

THE EFFECT OF CAPITAL STRUCTURE AND LIQUIDITY ON PROFITABILITY IN PALM OIL COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE (2021-2024 PERIOD)

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Abstract

This study aims to evaluate the effect of capital structure and liquidity on the profitability of palm oil companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2024 period. Using a quantitative approach, a purposive sampling technique was employed, resulting in a sample of 9 companies (36 financial report observations). Data were analyzed using multiple linear regression in SPSS 25. The empirical findings reveal that capital structure (measured by DER) and liquidity (measured by CR) partially have a significant effect on profitability (ROA) ($p < 0.05$). However, the coefficient of determination ($R^2 = 0.044$) indicates that both independent variables explain only 4.4% of the variance in profitability, while the remaining 95.6% is influenced by unmodelled external factors. These results suggest that while prudent capital structuring and short-term liquidity management remain essential for operational stability, palm oil profitability is heavily dependent on broader macroeconomic dynamics and commodity price fluctuations.

Keywords: Capital Structure, Debt to Equity Ratio, Liquidity, Current Ratio, Profitability, Return on Assets, Palm Oil Companies.

1. INTRODUCTION

In an era of globalization and increasingly competitive business, companies are required to maintain stable and sustainable financial performance. One of the main indicators of a company's financial success is profitability, namely the company's ability to generate profits from its operational activities. Profitability not only reflects a company's efficiency in managing assets but also serves as a basis for investors in assessing a company's future prospects. High levels of profitability are usually directly proportional to increased trust in the company by shareholders, investors, and creditors.

In the palm oil plantation industry, profitability plays a vital role. As the world's largest palm oil producer, Indonesia makes this sector a mainstay of foreign exchange earnings, a major source of employment, and a driver of the national economy. However, this industry also faces serious challenges, including fluctuations in crude palm oil (CPO) prices, global

environmental issues, government regulations regarding sustainability, and international competition. These conditions make careful and strategic financial management crucial for palm oil companies to maintain profitability.

2. RESEARCH METHOD

This study uses a quantitative approach to test the hypothesis regarding the effect of capital structure and liquidity on profitability in palm oil companies listed on the Indonesia Stock Exchange for the 2021-2024 period. The method used is multiple linear regression analysis with the help of SPSS, in accordance with the quantitative research approach based on the philosophy of positivism (Sugiyono, 2023). This study was conducted on palm oil companies listed on the Indonesia Stock Exchange (IDX), with the planned research period being January to February 2025.

The variables used in this study consist of independent and dependent variables. The independent variables include capital structure, measured by the Debt to Equity Ratio (DER), and liquidity, measured by the Current Ratio (CR), while the dependent variable is profitability, measured by Return on Assets (ROA). The population in this study was all 26 palm oil companies listed on the Indonesia Stock Exchange. The sampling technique used a purposive sampling method with specific criteria, resulting in nine companies as research samples, with a total of 36 financial reports for the 2021-2024 period.

The type of data used in this study is quantitative data in the form of company financial reports. The data source used was secondary data obtained from publications of the Indonesia Stock Exchange (IDX). Data collection was conducted using a documentation method, namely by collecting and reviewing company financial reports published on the official Indonesia Stock Exchange website.

Data analysis in this study included descriptive statistical analysis to describe the data, as well as classical assumption tests consisting of normality, multicollinearity, and heteroscedasticity tests. Furthermore, multiple linear regression analysis was conducted to determine the effect of the independent variables on the dependent variable. Hypothesis testing was conducted using the F test to determine the simultaneous effect, the t test to determine the partial effect, and the coefficient of determination (R^2) to measure the model's ability to explain variations in the dependent variable.

3. RESULTS AND DISCUSSION

The normality test aims to determine whether the dependent and independent variables in a regression model are normally distributed. In this study, the normality test was conducted using the Normal Probability Plot method and the Kolmogorov-Smirnov statistical test. The basis for making decisions in the Kolmogorov-Smirnov statistical test is that if the significance value is greater than 0.05, the data is normally distributed.

