# THE EFFECT OF FIRM SIZE, LIQUIDITY RATIO, AND LEVERAGE ON THE PROFITABILITY OF THE FINANCIAL SECTOR IN INDONESIA IN THE 2024 PERIOD

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**Abstract:**
The financial sector is one of the main foundations supporting the stability and growth of the Indonesian economy. This sector's role is increasingly crucial as the complexity of business activities and the need for flexible funding increase. Profitability serves as a fundamental benchmark for evaluating the stability and operational success of firms within the financial industry. This research examines how variations in Firm Size, Liquidity Ratio, and Leverage contribute to shaping the profitability performance of financial institutions in Indonesia throughout 2024. Profitability is assessed using two principal indicators—Return on Assets (ROA) and Net Profit Margin (NPM)—which illustrate the degree to which firms can efficiently utilize their assets and convert revenue streams into net income. Employing a quantitative design, the study relies on secondary data derived from the 2024 annual financial statements of 97 financial-sector entities listed on the Indonesia Stock Exchange (IDX). The analysis utilizes a multiple linear regression framework, supported by a full range of classical assumption tests, to evaluate the interactions among the variables. The results indicate that Firm Size has a statistically significant effect on ROA, while its influence on NPM is not found to be significant. The Liquidity Ratio does not affect either profitability indicator. Leverage does not affect ROA, but significantly influences NPM. Simultaneously, all three independent variables significantly influence profitability in both the ROA and NPM models. These outcomes carry notable implications for both financial decision-makers and market participants: company size and debt-based financing structure can impact profitability differently depending on the indicators used. Therefore, strategies to improve corporate performance must consider asset scale and efficient capital structure management.
**Keywords**: Firm Size, Liquidity Ratio, Leverage, Profitability, ROA, NPM.

## INTRODUCTION

The financial industry holds a pivotal position in safeguarding economic stability and driving national growth. This sector's role is not only as an institution for collecting and channeling funds, but also as a primary facilitator in risk management, investment, and financing various economic activities (Judijanto et al., 2024). The stability of the financial sector is highly dependent on the performance of the companies operating within it, both banking and non-banking.

Drawing on documentation provided by the Indonesia Stock Exchange (IDX), a total of 97 firms were active within the financial sector throughout 2024. The large number of companies in this sector demonstrates the high intensity of competition and the importance of operational efficiency. Thus, examining profitability becomes essential for evaluating how effectively a company governs its assets, generates income, and arranges its capital structure.

**Profitability as a Key Performance Indicator.** Profitability reflects the degree to which a company is able to transform its capital base, asset holdings, and revenue streams into measurable profits. Indicators such as Return on Assets (ROA) and Net Profit Margin (NPM) are widely utilized in financial studies because they provide insight into a firm's operational efficiency and the effectiveness of management in controlling cost-related activities (Rahayu, 2015).

ROA demonstrates how effectively a company employs its asset base to produce earnings, whereas NPM shows the proportion of net income obtained from overall revenue. Together, these measures offer a broad assessment of the calibre of a firm's financial management practices.

**Factors Influencing Profitability.** A range of earlier studies has demonstrated that a firm's profitability is shaped by several internal determinants, including:

1. Firm Size: Enterprises with larger scales typically possess stronger financing capabilities, benefit from more substantial economies of scale, and experience greater stability in their operational activities.
2. Liquidity Ratio: This indicator demonstrates the extent to which a company is able to meet its immediate financial obligations. Strong liquidity enhances investor trust and supports uninterrupted operational activities.
3. Leverage: Leverage represents the extent to which a company depends on borrowed capital to support its operational and investment activities. Within the framework of trade-off theory, the use of debt can provide certain benefits—particularly through tax-related advantages— but an overreliance on external financing also increases the firm's exposure to financial distress and potential insolvency.

**Research Gaps.** Prior studies exploring how Firm Size, Liquidity Ratio, and leverage relate to profitability have produced mixed and often inconclusive findings. Some studies found a positive effect, while others showed insignificant results. Furthermore, research focusing on the Indonesian financial sector for the most recent period (2024) is still very limited.

Accordingly, this study is essential for offering updated empirical insights into how these variables affect the profitability of firms operating within Indonesia's financial sector.

**Research Objectives.** This research aims to:

1. Analyze the effect of Firm Size on profitability.
2. Test the effect of the Liquidity Ratio on profitability.
3. Determine the effect of Leverage on profitability.
4. Assess the simultaneous influence of all three variables on profitability.

**Profitability.** Profitability within the financial sector denotes a company's ability to generate income from its operational activities by optimizing the utilization of assets, capital, and other available resources over a specified period. It reflects the effectiveness of managerial decisions in allocating and managing these resources to achieve optimal returns, positioning profitability as a core indicator of a firm's overall financial health and performance (Rahayu, 2015).

According to Yuniari and Badjra (2019), profitability reflects a company's ability to generate income and acts as a benchmark for evaluating the effectiveness of its managerial performance. In financial-sector firms, profitability is typically measured using indicators such as Return on Assets (ROA) and Net Profit Margin (NPM), both of which illustrate how efficiently assets are deployed and how well revenue is transformed into net profit. ROA indicates the productivity of a firm's asset utilization in generating earnings, while NPM represents the percentage of net profit obtained relative to total revenue.

