

The Influence of Sales Growth and Earnings Management on Financial Performance: The Role of Firm Size Moderation

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ABSTRACT

This study analyzes the influence of sales growth and earnings management on financial performance and examines whether firm size moderates the relationship in Consumer Non-Cyclicals companies listed on the Indonesia Stock Exchange during the period 2021–2024. Financial performance is proxied by Return on Assets (ROA), earnings management by discretionary accruals using the Modified Jones Model, sales growth by annual sales change, and firm size by the natural logarithm of total assets. The study uses a causal quantitative design with panel data and Moderated Regression Analysis (MRA) using EViews 12. Purposive sampling in the early stages resulted in 46 companies with 184 company-year observations; after outlier screening, 167 observations were used in the model estimation. The selected model was the Random Effects Model. The results showed that sales growth had no significant effect on financial performance ($p = 0.2101$), while earnings management had a positive and significant effect ($p = 0.0126$). Firm size significantly moderated the influence of sales growth on financial performance in a negative direction ($p = 0.0488$), thus acting as a pure moderator that weakened the sales growth–ROA relationship. Firm size was not proven to moderate the relationship between earnings management and financial performance ($p = 0.4127$). These findings suggest that revenue increases alone are not enough to increase profitability if operating costs and asset use are not managed efficiently, while reported ROA remains sensitive to discretionary accruals.

INTRODUCTION

Companies in the Consumer Non-Cyclicals sector have an important position in the Indonesian capital market because they produce necessities whose demand is relatively resistant to changes in the business cycle. Despite being defensive, the performance of this sector still fluctuates during the 2021–2024 period. Based on the thesis, the IDX Consumer Non-Cyclicals (IDXNONCYC) index fell 16.04% in 2021, then grew 7.89% in 2022, 0.82% in 2023, and 0.98% in 2024. This condition shows that the stability of demand for primary needs does not automatically guarantee the stability of company performance.

The financial performance in this study is proxied by Return on Assets (ROA), which reflects the ability of management to generate net profit from the company's total assets. Two internal factors that are focused on are sales growth and earnings management. Sales growth describes the change in sales from one period to the next. Theoretically, increased sales can expand revenue and business scale, but its effect on profitability remains dependent on cost efficiency and asset utilization.

The second factor is earnings management. Accrual-based accounting systems provide room for management to use discretion in the recognition of revenue, expenses, provisions, and other accounting estimates. Such discretion can be used to influence reported profits. This study focuses on accrual-based profit management as measured using discretionary accruals with the Modified Jones Model.

Firm size is included as a moderation variable because larger companies generally have wider assets, more complex organizational structures, larger distribution networks, and higher fixed costs. These characteristics can strengthen or even weaken a company's ability to convert sales growth into profitability or affect the relationship between profit management and financial performance.

Based on this background, this study examines four questions: whether sales growth affects financial performance; whether earnings management affects financial performance; whether firm size moderates the effect of sales growth on financial performance; and whether firm size moderates the effect of earnings management on financial performance in Consumer Non-Cyclicals companies listed on the Indonesia Stock Exchange for the 2021–2024 period.

LITERATURE REVIEW

Financial Performance

Financial performance describes the effectiveness of management in utilizing company resources to generate economic profits. This study uses ROA because the ratio shows the company's ability to generate net profit through the utilization of all assets it manages.

Sales Growth

Sales growth reflects the change in sales revenue from one period to the next and can indicate market expansion, demand strength, and the effectiveness of commercial strategies. Conceptually, increased sales growth has the potential to increase profitability if the increase in revenue can be converted into profit

efficiently. However, if the increase in sales is accompanied by a greater increase in costs, the effect on the ROA may be weak or insignificant.

Earnings Management

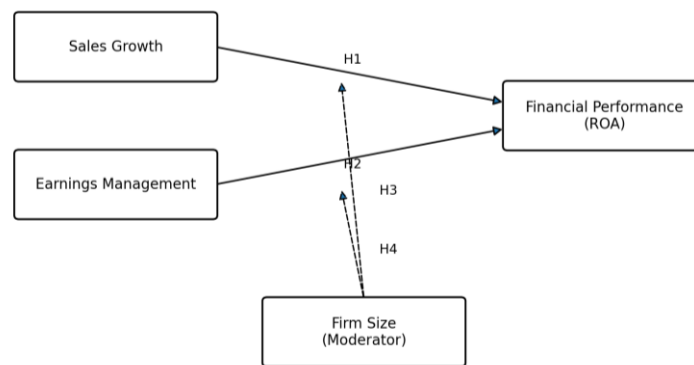
Earnings management is the use of managerial discretion in financial reporting that can change the time or amount of profit reported. This research focuses on accrual-based profit management and uses discretionary accruals based on the Modified Jones Model. In the perspective of agency theory and Positive Accounting Theory, management may have an incentive to choose certain accounting policies to meet performance targets or contractual interests.

