Original Article

# The Moderating Role of Audit Quality in the Relationship Between Financial Performance and Firm Value: A Study of Indonesian Banking Companies (2014-2023)

## Ahmad Jibrail[1]✉, Grahita Chandrarin[2], Prihat Assih[3]

[1]Universitas Teknologi Sumbawa

[2,3]Universitas Merdeka Malang

Author email: ahmad.jibrail@uts.ac.id[1*], grahitac@unmer.ac.id[2], prihat.assih@unmer.ac.id[3]

**Abstract:**

This study examines the moderating role of audit quality in the relationship between financial performance and firm value in the Indonesian banking sector from 2014 to 2023. Utilizing a quantitative explanatory design with Moderated Regression Analysis (MRA) and Random Effects models, the research analyzes panel data from banking companies listed on the Indonesia Stock Exchange (IDX). The financial performance variables investigated include Return on Assets (ROA), Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), and Net Interest Margin (NIM), with firm value measured by Price to Book Value (PBV). Audit quality is proxied by the engagement of Big Four accounting firms. The findings indicate that CAR, ROA, and LDR significantly influence firm value. A key discovery is that audit quality significantly moderates these relationships: it strengthens the effect of ROA but weakens the impact of CAR and LDR on firm value, while demonstrating no significant moderating effect on the NIM relationship. The results underscore the critical role of high-quality external audits as a governance mechanism that enhances the credibility of financial reporting, mitigates information asymmetry, and thereby shapes how financial performance is valued by the market.

**Keywords**: Audit Quality, Financial Performance, Firm Value, Moderating Effect, Indonesian Banking.

## Introduction

Global economic growth has undergone significant fluctuations over the past decade. Factors such as global financial crises, trade tensions, the COVID-19 pandemic, and emerging challenges like inflation and geopolitical uncertainty have profoundly influenced economic growth dynamics. Although a recovery has been observed in recent years, current challenges indicate that the global economy remains susceptible to various external and internal factors that could jeopardize future stability and growth.

Firm value, often represented by market capitalization, reflects market perceptions of a company's current performance and future prospects. It is calculated as the product

of the stock price and the number of outstanding shares. In the banking context, firm value is influenced by a myriad of internal and external factors that mirror the financial health and operational performance of the institution. As a vital pillar of the global economy, the banking sector's value is shaped by monetary policies, regulatory shifts, and global market dynamics. Over the last ten years, this sector has faced substantial challenges and transformations, largely driven by economic crises, technological innovations, and policy adjustments implemented by monetary and fiscal authorities worldwide.

In response to global economic slowdowns and market volatility, Bank Indonesia has incrementally reduced its benchmark interest rate since 2016. This policy was designed to stimulate economic growth by lowering borrowing costs, thereby encouraging credit expansion by banks. Such measures are intended to bolster domestic investment and consumption, which directly and indirectly affect the financial performance of the banking sector (Bank Indonesia, 2016). However, the reduction of the benchmark interest rate also impacts interest income from loans a primary revenue source for banks. Lower rates compress the interest income derived from credit facilities, posing a challenge for banks to maintain a healthy Net Interest Margin (NIM) in a low-interest-rate environment. Nonetheless, some institutions have successfully mitigated these challenges by optimizing operational efficiency and diversifying revenue streams through non-interest sectors, such as service fees and commissions.

Since 2014, the Indonesian banking sector has also grappled with more stringent international regulatory requirements, specifically those pertaining to Basel III. The implementation of Basel III, which mandates increased minimum capital and liquidity, aims to enhance the stability of the banking system and prevent a recurrence of the 2008 financial crisis. Basel III introduced significant changes, including elevated Core Capital Ratios and the introduction of the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). These policies require banks to maintain higher capital buffers and ensure adequate liquidity to withstand market stress. While these requirements enhance resilience, they also constrain a bank's ability to increase leverage and extend credit, which may impact profitability and, ultimately, firm value (Bank for International Settlements, 2014).

Despite these constraints, the implementation of Basel III offers long-term positive impacts for Indonesian banking. By strengthening capital and liquidity structures, banks become more resilient to economic shocks and gain greater trust from markets and stakeholders. This facilitates an increase in firm value, particularly among investors who prioritize long-term stability and robust risk management.

At the global level, monetary policies implemented by major central banks, such as the US Federal Reserve, significantly influence Indonesian banking performance. The Quantitative Easing (QE) policy adopted by the Federal Reserve following the 2008 crisis increased global liquidity, helping to stabilize banking sectors in many countries, including Indonesia. However, when the Federal Reserve began incrementally raising interest rates in 2015, global financial markets faced renewed pressure. Capital outflows toward the US led to liquidity tightening in emerging markets like Indonesia (Federal Reserve Bank of St. Louis, 2018).

Statements from Federal Reserve officials, such as Chairman Jerome Powell, regarding interest rate policies and the global economic outlook, have an immediate impact on market sentiment and international capital flows. For instance, when Powell (2018) indicated faster-than-expected rate hikes, global financial markets responded

with declining stock pricesm including bank stocks reflecting concerns over higher funding costs and diminished credit demand.

Furthermore, protectionist policies implemented by the Donald Trump administration, including the trade war with China, created global economic uncertainties that affected international financial stability. This uncertainty resulted in exchange rate volatility, capital flow disruptions, and increased credit risk, impacting the financial performance of Indonesian banks. Banks in Indonesia had to navigate the risks of heightened currency volatility and declining credit demand from sectors heavily affected by global trade tensions.

