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Assessing the Impact of Financial Performance Metrics on Profit Growth: Evidence from LQ45 Companies Listed on the Indonesia Stock Exchange

Achmad Agus Priyono¹, Ety Saraswati², Agus Widarko³

Universitas Islam Malang^{1,2,3}

email: aapuim@unisma.ac.id¹

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ABSTRACT

This research investigates how financial performance metrics influence profit growth amongst firms listed on the Indonesia Stock Exchange's (IDX) LQ45 Index from 2016 to 2023. Employing a quantitative methodology and utilizing secondary data derived from financial reports, this investigation assesses the influence of five crucial financial ratios: current ratio (CR), debt-to-equity ratio (DER), return on assets (ROA), gross profit margin (GPM), and net profit margin (NPM). Panel data regression techniques assess the relationship between these indicators and profit growth. The results show that ROA positively and significantly affects profit growth, whereas CR negatively impacts profit growth. By contrast, DER, GPM, and NPM did not have statistically significant effects. These results underscore the significance of effective resource utilization and cash flow management in boosting profitability. The research offers crucial insights for business decision-makers, especially in refining financial approaches within Indonesia's regulatory framework and market conditions.

Keywords: Asset Diversification, Bank Size, Efficiency, Liquidity, Risk

ABSTRAK

Penelitian ini menyelidiki bagaimana metrik kinerja keuangan memengaruhi pertumbuhan laba di antara perusahaan yang terdaftar di Indeks LQ45 Bursa Efek Indonesia (BEI) dari tahun 2016 hingga 2023. Dengan menggunakan metodologi kuantitatif dan memanfaatkan data sekunder yang berasal dari laporan keuangan, penyelidikan ini menilai pengaruh lima rasio keuangan penting: rasio lancar (CR), rasio utang terhadap ekuitas (DER), laba atas aset (ROA), margin laba kotor (GPM), dan margin laba bersih (NPM). Teknik regresi data panel menilai hubungan antara indikator-indikator ini dan pertumbuhan laba. Hasilnya menunjukkan bahwa ROA secara positif dan signifikan memengaruhi pertumbuhan laba, sedangkan CR berdampak negatif pada pertumbuhan laba. Sebaliknya, DER, GPM, dan NPM tidak memiliki pengaruh yang signifikan secara statistik. Hasil-hasil ini menggarisbawahi pentingnya pemanfaatan sumber daya yang efektif dan pengelolaan arus kas dalam meningkatkan profitabilitas. Penelitian ini menawarkan wawasan penting bagi para pengambil keputusan bisnis, terutama dalam menyempurnakan pendekatan keuangan dalam kerangka peraturan dan kondisi pasar Indonesia.

Kata kunci: Diversifikasi Aset, Ukuran Bank, Efisiensi, Likuiditas, Risiko

INTRODUCTION

Assessing a firm's fiscal performance is crucial to gaining insight into its profitability, operational effectiveness, and long-term viability. Key economic performance indicators comprehensively assess a firm's financial health, including profitability, liquidity, leverage, and activity ratio. These indicators enable interested parties to assess a firm's profitability, resource management efficiency, and capacity for sustained expansion in competitive industries. Within this group, return on assets (ROA) and net profit margin (NPM) are consistently recognized as key factors influencing profit growth owing to their importance in transforming sales into profits and enhancing the efficient use of assets (Hartini et al., 2023). Moreover, detailed analyses of financial performance metrics can contribute to forecasting profit trends and informing corporate strategies to ensure long-term success (Verawati et al., 2023).

Financial stability and risk-management approaches can be evaluated using liquidity and leverage ratios. The current ratio (CR), a liquidity ratio, examines an organization's capacity to fulfil its short-term financial commitments (Tanor & Purba, 2022). On the other hand, financial risk indicators like the debt-to-equity ratio (DER) assess how leverage impacts a company's profitability (Arslan & Özçelik, 2019). Such measurements offer crucial insights into an organization's fiscal well-being and risk management approaches. Together, these indicators create a robust framework for assessing corporate performance and the potential for sustainable profit growth (Myšková & Hájek, 2017).

Despite extensive research, the relationship between financial performance metrics and profit growth remains insufficiently explored, particularly about their dynamic interactions with external factors. Profitability metrics such as ROA and NPM are widely acknowledged as vital for sustaining growth. However, their interactions with liquidity, leverage, and external influences, such as market and regulatory conditions, require further investigation. Current research, including Kazemian et al., (2017); and Škuflić et al., (2018), underscores the importance of comprehensively examining these factors to obtain more profound insight into their combined effect on financial stability and profit growth. This gap in literature calls for an empirical approach to unravel these complex relationships.

This research aims to address a gap in knowledge by examining the collective influence of various financial performance indicators on profit growth. The study specifically focuses on the combined effects of the current ratio (CR), debt-to-equity ratio (DER), return on assets (ROA), gross profit margin (GPM), and net profit margin (NPM) on the growth of profits. Using an integrative framework and advanced statistical methods, it seeks to uncover the interdependencies among these variables and their implications for corporate decision-making. The outcomes of this investigation will yield valuable recommendations for refining monetary tactics and nurturing long-term development in fluctuating marketplaces, with a particular emphasis on Indonesia's LQ45 Index.

Profitability ratios, especially NPM and ROA, are crucial for assessing a firm's financial efficiency and growth potential. The net profit margin (NPM) is crucial in boosting profit growth, demonstrating a company's capacity to transform revenue into net profit (Lero et al., 2024). However, the impact of NPM varies across industries, highlighting the need to consider contextual factors when evaluating their influence. Similarly, ROA, which measures asset efficiency, is particularly relevant in firms with strong financial governance practices (Abhinay & Subhashree, 2024). These findings underscore the importance of profitability ratio in sustaining long-term economic success.

The leverage and liquidity metrics are equally important. As demonstrated by the DER, the effective management of leverage can mitigate financial distress during market fluctuations,

with profitability serving as a moderating factor in the relationship between sales growth and economic stability (Virnanda & Oktaviana, 2023). Conversely, poor leverage management may exacerbate financial risks as Chen et al., (2019) highlight. Liquidity ratios such as CR provide insights into operational stability. For example, Sholaeman et al., (2021) balanced liquidity management correlates with improved performance, whereas excessively high CR values may indicate inefficiencies. These metrics underscore the need for strategic financial planning to achieve sustainable growth.

