have been many studies discussing the impact of Basel III and Asset Liability Management (ALM) on financial performance, the involvement of bank size acting as a moderator has not been explored in depth, especially in the context of banking in Indonesia. In fact, understanding the interaction between these three variables is crucial to providing a more comprehensive picture of how regulations and internal bank strategies can work together to improve financial performance. This is especially true in the post-pandemic situation, where the banking sector must be able to adapt to regulatory complexities while maintaining profitability in market conditions that are not yet fully stable.

According to the description above, this research tend to explore Basel III and Asset Liability Management (ALM) implementation on conventional commercial banks financial performance with bank size being a moderator to be

analyzed. The study focuses on banks that have fully implemented Basel III in accordance with OJK regulations, with an observation period from 2019 to 2023. The outcomes of this investigation should yield a more comprehensive understanding of the interaction between international regulations, asset-liability management strategies, and internal bank characteristics while assessing financial performance.

Based on the background and literature review described above, the line of reasoning can be illustrated as follows:

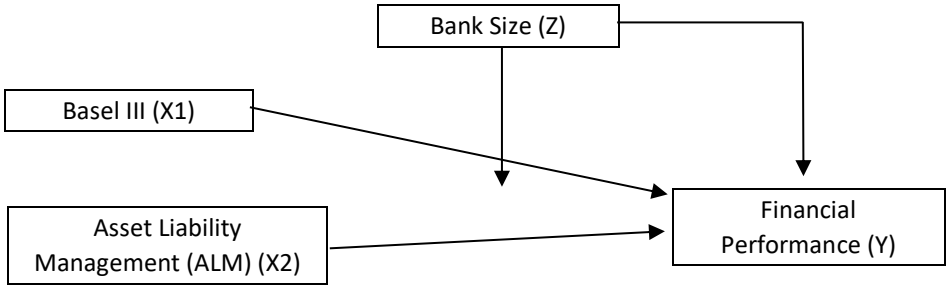

Image 1. Model Peneltian

Source: Research Data, 2025

Basel III implementation, that seeks to enhance the resilience of the banking system through strengthening capital, liquidity, and risk management, is projected to enhance the financial performance of institutions. By increasing minimum capital requirements and introducing stricter liquidity ratios, banks are expected to be better able to cope with financial risks and market uncertainty, which can be measured using metrics like ROA and ROE. The implementation of prudential policies in the banking sector, including Basel III, is a crucial tool for maintaining financial stability and bank performance. Basel III is designed to strengthen bank capital, increase risk resilience, and improve liquidity management practices. Research by (Hidayatullah Fakaruzzaman, 2021)shows that the implementation of Basel III has strong implications for bank financial performance through the Capital Adequacy Ratio (CAR), Return on Assets (ROA), Return on Equity (ROE), and Non-Performing Loans (NPL) ratios (Suryanto & Rasmini, 2025). Basel III implementation has been shown to positively impact financial performance by increasing ROA and ROE, while reducing NPL levels. This is consistent with the findings of the (International Monetary Fund, 2024), which stated that the implementation of the Basel Core Principles strengthens bank capital in Indonesia, thereby increasing profitability and maintaining asset quality (Internasional Monetary Fund, 2025).

H_1: There is a positive correlation between the implementation of Basel III and financial performance.

Asset Liability Management (ALM) is a strategic framework used to align asset and liability structures to minimize risks such as interest rate, liquidity, and market risks. From a risk management theory perspective, ALM is a crucial tool to ensure banks maintain optimal liquidity while protecting profitability in volatile market conditions (Owusu & Alhassan, 2021). Empirically, effective ALM implementation has been shown to improve financial performance, reflected in

increased ROA and ROE (Peykani et al., 2023). (Nur Rahma, 2022) highlights that sound risk management through ALM plays a crucial role in improving bank profitability. (Ikhwan, 2022) also concluded that integrating PAM with a broader risk management framework strengthens resilience to external shocks. International studies confirm these findings: (Geeta et al., 2020) demonstrate that asset liability management (ALM) significantly reduces interest rate and liquidity risks, thereby improving the profitability of Indian banks, while (Kumar Satapathy, 2021) also emphasized the role of ALM as an important tool in risk management and profitability of Indian banks. Taken together, both theory and empirical evidence emphasize that ALM not only supports financial performance but also acts as a guarantee of long-term resilience.