**Firm Size.** Firm Size denotes the overall magnitude of a company, which is generally assessed using measures such as total asset holdings, revenue volume, or its market capitalization value. In financial research, firm size is frequently examined as a determinant of profitability because it represents an organization's ability to allocate resources effectively and withstand various operational or financial risks.

Wardani & Rudolfus (2017) state that firms with higher asset values and sales volumes are categorized as larger companies. A greater scale reflects more substantial invested capital and stronger operational cash flows. This condition suggests that large firms generally possess broader resource-management capabilities and more robust operational capacity, which may enable them to achieve higher levels of profitability compared to smaller enterprises. Thus, firm size can be an important factor in explaining variations in profitability in financial companies.

**Liquidity Ratio.** The liquidity ratio conveys how effectively a firm can satisfy its short-term financial responsibilities as they come due. This indicator reflects whether the firm's pool of current assets is adequate to offset its short-term liabilities. Within financial institutions, maintaining strong liquidity is vital to safeguard operational continuity, particularly when facing substantial withdrawal demands from customers or investors.

Liquidity ratios assess how well a firm can honor its short-term financial obligations by comparing the amount of short-term debt it must settle with the short-term assets available to cover those commitments (Duffin & Eddy Gunawan, 2023). When a company maintains strong liquidity, it signals the availability of adequate assets to cover its debts, which in turn enhances investor trust and supports improved profitability.

**Leverage.** Leverage represents a measure of how extensively a firm relies on borrowed funds to support the financing of its assets (Ratnawati, 2021). A higher leverage level may boost profitability because the company gains additional capital to sustain its operational activities. Nevertheless, elevated leverage also introduces greater financial risk, particularly the possibility that the firm may struggle to meet its debt obligations, including principal and interest payments.

Leverage refers to the practice of utilizing debt or fixed-cost financing to support a company's asset base with the expectation of enhancing shareholder returns. Leverage ratios depict the proportion of a company's financing that is derived from borrowed funds compared to the amount supplied by shareholders' equity.

**Previous Research.** Hana Anggraeni, Sulistyandri, and Ikhbal Akhmand (2025) conducted an empirical assessment to determine how liquidity, profitability, and leverage ratios influence stock returns in mining companies listed on the Indonesia Stock Exchange. Their results demonstrate that liquidity exerts a strong positive influence on stock performance over the 2019–2023 period. This outcome suggests that the liquidity ratio reflects a firm's capability to channel its current assets efficiently in meeting short-term financial obligations. A higher current ratio indicates that the company possesses sufficient near-term resources to settle its liabilities, thereby strengthening investor perceptions of the firm's financial stability. As confidence increases, investor demand for the firm's shares typically rises as well. Additionally, the study aligns with capital market theory, which contends that a higher Current Ratio reflects a firm's enhanced ability to fulfill immediate financial commitments. This strengthens creditor confidence and helps ensure the availability of sufficient short-term financing. This financial stability ultimately pushes stock returns upward. Consequently, an increase in the Current Ratio is typically followed by an improvement in stock performance, confirming that the Liquidity Ratio (Current Ratio) positively influences stock returns.

Furthermore, the research conducted by Resya Yolanda Fasha, Wastam Wahyu Hidayat, and Beti Nurbaiti (2024), titled *"The Effect of Profitability, Leverage, and Capital Intensity Ratio on*

*Management Performance (Manufacturing and Beverage Issuers on the Indonesia Stock Exchange, 2019–2023 Period)"*, reveals that profitability, leverage, and the Capital Intensity Ratio exert a strong and statistically significant positive influence on managerial performance. The findings indicate that firms in the food and beverage manufacturing sector listed on the Indonesia Stock Exchange demonstrated improved management performance throughout 2019–2023 when these financial indicators experienced upward movement. Specifically, high profitability reflects effective management in managing resources and efficient operational strategies, which in turn can improve managerial performance. Simultaneously, these three variables indicate that good management of profitability, capital structure, and asset efficiency can improve overall management performance.

A study by Julietha and Natsir (2021), titled *"The Effect of Liquidity, Leverage, Firm Size, and Sales Growth on Profitability in Consumer Goods Industry Companies Listed on the Indonesia Stock Exchange (IDX) for the 2015–2019 Period)"*, employed a panel-data framework combined with multiple regression analysis. Their findings reveal that Firm Size has a notably strong positive association with profitability, indicating that enterprises operating on a larger scale generally possess a heightened capacity to generate earnings. While liquidity, leverage, and sales growth produced mixed impacts on profitability, Firm Size consistently demonstrated a positive and meaningful contribution.

