

THE EFFECT OF ASSET STRUCTURE, COMPANY SIZE, AND SALES GROWTH ON CAPITAL STRUCTURE IN INDUSTRIAL SECTOR COMPANIES ON THE INDONESIA STOCK EXCHANGE 2021-2024 PERIOD

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Abstract:

This study analyzes the influence of asset structure, firm size, and sales growth on the capital structure of industrial sector companies listed on the Indonesia Stock Exchange (IDX) for the 2021-2024 period. The research background is based on post-pandemic economic dynamics that influence corporate financing decisions and capital structure optimization based on the pecking order theory. The main objective is to examine the causal relationship between the variables of asset structure, firm size, and sales growth. Secondary data were obtained from annual financial reports, selected through purposive sampling with the criteria of industrial sector companies listed on the IDX, companies that consistently publish financial reports, companies that experience profits, and companies with positive equity, resulting in a sample of 92 samples over four years, 2021-2024. Data analysis used a descriptive approach to describe the distribution of variables, and multiple linear regression to test the hypothesis using SPSS 26 software. The results indicate that asset structure, firm size, and sales growth have a partial effect on capital structure. Simultaneously, the three variables explained 65.1% of the variation in capital structure (Adjusted $R^2=0.651$), while 34.9% was influenced by other variables outside this study. This finding implies the need for adaptive financing strategies to address factors influencing capital structure to improve capital efficiency in the Indonesian industrial sector.

Keywords: Asset Structure, Company Size, Sales Growth, Capital Structure.

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INTRODUCTION

In the business world, bankruptcy is a constant risk, even for large, once-successful companies. Increasing debt, leading to bankruptcy, is a notable phenomenon among Indonesian companies that use debt. Several once-well-known Indonesian companies have now had to close due to various factors, ranging from management errors in determining optimal capital structures, large debt burdens, the impact of COVID-19, and unanticipated changes in market trends.

According to Aulina (2025), in the Indonesian legal system, bankruptcy and insolvency are regulated by Law Number 37 of 2004 concerning Bankruptcy and Suspension of Debt Payment Obligations (Bankruptcy and PKPU Law), which was partially repealed by Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector (Law 4/2023). This law regulates procedures for companies unable to repay their debts, including debt restructuring and the liquidation of company assets to repay creditors.

One of the companies that went bankrupt at the end of 2024 was PT Sri Rejeki Isman Tbk (Sritex), which experienced a 3.75% increase in debt, with total debt reaching US\$1.60 billion, equivalent to Rp25.66 trillion. This caused the company to face a capital deficiency or negative equity, which at the end of 2023 was recorded as having increased from US\$781.02 million to 954.82 million, equivalent to Rp15.28 trillion. Sritex's total liabilities reached US\$113.02 million,



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equivalent to Rp1.81 trillion, consisting of short-term debt at Bank Central Asia of US\$11 million, equivalent to Rp176 billion. Total long-term liabilities amounted to US\$1.49 billion, equivalent to Rp23.84 trillion, with bank debt contributing US\$858.05 million, equivalent to Rp13.73 trillion (CNBC, 2024). A second example is PT Aditec Cakrawiyasa, a manufacturer of gas stoves and regulators under the Quantum brand, which was declared bankrupt on July 22, 2024, by the Central Jakarta Commercial Court. PT Aditec Cakrawiyasa had debts far exceeding its assets. The debts reached Rp 660 billion, while the company's assets were only valued at Rp 100 billion (Arlando, 2024). As debts continue to mount, the company may be unable to repay these obligations. Failure to meet debt obligations could lead to bankruptcy.

During the pandemic, the business sector faced devastating consequences in maintaining its survival. According to Chantikaruby & Oktaviani (2025), the impact of the COVID-19 pandemic has disrupted economic activity and company operations, affecting both the present and the future. This situation has impacted companies and exposed them to uncertainties. One of the companies significantly impacted by the pandemic is an industrial company that plays a key role in the Indonesian economy.

In the context of post-pandemic recovery, industrial companies in Indonesia face the challenge of adapting their financial strategies to adapt to new market conditions. One important aspect to consider is capital structure. To determine this capital structure, a company needs to consider the factors influencing it. Research by Nuridah et al. (2023) focuses on retail companies, while Gusti & Budiarti (2019) focus on the mining sector, highlighting industry differences that can influence the dynamics of relevant factors. Therefore, this study aims to analyze industrial sector companies listed on the Indonesia Stock Exchange (IDX).