H_2: There is a positive correlation between Asset Liability Management (ALM) and Financial Performance.

Bank size plays a crucial role in moderating the impact of Basel III on financial performance. According to capital buffer theory, banks with stronger capital reserves can absorb stricter regulations without sacrificing profitability (Luis Catao & Terrones, 2018) This aligns with economies of scale theory, which argues that larger banks enjoy advantages in cost efficiency and risk management, making them more resilient to external shocks and regulatory changes (Blatter & Fuster, 2022) Empirical evidence by (Fiana & Endri, 2025) shows that large banks are better able to adapt to Basel III, while smaller banks face higher regulatory pressure that may reduce profitability and efficiency. Similarly, (Hermuningsih et al., 2022) confirm that large banks achieve more stable and efficient performance, especially through fintech and liquidity management, reinforcing their role as a moderating variable. Further evidence from international studies also supports this view(Grzeta et al., 2023) found that Basel III improved efficiency and profitability in large European banks but had negative effects on smaller ones. In Indonesia, (Muntaqiah, 2024) highlighted that bank size significantly enhances ROA through economies of scale and stronger risk management. Collectively, these findings indicate that larger banks not only adapt more effectively to Basel III but also maintain superior financial stability, making bank size a key determinant in moderating the effects of prudential regulation on financial performance.

H_3: There is a positive influence between the role of bank size and the implementation of Basel III on financial performance.

The interaction between bank size and financial performance is an important aspect in the study of bank management. The theory of economies of scale suggests that big banks are capable of allocating their fixed costs across a broader asset base, thereby achieving cost efficiencies and increasing profitability. For example, large Swiss banks demonstrate greater operational efficiency than smaller banks (Blatter & Fuster, 2022). In a study by (Muntaqiah, 2024), portfolio theory emphasizes that well-managed risk can increase profit potential. Research by (Nur Rahma, 2022) shows that the economies of scale achieved by large banks enable a reduction in costs per unit of service, which has a positive impact on ROA. Large banks also usually have more advanced risk management systems and technology, enabling them to respond better to market dynamics and external pressures. Using only Islamic commercial banks, (Asrori et al., 2024)confirmed

bank size plays a significant moderating role in the relationship between risk and performance. Reinforcing the importance of bank size in the context of financial performance stability. This reinforces the assumption that the greater the bank's size, the greater its ability to achieve stable and optimal financial performance.
H_4: There is a positive correlation between bank size and financial performance.

RESEARCH METHOD

This research employs a quantitative methodology with a causal associative approach in assessing the effect of adopting Basel III implementation and asset and liability management (ALM) on the financial performance of tradisional Indonesia commercial banks with bank size as a moderator. Selected using the purposive sampling method with the following results:

Table 1. Descriptive Statistics of Research Variables

No	Criteria	Total
1	Conventional general banking that has implemented Basel III regulations	20
2	Audited company financial statements	20
3	Financial reports and sustainability reporting 2029-2023 for each bank	5
4	Total sample (20 x 5 years)	100

Source: Research Data, 2025

Based on these criteria, 20 banks (4 state-owned and 16 domestic private banks) were selected, resulting in 100 panel data units for analysis. The number of observations was limited to 100 because not all conventional commercial banks in Indonesia systematically published financial, risk management, and sustainability reports during the study period. Furthermore, several banks did not fully implement Basel III requirements in the 2019–2023 period or did not provide publicly accessible data, thereby failing to meet the sample criteria. Therefore, the 20 selected banks are considered representative of the population of conventional commercial banks that have met data integrity and regulatory compliance requirements.

Secondary data were obtained from bank annual reports, risk management reports, Indonesia Stock Exchange (IDX) publications, and the Indonesian Banking Statistics published by the Financial Services Authority (OJK). While the sample size is relatively limited, it is considered sufficient to represent the situation of conventional commercial banking in Indonesia, meeting the research criteria for the 2019–2023 period.

