Research Article

The Effect of Debt to Equity Ratio (DER) and Sales Growth on ROA of Manufacturing Companies listed on the IDX for the 2021-2024 Period

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Abstract: Financial performance is a crucial indicator in evaluating business stability and success, with Return on Assets (ROA) as one of the main profitability measures. This study aims to examine the effect of Debt to Equity Ratio (DER) and Sales Growth on ROA in manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period 2021-2024. Using a quantitative approach with a comparative causal design, this study applied purposive sampling to 12 manufacturing companies from the paper and cement subsectors, resulting in 48 observations. Data analysis was conducted using multiple linear regression with SPSS 26. The research findings show that Sales Growth has a positive and significant effect on ROA with a coefficient of 0.082 (sig. 0.004), while DER has a negative and significant effect on ROA with a coefficient of -2.277 (sig. 0.000). Simultaneously, both variables have a significant effect on ROA with an R Square of 0.422, indicating that 42.2% of ROA variation can be explained by the model. These results imply that manufacturing companies need to optimize capital structure by managing debt levels wisely while implementing sustainable sales growth strategies to improve profitability performance.

Keywords: Manufacturing Companies; Return-on Assets; Sales Growth.

1. Introduction

The financial performance of a company represents a crucial indicator in evaluating the stability and success achieve- ment of a business entity. One of the most essential measures of profitability is ROA, to assess the extent to which a company efficiently utilizes its total assets to generate profits.[1] . In the context of manufacturing companies, ROA has a crucial role because this sector requires large asset investments for its operations. [2].

Manufacturing companies in Indonesia, especially on the IDX, are faced with strategic challenges in managing capital structure and driving sales growth to optimize profitability levels. DER acts as a key indicator to measure capital structure, reflecting the extent to which a company relies on debt-based financing compared to internal equity to support its operational activities.[3] . On the other hand, Sales Growth represents the company's capability to increase sales volume between periods, which indirectly reflects the level of competitiveness and long-term growth prospects of the company.

Previous research has mixed results regarding the effect of DER on ROA.[4] states that the use of debt can reduce profitability due to high interest expenses. Conversely, other studies show that optimal debt use can increase profitability through the leverage effect. [5] In the context of Sales Growth,[1] suggests that high sales growth will increase company profitability through increased operational efficiency and economies of scale.

The manufacturing sector was chosen as the focus of the study because it has unique characteristics with large working capital requirements and fixed asset investments. The paper and cement sub-sectors were chosen because both are capital intensive industries and have interesting growth patterns to analyze. The research period 2021-2024 was chosen to capture the dynamics of company financial performance in the post-COVID-19 pandemic period presenting new challenges and opportunities for the manufacturing sector.

Taking this background into account, this study will investigate how sales growth (Sales Growth) and debt-to-equity ratio (DER) impact ROA in manufacturing companies on the IDX for the 2021-2024 period. It is expected that the results of this study will provide theoretical contributions to strengthen the conceptual framework in the field of corporate finance as well as practical contributions for management in formulating strategic decisions related to optimizing capital structure and improving sales performance.

2. 2. Preliminaries or Related Work or Literature Review

2.1. Return on Assets (ROA)

ROA is a profitability indicator that assesses the extent to which the company's effectiveness in generating profits through the utilization of all its assets. According to[6] , ROA reflects the level of managerial effectiveness in utilizing com- pany assets to generate profits. This ratio is obtained through the comparison between net income and total assets, then expressed in percentage form.

ROA is a crucial parameter because it provides an overview of the productivity of the company's assets.[7] states that a high level of ROA reflects the company's ability to manage assets optimally to generate maximum profitability In the context of financial analysis, ROA is to evaluate the company's performance trends over time comparing it with other companies in the same industry. [1]

A number of factors that have a significant influence on ROA include operational efficiency, capital structure, management quality, and macroeconomic conditions Companies with high ROA generally have a competitive advantage in terms of operational efficiency and the ability to generate profits from each rupiah of assets.