Firm Size as a Moderation Variable

Firm size is proxied by the natural logarithm of total assets. Large companies can benefit from economies of scale, better access to funding, and more established distribution infrastructure, but also face organizational complexity and higher fixed costs. Therefore, firm size can change the strength of the relationship between sales growth and ROA as well as between earnings management and ROA.

Framework

The framework of this study describes the relationship between sales growth and earnings management to financial performance proxied by Return on Assets (ROA), and places firm size as a moderation variable. Conceptually, sales growth and earnings management are thought to directly affect financial performance, while firm size is thought to strengthen or weaken each of these relationships. This framework is the basis for testing four research hypotheses.



Hipotesis

H1: Sales growth berpengaruh positif terhadap financial performance.

H2: Earnings management berpengaruh positif terhadap financial performance.

H3: Firm size memoderasi pengaruh sales growth terhadap financial performance.

H4: Firm size memoderasi pengaruh earnings management terhadap financial performance.

METHODOLOGY

This study uses an associative-causal quantitative design with a moderation model. The research population consists of companies in the Consumer Non-Cyclicals sector listed on the Indonesia Stock Exchange during the period 2021–2024. The data used are in the form of secondary data from annual financial statements and relevant company sources. Sample selection was conducted using purposive sampling. Based on the purposive sampling table in the thesis, there were 46 companies with 184 year-company observations in the early stages. After the outlier screening process, 17 observations were excluded, so the final model used 167 observations.

Criteria	Quantity
Consumer Non-Cyclicals Companies in the population	131
Companies without complete data for all variables	85
Start-up companies that meet purposive sampling criteria	46
Initial observation of the company-years (46×4 years)	184
Year-to-date company observations issued as outliers before final estimates	17
Final observations used in regression models	167

Source: processed with EViews 12, 2026.

The dependent variable is financial performance proxied by ROA. Sales growth is calculated as the change in sales in year t compared to year $t-1$ divided by sales in year $t-1$. Earnings management is measured by discretionary accruals using the Modified Jones Model. Firm size is measured by $\ln$ (total assets) and mean-centering is performed to test the moderation interaction.

Variable	Roles	Measurement	Scale
Financial Performance	Dependent	$ROA = \text{Net Profit} / \text{Total Assets}$	Ratio
Sales Growth	Independent	$(\text{Sales}_t - \text{Sales}_{t-1}) / \text{Sales}_{t-1}$	Ratio
Earnings Management	Independent	Discretionary accruals (Modified Jones Model)	Ratio
Firm Size	Moderator	$\ln$ (Total Assets), in the mean-center for interaction testing	Ratio

Source: Adapted from operational definition.

The regression of the panel data was estimated using EViews 12. The model selection compared the Common Effect Model, Fixed Effect Model, and Random Effect Model through the Chow test and the Hausman test. The moderation model was tested using Moderated Regression Analysis (MRA) with the equation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 Z + \beta_4 (X_1 \times Z) + \beta_5 (X_2 \times Z) + e.$$

RESEARCH RESULT DISCUSSION

Descriptive Statistics

Table 3. Descriptive Statistics (N = 167)

Variabel	Min	Max	Mean	Std. Deviation
Financial Performance (ROA)	-0.070000	0.242750	0.089557	0.064977
Sales Growth	-0.855000	4.041718	0.187566	0.504704
Earnings Management	-0.965500	0.550630	-0.014852	0.123209
Firm Size (centered)	-22.30317	7.372287	0.022622	5.754593

Source: EViews 12 output, data processed in 2026.

The average ROA was 0.089557 or 8.96%, while the average sales growth was 0.187566 or 18.76%. The relatively large spread of sales growth shows that there is a fairly high difference in sales dynamics between companies. Earnings management has an average of -0.014852, which indicates a general tendency of discretionary accruals to be slightly negative. The centered firm size has an average of 0.022622, close to zero as expected after the mean-centering process.

Model Selection and Diagnostic Tests

Table 4. Model Selection and Diagnostic Tests

Test	Result	Interpret
Chow test	Cross-section Chi-square p = 0.0000	FEM is more accurate than CEM
Hausman Test	p = 0.8251	REM is more precise than FEM
Normalitas Jarque-Bera	p = 0.100082	Residual berdistribusi normal
White's heteroscedasticity	Obs*R ² p = 0.0548	Heteroscedasticity is not detected
Multicollinearity	All values centered VIF < 10	There is no material multicollinearity

Source: EViews 12 output, data processed in 2026.