Another study by Rotua Sri Rejeki Sinaga, Wastam Wahyu Hidayat, and Endah Prawesti Ningrum (2024) highlighted the pivotal role of both leverage and firm size in shaping the financial performance of banking-sector institutions. The results showed that using more debt than equity has not been able to improved company performance. Companies have not been able to effectively utilize debt to obtain returns greater than the burden the company must bear on that debt. High leverage can reduce financial performance due to the high risk if the company has large debt in financing and management. If there are sources of funds greater than debt, profits can increase, but it will also result in a significant increase in risk. Company size variables influence financial performance. The findings indicate that as a company grows in scale, its financial performance tends to improve. An expansion in a bank's size reflects more efficient operational activity and enhances its capacity to strengthen overall financial outcomes. Firms with substantial asset bases also possess greater flexibility in securing the necessary funding for business expansion, which ultimately supports stronger financial performance.

Meanwhile, the study conducted by Yaman Suryaman, Siti Nuridah, and Elda Sagitarius (2023) examined how leverage and activity ratios shape the profitability of firms in the automotive manufacturing sector. The results showed that the use of financial leverage was well-managed, effective, and efficient by company management, as it was able to increase profitability through the use of debt. High debt usage will increase profitability, indicating a healthy company, and in terms of high sales, the company can obtain high profits because it is able to pay principal and interest installments, which are mandatory. This is consistent with the core premise of trade-off theory, which posits that profitability tends to rise as a firm increases its use of debt, provided that the level of indebtedness has not reached a threshold at which additional borrowing begins to erode profitability. Companies can anticipate the risk of loss even by using financial leverage.

**Hypothesis Development.** Firm size is believed to influence profitability. Larger companies typically have higher total assets and production capacity, enabling them to leverage economies of scale, reduce operational costs, and increase efficiency. In addition, larger firms generally enjoy easier access to investment financing at lower costs, enabling them to support activities that contribute to profit expansion (Julietha & Natsir, 2021). A substantial body of prior research consistently reports that larger firms tend to display stronger profitability outcomes, as reflected in

indicators such as Return on Assets (ROA) and Net Profit Margin (NPM). This pattern suggests that increases in organizational scale enhance a company's ability to generate income, implying that firm size is expected to exert a positive and meaningful impact on profitability.
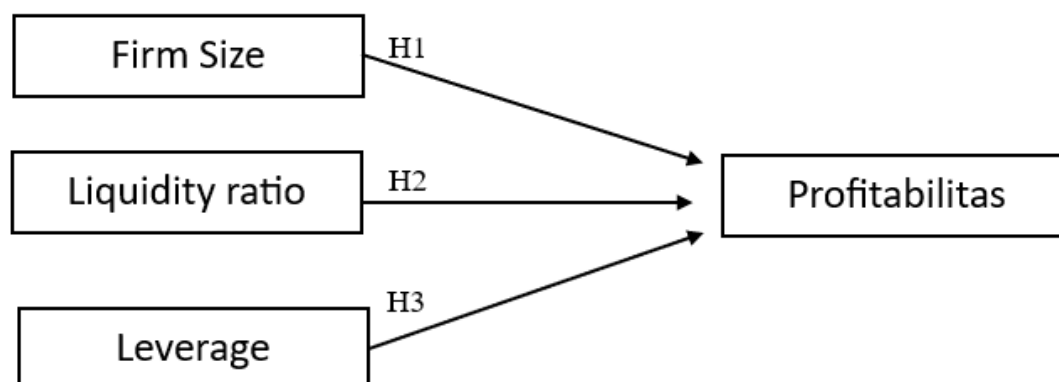
H1: Firm size has a significant effect on the profitability of financial companies.

Liquidity ratios indicate how capable a company is of meeting its short-term financial obligations as they become due. Strong liquidity signals stable operations and lowers the likelihood of financial distress. According to Nuriasari (2020), Liquidity ratios reflect the extent to which a firm is equipped to discharge its short-term financial commitments to immediate creditors. Often referred to as the working capital ratio, this measure evaluates how effectively a firm can meet short-term liabilities as they come due. Given this line of reasoning, it can be inferred that liquidity ratios are expected to meaningfully shape the profitability outcomes of firms within the financial sector.

H2: The liquidity ratio significantly influences the profitability of financial companies.

Leverage reflects a company's funding structure. Optimal use of debt can increase profitability due to the leverage effect (financial leverage). Agency theory emphasizes that leverage can suppress opportunistic management behavior (due to external obligations), but excessive leverage can lead to financial distress and losses. Leverage significantly influences profitability in financial companies in emerging markets, with the direction of the relationship dependent on the efficiency of debt management (Daruwala, 2023).

H3: Leverage significantly influences the profitability of financial companies.



**Figure 1.** Research Model

This model is employed to examine how Firm Size, liquidity indicators, and leverage play a role in shaping the profitability outcomes of financial-sector firms in Indonesia.

## METHODS

**Type of Research.** This study adopts a quantitative framework grounded in a causal research design. The central objective is to investigate how variations in Firm Size, Liquidity Ratio, and Leverage contribute to differences in profitability among firms within Indonesia's financial industry. Causal research is applied to determine cause–effect relationships among multiple variables by utilizing historical data derived from corporate financial statements.

**Sampling Technique.** The study applied a purposive sampling technique, in which units of analysis were chosen according to specific predetermined requirements. The first requirement was that the companies selected had to be financial institutions—whether banking or non-banking—that were listed on the Indonesia Stock Exchange (IDX) in 2024. The second requirement was the

availability of complete annual financial reports for the entire observation period. The final requirement was that each firm possessed all the information necessary to calculate the variables included in the analysis. The broader population encompassed all companies operating within Indonesia's financial sector.