Concurrently, the Indonesian banking sector has undergone a significant digital transformation. Advancements in financial technology (fintech) have compelled banks to adapt by either developing their own digital services or partnering with fintech firms. Digitalization offers immense opportunities to enhance operational efficiency, reduce costs, and expand service reach to underserved segments. However, large-scale investments in digitalization present their own challenges. High capital expenditure for technological infrastructure can suppress short-term profitability, particularly for smaller banks with limited resources. Moreover, intensifying competition with fintech firms necessitates continuous innovation to remain relevant in a dynamic market (IMF, 2020).

The Financial Services Authority (OJK) has encouraged fintech development in Indonesia through regulations that support digital innovation while managing emerging risks. Policies such as the regulatory sandbox provide space for banks and fintechs to test new services before wide-scale deployment, while simultaneously protecting consumers from potential risks.

The Indonesian government has also enacted various fiscal policies to support the banking sector, particularly during the COVID-19 pandemic. Fiscal stimulus programs, including credit guarantees for MSMEs, social assistance, and credit restructuring programs, were part of the government's efforts to maintain economic stability and prevent a surge in non-performing loans (NPLs) (PwC Indonesia, 2021). The credit restructuring policy implemented by OJK during the pandemic allowed banks to defer the recognition of potential credit losses, thereby stabilizing bank balance sheets. This program was vital in preventing a significant increase in NPL ratios, which could have otherwise damaged firm value in the banking sector. However, the post-pandemic challenge for banks lies in managing their credit portfolios as restructuring programs expire and credit risks re-emerge (IMF, 2020).

The banking sector is profoundly influenced by macroeconomic stability, monetary policy, and financial regulation. Consequently, shifts in the economic and regulatory environment can significantly impact the value of banking firms. In recent years, the industry has witnessed phenomena such as the COVID-19 pandemic, fintech evolution, and regulatory amendments. The pandemic, in particular, caused global economic uncertainty that negatively impacted banking firm values.

Firm value serves as a primary indicator for assessing the performance and financial health of an institution. In banking, it encapsulates market perceptions of current performance and expectations for future growth and profitability. Banking performance is driven not only by internal factors like risk management and operational efficiency but also by prevailing macroeconomic conditions and regulations. Profitability, as a critical aspect of performance evaluation, directly influences firm value. Profitable

banks are generally perceived as more stable and capable of providing better returns to shareholders, thus commanding higher market values.

Extensive research has explored the factors influencing firm value in the banking sector. Agency Theory, as posited by Jensen et al. (1976), is frequently utilized to analyze how conflicts of interest between management and shareholders affect firm value. Management that prioritizes personal interests over shareholder wealth can diminish a bank's value. Conversely, Meca et al. (2010) emphasize that robust corporate governance—comprising transparency, accountability, and effective oversight—is essential for enhancing firm value by fostering investor confidence.

Furthermore, studies by An et al. (2021) indicate that innovation and IT investment positively impact banking firm value by enhancing operational efficiency and transaction security. Fama et al. (1998) examined the relationship between bank size, book-to-market ratios, and stock returns, finding that banks with low book-to-market ratios often possess higher value due to perceived growth potential. Athanasoglou et al. (2008) further demonstrate that macroeconomic factors like economic growth and interest rates significantly influence profitability and firm value.

Recent literature continues to support these findings. Berger et al. (2016) show that effective risk management enhances firm value by reducing earnings volatility. Djalilov et al. (2016) find that strong regulation and good governance improve bank performance in developing nations. Similarly, Nguyen et al. (2020) identify a strong correlation between high profitability (ROA and ROE) and increased firm value within the ASEAN banking sector.

In Indonesia, the primary function of banking is to mobilize and allocate public funds to support national development, economic growth, and stability (OJK, 2022). According to Law No. 21 of 2008, a bank is a business entity that collects funds from the public in the form of deposits and redistributes them as credit to improve the standard of living. The 2008 economic crisis, which originated in the United States, slowed growth in emerging market banking sectors. Indonesia's economic growth fell from 6.01% in Q3-2008 to 4.63% in 2009, indicating that banking health must be continuously monitored. A key indicator of bank health is profitability, often measured via Return on Assets (ROA) (Bank Indonesia, 2004). ROA measures a company's ability to generate profit utilizing its total assets. A higher ROA indicates greater profit achievement and more efficient asset utilization (Sudarmanto et al., 2021).

Data analysis from published OJK reports (2012–2022) shows that the average ROA in the banking sector has been fluctuant. The average ROA was 3.39% in 2012, peaked at 3.46% in 2013, and subsequently declined between 2015 and 2017. It rose slightly in 2018 (2.74%) before dropping significantly in 2019 and 2020 (2.27% and 1.21%, respectively) due to the pandemic. By 2022, it began to recover, reaching 1.87%. A declining ROA suggests ineffective performance and an inability to leverage assets for profit. Research by Athanasoglou et al. (2008), Huu (2021), Doorasamy (2021), and Radja & Artini (2020) confirms that profitability positively influences firm value. Gitman & Zutter (2015) state that high ROA signifies efficiency, while Sufian & Habibullah (2009) note that the impact of ROA can vary based on the regulatory environment and industrial competition.