The Indonesian context presents unique opportunities and challenges in analyzing these relationships. Regulatory structures, industry-specific conditions, and market-related elements substantially shape the influence of financial performance metrics on profit growth. A study on the Indonesia Stock Exchange (IDX) underscores the significance of financial leverage and liquidity in determining profitability trends across various sectors (Ibrahim et al., 2023; Munthashofi & Purnamasari, 2019). However, gaps remain in understanding how sectoral and regulatory factors within the Indonesian market affect the collective impact of these metrics.

This study assesses the impact of key financial metrics—CR, DER, ROA, GPM, and NPM—on profit expansion among firms listed on the LQ-45 Index in Indonesia. The study's innovative aspect is its comprehensive approach, which analyses the collective influence of these indicators within Indonesia's distinct business and economic landscape from 2016 to 2023. By addressing the current research shortcomings and offering practical insights, this study seeks to enhance the understanding of financial performance dynamics and guide strategic planning for sustained profit growth.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Profit Growth

A company's earnings increase over a defined time frame is known as profit growth, which indicates its financial well-being, operational effectiveness, and overall stability (Mahanty, 1980). This metric represents excess revenue over expenses and demonstrates a company's capacity to employ its assets and implement successful management strategies effectively. Profit growth is a vital performance measure that offers valuable perspectives on an organization's prospects for enduring success and financial resilience (Fuertes-Callén & Cuellar-Fernández, 2019). Typically, we calculate profit growth using the following formula:

$$\text{Profit Growth (\%)} = \frac{\text{Profit in Year } t - \text{Profit in Year } t-1}{\text{Profit in Year } t-1} \times 100\%$$

Several factors significantly impact profit growth, including the effective use of resources such as financial, material, and human capital (Caro & Mirea, 2017). Effective resource management allows companies to optimize outcomes while minimizing costs and driving profitability. Furthermore, financial ratios are an essential determinant of profit growth. The Current Ratio (CR), Return on Assets (ROA), Debt-to-Equity Ratio (DER), Gross Profit Margin (GPM), and Net Profit Margin (NPM) are crucial financial metrics that indicate a company's fiscal well-being. These ratios directly affect the company's ability to earn more money.

Current Ratio (CR)

As a key measure of liquidity, the current ratio (CR) evaluates a company's current assets and liabilities. This financial metric highlights an entity's capability to address its immediate financial obligations (Kasmir, 2018). The equation for determining the CR is as follows:

$$\text{Current Ratio (CR)} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

A higher CR generally indicates greater liquidity, which is often associated with financial stability and the ability to invest in growth opportunities, potentially driving growth in profit (Sogomi et al., 2024). However, excessively high liquidity may signal inefficiency, such as holding excessive cash or inventory, which could be used for more productive investments. The optimal CR for most industries is approximately 200%, striking a balance between liquidity and efficient resource utilization (Kasmir, 2018). Although this benchmark is widely used, it can vary across industries and economic conditions. Thus, we propose the following hypothesis:

H₁: There is a significant negative effect between the Current Ratio (CR) and profit growth (PG)

Debt-to-Equity Ratio (DER)

The debt-to-equity ratio (DER) is a vital measure of financial leverage that juxtaposes a company's overall liabilities with its shareholders' equity. This ratio illuminates the degree to which a firm uses debt to fund its operations (Kasmir, 2018). The DER was calculated using the following equation:

$$\text{Debt to Equity Ratio (DER)} = \frac{\text{Total Liabilities}}{\text{Total Shareholders' Equity}}$$

This indicator reflects the proportion of debt to equity financing, demonstrating how borrowed funds and shareholder investments underpin a firm's activities. Maintaining an optimal DER is essential for effectively controlling capital costs and leveraging debt without incurring excessive financial risk. However, overly high leverage can increase financial vulnerability and limit operational flexibility, potentially hindering profit growth due to higher debt servicing costs (Королович & Галай, 2024). Thus, we propose the following hypotheses:

H₂: The Debt-to-Equity Ratio (DER) and profit growth (PG) have a significant adverse effect.

Return on Assets (ROA)

The Return on Assets (ROA) ratio evaluates a company's profitability by measuring how effectively it uses its assets to generate income. This financial indicator is derived by dividing net income by total assets, providing a quantitative assessment of a firm's ability to convert its resources into profits.

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100\%$$

ROA is a vital profitability indicator that shows how effectively an organization utilizes its assets to generate revenue Kasmir, (2018) and Pham & Le, (2024). A higher ROA generally correlates with increased profitability, signalling that efficient asset management contributes to better financial performance (Maryoso & Sari, 2022). Thus, the following hypothesis is proposed:

H₃: Return on Assets (ROA) significantly affects profit growth (PG)

Gross Profit Margin (GPM)

As a financial indicator, the gross profit margin (GPM) reflects the portion of revenue retained after deducting the cost of goods sold (COGS). This ratio functions as a measure of a company's core operational efficiency (Kasmir, 2018). The formula for GPM is:

$$\text{Gross Profit Margin (GPM)} = \frac{\text{Gross Profit}}{\text{Total Revenue}} \times 100\%$$

The Gross Profit Margin (GPM) indicates a company's efficiency in controlling production expenses about its revenue, showcasing its pricing tactics and operational proficiency. A high GPM value suggests that a company effectively controls its costs while maintaining competitive pricing, thus enabling it to allocate resources for long-term growth and innovation. The positive correlation between GPM and profit growth indicates that firms with higher GPM performance

are better positioned to sustain profitability under challenging market conditions (Gulo & Sembiring, 2024). Thus, we propose the following hypothesis:

H₄: Gross Profit Margin (GPM) significantly affects profit growth (PG).