2.2. Debt to Equity Ratio (DER)

The leverage indicator assessing the proportion between total debt and equity in a company's capital structure is DER. According to[7] , DER represents the company's level of dependence on external financing through debt compared to internal funding through equity. This ratio is calculated comparing total liabilities with total equity of the company.

Optimal capital structure theory explains that there is an optimal level of debt which is a condition in which the company's financing structure is able to maximize the overall value of the company. Modigliani & Miller (1958) in their classical theory stated that in perfect market conditions, the capital structure has no effect on the intrinsic value of the company. However, in practice, the use of debt has a trade-off between tax benefits (tax shield) and the cost of financial distress.

Empirical research shows mixed results regarding the effect of DER on profitability.[8] found that a high DER ratio has a negative impact on ROA, considering that the increased interest expense due to excessive use of debt can reduce the company's accumulated net profit. In contrast,[6] shows that the optimal use of debt can increase ROA through the leverage effect, especially when the rate of return on assets is higher than the cost of debt.

2.3. Sales Growth

Sales Growth is a strategic indicator that reflects the company's capability to increase sales volume sustainably from one period to the next. According to[4] , Sales growth reflects the company's capability to maintain and strengthen its competitive position in the market.

In several ways, increased sales can benefit profitability. First, economies of scale are achieved when sales volume increases, resulting in lower costs per unit of product. Secondly, increased sales can improve asset utilization so that asset productivity increases .[8]

However, too rapid sales growth can also pose risks.[9] explains that uncontrolled growth can lead to liquidity problems and increase working capital requirements that are not proportional to the increase in profitability.

2.4. Literature Review and Hypothesis Development

A number of previous empirical studies have revealed that analyzing the relationship between DER, Sales Growth, and ROA with mixed results. Research (Sabakodi & Andreas, 2024) on manufacturing companies in Indonesia, DER research results coefficient -0.234, a sig negative impact on ROA. This result supports the theory that high interest expense reduces profitability due to excessive debt.

On the other hand,[4] found that sales growth has a significant positive effect on RO with a coefficient of 0.156. This finding indicates that an increase in sales contributes to an increase in efficiency in asset utilization, which in turn has an impact on increasing the profitability of the company.

[7] which analyzes manufacturing companies for the 2015-2018 period shows that the combination of DER and Sales Growth shows a sig relationship on ROA with R Square 0.387. This result indicates that the two variables are able to explain the variation in ROA with a value of 38.7%.

With reference to theoretical studies and empirical findings from previous research, the research hypotheses are:

H1: DER has a sig negative effect on ROA
H2: Sales Growth has a sig positive effect on ROA
H3: DER and Sales Growth simultaneously have a significant effect on ROA.

3. Proposed Method

A quantitative approach was used and a comparative causal research design. This research with an explanatory ap- proach with the aim of finding and explaining the causal relationship between the independent variables, namely the debt- to-equity ratio DER and sales growth, and the dependent variable ROA. The quantitative approach was chosen because this research with numerical data is measured and analyzed statistically.

3.1. Population and Sample

This study covers all manufacturing companies listed on the IDX from 2021-2020. These companies belong to the basic and chemical industries. The purposive sampling process is based on standards that have been set by the researcher used. There are two conditions that must be met: (1) the company is consistently listed on the IDX during the 2021-2024 period; and (2) the company presents complete and consecutive financial reports during the period.

Based on these criteria, based on the application of purposive sampling criteria, 12 companies were identified as research samples, with details of 9 companies from the paper subsector and 3 companies from the cement subsector. With a research period of 4 years (2021-2024), a total of 48 observations were obtained (12 companies $\times$ 4 years).