The period from 2021 to 2024 is a crucial time to analyze the dynamics of capital structure in industrial companies. During this period, Indonesia faces various economic challenges, including the impact of the COVID-19 pandemic, which has affected many sectors. Companies must adapt to changing market conditions and find ways to maintain their financial performance. In this context, this research is expected to make a significant contribution to understanding how companies can manage their capital structure amidst economic uncertainty.

Decisions regarding capital structure are crucial because they can affect financial risk, the cost of capital, and the company's growth potential. Effective capital structure management enables companies to achieve a balance between risk and return. Companies with a high proportion of debt may be able to utilize leverage to increase profits, but also face the risk of bankruptcy if they cannot meet their debt obligations. Conversely, companies that rely more on equity may have lower risk but may also face challenges in terms of return on investment for shareholders. Therefore, a thorough understanding of capital structure is crucial for company management in formulating optimal and sustainable financing strategies.

One factor influencing capital structure is a company's asset structure. According to Arifah & Winny (2021), asset structure encompasses the composition of assets held, including fixed assets such as plant and machinery, and current assets such as cash and receivables. Companies with a solid and diversified asset structure have a better ability to obtain financing. More liquid and valuable assets can increase creditor confidence, thus facilitating access to debt. Therefore, analyzing asset structure is crucial for understanding how companies can optimize their capital structure. Previous research on the influence of asset structure has shown mixed or inconsistent results. Research conducted by Gusti & Budiarti (2019) and Chantikaruby & Oktaviani (2025) revealed that asset structure influences a company's capital structure. Several other studies have

shown inconsistent or differing results. For example, Panjaitan & Hidayat (2024) found that asset structure did not affect capital structure.

The next variable in this study is company size, as it is often used as an indicator of the likelihood of bankruptcy. Previous research on the influence of company size has yielded mixed or inconsistent results. Research by Hasyim & Fatimah (2022) indicates that company size influences capital structure. Meanwhile, research by Panjaitan & Hidayat (2024) and Chantikaruby & Oktaviani (2025) found that company size does not affect capital structure.

Sales growth is one factor influencing capital structure. Good sales growth will influence consumer confidence in purchasing the company's shares. Research conducted by Marfuah & Nurlaela (2017) showed that sales growth did not affect capital structure. This finding differs from or is inconsistent with the findings of Panjaitan & Hidayat (2024) and Hasyim & Fatimah (2022), who found that sales growth did influence capital structure.

The significance of this research lies in its ability to identify factors that can improve the efficiency of corporate capital management, which can positively impact a company's financial health. Furthermore, this research also serves as a guide for financial managers in making decisions related to capital structure that can support sustainable growth. Although numerous studies have examined the factors influencing capital structure, previous findings have shown inconsistencies regarding the influence of asset structure, company size, and sales growth. Research on capital structure in Indonesia has also focused more on the banking or manufacturing sectors, resulting in relatively limited studies specifically analyzing the industrial sector for the 2021–2024 period. The urgency of this research is seen in the impact of corporate bankruptcies on economic stability, investor confidence, and employment. Therefore, this research is crucial for identifying the factors causing bankruptcy.

METHODS

This study uses a quantitative approach to analyze the influence of asset structure, company size, and sales growth on capital structure. The population in this study is industrial sector companies listed on the Indonesia Stock Exchange for the period 2021–2024. This study uses a purposive sampling method. The sample size in this study is 92. The method used in this study is the documentation method in the form of annual financial reports for the period 2021–2024. The data analysis methods used in this study include descriptive statistical tests, classical assumption tests, multiple linear regression analysis, and hypothesis testing.