**Data Collection Technique.** The study made use of secondary information obtained from several channels, one of which was the annual financial disclosures accessible through the Indonesia Stock Exchange (IDX) platform, the official websites of individual firms, as well as financial information platforms such as RTI and Bloomberg when additional verification was needed. The collected data comprised information on total assets, equity levels, total liabilities, net income, revenue, and other financial indicators necessary for calculating the variables used in this research.

**Operational Definition of Variables: Dependent.** This research employs two dependent variables—ROA and NPM—to assess profitability, as both serve as essential indicators for evaluating a firm's overall financial performance.

a. Return on Assets (ROA). ROA is used to measure a company's ability to generate profits from its total assets. The formula is:

$$ROA \: \frac{net \: profit}{/total \: assets} \times 100\%$$

b. Net Profit Margin (NPM). NPM is used to measure the percentage of net profit to a company's total revenue. It indicates the efficiency of profit from the revenue generated. The calculation is as follows:

$$NPM \: \frac{net \: profit}{operating \: revenues} \times 100\%$$

**Independent**

a. Firm Size (FSIZE). Firm Size describes the size of a company based on its total assets. This variable is calculated using the natural logarithm of the company's total assets, as asset values are often so large that they need to be normalized. Calculation method:

$$FSIZE = Ln \: (Total \: Asset)$$

b. Liquidity Ratio (LIQ). Chosen as an independent variable because it theoretically and empirically influences the profitability of financial companies through operational stability, financial efficiency, and resilience to short-term financial risks. Liquidity indicates a company's ability to meet its short-term obligations. It is measured by:

$$LIQ \: \frac{current \: assets}{short - term \: liabilities}$$

c. Leverage (LEV). Chosen as an additional independent variable because debt structure plays a significant role in determining financial burdens and profit potential. Leverage indicates the extent

to which a company uses debt in its capital structure; high leverage indicates reliance on debt financing. The formula is as follows:

$$LEV \quad \frac{total\ liabilities\ (debt)}{total\ assets}$$

**Data Analysis Method.** This research employs a multiple linear regression model using cross-sectional data, drawing its observations from the 2024 financial statements of companies operating within the financial sector and listed on the Indonesia Stock Exchange. According to Gujarati and Porter (2013), this analytical technique is designed to uncover the functional linkage between one dependent variable and several explanatory variables, while also quantifying how much each independent variable accounts for changes observed in the dependent variable. This analytical method was selected to evaluate how Firm Size, Liquidity Ratio, and Leverage influence profitability, as reflected through ROA and NPM.

**Descriptive Statistical Test.** Descriptive statistics are employed to outline the fundamental characteristics of each variable under study, summarizing key metrics such as minimum and maximum values, averages, and standard deviations. This procedure provides an initial snapshot of the dataset's overall condition and helps illustrate how the data are distributed. Descriptive statistics constitute a statistical approach that organizes, condenses, and conveys data in a form that is simple to interpret, thereby delivering clearer and more comprehensive insight into the information presented (Widodo, 2018).

**Classical Assumption Test.** Before implementing multiple linear regression, the model must meet the classical assumptions to produce a BLUE (Best Linear Unbiased Estimator) estimate (Gujarati & Porter, 2013). The classical assumption tests performed are:

**Normality Test.** This assessment is performed to verify whether the residuals generated by the regression model conform to the characteristics of a normally distributed pattern. The Kolmogorov–Smirnov and Jarque–Bera tests are commonly applied for this purpose. When the significance value exceeds 0.05, the residuals are interpreted as meeting the normality assumption.

**Multicollinearity Test.** This evaluation identifies whether strong linear interdependencies exist among the independent variables. An appropriately constructed regression model is expected to be free from severe multicollinearity issues. Multicollinearity can be assessed using the Variance Inflation Factor (VIF); when VIF values remain under 10 and Tolerance values exceed 0.1, the model is considered to fall within acceptable diagnostic limits (Hair et al., 2006).

**Heteroscedasticity Test.** This procedure evaluates whether the dispersion of the residuals remains uniform across all values of the independent variable. If the residual variance is not constant (heteroscedasticity), the regression results may be biased. Common approaches used to detect heteroscedasticity include the Glejser test, which evaluates whether the absolute residuals are associated with the independent variables, and the Breusch–Pagan test, which detects the presence of heteroscedasticity by modeling the squared residuals as a function of the explanatory variables.

**Autocorrelation Test.** This test is more often used on time series data. In cross-sectional studies, autocorrelation can still be tested to ensure the residuals are free from sequential correlation. The presence of autocorrelation can compromise the validity of the regression model.

**Multiple Linear Regression Analysis.** The multiple linear regression model is applied to analyze how firm size, liquidity ratios, and leverage influence profitability. As stated by Sugiyono

(2020), this analytical technique is effective for assessing the impact of several independent variables on a dependent variable, whether evaluated individually or collectively. The research model used is:

$$Profit = \alpha + \beta_1 FSIZE + \beta_2 LIQ + \beta_3 LEV + \varepsilon$$

Description:

Profit = Company profitability, as measured by ROA and NPM

$\alpha$ = Intercept individual effect.