3.2. Data Retrieval Technique

This study utilizes secondary data on annual financial reports of manufacturing companies, collected from official online sources, namely the IDX website (www.idx.co.id) and the official websites of the companies sampled. The research method comes from financial statements. The variables studied are sales increase, Debt of Equity ratio, and Return on Assets. All data that has been collected will be processed through the application of the following calculation formula:

$$\text{Sales Growth} = \frac{penjualan \; tahun \; ini - \; penjualan \; tahun \; sebelumnya}{penjualan \; tahun \; ini} \; x100\%$$

$$\text{DER} = \frac{TOTAL \; DEBT}{TOTAL \; EQUITY}$$

$$\text{ROA} = \frac{LABA \; BERSIH}{TOTAL \; ASET}$$

3.3. Data Analysis Technique

Data processing and analysis were carried out with the SPSS 26 application to support the interpretation of quantitative results by researchers, with the aim of obtaining accurate data analysis results so that they could be continued to the next researcher. The research data analysis of this study was carried out with SPSS. The analysis methods included descriptive analysis with data characteristics, classical assumption test ensuring the regression model is valid, and multiple linear regres- sion analysis evaluating the causal relationship between X and Y variables:

Descriptive Statistical Analysis

It serves to illustrate the basic properties of the data under study, using measures of concentration and dispersion, such as mean, standard deviation, variance, extreme values, total value (sum), range, and distribution indicators such as kurtosis and skewness. This analysis aims to provide an initial understanding of the characteristics of the research data before hypothesis testing is carried out. [1]

Classical Assumption Test

To ensure that the regression model used meets the Best Linear Unbiased Estimator (BLUE) criteria, a classical as- sumption test is performed before starting the multiple linear regression analysis. [4]. The classic assumption test in this study includes:

Normality Test

This study utilizes the Kolmogorov-Smirnov normality criterion to determine whether the confounding variables or residuals in the regression model have a normal distribution:

The normality sig value above 0.05 states that the data has a normal distribution. Conversely, a sig value <0.05 data does not have a normal distribution. Apart from using statistical tests, data normality can also be evaluated visually with a normal P-P graph plot. If the points on the graph are scattered around the diagonal line and follow the direction of the line, the data is considered to have a normal distribution. [4].

Multicollinearity Test

To determine whether there is a strong linear correlation between the independent variables in the regression model. Having no correlation between sig independent variables can interfere with the interpretation of regression coefficients in a good regression model. Tolerance and VIF values, two key indicators, can be used to identify multicollinearity. Tolerance value> 0.10 and VIF value< 10, until the model is considered free of multicollinearity... [10].

Heteroscedasticity Test

This test examines whether there is inequality of residual variances between observations in the regression model. This variance inequality may indicate a violation of the classical regression assumptions, which in turn may affect the validity of the parameter estimates. The assumption of homoscedasticity, which means that the variance of the residuals is constant, is met in a good regression model. Heteroscedasticity can be assessed through the Glejser test. If the sig value is> 0.05, there are no symptoms of heteroscedasticity. Visual detection with a scatterplot graph. If the points are scattered randomly and do not form a certain pattern above or below the Y-axis at the zero value, then the model is considered free from heteroscedasticity problems. [11].

Autocorrelation Test

In a linear regression model, to determine whether there is a relationship between the residual error, or error term, in a period with the error in the previous period. Autocorrelation is generally a problem in time series data, and its presence can interfere with the validity of model parameter estimates. A good regression model should be free from autocorrelation, or in other words, the residuals should be independent across time. DW values are usually used to test for autocorrelation. The result is that there is no autocorrelation in the regression model if the DW value is within the range between the upper bound (dU) and 4 minus dU (4-dU) .[1]

Multiple Linear Regression Analysis

To find out how much influence the independent variables of debt-to-wealth ratio (DER) and sales growth have on the dependent variable, namely ROA, multiple linear regression analysis. This method allows researchers to see how two or more independent variables interact with one dependent variable simultaneously. As follows, the regression equation model is formulated:

$$\text{ROA} = \alpha + \beta_1\text{DER} + \beta_2\text{SG} + \varepsilon$$

Where:
ROA = Return on Assets

α = Constant
β_1 , β_2 = Regression coefficient
DER = Debt to Equity Ratio
SG = Sales Growth
ε = Error term

4. Results and Discussion

4.1. Research Results

Table 1. Dexcriptive Statistiscs

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
SALES_GROWTH	48	-45.42	34.58	2.9790	16.87220
DER	48	.10	4.20	1.0904	.91287
ROA	48	-5.36	13.07	3.8352	3.98058
Valid N (listwise)	48				