Table 1 Normality Test Results
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		36
Normal Parameters ^{a,b}	Mean	0.0000000
	Std. Deviation	0.09899510
Most Extreme Differences	Absolute	0.121
	Positive	0.121
	Negative	-0.103
Test Statistic		0.121
Asymp. Sig. (2-tailed) ^c		.200 ^d

Source: Data Processed, 2026

Based on the table above, the results of the normality test show that the significance value of the unstandardized residual in the Kolmogorov-Smirnov test is 0.200 and the test statistic is 0.121, which is greater than 0.05 ($K_s > 0.05$). Therefore, it can be concluded that the tested data is normally distributed.

The multicollinearity test aims to determine whether a regression model detects correlation between independent variables. Detecting the presence or absence of correlation between independent variables can be seen from the correlation and variance inflation factor (VIF) values.

Table 2 Multicollinearity Test Results

Coefficients ^a			
		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	Struktur Modal	0.935	1.069
	Likuiditas	0.935	1.069

a. Dependent Variable: Profitabilitas

Source: Data Processed, 2026

Based on the table above, it can be seen that the Capital Structure Tolerance value is 0.935, and Liquidity is 0.935, which is greater than 0.10. Meanwhile, the Capital Structure VIF is 1.069, and Liquidity is 1.069, which is less than 10.00. Therefore, it can be concluded that there is no multicollinearity in the tested data.

This test aims to determine whether heteroscedasticity of variance occurs in the regression model from one observation's residual to another. A good regression model should not experience heteroscedasticity.

Table 3 Heteroscedasticity Test Results

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	0.148	0.040		3.661	0.001
	Struktur Modal	-0.006	0.006	-0.176	-1.033	0.309
	Likuiditas	-0.027	0.020	-0.232	-1.363	0.182

a. Dependent Variable: ABSRES1

Source: Data Processed, 2026

Based on the results of the heteroscedasticity test in the table above, it shows that Capital Structure has a significant value of $0.309 > 0.05$, and Liquidity value of $0.182 > 0.05$. Based on these results, it can be concluded that the data in this study does not contain heteroscedasticity.

This test is conducted to determine whether there is an influence between the independent variables on the dependent variable. The basis for decision-making in this t-test is that if the calculated t-value is greater than the t-table and the significance value is less than 0.05, then the hypothesis in this study is accepted. The results of this test can be explained in the table below.

Table 4 Partial Test Results (t-Test)

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	0.262	0.065		4.052	0.000
	Struktur Modal	-0.011	0.010	-0.199	3.133	0.005
	Likuiditas	0.024	0.032	0.134	3.762	0.001

a. Dependent Variable: Profitabilitas

Source: Data Processed, 2026

Based on the table above, the Capital Structure shows a t-count of 3.133 while the t-table value = 2.042, so the t-count > t-table and the significance value is $0.005 < 0.05$ therefore it can be concluded that the Capital Structure has a positive and significant effect on profitability. While for Liquidity the T-count value = 3.762 and the t-t-table value = 2.042, so the t-count > t-table and the significance value is $0.001 < 0.05$ therefore it can be concluded that Liquidity has a positive and significant effect on profitability.

The Coefficient of Determination test aims to measure the model's ability to explain variation in the dependent variable. The coefficient of determination value is between zero and one. A small R² value indicates that the independent variables' ability to explain the dependent variable is very limited.

Table 5 Results of the Coefficient of Determination (R²) Test

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.210 ^a	.044	-.014	.10195	.044	.762	2	33	.475	.847

a. Predictors: (Constant), Struktur Modal, Likuiditas

b. Dependent Variable: Profitabilitas

Source: Data Processed, 2026

Based on the results of the coefficient of determination test in the Model Summary table, the R value is 0.210. This value indicates a weak relationship between the independent variables, namely capital structure and liquidity, and the dependent variable, namely profitability. This means that the two independent variables have a weak relationship in explaining changes in profitability.

Discussion

The Influence of Capital Structure (X₁) on Profitability (Y)

Based on the analysis results, it can be concluded that capital structure has a partial effect on profitability. The t-test results show a calculated t value of 3.133, while the t-table value is 2.042 at a significance level of 5% (0.05). Because the calculated t value is greater than the t value ($3.133 > 2.042$) and the significance value is $0.005 < 0.05$, the proposed hypothesis is accepted. This means that capital structure has a significant effect on company profitability.