Net Profit Margin (NPM)

The Net Profit Margin (NPM) represents the percentage of revenue a company retains as profit after deducting all operational expenses, interest payments, and tax liabilities. To calculate the NPM, one utilizes the following equation:

$$\text{Net Profit Margin (NPM)} = \frac{\text{Net Income}}{\text{Total Revenue}} \times 100\%$$

NPM indicates a company's efficiency in controlling operating costs, interest expenses, and taxes, thereby converting revenue into net profit, which is a key measure of business sustainability (Kasmir, 2018). An elevated NPM indicates a firm's enhanced capacity to derive profits from its primary operations, fostering profit expansion and sustained growth over time (Endri et al., 2020). Thus, we propose the following hypothesis:

H₅: Net Profit Margin (NPM) significantly affects profit growth (PG)

METHOD

Research Design

Utilizing a quantitative approach with a causal-comparative design, this investigation explores the effects of financial performance indicators on profit growth for companies listed on the Indonesia Stock Exchange's (IDX) LQ45 Index from 2016 to 2023. The research examines five independent variables: current ratio (CR), debt-to-equity ratio (DER), return on assets (ROA), gross profit margin (GPM), and net profit margin (NPM). Profit growth serves as the dependent variable. Data for the study were sourced from LQ45 companies' annual financial statements and IDX publications, available on the www.idx.co.id website. The analysis employs descriptive statistics and multiple regression techniques to evaluate the relationship between financial performance indicators and profit growth, aiming to ascertain the significant impact of each indicator on a firm's profitability.

Population and Sample

The research sample consists of companies listed on the IDX's LQ45 Index during the study period. The researchers employed a purposive sampling technique, employing specific criteria for selection.

1. From 2016 to 2023, companies consistently maintained their presence in the LQ45 Index.
2. Companies with complete and accessible annual financial statements throughout the study period.
3. Businesses consistently provide data on profit expansion, cash flow, debt ratios, and performance indicators throughout the timeframe.

These criteria led to the selection of 24 companies for analysis.

Data Collection

We gathered secondary data from various credible sources such as the IDX official website, company annual reports, and financial statement databases. The gathered data encompassed essential financial indicators such as:

1. Profit Growth (PG): Measured as the percentage change in net income year-over-year.

2. Current Ratio (CR): Obtained by dividing Current Assets by Current Liabilities.
3. Debt-to-Equity Ratio (DER): Derived from the division of Total Debt by Total Equity.
4. Return on Assets (ROA): Calculated by dividing Net Income by Total Assets.
5. Gross Profit Margin (GPM): Obtained through the division of Gross Profit by Net Sales.
6. Net Profit Margin (NPM): Derived by dividing Net Income by Net Sales.

Data Analysis Techniques

Data analysis was performed using statistical software such as **EViews**, and the following steps were undertaken:

1. Descriptive Statistics: These are computed to summarize the central tendency, dispersion, and distribution characteristics of the variables, providing an overall understanding of the financial performance metrics and profit growth.
2. Model Selection Tests:
 - a. We utilised the Chow test to ascertain whether a fixed-effects or pooled regression model was more suitable.
 - b. Investigators conducted the Hausman test to evaluate the appropriateness of fixed- or random-effects models for panel data analysis.
3. Classical Assumption Tests
 - a. Examination of Normality: The distribution of residuals from the regression model was evaluated to determine if it conformed to a normal distribution.
 - b. Assessment of Multicollinearity: To evaluate the presence of multicollinearity amongst the independent variables, Variance Inflation Factors (VIF) were calculated.
 - c. Autocorrelation Test: The Durbin-Watson statistic was used to detect autocorrelation in the residuals.
 - d. Heteroscedasticity Test: The Breusch-Pagan and White tests were used to find the residuals' heteroscedasticity (variance that does not stay the same).
4. Panel Data Regression Analysis: This phase involves analyzing the correlation between the dependent variable (profit growth) and independent variables (CR, DER, ROA, GPM, and NPM) using panel regression techniques. The Hausman test results, which considered company-specific factors and temporal variations, determined the choice between the fixed-effects and random-effects models.
5. Hypothesis Testing: P-values (with a significance level of $\alpha = 0.05$) and standardized regression coefficients were used to evaluate the significance and magnitude of the relationships between the independent variables and profit growth.

Statistical Model

The panel regression model employed for hypothesis testing is as follows:

$$PG_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 DER_{it} + \beta_3 ROA_{it} + \beta_4 GPM_{it} + \beta_5 NPM_{it} + \epsilon_{it}$$

Where:

PG_{it} : Profit Growth for company *iii* in year *t*

β_0 : Intercept term.

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$: Coefficients of the independent variables.

ϵ_{it} : Error term capturing unobserved factors affecting PG_{it}

Period and Scope

The research spans eight years (2016–2023) and focuses exclusively on firms listed on the LQ45 Index, known for its high performance and liquid stocks on the IDX. This choice ensures a strong dataset for studying the link between financial performance indicators and profit growth, especially for companies that remain in the market and are operationally efficient.

RESULT AND DISCUSSION

Descriptive Analysis

Table 1: Descriptive Analysis

Variable	Mean	Median	Maximum	Minimum	Std. Dev.	Observations
Profit Growth	0.0917	0.0644	1.2697	-0.464	0.2442	175
Current Ratio	1.6881	1.62	5.65	0	1.3505	175
Debt-to-Equity	2.2435	0.86	16.08	0.13	2.9943	175
Return on Assets	8.4655	6.03	46.66	-2.86	8.6975	175
Gross Profit Margin	17.8035	26.85	86.77	-65.92	30.6937	175
Net Profit Margin	16.8919	12.89	60.22	-7.48	12.1144	175

Source: Authors calculations based on Eviews 9

Table 1 outlines the descriptive statistics for the variables under investigation in this research. These encompass profit growth, current ratio (CR), debt-to-equity ratio (DER), return on assets (ROA), gross profit margin (GPM), and net profit margin (NPM). The analysis draws upon 175 observations.

Profit growth exhibited an average of 0.0917, with a standard deviation of 0.2442, indicating limited data spread. The current ratio (CR) showed a mean of 1.688, near its median of 1.62, suggesting a symmetrical data distribution. In contrast, the debt-to-equity ratio (DER) had a mean of 2.243, substantially exceeding its median of 0.86, indicating significant variation amongst firms. The return on assets (ROA) displayed a mean of 8.466 and demonstrated positive skewness attributed to a few high-performing companies. Gross Profit Margin (GPM) and Net Profit Margin (NPM) reached maximum values of 86.77 and 60.22, respectively, whilst negative minima for NPM indicated losses for specific firms. Both GPM and NPM exhibited considerable variability across the dataset.