Source: Data processed by researchers, 2025

The results of descriptive statistics from 48 observations of manufacturing companies listed on the IDX for the 2021- 2024 period, obtained a comprehensive description of the characteristics of the research data. The Sales Growth variable shows an average value of 2.98%, indicating that overall the manufacturing companies in the research sample experienced positive sales growth, although it was relatively moderate. However, what is interesting to note is the very wide range of values, from a minimum value of -45.42% to a maximum value of 34.58%, with a fairly high standard deviation of 16.87. This condition indicates a very significant heterogeneity in sales growth performance among manufacturing companies, where there are companies that experience a drastic decline in sales of more than 45%, while on the other hand there are companies that are able to achieve sales growth of more than 34%. This large variation is caused by various factors, including differences in business strategies, specific industry conditions, adaptability to market changes, and the impact of various economic shocks that occurred during the study period.

For the DER variable, the data shows an average value of 1.09 which indicates that on average the manufacturing companies in the sample have a debt composition that is almost balanced with their equity. This value indicates a relatively moderate capital structure policy, where companies are not too conservative in using debt but also not too aggressive in leveraging. The wide range of DER values from a minimum of 0.10 to a maximum of 4.20 with a standard deviation of 0.91 indicates a variety of capital structure strategies among companies. There are companies that implement a very conservative debt policy with a DER of only 0.10, which indicates minimal use of debt compared to equity. On the other hand, there are also companies with a DER of up to 4.20, which indicates the use of high leverage

where debt is four times greater than equity. These variations may reflect differences in access to funding sources, the level of business risk, dividend policy, and each company's expansion and investment strategy.

The dependent variable ROA with an average of 3.84%, which reflects the relatively good profitability performance of manufacturing companies in the research sample. This positive average ROA indicates that in general the company is able to utilize assets effectively to generate profits. However, the range of values is very wide from a min of -5.36% - a maximum of 13.07% with a standard deviation of 3.98 indicating a very significant disparity in profitability performance between companies. The existence of negative ROA values up to -5.36% indicates that there are companies in the sample that experience operational losses, where they cannot generate profits and even experience losses from the utilization of their assets. On the other hand, there are companies with a very good ROA of up to 13.07%, which indicates a very effective management ability in optimizing the use of assets to generate profits. This large variation can be caused by differences in operational efficiency, management strategy, competitive position in the industry, and adaptability to market and economic conditions.

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual

N		48
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	3.02704467
Most Extreme Differences	Absolute	.107
	Positive	.107
	Negative	-.071
Test Statistic		.107
Asymp. Sig. (2-tailed)		.200[c,d]

The test results of the Asymp. Sig. (2-tailed) 0.200 > sig level of 0.05, and a test statistic value of 0.107 that there is a slight deviation of the data compared to the normal distribution. Then the residual data is normally distributed, and the assumption of normality in multiple linear regression models is met.

Table 3. Multicollinearity Test

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.075	.711		8.546	.000		

SALES_GROWTH	.082	.027	.346	3.038	.004	.993	1.007
DER	-2.277	.496	-.522	-4.591	.000	.993	1.007
a. Dependent Variable: ROA								

Based on the Tolerance Value> 0.10 and VIF < 10, both variables state that there is no multicollinearity in the regression model. This indicates that there is no strong correlation between Sales Growth and DER, so the model can provide reliable estimates. This result is reinforced by the correlation matrix which shows a correlation between DER and Sales Growth of 0.082 (very weak), confirming the absence of multicollinearity problems.

Table 4. Heteroscedasticity Test

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.660	.464		3.576	.001
	SALES_GROWTH	.018	.018	.149	1.028	.310
	DER	.460	.324	.206	1.421	.162
a. Dependent Variable: ABS_RES1						

Both independent variables state a sig value> 0.05 (Sales Growth = 0.310 and DER = 0.162), this states that the inde- pendent variable has no sig impact on the absolute value of the residual, so it is concluded that heteroscedasticity symptoms are not found in the regression model used. Then the assumption of homoscedasticity is fulfilled because the regression model does not show symptoms of heteroscedasticity.

