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## **Capital Structure and Asset Growth on Firm Value: Profitability as a Mediating Factor in the Economic Development of Manufacturing Companies Listed on the Indonesia Stock Exchange**

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### ***Abstract:***

*This study aims to analyze the effect of capital structure and asset growth on firm value with profitability as a mediating variable in manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period 2021-2023. This study uses secondary data in the form of annual financial reports, with purposive sampling technique based on certain criteria, resulting in 35 companies as samples. The analysis method used is the Sobel test to test the mediating role of profitability in the relationship between capital structure, asset growth, and firm value. The results showed that capital structure and asset growth each have a positive and significant effect on firm value. Profitability is also proven to mediate the effect of capital structure and asset growth on firm value significantly. Optimal capital structure and directed asset growth can increase profitability, which in turn has a positive impact on firm value. This study provides implications for company management to pay more attention to managing capital structure and asset growth in order to increase profitability, which can be the main strategy to maximize firm value in the capital market.*

**Keywords:** *Firm Value, Capital Structure, Asset Growth, Profitability*

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## **1. Introduction**

A manufacturing company is a company whose activities include purchasing raw materials, processing them into finished products that can be sold, and paying other costs. The business world is now generally understood as an economic agent that pursues short-term and long-term goals. The diversity of community needs has created fierce competition for companies to find and occupy the market. With the development of the economy and increasingly fierce business competition, every company needs to continue to innovate, improve performance, and develop its business in order to compete and survive in the business world.

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Company value is an investor's view of a company and is related to stock prices. The better a company's performance, the higher its value. The higher a company's stock price, the higher the company's value. Of course, a high company value is the dream of all managers. A high company value indicates that the capacity of shareholders is also high. Investors are certainly interested in investing in companies that have a good track record in determining company value. In this study, company value was measured using price book value (PBV) (I. Dewi & Sujana, 2019).

Company value is generally associated with the company's stock price, and investors consider stock price as one of the factors when making investment decisions. Increasing the value of the company, especially issuers, is one of the main focuses of the company. This is because the higher the value of a company's shares, the greater the wealth of shareholders as investors in the company (Mercyana et al., 2022). As the company's value increases, shareholder welfare also increases (Hermuningsih et al., 2022). Stock prices in the market can reflect the value of a company. Higher stock prices mean higher returns for investors (Yusmaniarti et al., 2020).

Firm value is influenced by several factors, the first factor is capital structure. Capital structure is an asset used for the operational activities of a company by using funds or capital sources received by the company from external and internal funds. The greater the debt or liability of the company, the greater the risk in the company. Conversely, the lower the rate of return on debt, the lower the risk in the company. This can be interpreted that the addition of debt value will increase the value of the company when the capital structure position is below the optimal point, (Munarwati & Pustikaningsih, 2019). Research conducted by (Natsir & Yusbardini, 2020) and (Suwarno & Susanto, 2021), states that capital structure has a positive effect on firm value. On the other hand, research conducted by (Mahanani & Kartika, 2022) and (Ulya & Sunarto, 2023) states that capital structure has a negative effect on firm value.

The second factor that affects firm value is asset growth. Asset growth is the increase or decrease in the total amount of assets owned by a company (Lilavira & Zulaikha, 2020). Asset growth is the sum of total asset growth plus long-term asset growth. On the other hand, a large increase in assets is expected to lead to instability in firm value, and an increase in assets may result in high dividend payments. This can mean increased profits due to significant asset growth (Yudistira et al., 2022) Research conducted by (Tunisa et al., 2021) and (Makmur et al., 2022) state that asset growth has a significant positive effect on firm value. Conversely, research conducted by (Baheri et al., 2022) and (Mardianto, 2022), state that asset growth does not have a significant effect on firm value.

This study uses profitability as a mediating variable because profitability can indirectly affect firm value. The higher the level of profitability achieved by a company can show the company's ability to generate profits so that it can have a positive impact on stock prices (Kelana, 2020). Profitability was chosen as a mediating variable because this ratio serves as an indicator to measure the financial performance of a company and is a reference in assessing the company (Novariantio & Dwimulyani, 2019). The level of profitability generated by a company can affect

its value which is reflected in the profit it generates. If a company can increase its profits, it means that the company is doing well and will be highly valued by investors, especially if the company's share price also increases (Niar, 2019). Research conducted by (Kanta et al., 2021) and (Rudangga & Sudiarta, 2021) state that profitability has a positive and significant effect on firm value. Conversely, research conducted by (Reschiwati et al., 2020) states that profitability has a negative and insignificant effect on firm value.