Table 2. Operational definition of variables

No	Variabel	Indikator	Measurement
1	Basel III	Capital to Risk-Weighted Asset Ratio (CRAR)	$\frac{total\ capital}{total\ assets\ weighted\ by\ risk}$ x100%
2	ALM	liquidity Coverage Ratio (LCR)	$\frac{high\ quality\ liquid\ assets}{Short\ term\ liabilities}$x100%
3	Financial performance	Return on Assets (ROA) and Return on Equity (ROE)	ROA: $\frac{net\ profit}{Total\ aset}$ x 100 % ROE: $\frac{net\ profit}{Total\ Equity}$x 100 %
4	Bank Size	Total Asset	$SIZE = Ln\ Total\ Asset$

Source: (Akinselure et al., 2025; Grzeta et al., 2023; Rahmawati, 2022; Yamin et al., 2025)

Basel III is an international banking regulatory framework that prioritizes capital adequacy and risk management to improve the stability of the financial system. One indicator used is the Capital-to-Risk-Weighted Assets Ratio (CRAR), which measures a bank's ability to provide capital to its risk-weighted assets. This indicator has been widely used in previous research as a proxy for Basel III implementation (Mdandalaza & Jeke, 2025). Asset liability management (ALM) is defined as a strategic process for managing the balance between a bank's assets and liabilities to minimize liquidity risk and maintain long-term financial stability. The indicator used is the Liquidity Coverage Ratio (LCR), which demonstrates a bank's ability to meet its short-term obligations with high-quality liquid assets (Puspa Widitha Narindra Mahisi & Usman, 2024).

A bank's financial performance reflects management's effectiveness in generating profits and delivering value to shareholders. In this study, financial performance is measured using two indicators: return on assets (ROA) and return on equity (ROE). ROA reflects a bank's ability to generate net income relative to total assets, while ROE measures return on equity. Both indicators are commonly used in banking literature to assess profitability (Priharta & Gani, 2023). Bank size reflects the scale of its operations, which is usually measured by its total assets. In this study, bank size is calculated using the natural logarithm of total assets to reduce scale bias. This indicator has been widely used in banking research to illustrate the scale of operations (Roy et al., 2025).

The indicators employed in this research include the Capital to Risk Weighted Asset Ratio (CRAR) as a measure of Basel III, the liquidity Coverage Ratio (LCR) as an indicator of ALM, total assets representing bank size, and Return on Assets (ROA) and Return on Equity (ROE) reflecting financial performance with the equation function formulated as follows:

$Y=\beta_0 + \beta_1\ x\ CRAR + \beta_2\ x\ LCR + \beta_3\ x\ Log\ (Total\ Assets) + \varepsilon$……(1)

Y = Dependent Variable
CRAR = Bank's Capital to Risk Weighted Asset Ratio
LCR = Bank's Liquidity Coverage Ratio
Log (Total Asset) = Logarithm of the bank's total assets
$\beta_0,\ \beta_1,\ \beta_2, \beta_3$= Regression coefficients to be estimated

Analytical methodology adopted utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) through Smart PLS version 4. PLS-SEM was selected for its several advantages over covariance-based SEM (CB-SEM), especially in the context of this study, which involves a complex model with moderator variables (Ghozali, 2023). Furthermore, PLS-SEM does not require a normal data distribution and can be used with relatively small samples, making it suitable for research conditions with conventional data from commercial banks for the period 2019–2023. Another advantage of PLS-SEM is its ability to analyze constructs with both formative and reflective indicators and its strong predictive orientation, making it more relevant for testing relationships between variables and predicting banks' financial performance. By the assessment of the external model (convergent validity, discriminant validity, and construct reliability) along with the internal model (R-Squared, bootstrap test of significance, and effect size (f^2). Assessment criteria are factor loading of ≥ 0.70, AVE ≥ 0.50, Composite Reliability ≥ 0.70, and Cronbach's Alpha ≥ 0.60 (Ghozali, 2023), as well as

hypothesis testing at a significance level of 5% with a t-statistic ≥ 1.96 to assess the direct and moderating effects of bank size.

RESULTS AND DISCUSSION

The considerations in selecting the sample were conventional banks that have implemented Basel III in Indonesia, which has been regulated through several Financial Services Authority (OJK) regulations, including POJK No.11/POJK.03/2016, which came into full effect in January 2019. Thus, from the purposive sampling method, 20 conventional commercial banks were obtained that were classified into the group that had implemented Basel III and were listed on the IDX and in accordance with the criteria that formed the basis for the researcher, there were 20 conventional banks in Indonesia.