The fulfillment of the homoscedasticity assumption shows that the residual variance does not change regardless of the variation of the independent variables, meaning that the resulting regression model has a consistent level of confidence in making predictions. This condition supports the validity of the parameter estimation results and the hypothesis testing pro- cedures that have been applied.

Correlation Test

The Durbin-Watson value of 1.433 is in the acceptable range for a sample size of 48 with two independent variables. Referring to the limit values in the Durbin-Watson table, this figure indicates that there is no significant autocorrelation in the regression model. Thus, it is concluded that the assumption of residual independence has been met.

Table 5. Multiple Linear Regression Test

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.075	.711		8.546	.000		
	SALES_GROWTH	.082	.027	.346	3.038	.004	.993	1.007
	DER	-2.277	.496	-.522	-4.591	.000	.993	1.007
a. Dependent Variable: ROA								

Constant (6.075) states that if Sales Growth and DER are zero, then ROA will be 6.075%. This constant reflects the basic profitability of the company without the influence of the two variables studied. Sales Growth Coefficient (0.082) Stating that every 1% increase in sales growth will increase ROA by 0.082%, assuming DER is constant. The positive coefficient indicates a unidirectional relationship between sales growth and profitability. DER coefficient (-2.277) Stating that each increase of 1 unit of DER will reduce ROA by 2.277%, assuming constant Sales Growth. The negative coefficient indicates an opposite relationship between the level of debt and profitability.

Table 6. Simultaneous Test (F Test)

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	314.056	2	157.028	16.408	.000[b]
	Residuals	430.661	45	9.570		
	Total	744.717	47			
a. Dependent Variable: ROA						
b. Predictors: (Constant), DER, SALES_GROWTH						

The F-table value is 3.204< the F-count value is 16.408, and the sig level is 0.000< from $\alpha = 0.05$. Thus, the null hypothesis (H0) is rejected, while the alternative hypothesis (H1) is accepted. This result states that the multiple linear regression model in this study is statistically significant and suitable for further analysis. In other words, sales growth and debt-to-equity ratio (DER) simultaneously have a significant influence on ROA at the 5% significance level. The feasibility of this model indicates that the two independent variables together have a strong predictive power of the variation in corporate profitability. Hence, this model is a basis for empirical analysis and strategic decision-making at the management level.

Table 7. Partial Test (T Test)

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.075	.711		8.546	.000		
	SALES_GROWTH	.082	.027	.346	3.038	.004	.993	1.007
	DER	-2.277	.496	-.522	-4.591	.000	.993	1.007
a. Dependent Variable: ROA								

    The results stated that the increase in sales had a positive and sig impact on ROA, with a t-count value of 3.038 and a sig value of 0.004, which did not exceed the sig threshold of 0.05. The regression coefficient is 0.082 with the assumption that other variables remain fixed, each one unit increase in sales growth will result in an increase in asset value (ROA) of 0.082 units. On the contrary, the t-count value of -4.591 and the significance value of 0.000 are shown by the Debt to Equity Ratio (DER) variable, that DER affects ROA negatively and the regression coefficient sig is -2.277, each one unit increase in DER will decrease ROA by 2.277 units. Thus, both independent variables in this model are proven to have a sig impact partially on ROA, but with the opposite direction of the relationship: Sales Growth contributes positively to profitability, while DER has a negative impact.

Table 8. Coefficient of Determination

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.649[a]	.422	.396	3.09358	1.433
a. Predictors: (Constant), DER, SALES_GROWTH					
b. Dependent Variable: ROA					

    The coefficient of determination (R Square) is 0.422 based on the regression estimation results. This figure states that the two independent variables in the DER and Sales Growth models can explain 42.2% of the variation in ROA, meaning that this regression model provides a moderate explanation for ROA fluctuations. While 57.8% of the variation is caused by other variables outside the model or residual factors.