Model Selection and Statistical Analysis

Table 2: Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.382499	-21,148	0.0014
Cross-section Chi-square	50.96329	21	0.0003

Source: Authors calculations based on Eviews 9

The Chow test helps determine whether the relationship between variables varies over time or between groups (Gujarati, 2003). According to the null hypothesis (H0), there is no structural break, implying that the coefficients in the two groups are identical. According to the alternative hypothesis (H1), a structural break indicates that the coefficients differ. The Chow test resulted in an F statistic of 2.382 and a p-value of 0.0014, which is less than 0.05. This led to the rejection of the null hypothesis (H0). Based on these findings, it can be concluded that the fixed effects model (FEM) is more appropriate for the analysis compared to the general effects model (CEM).

Table 3: Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	36.68651	5	0.0000

Source: Authors calculations based on Eviews 9

The Hausman test, a statistical technique, assesses the consistency of one estimator compared to another that is known to be consistent, albeit less efficient. In the field of econometrics, this test is frequently utilized in panel data analysis to ascertain whether fixed- or random-effects models are more appropriate (Gujarati, 2003).

The alternative hypothesis (H1) suggests that the fixed-effects model is more suitable, whilst the null hypothesis (H0) indicates that the random-effects model is preferable. Upon conducting the Hausman test, a chi-square value of 36.6865 and a p-value of 0.0000 were obtained. Consequently, we accepted the alternative hypothesis (H₁), indicating that the fixed effects model (FEM) is the most appropriate approach.

Chow Test

We employed the Chow test to ascertain whether a fixed-effect or common-effect approach was more suitable for our panel data model. This assessment evaluated two competing hypotheses:

H₀: The standard effects model is suitable.

H_a: The fixed effects model is preferable.

Our analysis produced a Chow test F-statistic of 2.382 and a p-value of 0.0014, which fell below the 5% significance level. This result led us to reject the null hypothesis, indicating that the fixed-effect model was more appropriate for our data. The fixed-effects approach comprehensively examines how financial ratios influence profit growth by incorporating entity-specific factors and accounting for interunit variations.

Hausman Test

To ascertain whether a fixed-effect or random-effect model is more appropriate for panel data analysis, we employ the Hausman test. This examination evaluates the following hypotheses:

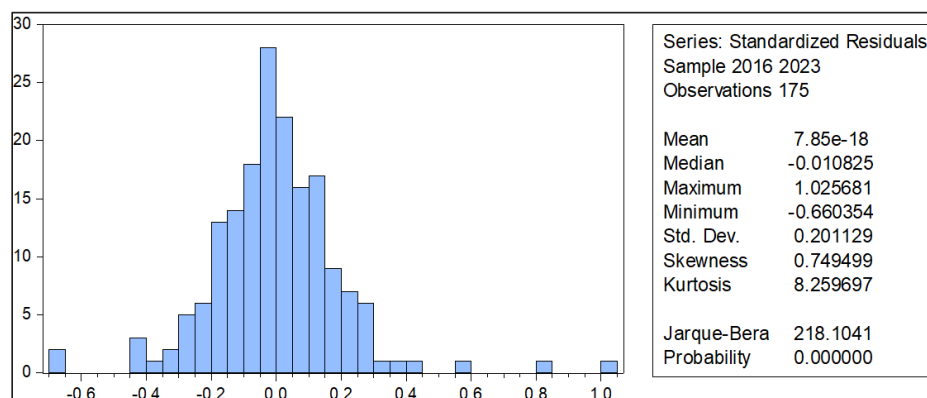
H₀: The random-effects model is appropriate.

H_a: The fixed-effects model is more appropriate.

Our analysis produced a chi-square statistic of 36.686 and a p-value of 0.0000, below the 5% significance threshold. Consequently, we reject the null hypothesis (H₀) and accept the alternative hypothesis (H_a), suggesting that the fixed effects model is the most suitable approach. We select the fixed effects model as it considers individual-specific factors that could potentially introduce bias into the estimation procedure.

Classic Assumption Tests

Normality Test



Source: Authors calculations based on Eviews 9

Figure 1: Normality Test

One standard method for assessing whether a dataset follows a normal distribution is the Jarque-Bera test. This statistical check method determines whether the skewness and kurtosis of the sample data align with a normal distribution (Gujarati, 2003). The test helps determine whether a normal distribution adequately models a given dataset. This test is valuable in

econometrics and other disciplines, where the normality of residuals is a critical assumption. The null hypothesis (H0) assumes a normal data distribution, whereas the alternative hypothesis (H1) suggests a nonnormal distribution. In this analysis, the Jarque-Bera test yielded a value of 218.1041 with a probability of 0.000, indicating that the data follows a normal distribution.

Autocorrelation

Table 4: Autocorrelation

Model	Durbin-Watson stat	DI	Du	Condition	Conclusion
1	2.18021	1.6943	1.8117	Du < DW < 4-du 1.8117 < 2.18021 < 2.1883	No autocorrelation

Source: Authors calculations based on Eviews 9

Autocorrelation is the correlation of a time series with its preceding and succeeding values, rendering it an essential term in time series analysis and econometrics, as it can uncover patterns or trends not readily apparent in a basic plot (Gujarati, 2003). The Durbin-Watson test is a statistical technique employed to identify autocorrelation in regression analysis residuals. The decision rules indicate that if $d < d_U$, positive autocorrelation is absent, and if $d_L \leq d \leq d_U$, the results are equivocal. The Durbin-Watson value of 2.18021 is within the permissible range, signifying no autocorrelation.