RESULT AND DISCUSSION

Descriptive Statistical Test

Table 1. Descriptive Statistics After Outlier Handling

	N	Minimum	Maximum	Mean	Std. Deviation
X1	74	0.02	0.72	0.3314	0.17744
X2	74	23.54	32.76	28.1474	2.00944
X3	74	-0.32	0.56	0.1204	0.16892
Y	74	0.06	1.27	0.5169	0.29833
Valid N (listwise)	74				

Struktur aset (X1) menghasilkan nilai minimum sebesar 0,02 dan nilai maksimum sebesar 0,72. The average (mean) value of the asset structure was 0.3223. The average (mean) value of the asset structure was greater than the standard deviation, namely $0.3223 > 0.17717$. Company size (X2) produced a minimum value of 23.54 and a maximum value of 32.76. The average (mean) value of the asset structure was 28.1474. The average (mean) value of the asset structure was greater than the standard deviation, namely $28.1474 > 2.00944$. Sales growth (X3) produced a minimum value of -0.32 and a maximum value of 0.56. The average (mean) value of the asset structure was 0.1204. The average (mean) value of the asset structure was greater than the standard deviation, namely $0.1204 < 0.16892$. The capital structure (Y) produced a minimum value of 0.06 and a maximum value of 1.27. The average (mean) value of the asset structure was 0.9350. The average (mean) value of the asset structure was greater than the standard deviation, namely $0.5169 > 0.29833$.

Classical Assumption Test Normality Test

Table 2. Normality Test Results After Outlier Handling
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		74
Normal Parameters ^{a,b}	Mean	-0.2299570
	Std. Deviation	0.31288611
Most Extreme Differences	Absolute	0.101
	Positive	0.083
	Negative	-0.101
Test Statistic		0.101
Asymp. Sig. (2-tailed)		0.060 ^c

Based on the table, it shows that the sig value is 0.060. The probability value is greater than the significance level of 0.05 ($0.060 > 0.05$), so it can be concluded that the data in this study is normally distributed.

Multicollinearity Test

Table 3. Multicollinearity Test Results
Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	X1	0.957	1.045
	X2	0.959	1.042
	X3	0.967	1.034

a. Dependent Variable: Y

Based on the results obtained from the multicollinearity test, the data in the table above shows that Asset Structure (X1), Company Size (X2), and Sales Growth (X3) have a VIF value < 10 and a Tolerance value > 0.10 . Therefore, it can be concluded that this regression model is free from multicollinearity symptoms.

Heteroscedasticity Test



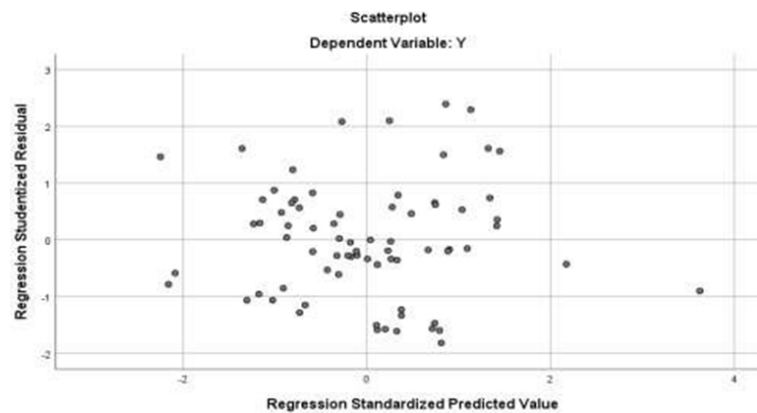


Figure 1. Heteroscedasticity Results

Based on the results of the heteroscedasticity test, which is shown in the plot graph above, it shows that there is no clear pattern, and the points are spread above and below the number 0 on the Y axis, so it can be concluded that there is no heteroscedasticity in the regression model.

Autocorrelation Test

Table 4. Autocorrelation Test Results After Data Transformation

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.727 ^a	0.529	0.651	0.20301	1.901

After applying the Cochrane-Orcutt method, the Durbin-Watson value changed to 1.901 which, when compared with the DW table using a confidence level of 0.05 with a sample size of 74 and a variable (K) of 3, obtained a du of 1.7079, so the conclusion is $DU < DW < (4 - DU)$ or $1.7079 < 1.901 < (4 - 1.7079)$ so it can be concluded that there is no autocorrelation in the regression model, thus in this study the autocorrelation problem was resolved using the Cochrane-Orcutt method.