Descriptive statistics were used to carry out a thorough explanation of the qualities of the distribution of all variables utlized in this study, namely Basel III (measured by CRAR), Asset Liability Management (LCR), Bank Size (Total Assets), and Financial Performance (ROA and ROE).

Table 3. Descriptive Statistics of Research Variables

Variabel	N	Mean	Minimum	Maksimum	Standar Deviasi
CRAR (Basel III)	100	0.075	0.022	0.385	0.048
LCR (ALM)	100	0.245	0.126	0.395	0.072
SIZE (Log Total Asset)	100	1.1892	1.400	2.150	0.221
ROA (Return on Asset)	100	0.013	0.000	0.035	0.008
ROE (Return on Equity)	100	0.098	0.001	0.273	0.074

Source: Research Data, 2025

The mean CRAR value as a Basel III indicator is 0.075 with a standard deviation of 0.048, indicating high variation between banks. The LCR value, which represents ALM, also shows moderate variation. Bank size (log total assets) shows relatively homogeneous data distribution. ROA and ROE have low minimum values, indicating that some banks had very low profitability during the observation period.

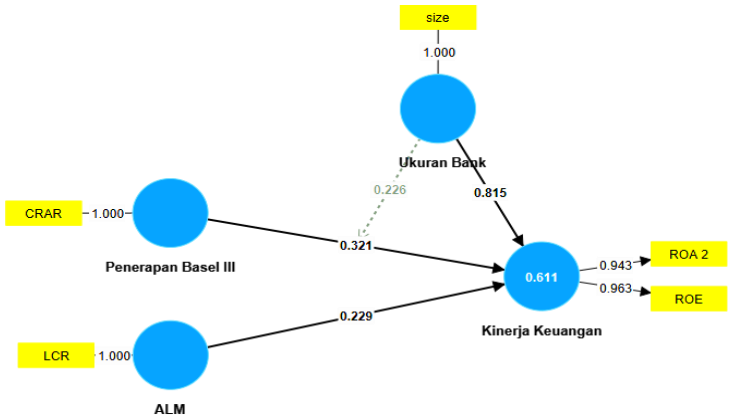

Image 2. PLS Algorithm Model

Source: Research Data, 2025

Table 4. Outer Loading of Each Indicator

Indicator	Related Variables	Loading Factor	Information
CRAR	Basel III (X1)	1.000	Valid
LCR	ALM (X2)	1.000	Valid
ROA	Financial performance (Y)	0.943	Valid
ROE	Financial performance (Y)	0.963	Valid
SIZE	Bank size (Z)	1.000	Valid
SIZE x CRAR	Bank size (Z) x Basel III (X1)	1.000	Valid

Source: Research Data, 2025

All indicators show a loading factor value ≥ 0.70, so these findings indicate that each indicator meets the criteria for convergent validity and is capable of significantly describing the latent construct (Ghozali, 2023). Conceptually, the CRAR is valid as a proxy for Basel III, the LCR for asset liability management (ALM), ROA and ROE as indicators of financial performance, and SIZE as a proxy for bank size. The highest loading (1.000) on CRAR, LCR, and SIZE confirms the full representation of the construct, while ROA (0.943) and ROE (0.963) still meet the criteria with different relative contributions, with ROE having a stronger ability to explain financial performance. No indicators were eliminated.

Table 5. Fornell-Larcker Criterion

Variabel	ALM	Financial Performance	Basel III	Bank Size
ALM				
Financial Performance	0.392			
Basel III	0.090	0.780		
Bank Size	0.296	0.653	0.848	
Bank Size x Basel III	0.137	0.179	0.760	0.901

Source: Research Data, 2025

The results of the analysis show that every construct's square root of the AVE is higher than the association between them, suggesting that discriminant validity has been achieve.

Table 6. Reliability Test Results

Variabel	Cronbach's Alpha	Composite Reliability	Information
Financial Performance	0.901	0.931	Reliabel

Source: Research Data, 2025

Measurement of financial performance construct reliability based on Cronbach's Alpha and Composite Reability > 0.7 (Ghozali, 2023), suggesting that the ROA and ROE indicators consistently measure the concept of financial performance with high reliability

Table 7. R^2 value

Variabel Endogen	R-Square	R-Square Adjusted
Financial Performance	0.611	0.594

Source: Research Data, 2025

All variables together explain 61.1%, the results suggest that the model is capable of explaining variations in financial performance with fairly good predictive power (Ghozali, 2023). This value falls into the moderate to strong category, indicating that the research model has fairly good explanatory power. In theory, these findings confirm that Basel III regulations, asset-liability management, and

bank size contribute significantly to financial performance, although other external factors still influence bank profitability.