Multicollinearity

Table 5: Multicollinearity

	CR	DER	ROA	GPM	NPM
CR	1	-0.68611	0.191701	0.520717	-0.43141
DER	-0.68611	1	-0.29864	-0.76654	0.31158
ROA	0.191701	-0.29864	1	0.542451	0.077376
GPM	0.520717	-0.76654	0.542451	1	-0.12842
NPM	-0.43141	0.31158	0.077376	-0.12842	1

Source: Authors calculations based on Eviews 9

In regression analysis, multicollinearity occurs when a strong correlation exists between two or more predictor variables. This phenomenon makes it challenging to determine the individual impact of each independent variable on the outcome variable. This problem may lead to inaccurate estimations of regression coefficients and exaggerated standard errors, as (Gujarati, 2003) reported. A prevalent method for identifying multicollinearity involves utilizing a correlation matrix to analyze the correlation coefficients among pairs of independent variables. Elevated correlation coefficients, approaching 1 or -1, suggest the possibility of multicollinearity. Elevated correlation coefficients (often exceeding 0.8) suggest a possible multicollinearity issue, which may exacerbate the variation of coefficient estimations and result in model instability (Shrestha, 2020). The correlation matrix analysis indicated an absence of multicollinearity issues.

Heteroskedasticity

Table 6: Heteroskedasticity

Variable	t-Statistic	Prob.
CR	-0.01231	0.9902
DER	-1.55428	0.122
ROA	1.010807	0.3136
GPM	-1.18569	0.2374
NPM	-0.72593	0.4689

Source: Authors calculations based on Eviews 9

When the residual variance (errors) is not constant across all levels of the independent variables, a condition known as heteroskedasticity occurs in regression analysis. This violates the

assumption of homoskedasticity, which is necessary for ordinary least squares (OLS) regression. (Gujarati, 2003). This lack of consistency can result in ineffective estimations and flawed statistical conclusions. A widely employed technique for identifying heteroskedasticity is the Breusch-Pagan test, which involves performing a regression analysis of the squared residuals against the explanatory variables.

The statistical analysis results indicated that none of the independent variables demonstrated p-values below 0.05, suggesting a lack of statistically significant association with the squared residuals. As a result, the test could not reject the null hypothesis of homoscedasticity, indicating that the model does not show evidence of heteroscedasticity.

Regression Analysis Results

Scholars have utilized a fixed-effects regression model in their analysis to investigate the impact of financial ratios on profit growth. We present the findings of this analysis as a concise summary.

Table 7: Multiple Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CR	-0.101	0.045	-2.249	0.026
DER	0.028	0.030	0.945	0.346
ROA	0.030	0.006	5.080	0.000
GPM	-0.004	0.003	-1.284	0.201
NPM	0.006	0.004	1.316	0.190
C	-0.076	0.112	-0.681	0.497

Source: Authors calculations based on Eviews 9

The regression results using the Fixed Effects Model (FEM) reveal varied impacts of financial performance indicators on profit growth. The CR coefficient (-0.10132, p = 0.026) suggests a higher liquidity ratio negatively and significantly affects profit growth. DER shows no statistically significant impact on profit growth (p = 0.3464), indicating that leverage may not directly influence profitability in the sample. ROA (coefficient: 0.02957, p = 0.000) significantly and positively affects profit growth, emphasizing the role of efficient asset utilization in driving profitability. GPM and NPM do not demonstrate statistical significance (p = 0.2012 and p = 0.1901, respectively), indicating that variations in profit margins are not robust predictors of profit growth in this context.

Based on the panel data regression analysis results, structural equations for panel data regression utilizing the Generalized Least Squares approach were formulated.

$$\text{Profit growth} = 0.0176 - 0.101 \text{ CR} + 0.028 \text{ DER} + 0.03 \text{ ROA} - 0.004 \text{ GPM} + 0.006 \text{ NPM} + e$$

Effect of Current Ratio (CR) on Profit Growth

Statistical regression analysis revealed a significant inverse correlation between profit growth and the current ratio (CR). This finding is consistent with prior studies, such as Sitohang & Siagian, (2021), who noted that higher liquidity, as measured by CR, correlates with lower profit growth. Excessive liquidity may indicate inefficient resource use. Maintaining a high liquidity level could make it more difficult to use resources efficiently and limit the growth potential.

This negative association aligns with the broader literature, highlighting the challenges of overcapitalization. Nguyen et al., (2024) excess liquidity often results in suboptimal resource allocation and reduced financial performance. High liquidity levels may discourage aggressive investments because of increased risk aversion or the misallocation of cash reserves toward high-risk investments, potentially destabilizing financial operations (Calcagnini et al., 2022). These inefficiencies are particularly pronounced in firms with low investment levels or high

leverage, where excess liquidity may amplify agency costs and weaken financial performance (Kalash, 2024).

However, surplus liquidity can offer strategic benefits for innovative firms, particularly those constrained by financing, by enabling greater investment in research and development (R&D) projects critical for long-term growth (He & Ciccone, 2020). This study underscores the importance of balanced liquidity management in mitigating inefficiencies, supporting optimal capital utilization, and fostering sustainable growth. Companies should aim for a liquidity strategy to ensure financial stability while promoting effective investment practices.

Debt Equity ratio (DER) on Profit Growth

The findings from the regression analysis suggest that profit growth is not significantly influenced by the debt-to-equity ratio (DER). This financial indicator, DER, measures the relative proportion of a company's debt and shareholders' equity in financing its assets. The ratio has a wide range of effects on profit growth. According to research by Cahyati & Hartikayanti, (2023) on the property and real estate sector and Fatonah et al., (2022) DER's impact on profit growth in LQ-45 index businesses is negligible.

Nevertheless, a higher debt-to-equity ratio suggests increased leverage, which may result in heightened financial risk and potentially adverse effects on profit growth. This finding is supported by research conducted by Widjaja et al., (2024) on building construction companies listed on the Indonesia Stock Exchange and by Sohilauw et al., (2022) on state-owned companies in the mining sector listed on the IDX.

Return on Assets (ROA) on Profit Growth

The findings from multiple regression analysis reveal a notable positive correlation between profit growth and return on assets (ROA). These results underscore the critical role of asset utilisation in driving profitability because companies that effectively leverage their assets tend to achieve higher profit growth. The findings align with prior research highlighting operational efficiency as the key factor influencing financial performance (Maryoso & Sari, 2022; Nurhaida & Nurhasanah, 2022; Rado & Peštović, 2022; Rejeki & Harinurdin, 2024).