Another critical metric is the Capital Adequacy Ratio (CAR). As stated by Saunders & Cornett (2018), CAR measures a bank's capital as a percentage of its risk-weighted credit exposure, serving to protect depositors and promote financial stability. CAR indicates a bank's capacity to absorb potential losses. A higher CAR generally enhances a

bank's ability to increase profits as losses are absorbed by capital (Sudarmanto et al., 2021). While Rembet & Baramuli (2020) found that CAR positively influences ROA, Sanjoyo (2019) observed a significant negative effect due to underutilized capital. Furthermore, Trujillo-Ponce (2013) noted that excessively high CAR can occasionally reduce profitability due to unproductive capital allocation. In conclusion, the phenomena observed in the Indonesian banking sector over recent years, coupled with the identified research gaps, suggest that many aspects of the relationship between financial/operational factors and firm value remain unexplored. Therefore, further research is required to empirically test the variables within this study.

## Methods

This study adopts a quantitative research design with an explanatory approach to investigate the causal relationships between financial performance, audit quality, and firm value. According to the research paradigm, an explanatory design is employed to test pre-defined hypotheses and explain the nature of relationships between variables within the Indonesian banking sector (Chandrarin, 2017). The quantitative nature of this study ensures that the phenomena under investigation are measured numerically and analyzed through statistical procedures to provide objective conclusions regarding the moderating role of audit quality.

The population of this study encompasses all banking companies listed on the Indonesia Stock Exchange (IDX) during the ten-year period from 2014 to 2023. A purposive sampling technique was implemented to select a representative sample based on specific criteria, ensuring that the data set remains consistent and relevant to the research objectives. The criteria included banks that remained listed throughout the observation period, provided complete annual financial reports audited by public accounting firms, and possessed the necessary data for calculating financial performance ratios and firm value indicators.

The dependent variable in this research is Firm Value, which serves as a primary indicator of market perception regarding a bank's financial health and future prospects. Firm value is operationalized through the Price to Book Value (PBV) ratio, reflecting the market's valuation of the company relative to its book value. High PBV ratios generally signify strong investor confidence and growth potential, as posited by Fama (1978), who suggested that market valuation is a critical metric for assessing managerial performance and capital structure efficiency in highly regulated industries like banking.

Financial performance is analyzed through two independent variables: profitability and capital adequacy. Profitability is measured using the Return on Assets (ROA) ratio, which assesses management's effectiveness in generating net income from the bank's total assets. As noted by Sudarmanto et al. (2021), a higher ROA indicates superior operational efficiency and is often viewed by stakeholders as a sign of sustainable competitive advantage. This metric is crucial in the banking sector, where asset utilization directly correlates with the institution's ability to withstand economic fluctuations and provide returns to shareholders.

The second independent variable, Capital Adequacy Ratio (CAR), is employed to evaluate the bank's ability to absorb potential losses and support its risk-weighted assets. According to Saunders & Cornett (2018), CAR is a vital regulatory requirement designed to protect depositors and maintain the stability of the global financial system. In this research context, CAR represents the financial strength of Indonesian banks, where a robust capital base is hypothesized to enhance firm value by signaling to the market that

the institution is well-capitalized and resilient against credit and market risks.

Audit Quality serves as the moderating variable, hypothesized to influence the strength of the relationship between financial performance and firm value. Audit quality is operationalized using a proxy of accounting firm size, distinguishing between "Big Four" and "Non-Big Four" public accounting firms through a dummy variable (1 for Big Four, 0 for others). This approach is grounded in agency theory (Jensen & Meckling, 1976), which suggests that high-quality audits reduce information asymmetry and increase the credibility of financial statements, thereby enhancing investor trust and potentially amplifying the positive impact of financial performance on market valuation.

The data collection process utilized secondary data sources, primarily consisting of audited annual reports and financial statements retrieved from the Indonesia Stock Exchange (IDX) official website and the Financial Services Authority (OJK) database. To ensure the reliability of the statistical results, the data underwent rigorous data cleaning and transformation processes. These procedures were necessary to address potential outliers and ensure that the variables were measured consistently across the diverse range of banking institutions included in the final sample for the 2014-2023 observation period.

For the data analysis, this study employs Moderated Regression Analysis (MRA) to test the interaction effects between the financial performance variables and audit quality. Prior to hypothesis testing, the model was subjected to several classical assumption tests, including normality, multicollinearity, heteroscedasticity, and autocorrelation tests, to confirm that the regression model is a Best Linear Unbiased Estimator (BLUE). The MRA approach allows for a sophisticated examination of whether the presence of a reputable auditor significantly alters the influence of ROA and CAR on Firm Value, providing deeper insights into the corporate governance mechanisms within the Indonesian banking industry.

## Results

### Classical Assumption Test

The first classical assumption test conducted is the multicollinearity test. The tool used to conduct the classical assumption test is STATA. The indicators used are the Variance Inflation Factor (VIF) value and the tolerance value. Based on the analysis results, the VIF value obtained is 1.96 and the tolerance value is > 0.1. Thus, it can be concluded that multicollinearity does not occur. This indicates that each independent variable has a unique informational contribution to the dependent variable and there is no overlap between the variables. The results of the multicollinearity test are as follows.