Table 8. Direct Hypothesis Test Results

Hipotesis	Path of Influence	Path Coefficient	t-Statistik	p-Value	Results
H1	Basel III → Financial Performance	0.321	3.420	0.003	Results
H2	ALM → Financial Performance	0.229	3.019	0.001	Results
H3	Bank Size → Financial Performance	0.815	13.813	0.000	Results
H4	Bank Size x Basel III→ Financial Performance	0.226	2.410	0.016	Results

Source: Research Data, 2025

All influence paths are defined by t-value higher than > 1.96 and a p-value < 0.05, so all hypotheses are accepted (Ghozali, 2023). Basel III, asset-liability management (ALM), and bank size have a positive and significant effect on financial performance, and bank size strengthens the relationship between Basel III and performance. Theoretically, this confirms that capital adequacy, asset-liability management, and bank size contribute to higher profitability, consistent with previous literature on bank stability and efficiency. However, external factors such as macroeconomic conditions or governance quality can also influence the results, warranting their consideration in future research.

Test results suggest that the Basel III variable has a positive and significant effect o financial performance. This is highlighted by the coefficient measure value of 0.321, T statistic of 3.420 (>1.96), and P value of 0.001 (<0.05). In conclusion, it is thus inferred that H0 is rejected and H1 is accepted. This would imply that the adherence to Basel III, as highlighted by the measure CRAR (Capital Adequacy Ratio), has indeed turned out to positively and significantly affect bank financial performance, expressed through the ROA and ROE indicators.

The outcomes imply that the high level of capitalization in the banking institution will be associated with sound financial performance through metrics for profitability like ROA and ROE. This condition reflects that adequate capital not only serves as a buffer against various financial risks, but also increases the level of confidence of investors and other stakeholders. This increase in confidence contributes to strengthening the bank's overall financial performance.

In the implementation of the international regulatory framework, the CRAR is a key indicator that reflects the strength of a bank's capital structure in facing risk exposure. Basel III regulations require an increase in both the quality and quantity of core capital (Tier 1 Capital) as a reserve to cover potential unexpected losses. With a stronger capital structure, banks gain greater flexibility in expanding their business, extending credit, and improving operational efficiency, without sacrificing financial stability and long-term performance sustainability.

The findings align with earlier studies carried out by (Yamin et al., 2025), which assert that elevated levels of capital adequacy, specifically in terms of tier-1 capital and CRAR, positively influence bank profitability as indicated by ROA and reduce the level of non-performing loans (NPL). Conversely, larger banks tend to correlate with a drop in ROA and a rise in NPL, and a boost in provisioning causes NPL to rise as well. These outcomes emphasize the importance of Basel III implementation in improving he security and economic growth of Bangladesh's banking industry, and show that greater capital buffers may minimize hazards related to loans that are not performing and increase profits.

The test results show that Asset Liability Management (ALM) exerts a positive and significant influence on financial performance with the coefficient (effect) value of 0.229, a T statistic of 3.019 (>1.96), and the P value of 0.003 (<0.05). Considering the T-statistic and P-value, thus, it could have been implied the null hypothesis (H0) is rejected and the alternative hypothesis (H2) is accepted. Indicates that there exists a significant correlation between ALM measured by LCR and financial performance and the positive direction of the influence.

These findings indicate that the better the ALM management implemented by banks, the greater the potential for banks to record good financial performance. ALM plays an important role in balancing the structure of assets and liabilities, particularly in terms of liquidity, maturity, and sensitivity to interest rate changes. With sound ALM, banks are able to avoid mismatches between assets and liabilities that could trigger liquidity and market risks.

Effective ALM implementation enables banks to maintain adequate short-term and long-term funds, manage their funding structure more efficiently, and avoid dependence on expensive funds. In addition, banks that implement ALM in a disciplined manner are also better prepared to deal with market fluctuations, as they have more structured cash flow planning and integrated risk control strategies.