Arrahmah et al., (2023) and Hartini et al., (2023), reported contradictory findings, concluding that return on assets (ROA) did not impact profit growth. A ratio called return on assets (ROA) assesses how healthy assets are used to generate profit. However, it does not always consider broader operational efficiency or innovations in resource management, which can be more significant in determining net income. Companies that generate greater returns on their assets demonstrate improved operational efficiency, which drives sustainable profit growth even in competitive markets.

Gross Profit Margin (GPM) on Profit Growth

The results of a multiple regression analysis indicate that the Gross Profit Margin (GPM) does not have a statistically significant impact on profit growth. While a negative coefficient indicates a weak inverse relationship, where a decrease in GPM may correspond to a slight decline in profit growth, the measure of the effect is minimal and not statistically significant. This finding aligns with those of previous research by Awdina & Fransinatra, (2023) and Hasanah & Sukiyaningsih, (2023). This indicates that GPM serves as an indicator of profitability; however, it may not necessarily correlate with increased profits, possibly due to other crucial elements, such as prevailing market conditions or operational inefficiencies.

Notable Impact: Research has indicated that gross profit margin (GPM), along with other financial indicators such as net profit margin (NPM) and sales growth, has a considerable effect on profit growth for manufacturing firms listed on the Indonesia Stock Exchange (IDX) between

2019 and 2022. This research implies that, when coupled with other positive financial measures, an increased GPM can contribute to enhanced profit growth (Gulo & Sembiring, 2024).

Net Profit Margin (NPM) on Profit Growth

The results of the multiple regression analysis indicated that net profit margin (NPM) does not significantly impact the profit growth of companies listed in the LQ45 index. While the study identified a positive correlation between NPM and profit growth, this relationship was weak and lacked statistical significance. These findings support the idea that NPMs alone may not adequately capture the complexity of profit growth, as suggested by Christie & Susanto (2023) and Dang et al. (2019), who find that the influence of NPM on profitability and company value is unclear or statistically significant.

Research by Endri et al., (2020); Lero et al., (2024) and Mamo et al., (2022) indicates a significant positive correlation between net profit margin (NPM) and profit growth. However, the findings of this investigation do not support these conclusions. NPM is regarded as a key measure of a firm's profitability. Generally, a higher NPM indicates that a company is more efficient at converting revenue into actual profit, contributing to long-term profit growth. These empirical findings suggest that increasing NPM can enhance a company's profit growth by showcasing effective management and predicting future profitability.

CONCLUSION

This study examines how crucial financial performance indicators influence the profit expansion of firms listed on the Indonesian Stock Exchange's LQ45 Index. The results demonstrate that return on assets (ROA) is a significant factor in promoting profit growth, exhibiting a strong positive correlation and underscoring the significance of effective asset management in boosting profitability. On the contrary, the current ratio (CR) has a negative relationship with profit growth. Excessive liquidity may make it harder to allocate resources optimally, thus limiting growth prospects.

The results show that the debt-to-equity ratio (DER), gross profit margin (GPM), and net profit margin (NPM) did not significantly affect profit growth during the period examined. These financial indicators are helpful, but their impact on profit growth may be more complicated or depend on other factors not discussed in this study.

This research highlights the importance of companies implementing balanced financial approaches that emphasise efficient asset use while ensuring sufficient liquidity. Moreover, the study indicates that external influences, such as market conditions and regulatory environments, may influence the connection between financial indicators and profit expansion. This investigation enhances our understanding of corporate profitability elements and provides valuable guidance for organizations that aim to strengthen strategic planning and sustain growth in fluctuating market conditions.

Limitations and Suggestions

This study has several limitations that should be considered. First, the focus on LQ45 companies listed on the Indonesia Stock Exchange (IDX) from 2016 to 2023 limits the generalizability of the findings to companies outside this index or in different sectors. Second, the research does not account for external factors, such as macroeconomic conditions, industry-specific dynamics, and regulatory changes, which could significantly impact the relationship between financial performance metrics and profit growth. Third, the analysis relies on static models that do not capture the dynamic interactions among financial indicators over time, thus potentially missing important temporal effects. Additionally, some metrics, such as the debt-to-equity ratio (DER),

gross profit margin (GPM), and net profit margin (NPM), were found to have no significant impact on profit growth, suggesting the influence of other unexplored factors. Lastly, reliance on secondary data from financial reports may have introduced inaccuracies or biases stemming from reporting practices.

To address these limitations, future research should consider a broader sample that includes companies from various sectors and regions to improve the applicability of the findings. Incorporating external variables such as inflation, interest rates, and market competition can provide a more comprehensive analysis of profit growth determinants. Employing dynamic panel data techniques such as the Generalized Method of Moments (GMM) would help capture the temporal effects and interactions among variables more effectively. Moreover, exploring additional financial and nonfinancial indicators, such as operating cash flow, market share, and innovation activities, could offer a deeper understanding of profit growth drivers. Complementing quantitative analyses with qualitative approaches such as case studies or interviews with financial managers may also reveal nuanced insights into the strategic use of financial metrics. Finally, enhancing data using alternative sources, such as real-time market data or third-party financial analyses, could validate and strengthen the findings. These suggestions aim to refine the current research and offer practical guidance to academics and industry practitioners.