Table 1. Multicollinearity Test Results

| Variable | VIF | 1/VIF |
|----------|-----|-------|
| NIM | 2.44 | 0.410552 |
| ROA | 2.02 | 0.494482 |
| LDR | 1.41 | 0.710614 |
| **Mean VIF** | **1.96** | |

Source: processed data, 2026

The heteroscedasticity test was conducted using the Glejser method. Based on the Glejser test results, it was shown that the residuals have a significance value of less than 0.05, which is 0.0000. This means that there is heteroscedasticity in the model. Thus, the residual variance is not constant, and the model produces inefficient estimates as

described below.

Table 2. Heteroscedasticity Test Results

| Test Statistic | Value |
|---|---|
| Test Type | Breusch-Pagan / Cook-Weisberg test |
| Null Hypothesis (Ho) | Constant variance (Homoskedasticity) |
| Variables Tested | Fitted values of nilai_perusahaan |
| Chi-square ($\chi^2$) | 517.04 |
| Degrees of Freedom (df) | 1 |
| Prob > Chi-square (p-value) | 0.0000 |
| Conclusion | Reject Ho (heteroskedasticity is present) |

Source: processed data, 2026

The autocorrelation test is conducted to determine whether there is a correlation between one residual and another in sequence. The results are as follows.

Table 3. Autocorrelation Test Results

| Variable | Coefficient | Std. Error | t-value | p-value | 95% Confidence Interval |
|---|---|---|---|---|---|
| NIM | 0.2656 | 0.1235 | 2.15 | 0.033 | 0.0219 − 0.5094 |
| ROA | -0.4940 | 0.0487 | -10.14 | 0.000 | -0.5900 − -0.3979 |
| LDR | -0.0120 | 0.0070 | -1.72 | 0.087 | -0.0257 − 0.0018 |
| CAR | 0.0133 | 0.0171 | 0.78 | 0.438 | -0.0205 − 0.0471 |
| _cons | 1.7014 | 0.3313 | 5.14 | 0.000 | 1.0476 − 2.3551 |

| Parameter | Value | | | | |
|---|---|---|---|---|---|
| rho_ar | 0.4100 | | | | |
| sigma_u | 1.3486 | | | | |
| sigma_e | 1.0458 | | | | |
| rho_fov | 0.6245 | | | | |

Source: processed data, 2026

Based on these results, it can be seen that the value of rho_ar = 0.41, which means the model experiences moderate positive autocorrelation. Because there are classical assumptions that have been violated, a robust method is used.

## Results of Data Analysis

Data analysis was conducted to determine MRA. The results of the Hausman test indicated that the model used is the Random Effect model. This is seen from the significance value being greater than 0.05.

Table 4. Hausman Test Results

| Variable | Coefficient FE (b) | Coefficient RE (B) | Difference (b - B) | Std. Error |
|---|---|---|---|---|
| NIM | 0.3599396 | 0.3599396 | 1.11e-16 | . |
| ROA | -0.3897514 | -0.3897514 | -1.11e-16 | 6.59e-10 |
| LDR | -0.0145473 | -0.0145473 | -1.73e-17 | . |
| CAR | 0.0187823 | 0.0187823 | -4.86e-17 | 2.85e-10 |

Source: processed data, 2026

The results of the data analysis with the moderating effect of audit quality are as follows.

Table 5. Results of the Model Analysis with Moderating Effects

| Variable | Coefficient | Robust Std. Err. | z-value | p-value | 95% Conf. Interval |
|---|---|---|---|---|---|
| nim | 0.4019 | 0.2325 | 1.73 | 0.084 | -0.0537 − 0.8576 |

| | | | | | |
|---|---|---|---|---|---|
| roa | -0.8626 | 0.0886 | -9.74 | 0.000 | -1.0362 – -0.6890 |
| ldr | -0.0310 | 0.0168 | -1.85 | 0.064 | -0.0638 – 0.0018 |
| car | 0.0690 | 0.0207 | 3.34 | 0.001 | 0.0285 – 0.1096 |
| audit quality | -0.0343 | 0.6975 | -0.05 | 0.961 | -1.4014 – 1.3328 |
| CAR_KA | -0.0651 | 0.0242 | -2.69 | 0.007 | -0.1125 – -0.0177 |
| NIM_KA | -0.3937 | 0.2504 | -1.57 | 0.116 | -0.8845 – 0.0970 |
| LDR_KA | 0.0349 | 0.0178 | 1.96 | 0.050 | 0.0000 – 0.0697 |
| ROA_KA | 0.9171 | 0.1015 | 9.03 | 0.000 | 0.7181 – 1.1161 |
| _cons | 1.0993 | 0.5910 | 1.86 | 0.063 | -0.0590 – 2.2577 |

| Description | Value |
|---|---|
| Number of Observations (N) | 220 |
| Number of Groups (bank) | 20 |
| Observations per Group | min=11, avg=11, max=11 |
| R-squared | Within: 0.6394, Between: 0.0984, Overall: 0.4118 |
| Wald chi²(9) | 543.00 (p = 0.0000) |
| Random Effects | Gaussian (u_i) |
| Assumption | corr(u_i, X) = 0 |

| Parameter | Value |
|---|---|
| sigma_u | 0.8870 |
| sigma_e | 0.7754 |
| rho | 0.5669 (fraction of variance due to u_i) |

Source: processed data, 2026

Based on the results, it was found that Prob > chi² = 0.0000, which means the model is significant overall. Based on the output, it was also found that the R-squared Within value is 63.9%, which means that the variation within the company is quite well explained by the model, while the Overall R-squared is 41.18%, indicating that the model is generally quite strong. In detail, the results of the data analysis with and without moderation effects are described as follows.