$\beta_1$ = Effect of Firm Size (FSIZE).

FSIZE = Company Size (Ln Total Assets).

$\beta_2$ = Effect of Liquidity (LIQ).

LIQ = Liquidity ratio of company i in year t.

$\beta_3$ = Effect of Leverage (LEV).

LEV = Leverage to total assets of company i in year t.

$\varepsilon$ = Error term

**Hypothesis Testing.** Hypothesis testing aims to identify and confirm the significant relationship and direction of the influence of firm size, leverage, and liquidity on company profitability, so that meaningful conclusions can be drawn in the context of economic or managerial research.

**T-test (partial).** This test serves to assess the individual contribution of each independent variable to the dependent variable, determining its statistical significance when evaluated in isolation. An independent variable is considered significant if its corresponding t-test probability value falls below the 0.05 threshold.

**F-test (simultaneous).** The F-test is utilized to determine whether the independent variables, when considered collectively, exert a statistically meaningful influence on profitability. A significance value below the 0.05 benchmark indicates that the regression model as a whole meets the criteria for joint significance (Gujarati & Porter, 2013).

**Coefficient of Determination (R²).** The coefficient of determination is employed to measure how much of the fluctuation in profitability can be explained by the variables Firm Size, Liquidity Ratio, and Leverage. According to Hair et al. (2006), a higher $R^2$ value indicates a better model in explaining the relationship between variables.

## RESULT AND DISCUSSION

**Table 1.** Deskriptif statistic

|           | Y1_ROA    | Y2_NPM    | X1_FIRMSIZE | X2_LIQUIDITYRATIO | X3_LEVERAGE |
|-----------|-----------|-----------|-------------|-------------------|-------------|
| Mean      | -2.294960 | -535.6561 | 30.21336    | 168.3363          | 1.354045    |
| Median    | 1.096830  | 11.94572  | 24.43782    | 5.431826          | 1.424983    |
| Maximum   | 70.69017  | 20933.14  | 695.1148    | 11467.21          | 140.1981    |
| Minimum   | -380.9169 | -65273.72 | -126.6502   | 0.034304          | -66.64989   |
| Std. Dev. | 39.88327  | 7215.180  | 75.32376    | 1183.015          | 20.10635    |

| | | | | |
|---|---|---|---|---|
| Skewness | -8.896669 | -7.359598 | 7.074838 | 9.176771 | 3.191006 |
| Kurtosis | 85.60770 | 69.19691 | 64.16208 | 87.67983 | 28.25499 |
| Jarque-Bera | 28860.07 | 18586.35 | 15928.26 | 30342.92 | 2742.451 |
| Probability | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Sum | -222.6111 | -51958.64 | 2930.695 | 16328.62 | 131.3423 |
| Sum Sq. Dev. | 152704.8 | 5.00E+09 | 544672.3 | 1.34E+08 | 38809.46 |
| Observations | 97 | 97 | 97 | 97 | 97 |

Descriptive statistical techniques are applied to outline the fundamental features of each variable, summarizing figures such as minimum and maximum values, averages, and standard deviations. This process provides an initial overview of the dataset's condition and its distributional characteristics. As a statistical discipline, descriptive analysis organizes, condenses, and communicates data in a format that is straightforward to interpret, thereby offering clearer and more comprehensive insights. Based on the descriptive analysis conducted, the findings show that:

Based on the table, the Y1 variable (ROA) records an average value of –2.294742. The maximum ROA value, 70.690, appears in the financial sector for the 2024 period, while the minimum value, –380.92, is also found within the same sector and year. The standard deviation of 39.88359 indicates a wide dispersion in ROA across the observed companies.
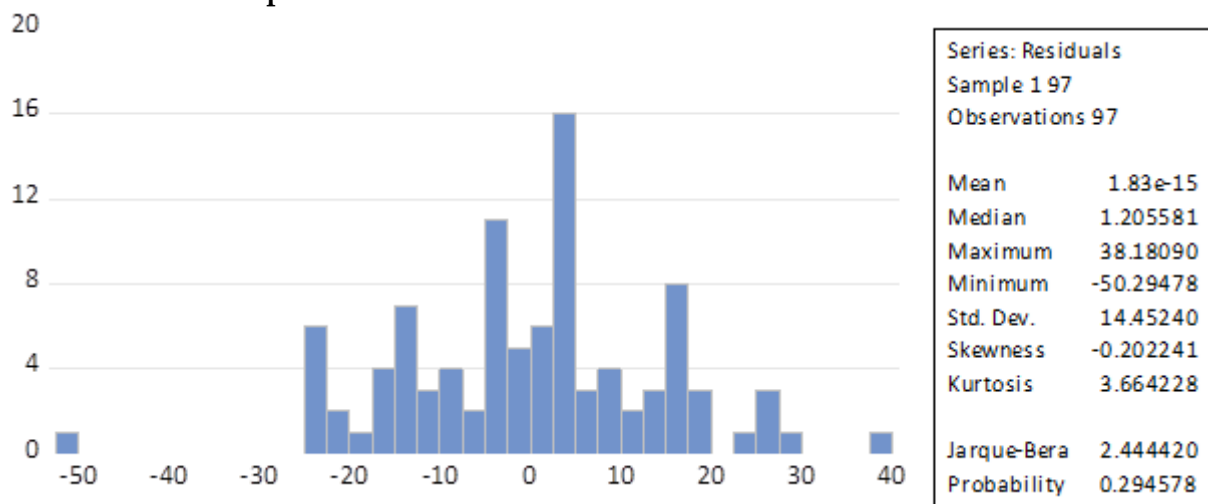
The Y2 (NPM) variable records an average value of -535.6584, with the highest value of 20,933.14 occurring in the financial sector in 2024. The lowest value is -64,273.72, occurring in the financial sector in 2024, with a standard deviation of 7,215.180.