    The Adjusted R Square value of 0.396 reflects that the coefficient of determination has been corrected by considering the number of independent variables as well as the sample size in the regression model. This value remains quite representative, indicating that despite the adjustments, the model still explains about 39.6% of the variation in ROA in a stable manner.

    The remaining 57.8% (the result of 100% minus 42.2%) indicates that the variation in ROA is influenced by other factors outside the model. These factors include internal aspects of the company such as operational efficiency, cost structure, and company size, as well as external factors such as inflation rate, interest rate, and overall macroeconomic conditions, which are not included in this model specification.

    With a Standard Error of the Estimate value of 3.09358, it means that the average deviation of ROA prediction results from the actual value is around 3.09%. This value is quite moderate and indicates that the model has relatively good precision.

Effect of Debt to Equity Ratio (DER) on Return on Assets (ROA)

According to the multiple linear regression estimation results, the sales growth variable regression coefficient 0.082, sig level 0.004 (< α = 0.05) and t-count value 3.038. This result states that increasing sales has a positive and significant impact on ROA.

The interpretation of the coefficient implies that every 1% increase in sales growth will lead to a 0.082% increase in ROA, assuming other independent variables remain constant. This result reflects that companies that successfully increase their sales volume in a sustainable manner tend to show better profitability performance. This happens because the increase in sales is generally accompanied by operational efficiency, increased asset utilization, and the achievement of economies of scale, which collectively strengthen the company's ability to generate profits.

Studies by Dewi & Priyadi (2023 and Sabakodi & Andreas (2024) found that increased sales increase profitability because companies can optimize their assets to generate greater profits.

Effect of Debt to Equity Ratio (DER) on Return on Assets (ROA)

The results of the regression estimation state that the Debt to Equity Ratio (DER) variable has a regression coefficient of -2.277, with a t-count value of -4.591 and a sig value of 0.000 < sig level of 0.05. The result states that DER has a negative effect on ROA.

That is, assuming other variables in the model are fixed, each unit increase in DER ratio is expected to decrease ROA by 2.277%. This negative relationship states that the proportion of debt in the company's capital structure is greater than the level of profitability that can be achieved. This condition can be caused by the high interest expense that must be borne, increased financial risk (financial distress), and the possibility of liquidity pressures that interfere with the stability and efficiency of the company's operations.

5. Conclusions

According to the research findings during the 2021-2024 period on twelve manufacturing companies including the basic and chemical industry subsectors listed on the IDX, it is concluded that the DER variable has a negative and sig influence on ROA. This finding indicates that an increase in the proportion of debt in the company's capital structure tends to reduce the level of profitability. This decrease can be attributed to increased interest expense and higher financial risk, which cumulatively have a negative impact on the company's financial performance.

In contrast, the results showed that both independent variables, DER and Sales Growth, have a sig effect on ROA. This suggests that an increase in sales can increase the effectiveness of asset utilization and increase the company's profit. (R Square) of 0.422 indicates that the two variables can account for 42.2% of the variation in return on assets (ROA). Other variables not included in the model, such as cost structure, firm scale, operational efficiency, and external variables such as monetary policy and macroeconomics, account for 57.8% of the variation. These findings underscore the importance of optimal capital structure management as well as the implementation of sustainable sales growth strategies as key elements in managerial efforts to improve firm profitability, particularly as reflected through the ROA indicator.

References

[1] M. Y. Sabakodi and H. H. Andreas, "The Effect of Capital Structure on Profitability of Manufacturing Companies in 2019–2022," *Owner: Riset dan Jurnal Akuntansi*, vol. 8, no. 1, pp. 377–390, Jan. 2024, doi: 10.33395/owner.v8i1.1934.

[2] C. S. S. Febrianti, "Current Ratio," *Jurnal Ekonomi dan Bisnis*, vol. 4, no. 2, pp. 108–121, 2021.