Table 6. Significance of Variables

| Variable | Coefficient | P-Value | Interpretation |
|---|---|---|---|
| Without Moderating Effects | | | |
| NIM | 0.4019 | 0.084 | Not significant (p > 0.05), but approaching significance. NIM tends to increase firm value. |
| ROA | -0.8626 | 0.000 | Significant. A higher ROA decreases firm value, which is unusual theoretically and requires further analysis. |
| LDR | -0.0310 | 0.064 | Marginally significant. Higher LDR is associated with a decrease in firm value. |
| CAR | 0.0690 | 0.001 | Significant. Higher CAR is associated with an increase in firm value. |
| Audit Quality | -0.0343 | 0.961 | Not significant. |
| With Moderating Effects (Interaction Terms) | | | |
| CAR × Audit Quality | -0.0651 | 0.007 | Significant. Audit quality weakens the positive effect of CAR on firm |

| | | | value. |
|---|---|---|---|
| NIM × Audit Quality | -0.3937 | 0.116 | Not significant. |
| LDR × Audit Quality | 0.0349 | 0.050 | Significant. Audit quality weakens the effect of LDR on firm value. |
| ROA × Audit Quality | 0.9171 | 0.000 | Significant. Audit quality strengthens the effect of ROA on firm value. |

Source: processed data, 2026

Based on the data analysis results, it was found that the variables that have a significant direct effect on the company's value are CAR, ROA, and LDR. Meanwhile, audit quality as a moderator was found to weaken the effects of CAR and LDR, strengthen the effect of ROA, and have no significant effect on NIM. Based on the panel data regression results with a random effects model and robust standard error correction, it was found that CAR and ROA significantly affect the company's value. Audit quality has proven to be a moderating variable that strengthens the effect of ROA and weakens the effects of CAR and LDR on the company's value. These findings indicate that audit quality plays a role in strengthening or weakening the effectiveness of financial performance in creating company value, depending on the type of financial ratio used.

## Discussion of Research Results

1. Analysis of the Influence of Financial Performance on Firm Value in Indonesian Banking Companies

Based on the simultaneous test results within the regression model, it was determined that all financial performance variables collectively exert a significant influence on firm value. This finding reinforces the argument that indicators such as ROA, NIM, CAR, and LDR are not only relevant individually but also reflect, as a collective, the company's capability to generate profit, manage risk, and maintain a balanced capital and liquidity structure.

Theoretically, this finding can be elucidated through Signalling Theory (Spence, 1973), which posits that companies transmit signals to the market via their financial information. Robust financial performance serves as a positive signal to investors regarding the firm's future prospects. Furthermore, within the framework of Agency Theory, the attainment of superior financial performance indicates that management is acting in alignment with shareholders' interests (Jensen & Meckling, 1976). Concurrently, under the information asymmetry theory, comprehensive, transparent, and reliable financial information mitigates the information gap between managers and investors (Healy & Palepu, 2001).

The practical implication of this finding is that management must prioritize the maintenance of healthy financial performance as a core strategy to enhance firm value. Moreover, stakeholders including investors, creditors, and regulators can utilize these indicators as benchmarks to evaluate the firm's long-term performance and outlook. The partial influence of each financial performance indicator is detailed as follows:

a. Net Interest Margin (NIM) and its Positive Influence on Firm Value

An increase in interest margins tends to enhance firm value, although this influence is not statistically robust in this study. A high NIM implies that a bank derives higher income from its productive assets (Brigham & Houston, 2021); however, this may not be perceived as significant by the market due to other

underlying risk factors.

NIM serves as a primary indicator of banking intermediation efficiency, measuring a bank's ability to generate net interest income from its earning assets. Conceptually, NIM reflects the effectiveness of the bank's intermediation function and asset management; thus, it is theoretically expected to have a positive relationship with firm value as reflected by the Price-to-Book Value (PBV) ratio. This perspective aligns with signalling theory, which categorizes accounting information as a credible signal for investors in assessing an entity's prospects (Spence, 2002). Nevertheless, empirical findings in this research demonstrate that the influence of NIM on PBV is insignificant, despite the positive direction of the relationship. This suggests that investors do not fully utilize NIM as a primary signal in determining a bank's market value, which may be attributed to several complex structural conditions and market behaviors.

Firstly, signalling theory suggests that the effectiveness of a signal depends on its credibility and supporting context. In conditions where banks face interest rate regulatory pressures, margin constraints, or macroeconomic fluctuations, an increase in NIM might stem from market distortions rather than sustainable efficiency. This renders the NIM signal ambiguous and potentially ignored by investors. Findings by Bikker and Vervliet (2021) confirm that in a low-interest-rate environment and high regulatory pressure within the European banking sector, margin-based profitability like NIM tends to lose its status as a primary determinant of market valuation. This occurs as net interest income becomes increasingly volatile and less reliable as a projection of long-term profitability.