Multiple Linear Regression Analysis

Table 5. Results of Multiple Linear Regression Analysis

Model	B	Std. Error	Beta
1 (Constant)	-1.126	0.373	
LAG_X1	0.585	0.114	0.482
LAG_X2	0.068	0.013	0.357
LAG_X3	0.253	0.118	0.212

The constant obtained from the regression equation above is -1.126, indicating that if all independent variables are equal to 0, then the capital structure will be -1.126. The regression coefficient of the asset structure variable (X1) is positive, at 0.585. This means that if the asset structure variable increases by one unit, assuming the other variables remain constant, then the capital structure will increase by 0.585 units. The regression coefficient of the company size variable (X2) is positive, at 0.068. This means that if the company size variable increases by one unit, assuming the other variables remain constant, then the capital structure will increase by 0.068 units. The regression coefficient of the sales growth variable (X3) is positive, at 0.253. This means

that if the sales growth variable increases by one unit, assuming the other variables remain constant, then the capital structure will increase by 0.253 units.

Hypothesis Testing

Partial Test (T)

Table 6. Partial Test Results (t)

	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.126	0.373		-1.948	0.056
	LAG_X1	0.585	0.114	0.482	5.130	0.000
	LAG_X2	0.068	0.013	0.357	2.450	0.006
	LAG_X3	0.253	0.118	0.212	2.144	0.036

Based on the results of the test in the table above, it shows that whether or not the independent variable individually affects the dependent variable can be described as follows. Based on the test results that can be seen from the table, it shows that the significant value of the asset structure variable stated by X1 is 0.000. The significant value obtained is greater than the test level, namely $0.000 < 0.05$ and the calculated t value $> t$ table ($5.130 > 1.99444$) with the calculation $df = n - k - 1$ ($74 - 3 - 1$) = 70, $\alpha / 2$ ($0.05 / 2$) = 0.025, so that the first hypothesis can be accepted, namely the asset structure affects the capital structure. Based on the test results that can be seen from the table, it shows that the significant value of the company size variable stated by X2 is 0.006. The significant value obtained is smaller than the test level, which is $0.006 < 0.05$ and the calculated t value $> t$ table ($2.450 > 1.99444$) with the calculation $df = n - k - 1$ ($74 - 3 - 1$) = 70, $\alpha / 2$ ($0.05 / 2$) = 0.025, so that the second hypothesis can be accepted, namely, company size affects capital structure. Based on the test results that can be seen from the table, it shows that the significant value of the asset structure variable stated by X3 is 0.036. The significant value obtained is smaller than the test level, namely $0.000 < 0.05$ and the calculated t value $> t$ table ($2.144 > 1.99444$) with the calculation $df = n - k - 1$ ($74 - 3 - 1$) = 70, $\alpha / 2$ ($0.05 / 2$) = 0.025, so that the third hypothesis can be accepted, namely that sales growth affects capital structure.

Simultaneous Test (F)

Table 7. Simultaneous Test Results (F)

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.150	4	0.787	19.107	0.000 ^b
	Residual	2.802	69	0.041		
	Total	5.952	73			

Based on the test results that can be seen in the table above, it can be seen that the significance value of 0.000 is much smaller than 0.05 and the calculated $F > F$ table, namely $19.107 > 3.130$ calculated from $df_1 = k - 1$ (3-1) and $df_2 = n - k$ (74-3), from these results it can be said that all independent variables together affect the dependent variable.

Coefficient of Determination Test (R2)

Table 8. Results of the Determination Coefficient Test

Model	R	R Square	Square	The Estimate
1	0.727 ^a	0.529	0.651	0.20301



Based on the Summary model table, it can be seen that the coefficient of determination or (Adjusted R Square) shows a value of 0.651, meaning that 65.1% of the capital structure is determined by the variables Asset Structure, Company Size and Sales Growth, while the remaining 34.9% (100% - 65.1%) is explained by other variables outside this research..

CONCLUSION

Based on the results of the study, asset structure, company size, and sales growth partially affect capital structure. Therefore, asset structure, company size, and sales growth simultaneously affect capital structure.

Industrial sector companies are advised to manage their assets optimally as collateral for external financing and maintain a balance between internal and external funding sources to keep the capital structure efficient. In addition, companies need to utilize their size and scale of business to strengthen investor confidence and increase their ability to obtain financing at a lower cost. For external parties such as investors and financial institutions, these results can be used as a reference in assessing a company's financial performance, stability, and risk before investing or granting credit. Meanwhile, for future researchers, it is recommended to add other variables such as profitability, liquidity, or business risk in order to provide a more comprehensive picture of the factors that influence the capital structure of industrial sector companies.

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