The X1 (FSIZE) variable records an average value of 30.21336, with the highest value of 695.1148 occurring in the financial sector in 2024, and the lowest value is -126.6502 occurring in the financial sector in 2024, with a standard deviation of 75.32376.

Variable X2 (LIQ) records an average value of 168.5810, with the highest value of 11467.21 occurring in the financial sector in 2024, and the lowest value of 0.030000 occurring in the financial sector in 2024, with a standard deviation of 1182.981.

Variable X3 (LEV) records an average value of 1.354045, with the highest value of 140.1981 occurring in the financial sector in 2024, and the lowest value of -66.64989 occurring in the financial sector in 2024, with a standard deviation of 20.10635.

**Classical Assumptions**



| Series: Residuals | |
|---|---|
| Sample 1 97 | |
| Observations 97 | |
| Mean | 1.83e-15 |
| Median | 1.205581 |
| Maximum | 38.18090 |
| Minimum | -50.29478 |
| Std. Dev. | 14.45240 |
| Skewness | -0.202241 |
| Kurtosis | 3.664228 |
| Jarque-Bera | 2.444420 |
| Probability | 0.294578 |

**Figure 2.** Normality

The figure indicates that the Jarque–Bera statistic is 2.444 with a probability value of 0.2945, which exceeds the 0.05 threshold. This outcome shows that the residuals follow a normal distribution. Thus, the regression model used in this study satisfies the normality assumption.

The normal distribution of residuals indicates that the research data does not contain extreme deviations or significant outliers, so the regression model used is BLUE (Best Linear Unbiased Estimator). This requirement is crucial, as classical linear regression assumes that the error term follows a normal distribution to ensure that the results of the t-test and F-test can be interpreted accurately and remain statistically valid.

In addition, the fact that the residuals conform to a normal distribution indicates that the independent variables do not produce a pattern characterized by excessive skewness to either side, nor do they display abnormal levels of kurtosis. Therefore, this regression model is suitable for use in subsequent analysis without the need for additional data transformation.

**Table 2.** Heteroscedasticity

| Heteroskedasticity Test: Glejser | | | |
|---|---|---|---|
| Null hypothesis: Homoskedasticity | | | |
| F-statistic | 8.494551 | Prob. F(3,93) | 0.0000 |
| Obs*R-squared | 20.86292 | Prob. Chi-Square(3) | 0.0001 |
| Scaled explained SS | 21.90976 | Prob. Chi-Square(3) | 0.0001 |

The results of the Glejser test indicate a Chi-Square probability of 0.0001; however, when examining the probability values for each independent variable individually, all values exceed the 0.05 threshold. Therefore, it can be inferred that the regression model does not display heteroscedasticity and can be considered homoscedastic.

The absence of heteroscedasticity indicates that the residual variance of the regression model is constant at each level of the independent variable. This is important because heteroscedasticity can cause inconsistent standard errors, invalidating the results of the t-test and F-test. Therefore, the model used in this study is suitable for further regression analysis.

**Table 3.** Multicollinearity

| Variance Inflation Factors | | | |
|---|---|---|---|
| Date: 10/29/25   Time: 17:12 | | | |
| Sample: 1 97 | | | |
| Included observations: 97 | | | |
| **Variable** | **Coefficient Variance** | **Uncentered VIF** | **Centered VIF** |
| C | 2.641909 | 1.188560 | NA |
| X1_FIRMSIZE | 0.000409 | 1.200223 | 1.032390 |
| X2_LIQUIDITYRATIO | 1.61E-06 | 1.022638 | 1.002136 |
| X3_LEVERAGE | 0.005724 | 1.035072 | 1.030350 |

The interpretation of the multicollinearity results can be observed in the Centered VIF column. The VIF value for variable X1 is 1.032390, for variable X2 is 1.002136, and for variable X3 is 1.030350. Since all Variance Inflating Factor (VIF) values are <10, there is no multicollinearity. This is because, according to (Ghozali, 2013), One approach to identifying whether multicollinearity exists within a regression model is by examining the tolerance and Variance Inflation Factor (VIF) values. When

the tolerance value exceeds 0.10 and the VIF value is below 10, the model can be considered free from multicollinearity issues.