Secondly, within the framework of information asymmetry, investors often lack full access to internal information regarding pricing strategies, credit quality, and risk exposures inherent in the interest income structure. This renders the NIM signal less credible without adequate information disclosure. A study by Akinyomi and Olagunju (2020) asserts that in emerging markets with lower levels of financial transparency, investors are more cautious in responding to traditional financial signals like NIM, preferring indicators that demonstrate long-term stability, such as capital ratios or operational cost efficiency.

Thirdly, this finding can be analyzed from an agency theory perspective, which highlights potential conflicts of interest between management and shareholders. In practice, bank management may drive NIM increases through aggressive high-risk lending strategies or unhealthy short-term liability management, leading investors to view a high NIM as an unsustainable performance signal. In this context, a study by Masood et al. (2022) shows that investors are actually more responsive to indicators signifying resilience and risk governance, such as the Capital Adequacy Ratio (CAR), compared to NIM, which can be manipulated through short-term strategies.

b. Return on Assets (ROA) and its Positive Influence on Firm Value

Contradicting general theory, a higher ROA in this study was found to decrease firm value. When a high ROA is not supported by asset quality and good governance, long-term investors may perceive it as a result of manipulation or as being unsustainable. Contrary to the initial hypothesis, the results indicate that ROA has a significant negative influence on firm value. This may be explained by information asymmetry or differing investor perceptions regarding earnings efficiency in the banking sector. A high ROA may not always reflect sustainable

profitability; rather, it may indicate short-term efficiency that is not highly valued by the market. Investors might not yet regard ROA as the primary indicator of firm value. This result mirrors research by Ghozali & Chariri (2017), which notes the presence of information asymmetry in the Indonesian financial market.

Conventionally, ROA is considered a key indicator of asset utilization efficiency in generating profit. In many studies, ROA is assumed to have a positive relationship with market value, including PBV. A high ROA signifies efficient operational performance, healthy profit margins, and effective management. Thus, under signalling theory, ROA should serve as a strong signal for investors to increase confidence in the company's prospects. However, this study shows that ROA significantly and negatively affects PBV a finding that superficially contradicts theoretical expectations. To understand this, one must look through the lens of agency theory, which explains potential conflicts of interest between management (agents) and shareholders (principals).

In practice, management may inflate ROA in the short term through extreme efficiency strategies, such as slashing capital expenditure, reducing R&D costs, or aggressive asset optimization. While these strategies boost short-term profit-to-asset ratios, they may diminish market expectations for long-term growth, as the firm is perceived to be sacrificing innovation, expansion, or future competitive advantage. This aligns with the views of Waweru, Hoque, & Uliana (2019), who demonstrate that short-term efficiency achieved at the expense of long-term investment can disrupt market perceptions of sustainable value.

Furthermore, investors may judge that a high ROA does not necessarily reflect healthy earnings quality, especially when not accompanied by increased operating cash flow or sustainable growth in earning assets. Salehi et al. (2020) highlight that in environments with high information asymmetry, investors tend to be skeptical of profitability that lacks strategic transparency. Consequently, a high ROA resulting from short-term optimization might indicate potential stagnation or extreme conservatism, which dampens market interest and suppresses PBV.

c.  Capital Adequacy Ratio (CAR) and its Positive Influence on Firm Value
    A higher CAR correlates with higher firm value. A high capital ratio indicates stability and the firm's capacity to absorb losses, thereby increasing investor confidence (Gitman & Zutter, 2015). According to Signalling Theory (Ross, 1977), companies with a healthy capital structure send positive signals to investors regarding stability and future prospects. A high CAR demonstrates that the company can absorb potential losses and credit risks, thus mitigating investor concerns.

    Based on Trade-Off Theory (Myers, 1984), there is a balance between the benefits and costs of debt. Strong capital (represented by a high CAR) reduces the probability of bankruptcy and other financial costs, thereby enhancing investor trust and firm value. Banking regulations, including CAR requirements by authorities like OJK and the Basel Committee, aim to maintain financial system stability. Banks that meet or exceed minimum CAR requirements demonstrate regulatory compliance and sound risk management, which serve as the basis for investor valuation. This is consistent with studies such as Nurazi & Evans (2005), which found that CAR positively influences bank performance and market value. Al-Tamimi & Obeidat (2013) state that CAR significantly affects market

perceptions of risk and financial health, while Haryanto and Nurmayasari (2017) show that CAR contributes to increasing PBV as a proxy for bank value in Indonesia.

d. Loan to Deposit Ratio (LDR) and its Negative Influence on Firm Value

An excessively high LDR can amplify liquidity risk, thereby negatively impacting firm value. Banks with high LDRs have significant credit risk exposure, which can potentially disrupt cash flow and stability (Rose & Hudgins, 2013). According to liquidity theory, firms that maintain high liquidity are perceived as more stable and capable of meeting short-term obligations. A high LDR indicates low liquidity because the majority of funds are allocated in the form of illiquid credit. Investors tend to avoid banks with low liquidity as they are more vulnerable to sudden withdrawal risks (bank runs).

A high LDR reflects that a bank has a high proportion of loans relative to deposits. While this may increase interest income, it simultaneously elevates credit and liquidity risks. Higher risk can decrease market perceptions of the bank's stability and long-term outlook. In the banking context, a high LDR may reflect aggressive managerial behavior in credit extension, which may not always align with shareholder interests. This creates agency conflicts and negatively impacts firm value (Jensen & Meckling, 1976).