The Chow test rejected the Common Effect Model and chose the Fixed Effect Model, while the Hausman test showed that the Random Effect Model was

more accurate than the Fixed Effect Model. Thus, the final estimate used the Random Effect Model. The Jarque-Bera normality test showed normal distributed residuals, the White test did not find heteroscedasticity problems, and the entire centered value of VIF was below 10 so that there were no material symptoms of multicollinearity.

Panel Data Regression and Hypothesis Testing

Table 5. Random Effect Models and Hypothesis Testing Results

Variable	Coefficient	t-Statistic	Probability	Decision
Konstanta	0.091658	11.00922	0.0000	—
Sales Growth	0.014275	1.258219	0.2101	H1 rejected
Earnings Management	0.099167	2.523134	0.0126	H2 accepted
Firm Size (centered)	-0.000429	-0.321462	0.7483	—
Sales Growth × Firm Size	-0.004454	-1.985043	0.0488	H3 accepted
Earnings Management × Firm Size	-0.007108	-0.821339	0.4127	H4 rejected

$R^2 = 0,071564$; Adjusted $R^2 = 0,042731$; F-statistic = 2,481978; Prob(F) = 0,033906.

Sumber: Output EViews 12, data diolah tahun 2026.

Model secara simultan signifikan dengan Prob(F) sebesar 0,033906. Namun, nilai Adjusted R^2 sebesar 0,042731 It shows that sales growth, earnings management, firm size, and two interaction variables only explain about 4.27% of the variation in financial performance. The rest is influenced by other factors that are not included in the model.

The Effect of Sales Growth on Financial Performance

Sales growth has a positive but not statistically significant coefficient ($\beta = 0.014275$; $p = 0.2101$), so H1 is rejected. These results show that increased sales do not automatically increase ROA. In the 2021–2024 period, operational cost pressures, inflation, raw material prices, and exchange rate changes may reduce profit margins even if sales increase. Thus, sales growth needs to be accompanied by cost efficiency in order to improve financial performance.

The Influence of Earnings Management on Financial Performance

Earnings management has a positive and statistically significant coefficient ($\beta = 0.099167$; $p = 0.0126$), so H2 is accepted. Since ROA is calculated using reported net profit, discretionary accruals that increase profits can directly drive an increase in ROA. These findings are in line with the bonus plan hypothesis and agency theory logic that management has an incentive to display better performance through certain accounting choices.

The Role of Firm Size Moderation in the Sales Growth–Financial Performance Relationship

The interaction between sales growth and firm size was negative and significant ($\beta = -0.004454$; $p = 0.0488$), so H3 was accepted. Because the firm size itself was not significant ($p = 0.7483$), while the interaction was significant, firm

size was classified as a pure moderator in this relationship. The direction of the negative coefficient indicates that the larger the company size, the weaker the influence of sales growth on ROA. One of the explanations presented in the thesis is that large companies have fixed costs and a broader operating structure so that part of the benefits of sales growth can be absorbed to cover these costs.

The Role of Firm Size Moderation in the Earnings Management–Financial Performance Relationship

The interaction between earnings management and firm size was negative but not significant ($\beta = -0.007108$; $p = 0.4127$), so H4 was rejected. Firm size was not statistically proven to change the relationship between earnings management and financial performance. Based on the MRA classification in the thesis, firm size in this relationship is a potential moderator (homologizer), because neither the direct effect of firm size nor the interaction effect is significant.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

This study analyzes sales growth, earnings management, financial performance, and the role of firm size moderation in Consumer Non-Cyclicals companies in Indonesia for the 2021–2024 period. Four main conclusions were obtained. First, sales growth does not have a significant effect on financial performance. Second, earnings management has a positive and significant effect on financial performance. Third, firm size moderates the influence of sales growth on financial performance in a negative direction and acts as a pure moderator. Fourth, firm size has not been proven to moderate the influence of earnings management on financial performance.

Overall, the results show that financial performance in this sector cannot be judged solely from sales growth. Cost efficiency, asset utilization, and reported profit quality remain important aspects. The findings also show that company size is relevant in explaining how strong sales growth translates into ROA, but it has not been proven to change the influence of earnings management on ROA.

Recommendations

Company management is advised to prioritize the ability to convert sales growth into operating profit through controlling production, distribution, and other fixed costs. Investors and analysts should not only rely on reported ROAs, but also pay attention to the quality of profits and accrual components. Regulators need to continue to strengthen oversight of the quality of financial reporting, especially regarding discretionary estimates and accruals.

Limitations

The study was limited to Consumer Non-Cyclicals sector companies and a four-year observation period. An Adjusted R^2 value of 4.27% indicates that most of the variation in ROA is explained by factors other than the model. Further research may add variables such as capital structure, liquidity, or corporate governance; use other profit management proxies such as real profit

management; expand the sector and period of the study; as well as use other financial performance proxies such as ROE or Tobin's Q.

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