**Table 4.** Autocorrelation

| Breusch-Godfrey Serial Correlation LM Test: | | | |
|---|---|---|---|
| Null hypothesis: No serial correlation at up to 2 lags | | | |
| F-statistic | 2.193453 | Prob. F(2,91) | 0.1174 |
| Obs*R-squared | 4.461094 | Prob. Chi-Square(2) | 0.1075 |

Based on the results shown in Table 4.4, the chi-square probability value of 0.1075 exceeds the 0.05 threshold. This suggests that the regression model does not suffer from autocorrelation. Although autocorrelation is more commonly associated with time-series data, the test is still conducted to confirm that no dependence exists among residuals in cross-sectional observations. These findings indicate that each data point operates independently, meaning the model satisfies the assumption of residual independence and the resulting estimates can be considered dependable.

**Hypothesis Testing.** This study uses two profitability indicators: Return on Assets (ROA) and Net Profit Margin (NPM) were used as profitability indicators in this study. The analysis was carried out to examine how Firm Size, Liquidity Ratio, and Leverage influence each of these measures.

**Table 5.** Hypothesis Testing ROA (Y1)

| Dependent Variable: Y1_ROA | | | | |
|---|---|---|---|---|
| Method: Least Squares | | | | |
| Date: 10/29/25   Time: 17:11 | | | | |
| Sample: 1 97 | | | | |
| Included observations: 97 | | | | |
| **Variable** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
| C | 12.76386 | 1.625395 | 7.852775 | 0.0000 |
| X1_FIRMSIZE | -0.493842 | 0.020216 | -24.42865 | 0.0000 |
| X2_LIQUIDITYRATIO | -0.000809 | 0.001268 | -0.638197 | 0.5249 |
| X3_LEVERAGE | -0.001448 | 0.075659 | -0.019135 | 0.9848 |
| R-squared | 0.868690 | Mean dependent var | | -2.294960 |
| Adjusted R-squared | 0.864454 | S.D. dependent var | | 39.88327 |
| S.E. of regression | 14.68366 | Akaike info criterion | | 8.251710 |
| Sum squared resid | 20051.71 | Schwarz criterion | | 8.357884 |
| Log likelihood | -396.2079 | Hannan-Quinn criterion. | | 8.294641 |
| F-statistic | 205.0821 | Durbin-Watson stat | | 1.563550 |
| Prob(F-statistic) | 0.000000 | | | |
| R-squared | 0.868690 | | | |
| Adjusted R-squared | 0.864454 | | | |
| S.E. of regression | 14.68366 | | | |
| Sum squared resid | 20051.71 | | | |
| Log likelihood | -396.2079 | | | |
| F-statistic | 205.0821 | | | |
| Prob(F-statistic) | 0.000000 | | | |

Based on the multiple linear regression results using ROA as the dependent variable, the following findings were obtained:

- Firm Size (X1) exerts a significant influence on ROA, as indicated by a significance level of 0.000, which is below the 0.05 threshold.
- Liquidity Ratio (X2) shows no significant impact on ROA, with a significance value of 0.5249, exceeding 0.05.
- Leverage (X3) likewise does not significantly affect ROA, demonstrated by a significance value of 0.9848, which is greater than 0.05.
- When assessed collectively, the three independent variables significantly affect ROA, evidenced by an F-statistic probability value of 0.0000, which is below 0.05.

These findings demonstrate that Firm Size is the only variable that significantly affects the profitability of financial firms when measured through ROA. This suggests that as a company grows larger, its capacity to employ its asset base efficiently in generating profits also increases.

Companies with large assets generally have more efficient economies of scale, easier access to funding, and greater competitiveness. These results support research by Julietha & Natsir (2021) and Sinaga et al. (2024), which states that company size has a positive influence on profitability due to efficiency in resource utilization and asset management.

In contrast, the Liquidity Ratio shows no influence on ROA, suggesting that a firm's capacity to meet its short-term obligations does not necessarily reflect how effectively its assets are managed to produce earnings. Excessive liquidity can actually create unproductive idle cash. This aligns with the findings of Duffin & Eddy Gunawan (2023) that excessive liquidity can reduce company efficiency.

Leverage likewise does not exhibit a significant influence on ROA. This indicates that reliance on external financing has not generated a leverage effect capable of boosting profit derived from asset utilization. Financial institutions generally adopt a conservative stance toward debt usage to prevent the burden of high interest costs. Furthermore, the Adjusted R² value of 0.8644 shows that 86.44% of the variation in profitability (ROA) is accounted for by Firm Size, Liquidity Ratio, and Leverage. The remaining 13.56% is influenced by factors not included in the model, such as investment decisions, cost-efficiency strategies, and broader macroeconomic conditions.