[3] H. Fitra and L. Al Ashry, "Effect of Sales Growth, ROE, ROA and FAR Towards DER in Real Estate and Property Companies in Indonesia Stock Exchange," in *Proc. 1st PICEEBA*, vol. 97, pp. 5–15, 2019, doi: 10.2991/piceeba-19.2019.2.

[4] N. Dewi and I. H. Priyadi, "The Effect of Sales Growth, Profitability, and Leverage on Tax Avoidance in Mining Companies Listed in the Indonesian Sharia Stock Index (ISSI)," *Shafin: Sharia Financial Accounting Journal*, vol. 3, no. 1, pp. 65–78, 2023, doi: 10.19105/sfj.v3i1.8553.

[5] D. Maryana and F. Rachmawati, "The Effect of Sales on Return on Assets at PT. Padalarang Paper (Security Paper Mill) for the 2020–2021 Period," *Land Journal*, vol. 5, no. 2, pp. 391–395, 2024, doi: 10.47491/landjournal.v5i2.3653.

[6] S. Laily, "The Effect of Return on Asset, Return on Equity on Stock Prices in Food and Beverage Sub-Sector Manufacturing Companies Listed on the Indonesia Stock Exchange in 2019–2021," *Jurnal EMT Kita*, vol. 8, no. 1, pp. 80–87, 2024, doi: 10.35870/emt.v8i1.1851.

[7]   A. Widya and S. Aslamiyah, "The Effect of Current Ratio (CR), Debt Equity Ratio (DER), Total Asset Turnover (TATO) on Return of Equity (ROE) in the Manufacturing Industry of Consumer Goods Sector in 2019–2021," *Indonesian Vocational Research Journal*, vol. 3, no. 1, p. 30, 2023, doi: 10.30587/ivrj.v3i1.6233.
[8]   N. Fajira, "Analysis of Financial Performance Viewed From the Current Ratio (CR), Debt to Equity Ratio (DER) and Total Asset Turnover (TATO) in the Consumer Non-Cyclicals Sector Processed Food Registered at IDX in the 2017–2021 Period," *Jurnal Ilmu Manajemen*, vol. 3, no. 1, pp. 59–70, 2023.
[9]   J. Jurlinda, J. Alie, and M. Veronica, "The Effect of Debt to Asset Ratio and Debt to Equity Ratio on Return on Asset of Food and Beverage Industry Sector Companies Listed on the Indonesia Stock Exchange," *Journal of Social Science, Management, Accounting and Business*, vol. 3, no. 1, pp. 1–12, 2022, doi: 10.47747/jismab.v3i1.622.
[10] P. Agviolita, S. Sudarti, and R. D. Handayani, "Comparative Analysis of Students' Critical Thinking Skills in Science Learning with Textbook Media and PhET Simulation Media," *Jurnal Edukasi MIPA*, vol. 12, no. 2, pp. 241–246, 2022, doi: 10.37630/jpm.v12i2.573.
[11] Nafiudin, D. Andari, D. Kurnia, and A. T. Safitri, "The Importance of Job Redesign and Job Description for Improving Employee Performance During the Covid-19 Pandemic," *Science Management*, vol. 7, no. 2, pp. 155–167, 2021, doi: 10.30656/sm.v7i2.4139.
[12] M. Arifin and T. Nugraha, "The Influence of Financial Ratios on Profitability in Manufacturing Companies," *Jurnal Ilmu dan Riset Akuntansi*, vol. 11, no. 3, pp. 12–22, 2022.
[13] R. Utami and A. Hartono, "Impact of DER and CR on ROA in the Automotive Sector Listed in IDX," *Jurnal Manajemen dan Bisnis Indonesia*, vol. 10, no. 1, pp. 45–53, 2023.
[14] S. R. Anindita, "Financial Performance Analysis Using ROA and DER at IDX-Listed Companies," *Jurnal Ilmu Ekonomi dan Bisnis*, vol. 9, no. 2, pp. 90–102, 2022.
[15] A. Widodo and N. Wulandari, "Effect of Capital Structure on Company Profitability in the Textile Industry," *Jurnal Akuntansi dan Keuangan*, vol. 8, no. 4, pp. 33–42, 2023.