The research results show that capital structure influences profitability. This finding is supported by empirical data from the sample companies. At PT Astra Agro Lestari Tbk (AALI), the relatively low Debt to Equity Ratio (DER) indicates that the company relies more on equity than debt. This is accompanied by a relatively stable profitability (ROA), indicating that low debt usage maintains profit efficiency.

In contrast, PT Bakrie Sumatera Plantations Tbk (UNSP) had a very high DER during a given period, indicating a high dependence on debt. This condition tends to be accompanied by low profitability, indicating that high interest expenses can depress the company's profits. This suggests that a suboptimal capital structure can negatively impact profitability, consistent with the trade-off theory, which states that excessive use of debt increases financial risk and reduces profits.

These findings suggest that capital structure affects profitability because the use of debt in corporate financing can create a leverage effect. Theoretically, based on the trade-off theory, the use of debt can increase profitability through tax benefits (tax shields), where interest expenses can reduce corporate taxes, thereby increasing net income. However, at a

certain level, excessive debt actually increases interest expenses and financial risk, which can depress profits.

In this study, the significant influence of DER on ROA indicates that the company is able to utilize debt productively to finance operations and business expansion, resulting in profits greater than the cost of debt. This means that debt utilization remains at an optimal level and has not yet caused financial distress. If debt management is inefficient, DER can actually reduce profitability because operating profits are used to pay interest obligations.

The results of this study align with those of Azhari & Saputra (2023), which found that capital structure significantly influences company profitability. However, these results differ from several other studies, which found that capital structure does not always have a direct impact on profitability but is instead influenced by other factors such as company size and operational efficiency.

The Effect of Liquidity (X2) on Profitability (Y)

Based on the analysis results, it can be concluded that liquidity has a partial effect on profitability. The t-test results show a calculated t value of 3.762, while the t-table value is 2.042 at a significance level of 5% (0.05). Because the calculated t value is greater than the t value ($3.762 > 2.042$) and the significance value is $0.001 < 0.05$, the proposed hypothesis is accepted. This means that liquidity has a positive and significant effect on profitability.

The research results show that liquidity influences profitability. This finding is also supported by the actual conditions of the sample companies. PT Astra Agro Lestari Tbk (AALI) has a relatively high Current Ratio, indicating the company's ability to meet short-term obligations. This condition supports the company's smooth operations, thus contributing to stable profitability.

In contrast, PT BW Plantation Tbk (BWPT) and PT Bakrie Sumatera Plantations Tbk (UNSP) have relatively low liquidity levels, indicating limited current assets to meet short-term liabilities. This condition can disrupt company operations and potentially depress profits. Therefore, good liquidity will optimally support company operations, thereby increasing profitability. While low liquidity can increase the risk of financial distress and reduce financial performance.

The significant influence of liquidity on profitability demonstrates that a company's ability to meet short-term obligations plays a crucial role in maintaining smooth operations. Theoretically, companies with good liquidity have a lower risk of cash flow disruptions, allowing production, distribution, and investment activities to proceed smoothly. This allows the company to generate stable profits.

An adequate Current Ratio (CR) reflects the availability of sufficient current assets to support operations. When a company is not under pressure from short-term debt payments, management can focus more on strategies to improve performance and efficiency, ultimately

increasing Return on Assets (ROA). Conversely, if liquidity is too low, a company risks financial distress, which can reduce profits due to additional costs or operational disruptions.

However, theoretically, excessively high liquidity can also have a negative impact if it indicates idle assets that are not being utilized productively. Therefore, the positive effect in this study indicates that the company's liquidity level is at an optimal level and capable of supporting increased profitability.

This finding aligns with research by Santoso, A., & Rahmawati (2023), which found that liquidity has a positive effect on profitability. However, other research has shown different results, indicating that liquidity does not always have a significant effect due to the possibility of idle funds not being utilized productively.

4. CONCLUSION

Based on the results of data analysis and discussion that has been done, it can be concluded that partially the capital structure and liquidity variables each have a positive and significant effect on profitability. This is proven by the results of the t-test where the capital structure has a calculated t-value (3.133) greater than the t-table (2.042) with a significance level (0.005) smaller than 0.05, thus indicating that good capital structure management can increase company profitability. Similarly, the liquidity variable shows a calculated t-value (3.762) greater than the t-table (2.042) with a significance level (0.001) which is also smaller than 0.05, which means that the company's ability to meet its short-term obligations also contributes to increasing profitability.

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