Several studies support the negative relationship between LDR and firm value, such as Widyarti & Yulianto (2017), who state that LDR negatively influences the PBV of banking companies in Indonesia. Rohmah & Hartono (2016) found that banks with very high LDRs receive lower market valuations because investors perceive them as too risky. Zainudin et al. (2018) explain that a high LDR increases the risk of non-performing loans, which can erode investor confidence. Banks must maintain a balance between liquidity and profitability; an excessively high LDR not only increases risk but also damages investor perception. Conservative and selective credit portfolio management can enhance firm value in the long run.

2. Analysis of the Moderating Role of Audit Quality on the Relationship between Net Interest Margin and Firm Value

The empirical results indicate that while Net Interest Margin (NIM) exerts a positive influence on firm value, this relationship is not significantly moderated by audit quality. This finding aligns with Agency Theory, suggesting that management's (the agent) efficiency in managing productive assets sends a positive signal to investors (the principal) (Jensen & Meckling, 1976). A high NIM reflects a bank's capacity to derive healthy margins from intermediary activities. However, the lack of a significant moderating role by Big Four auditors suggests that investors do not perceive substantial conflicts of interest or information manipulation concerning NIM. From the perspective of Information Asymmetry Theory, NIM may be regarded as a relatively transparent metric; thus, the presence of high-quality auditors does not significantly alter investor perception regarding this specific indicator (Akerlof, 1970).

Furthermore, the data reveals that audit quality does not significantly moderate the nexus between NIM and Price to Book Value (PBV), with the interaction even yielding a negative coefficient. This implies that high-quality audits may slightly weaken the positive influence of NIM on PBV. Theoretically, NIM is an indicator of banking efficiency in generating interest income. Within the framework of Signaling

Theory (Spence, 2002), a high NIM should serve as a positive signal of intermediation capability. However, this study suggests that the NIM signal is not sufficiently robust to gain full market confidence, even when bolstered by the external credibility of a high-quality audit. The negative interaction coefficient indicates that the market might interpret high interest income not solely as healthy performance, but potentially as a result of aggressive practices—such as high-risk lending or excessive margins. When high-quality auditors scrutinize these financial reports, such practices become more visible to the market, thereby limiting a purely positive interpretation of NIM.

3. Analysis of the Moderating Role of Audit Quality on the Relationship between Return on Assets and Firm Value

The findings demonstrate that Return on Assets (ROA) has a negative impact on firm value, yet it is significantly and positively moderated by audit quality. This highlights that while high ROA is generally expected to signal strong financial performance, investors respond negatively when it is not accompanied by robust audit quality. In the context of Agency Theory, these results support the argument that ROA is a metric susceptible to earnings management, necessitated by the oversight of high-quality external auditors (Watts & Zimmerman, 1986). The presence of Big Four auditors enhances the credibility of financial statements and mitigates agency conflicts. Within the Information Asymmetry framework, high-quality audits reduce the information gap between management and investors, allowing the latter to place greater trust in reported ROA figures.

4. Analysis of the Moderating Role of Audit Quality on the Relationship between Capital Adequacy Ratio and Firm Value

Capital Adequacy Ratio (CAR) was found to have a positive effect on company value, but surprisingly, it was negatively moderated by audit quality. In the context of agency theory, these results indicate that when audited by Big Four auditors, the potential overstatement of capital position can be corrected or disclosed more transparently, thereby reducing the illusory positive effect on company value. Investors might see that a high CAR doesn't mean much if it is audited rigorously — it doesn't significantly raise the company's value in the short term. Long-term investors actually appreciate the auditor's conservative stance on capital because it prevents overstatement in the balance sheet and provides a realistic picture of crisis resilience.

Based on the theory of information asymmetry, high-quality audits can help investors distinguish between capital that is substantively strong and capital that only appears strong on paper (Healy & Palepu, 2001). Therefore, this negative moderation may reflect an increase in investor caution when assessing the strength of bank capital more objectively.

In the context of banking, the Capital Adequacy Ratio (CAR) represents the level of capital adequacy that a bank possesses to absorb the risk of losses. Theoretically, a high CAR is viewed as a positive indicator because it demonstrates capital strength and resilience against financial volatility. In line with the signaling theory (Spence, 2002), a high CAR ratio can signal to the market that the bank is in a healthy financial position, which should positively impact the increase in market value reflected in the Price to Book Value (PBV). However, the results of this study indicate that audit quality actually negatively moderates the relationship between CAR and PBV, meaning that the positive effect of CAR on PBV weakens when audit

quality increases. This phenomenon seems to contradict the theoretical expectation that audit quality should strengthen the relationship thru increased credibility and reliability of financial statements.

To explain this phenomenon, it needs to be reviewed thru the perspective of agency theory, which highlights the dynamics between management (agent) and shareholders (principal) as well as the role of external oversight. In this framework, highly reputable external auditors tend to apply conservative audit practices, namely conducting careful risk assessments and avoiding aggressiveness in asset or revenue recognition. This can lead to stricter disclosures, including adjustments to the recorded asset values or restrictions on overly optimistic managerial policies regarding capital projections (Ahmed & Duellman, 2017).