REFERENCES

- Abhinay, R., & Subhashree, S. (2024). Corporate Governance And Its Impact On Financial Performance Of Selected Telecom Companies. *EPRA International Journal of Economic and Business Review*, 22–33. <https://doi.org/10.36713/epra17168>
- Arrahmah, I. R., Andrian, Y., Putra, A. A., Putra, S. R., & Rusmita, S. (2023). *The Influence of Return on Assets (ROA) and Return on Equity (ROE) on Profit Growth in Mining Companies Listed on the Indonesia Stock Exchange (IDX) from 2018 to 2022*. 2(3), 204–210. <https://doi.org/10.56472/25835238/IRJEMS-V2I3P126>
- Arslan, Z., & Özçelik, H. (2019). Effect of Financial Structure Ratios on Profitability: Panel Data Analysis on Manufacturing Sector. *Journal of Business Research - Turk*, 11(1), 504–516. <https://doi.org/10.20491/isarder.2019.615>
- Awdina, O., & Fransinatra, Z. (2023). The Effect Of Current Ratio, Return On Asset, Gross Profit Margin, Total Asset Turnover, And Company Size On Profit Growth In Pt Unilever Indonesia Tbk. *International Conference of Business and Social Sciences*, 3(1), 266–276. <https://doi.org/10.24034/icobuss.v3i1.369>
- Cahyati, D. A., & Hartikayanti, H. N. (2023). Pengaruh debt to equity ratio dan debt to asset ratio terhadap pertumbuhan laba pada perusahaan papan utama di industri property dan real estate yang terdaftar di BEI periode tahun 2017-2021. *Fair Value: Jurnal Ilmiah Akuntansi dan Keuangan*, 5(6), 2682–2690. <https://doi.org/10.32670/fairvalue.v5i6.2953>
- Calcagnini, G., Gardini, L., Giombini, G., & Carrera, E. S. (2022). Does too much liquidity generate instability? *Journal of Economic Interaction and Coordination*, 17(1), 191–208. <https://doi.org/10.1007/s11403-020-00296-0>
- Caro, A., & Mirea, M. (2017). Profitability As The Form Of Communication Of The Value Of An Entity That Works For Profit. *Romanian Statistical Review Supplement*, 65(6), 192–199. <https://ideas.repec.org/a/rsr/supplm/v65y2017i6p192-199.html>

- Chen, Z., Harford, J., & Kamara, A. (2019). Operating Leverage, Profitability, and Capital Structure. *Journal of Financial and Quantitative Analysis*, 54(1), 369–392. <https://doi.org/10.1017/S0022109018000595>
- Christie, T., & Susanto, L. (2023). Determinant Factors Affecting The Value Of Manufacturing Companies Listed On The Idx During 2018-2020. *International Journal of Application on Economics and Business*, 1(2), 758–771. <https://doi.org/10.24912/ijaeb.v1i2.758-771>
- Dang, H. N., Vu, V. T. T., Ngo, X. T., & Hoang, H. T. V. (2019). Study the Impact of Growth, Firm Size, Capital Structure, and Profitability on Enterprise Value: Evidence of Enterprises in Vietnam. *Journal of Corporate Accounting & Finance*, 30(1), 144–160. <https://doi.org/10.1002/jcaf.22371>
- Endri, E., SARI, A. K., Budiasih, Y., Yuliantini, T., & Kasmir, K. (2020). Determinants of Profit Growth in Food and Beverage Companies in Indonesia. *The Journal of Asian Finance, Economics and Business*, 7(12), 739–748. <https://doi.org/10.13106/jafeb.2020.vol7.no12.739>
- Fatonah, F., Hariyanto, D., & Ardiansyah, A. (2022). The Effect of Current Ratio, Debt to Equity Ratio, and Return on Equity on Profit Growth in LQ-45 Index Companies. *International Journal Paper Public Review*, 3(2), 14–17. <https://doi.org/10.47667/ijppr.v3i2.148>
- Fuertes-Callén, Y., & Cuellar-Fernández, B. (2019). Inter-Relationship Between Firm Growth And Profitability In A Context Of Economic Crisis. *Journal of Business Economics and Management*, 20(1), 86–106. <https://doi.org/10.3846/jbem.2019.6928>
- Gujarati, D. N. (2003). *Basic Econometrics* (Fourth). McGraw-Hill/Irwin.
- Gulo, J., & Sembiring, J. C. (2024). The influence of gross profit margin, net profit margin, company size, and sales growth on profit growth (in manufacturing companies registered on bei in 2019-2022). *ProBisnis: Jurnal Manajemen*, 15(1), 77–86. <https://doi.org/10.62398/probis.v15i1.421>
- Hartini, Chalid Imran Musa, Nurman, Romansyah Sahabuddin, & Burhanuddin. (2023). Analysis of financial Ratio for Predicting Profit Changes at PT. Indofood Sukses Makmur Tbk. *Economics and Business Journal (ECBIS)*, 1(3), 179–188. <https://doi.org/10.47353/ecbis.v1i3.25>
- Hasanah, A. N., & Sukiyaningsih, T. W. (2023). Studi Profit Growth: Pengaruh Profitabilitas Dimoderasi Analisa Pasar Perusahaan Kompas 100. *Jurnal Manajemen*, 13(2), 76–91. <https://doi.org/10.30656/jm.v13i2.7694>
- He, Z., & Ciccone, S. (2020). Too much liquidity? Seemingly excess cash for innovative firms. *Financial Review*, 55(1), 121–144. <https://doi.org/10.1111/fire.12210>
- Ibrahim, A., Tariq, M. U., Batool, I., & Iqbal, S. (2023). Impact of financial leverage and working capital management on firm's profitability with pandemic influences. *Journal of Advanced Research in Economics and Administrative Sciences*, 4(3), 24–36. <https://doi.org/10.47631/jareas.v4i3.660>
- Kalash, I. (2024). How does excess cash affect corporate financial performance? *Journal of Applied Accounting Research*, 25(5), 1223–1243. <https://doi.org/10.1108/JAAR-08-2023-0231>
- Kasmir. (2018). *Analisis Laporan Keuangan* (11 ed.). Rajawali Pers.