**Table 6.** NPM Hypothesis Test

Dependent Variable: Y2_NPM
Method: Least Squares
Date: 10/29/25   Time: 18:54
Sample: 1 97
Included observations: 97

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -350.6636 | 762.6756 | -0.459781 | 0.6467 |
| X1_FIRMSIZE | -10.56292 | 9.485700 | -1.113563 | 0.2683 |
| X2_LIQUIDITYRATIO | -0.189537 | 0.595049 | -0.318523 | 0.7508 |
| X3_LEVERAGE | 122.6360 | 35.50085 | 3.454452 | 0.0008 |
| R-squared | 0.116620 | Mean dependent var | | -535.6561 |
| Adjusted R-squared | 0.088123 | S.D. dependent var | | 7215.180 |
| S.E. of regression | 6889.936 | Akaike info criterion | | 20.55387 |
| Sum squared resid | 4.41E+09 | Schwarz criterion | | 20.66005 |
| Log likelihood | -992.8629 | Hannan-Quinn criterion. | | 20.59681 |
| F-statistic | 4.092469 | Durbin-Watson stat | | 2.039927 |
| Prob(F-statistic) | 0.008916 | | | |
| R-squared | 0.116620 | | | |

| Adjusted R-squared | 0.088123 |
|---|---|
| S.E. of regression | 6889.936 |
| Sum squared resid | 4.41E+09 |
| Log likelihood | -992.8629 |
| F-statistic | 4.092469 |
| Prob(F-statistic) | 0.008916 |

Based on the multiple linear regression results using Net Profit Margin (NPM) as the dependent variable, the following findings were obtained:

- Firm Size (X1) does not significantly affect NPM, as indicated by a significance value of 0.2683, which is above the 0.05 threshold.
- Liquidity Ratio (X2) also shows no significant relationship with NPM, supported by a significance value of 0.7508.
- Leverage (X3), however, demonstrates a significant effect on NPM, with a significance value of 0.0008, which is below 0.05.
- When examined collectively, the three independent variables exert a significant influence on NPM, evidenced by an F-statistic probability of 0.0089, which is less than 0.05.

These findings show that Leverage is the sole variable that significantly influences profitability when assessed using the Net Profit Margin (NPM) indicator. The positive effect of leverage on NPM indicates that efficient use of debt can increase net profit relative to revenue. As long as interest rates and debt repayment obligations are well managed, leverage provides a beneficial leverage effect for the company.

These findings support the trade-off theory, where optimal use of debt can increase net income through tax savings and increased returns to shareholders. These results also align with research by Suryaman, Nuridah, & Sagitarius (2023), which shows that leverage has a positive effect on company profitability when managed efficiently.

Meanwhile, Firm Size and Liquidity Ratio did not significantly influence NPM. This suggests that company size and liquidity levels do not necessarily determine the efficiency of net income derived from revenue. Companies with large assets may have high operating costs, while excessive liquidity can lead to idle funds, which depress profit margins.

The R² value of 0.1166 shows that the three independent variables collectively account for 11.66% of the variation in profitability as measured by NPM, while the remaining 88.34% is influenced by other determinants, including operational efficiency, pricing strategies, and cost-management practices.

## CONCLUSION

Based on the analysis and discussion presented in Chapter IV regarding "The Effect of Firm Size, Liquidity Ratio, and Leverage on the Profitability of Indonesia's Financial Sector in 2024," several conclusions can be formulated as follows:

1. Firm Size significantly influences Return on Assets (ROA), yet it does not show a meaningful effect on Net Profit Margin (NPM). This indicates that the larger a financial company, the greater its ability to utilize its total assets to generate profits. Large companies have more efficient economies of scale, a more established organizational structure, and broader access to funding. However, large company size does not guarantee an increase in net profit margins because higher operating costs can accompany it.

2. The Liquidity Ratio shows no significant influence on profitability, whether measured through ROA or NPM. This indicates that a firm's capacity to fulfill its short-term liabilities does not automatically translate into higher profit generation. Excessive liquidity can actually reduce company efficiency due to idle funds not being used productively.

3. Leverage is not proven to significantly influence ROA, yet it exhibits a significant effect on NPM. This indicates that proportional use of debt can increase the net profit margin of financial companies. As long as debt is managed efficiently and does not incur excessive interest expenses, leverage can be an effective instrument for increasing net profit through the financial leverage effect.

4. Simultaneously, Firm Size, Liquidity Ratio, and Leverage significantly influence profitability (both ROA and NPM). This demonstrates that the combination of firm size, capital structure, and liquidity can collectively explain variations in profitability among financial sector companies in Indonesia.

In summary, the findings of this research reveal that internal attributes—particularly the scale of a firm's assets and the composition of its financing—substantially influence profitability, whereas liquidity continues to serve as an essential driver of financial performance within the financial sector in 2024.

**Recommendations.** The findings of this research highlight that firm size substantially contributes to enhancing profitability derived from asset utilization, emphasizing the need for financial-sector companies to develop strategies that optimize the productive use of their asset portfolios. Asset optimization can be achieved through strengthening financial technology capacity, expanding the customer base, and improving risk management to ensure that assets generate sustainable income. Furthermore, the finding that leverage significantly impacts NPM indicates that companies need to consider an efficient capital structure by balancing the benefits of financial leverage with the risk of interest expense. Furthermore, the insignificant effect of liquidity on profitability indicates the need to evaluate cash management policies to prevent funds from remaining idle for too long. Future research could expand the variables, incorporate panel data, and encompass more diverse financial subsectors, including fintech and non-bank financial institutions, to generate stronger generalizability.

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