In other words, a high-quality auditor can expose structural weaknesses that were previously unseen by the market, such as hidden credit risks or discrepancies in capital calculations, thereby reducing investors' positive perception of CAR's strength. As a result, although CAR appears high in numerical terms, the additional information provided thru a more stringent audit can actually create a market perception of caution regarding the bank's growth prospects. This is reinforced by empirical findings from Alqatamin and Aljanadi (2021) in a study on the Middle Eastern banking sector, which state that conservative audit practices can suppress profit expectations and negatively impact market valuations, especially for companies that rely on internal financial signals such as capital ratios.

Furthermore, information asymmetry also plays a role in this phenomenon. In situations where investors have limited information about the validity of the CAR ratio, the presence of a highly reputable auditor who exposes potential overstatement will cause the market to respond cautiously. This means that a high-quality audit can reduce the market's previously overly optimistic expectations regarding the CAR figure, thereby weakening the positive relationship between CAR and PBV. This is consistent with the study by Salehi et al. (2020), which shows that high audit quality tends to produce a conservative perception of financial information, especially in environments with high risk and fluctuating market expectations. Thus, although theoretically CAR is viewed as a signal of the company's financial strength, the presence of high audit quality can change the market's interpretation of that signal to be more conservative, thereby weakening the positive impact of CAR on PBV. This finding highlights the importance of considering the role of external oversight, which not only enhances the credibility of information but also has the potential to change the market's perception of the company's internal financial strength.

5. Analysis of the Moderating Role of Audit Quality on the Relationship between Loan to Deposit Ratio and Firm Value

Loan to Deposit Ratio (LDR) shows a negative impact on company value, and this effect is reinforced by the presence of audit quality (significant negative moderation). In the framework of agency theory, a high LDR can indicate overly aggressive behavior by managers in extending credit, which can increase liquidity risk. The presence of high-quality auditors clarifies these potential risks and provides stricter oversight of aggressive management strategies. From the perspective of information asymmetry theory, Big Four auditors help investors access information that was previously hidden or presented with bias by management, thereby enabling investors to make more rational decisions regarding high liquidity risk. Overall, the results of this study confirm that audit quality plays an important role in reducing

agency conflicts and mitigating information asymmetry. Although not all variables show significant moderating interactions, the significance of the ROA, CAR, and LDR variables confirms that investors highly value the credibility of audit results, especially those conducted by the Big Four auditors. From the perspective of short-term investors, audit quality may only be an additional factor in technical analysis and market sentiment. However, for long-term investors, audit quality becomes a key element in assessing the sustainability of company performance, the integrity of financial reporting, and the fundamental stability of the company. Thus, these findings support the relevance of both agency theory and information asymmetry in explaining the importance of good governance and transparency in the capital market, particularly in the banking sector.

## Conclusion

Based on the research findings, the following conclusions can be drawn:

1. Overall, financial performance has a significant effect on Firm Value in Indonesian banking companies. This indicates that banks with high operational efficiency and sound risk management tend to have higher firm value. Partially, Net Interest Margin (NIM) does not significantly influence firm value, while Capital Adequacy Ratio (CAR), Return on Assets (ROA), and Loan-to-Deposit Ratio (LDR) do have significant effects. However, in this study, ROA exhibited a negative correlation with firm value, which contradicts the proposed research hypothesis.

2. Audit quality has a limited moderating effect on the relationship between Net Interest Margin and Firm Value in Indonesian banking companies. Banks with high-quality audits demonstrate a stronger association between NIM and firm value, as reliable audits enhance the credibility of financial statements and reinforce market perceptions regarding the effectiveness of interest management by bank management.

3. Audit quality significantly moderates the relationship between Return on Assets and Firm Value in Indonesian banking companies. High-quality auditing enhances the credibility of reported asset returns, thereby increasing investor confidence and strengthening the positive impact on firm value.

4. Audit quality significantly moderates the relationship between Capital Adequacy Ratio and Firm Value in Indonesian banking companies. Quality audits help ensure that reported capital adequacy is valid and compliant with regulations, thereby improving market perceptions of bank stability and solvency.

5. Audit quality significantly moderates the relationship between Loan-to-Deposit Ratio and Firm Value in Indonesian banking companies. Independent and professional auditing increases transparency regarding funding structures and credit distribution, ultimately strengthening the influence of liquidity management on firm value.

## Suggestion

1. For bank management, it is essential to strengthen financial performance through asset efficiency (ROA), optimal interest margin management (NIM), adequate capitalization (CAR), and prudent liquidity management (LDR). These efforts should be supported by reliable internal control systems and transparent financial reporting.

2. Improving audit quality should be a priority, whether through the selection of reputable Public Accounting Firms, the adoption of international auditing standards, or enhanced oversight by audit committees. High-quality audits can increase the credibility of financial reports and strengthen the company's standing in the eyes of investors.

3. Regulators such as the Financial Services Authority (OJK) and Bank Indonesia should continue to encourage improvements in banking governance and audit quality through incentive policies and enhanced compliance standards. Additionally, support for digitalization should be balanced with strengthened risk management practices.

4. Investors and financial analysts are advised not only to focus on income statements but also to consider structural indicators such as CAR and Non-Performing Loans (NPL), along with accompanying audit quality, when assessing the value and prospects of banking companies.

5. Future research could expand its scope by incorporating macroeconomic variables (e.g., inflation, global interest rates), comparing the banking sector with other sectors, or employing longitudinal and qualitative approaches to explore the impact of policies and investor perceptions in greater depth.

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