- Kazemian, S., Shauri, N. A. A., Sanusi, Z. M., Kamaluddin, A., & Shuhidan, S. M. (2017). Monitoring mechanisms and financial distress of public listed companies in Malaysia. *Journal of International Studies*, 10(1), 92–109. <https://doi.org/10.14254/2071-8330.2017/10-1/6>
- Lero, L. N. O., Hermuningsih, S., & Rinofah, R. (2024). The Effect of Current Ratio, Total Asset Turnover and Net Profit Margin on Profit Growth in the Companies Listed on The Indonesia Stock Exchange. *Journal La Sociale*, 5(2), 479–496. <https://doi.org/10.37899/journal-la-sociale.v5i2.1133>
- Mahanty, A. K. (1980). Profits. In *Intermediate Microeconomics with Applications* (hal. 241–262). Elsevier. <https://doi.org/10.1016/B978-0-12-465150-0.50015-0>
- Mamo, W. B., Feyisa, H. L., & Yitayaw, M. K. (2022). Financial performance of commercial banks in the emerging markets. *Corporate Governance and Organizational Behavior Review*, 5(2, special issue), 244–257. <https://doi.org/10.22495/cgobrv5i2sip12>
- Maryoso, S., & Sari, D. I. (2022). The Effect of ROA, DAR and NPM on Profit Growth of Companies In Basic and Chemical Industry Sector Listed On IDX. *Eighth Padang International Conference On Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA-8 2021)*, 659, 81–89.
- Munthashofi, B., & Purnamasari, I. (2019). Financial Leverage and Profitability of Pharmaceutical Companies in Indonesia Stock Exchange. *Proceedings of the 1st International Conference on Economics, Business, Entrepreneurship, and Finance (ICEBEF 2018)*. <https://doi.org/10.2991/icebef-18.2019.1>
- Myšková, R., & Hájek, P. (2017). Comprehensive assessment of firm financial performance using financial ratios and linguistic analysis of annual reports. *Journal of International Studies*, 10(4), 96–108. <https://doi.org/10.14254/2071-8330.2017/10-4/7>
- Nguyen, K. Q. T., Nga Phan, T. H., & Hang, N. M. (2024). The effect of liquidity on firm's performance: Case of Vietnam. *Journal of Eastern European and Central Asian Research (JEECAR)*, 11(1), 176–187. <https://doi.org/10.15549/jeecar.v11i1.1344>
- Nurhaida, S., & Nurhasanah, A. (2022). The Effect of Return on Assets to Profit Growth of Perumda BPR Garut. *Jurnal Ilmu Sosial Politik dan Humaniora*, 5(2), 23–32. <https://doi.org/10.36624/jisora.v5i2.86>
- Pham, V. H. S., & Le, T. D. (2024). *Research on Applying Machine Learning Models to Predict and Assess Return on Assets (Roa)*. <https://doi.org/10.21203/rs.3.rs-4129810/v1>
- Rađo, D., & Peštović, K. (2022). Factors of Profitability: Evidence from the Serbian Manufacturing Sector. *ENTRENOVA - ENTerprise REsearch InNOVAtion*, 8(1), 299–309. <https://doi.org/10.54820/entrenova-2022-0026>
- Rejeki, G., & Harinurdin, E. (2024). The Effect Of Current Ratio, Net Profit Margin, Roa, Company Age, On Profit Growth& Stock Prices During The Covid-19 Pandemic. *Jurnal Administrasi Bisnis Terapan*, 6(2). <https://doi.org/10.7454/jabt.v6i2.1114>
- Sholaeman, B., Rinofah, R., & Maulida, A. (2021). Liquidity, Solvability, and Profitability Ratio Analysis towards Financial Performance. *Almana : Jurnal Manajemen dan Bisnis*, 5(3), 337–343. <https://doi.org/10.36555/almana.v5i3.1602>
- Shrestha, N. (2020). Detecting Multicollinearity in Regression Analysis. *American Journal of Applied Mathematics and Statistics*, 8(2), 39–42. <https://doi.org/10.12691/ajams-8-2-1>

- Sitohang, D., & Siagian, H. (2021). Effect of Profitability (RoA) and Liquidity (CR) on Profit Growth in Companies Pharmaceutical Sector IDX. *Ekonomis: Journal of Economics and Business*, 5(2), 439. <https://doi.org/10.33087/ekonomis.v5i2.399>
- Škuflić, L., Mlinarić, D., & Družić, M. (2018). Determinants of construction sector profitability in Croatia. *Zbornik radova Ekonomskog fakulteta u Rijeci: časopis za ekonomsku teoriju i praksu/Proceedings of Rijeka Faculty of Economics: Journal of Economics and Business*, 36(1), 337–354. <https://doi.org/10.18045/zbefri.2018.1.337>
- Sogomi, F. C., Patrick, M. K., & Kamau, C. G. (2024). Exploring the Relationship between Working Capital Management, Liquidity, and Financial Performance within the Context of Kenyan SME's. *African Journal of Commercial Studies*, 4(2), 113–120. <https://doi.org/10.59413/ajocs/v4.i2.4>
- Sohilauw, M. I., Wahyuni, W., & Kadir, M. A. (2022). Pengaruh Kinerja Keuangan terhadap Pertumbuhan Laba Pada Perusahaan BUMN Sektor Pertambangan yang Terdaftar di BEI. *Business Management Journal*, 18(2), 181. <https://doi.org/10.30813/bmj.v18i2.3353>
- Tanor, L. A. O., & Purba, P. M. (2022). Before and During the Covid-19 Pandemic: Indonesia's Pharmaceutical Financial Performance Analysis. *SHS Web of Conferences*, 149, 03045. <https://doi.org/10.1051/shsconf/202214903045>
- Verawati, V., Jap, Y. P., & Kurniawati, H. (2023). The effect of financial performance on the profit growth of banks listed on the Indonesia Stock Exchange. *Global Advances in Business Studies*, 2(1), 37–43. <https://doi.org/10.55584/Gabs002.01.4>
- Virnanda, K. A., & Oktaviana, U. K. (2023). Profitability as a Moderating Effect of Liquidity, Sales Growth and Leverage on Financial Distress in Islamic Commercial Banks. *Tazkia Islamic Finance and Business Review*, 16(2). <https://doi.org/10.30993/tifbr.v16i2.306>
- Widjaja, I. R., Marnilin, F., & Irawan, R. (2024). Influence Debt To Equity Ratio and Current Ratio On Profit Growth Of Building Construction Companies Listed On The Indonesian Stock Exchange In 2020. *Jurnal Ilmiah Manajemen Kesatuan*, 12(3), 541–546. <https://doi.org/10.37641/jimkes.v12i3.2452>
- Королович, О., & Галай, Ю. (2024). Analysis Of The Financial Leverage Effect Of A Manufacturing Enterprise. *Економіка та суспільство*, 64. <https://doi.org/10.32782/2524-0072/2024-64-76>