The outcomes of this investigation match up with studies performed by (Madhushani & Perera, 2022) which explains that there is a positive and significant relationship between asset management, particularly in relation to loans and advances, and bank profitability. This means that banks that are able to optimally distribute productive assets such as credit will earn higher interest income, which will directly contribute to raising ROA and ROE. This indicates that the quality of management in terms of asset allocation is crucial in achieving positive financial performance.

The analysis result shown that the adoption of Basel III significantly has a positive influence on performance, mediated by the bank size, supported by a coefficient value of 0.226, a T-statistic of 2.410 (>1.96), and a P-value of 0.016 (<0.05). Based on the T-statistic and P-value, thus, it could have been implied the null hypothesis (H0) is rejected while the alternative hypothesis (H3) is accepted., indicating that bank size serves as a moderating variable that enhances the positive impact of Basel III implementation on financial performance.

These outcomes indicate that the implementation of Basel III standards, particularly those related to the Capital to Risk-Weighted Assets Ratio (CRAR), has a stronger impact on improving the financial performance of large banks. This is because large banks generally have a stronger capital structure, a more mature

risk management system, and more adequate resources to implement prudential policies comprehensively and effectively.

With better operational capacity and technology support, large banks can more quickly adapt to Basel III requirements, such as providing Tier 1 Capital and meeting minimum liquidity standards. This optimal implementation contributes to increased market confidence and risk management efficiency, which is ultimately reflected in improved financial performance indicators such as ROA and ROE.

The outcomes of this investigation match up with studies performed by (Grzeta et al., 2023) which states that larger capital buffers and high capital adequacy ratios can improve profitability and reduce credit risk, especially when supported by large bank size. This means that bank size not only reflects financial capacity, but also strengthens the effectiveness of Basel III regulations in promoting sound financial performance.

The regression test showed that the size of the bank has a very significant positive influence on financial performance, owing to the value of the coefficient as 0.815, a T statistic of 13.813 (>1.96), and a P value of 0.000 (<0.05). Hence, thus, it could have been implied that the null hypothesis (H0) is rejected and the alternative hypothesis (H4) is accepted, meaning that bank size, represented by total assets, has a strong and significant positive effect on financial performance measures like ROA and ROE.

These findings support the concept that banks with large total assets tend to have better capabilities in managing risk, expanding credit portfolios, and improving operational efficiency through economies of scale. Large banks also have a competitive advantage in accessing cheap sources of funds, innovating technology, and reaching wider markets.

During the 2019–2023 period, especially when facing economic pressures due to the COVID-19 pandemic (2020–2022), large banks were relatively more resilient to liquidity pressures and credit risks. This was because they had stronger capital structures, sufficient liquidity reserves, and a good reputation among stakeholders (customers, investors, and regulators). In other words, the size of a bank was a key factor in maintaining stability and financial performance sustainability, especially during times of crisis.

These outcomes of this investigation match up with studies performed by (Rahmawati, 2022) which indicates that bank size positively and significantly affects banks financial performance of banks in Indonesia during the pandemic. The study mentions that banks with large assets can more effectively withstand economic risks.

CONCLUSION

This study concludes that Basel III adoption contibutes significantly and positively to the financial performance of Indonesian conventional commercial banks. This suggests that the greater a bank's capital adequacy ratio, the more profitable it becomes, as indicated through the Return on Asset (ROA) and Return on Equity (ROE) indicators. Asset and liability management (ALM) likewise significantly positively affects financial performance. These findings indicate that the better the ALM management that is carried out by banks, the greater the likelihood of banks

achieving good financial performance. In addition, size of the bank has also been found to increase the association between practice of Basel III and financial performance. The implications of this study point to the importance of banking strategies to strengthen capital and optimize risk management through integrated ALM, as well as leveraging the advantages of bank size to enhance competitiveness. Regulations related to capital and risk management need to be continuously disseminated and monitored to ensure consistent implementation across all levels with regards to the banking industry. It apprears limited in sample size since it only looks at banks listed on the Indonesia Stock Exchange, and the observation period, which only covers five years. Therefore, future studies can expand the sample coverage to cover Islamic banks or non-bank financial institutions and incorporate macroeconomic including principal interest rates and inflation to provide an overall perspective.

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