Based on the explanation above, the background and factors that make researchers interested in conducting this research are: First, researchers find research results that are contradictory and different from previous studies, this is very interesting and encourages researchers to conduct further research. Second, by combining several relevant variables it is more likely to obtain a real-world situation with a strong and relevant theory. Therefore, researchers try to combine several related variables and use capital structure and asset growth as independent variables, firm value as the dependent variable and profitability as the mediating variable. Third, this study uses Manufacturing companies listed on the Indonesia Stock Exchange (IDX) in the period 2021 to 2023.

## **2. Theoretical Background**

**Firm Value:** Firm value is an investor's perception of the success rate of a company and is generally related to its stock price. When the stock price is high, the value of the company increases, and stakeholders have high confidence in the company's current performance and future prospects. Firm value is an indicator of the market's assessment of the company as a whole. This is because a high level of company value means high shareholder wealth (Jufrizen & Al Fatin, 2020).

**Capital Structure:** Capital structure is the ratio of debt and equity. The capital structure shows the proportion of debt and equity used to finance the company's assets. The amount of debt affects management actions and funding decisions (Bui et al., 2023). Capital structure is related to the use of funds from both internal and external companies. Capital structure is very important because it is related to the financial condition of a company. A good capital structure is very important to balance risk and return and maximize shareholder value, allowing companies to make strategic decisions regarding the optimal capital structure to maximize shareholder wealth (Aslindar & Lestari, 2020).

**Asset Growth:** Asset growth is the annual change in total assets of a company (Alamsah, 2021). Companies that are growing rapidly need to compensate by increasing their fixed assets, because the company's annual growth shows good performance.

**Profitability:** Profitability is a measure used to assess whether a company can make a profit within a certain period of time (Harahap & Irawan, 2018). High profitability reflects how the company is able to generate high returns for shareholders

(Hermuningsih et al., 2019). Profitability represents good future prospects for a company and therefore plays an important role in ensuring the long-term sustainability of a company. Therefore, every company always strives to increase its profitability. Because the higher the profitability achieved, the more the survival of the company is guaranteed (Hermuningsih, 2020).

### 3. Methodology

This study uses an associative quantitative method to analyze the causal relationship between the independent variables (Capital Structure and Asset Growth), the mediating variable (Profitability), and the dependent variable (Firm Value). The secondary data used in this study were obtained from the financial statements of manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2021-2023 period. The research sample was selected using purposive sampling method with certain criteria, such as the availability of complete and relevant financial data for the variables studied. The data analysis technique used in this study is multiple linear regression, which will be carried out using SPSS version 27. This study also involves the Sobel test to examine the role of profitability as a mediating variable in the relationship between capital structure, asset growth, and firm value. This method allows to identify direct, indirect effects, as well as statistically test the significance of the mediating effect.

### 4. Empirical Findings/Result

#### Descriptive Statistics

Descriptive statistics are used to provide an overview or description of data seen from the mean (average value), standard deviation (standard deviation), maximum, minimum, variance, number, range, kurtosis vulnerability, and skewness (Ghozali, 2021).

**Table 1. Descriptive Statistics Test**

Descriptive Statistics								
	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Capital Structure	105	3.28	.09	3.37	.7735	.05919	.60648	.368
Asset Growth	105	2.12	-.31	1.81	.0903	.02019	.20687	.043
Profitability	105	.30	.01	.31	.0812	.00528	.05408	.003
Firm Value	105	7.60	.21	7.81	1.9047	.16509	1.69170	2.862
Valid N (listwise)	105							

Source: 2024 processed original data

Based on the descriptive statistical test results, it is obtained that:

1. Capital Structure has an average of 0.7735 with considerable variation (standard deviation 0.60648) and a value range of 0.09-3.37.
2. Asset Growth has an average of 0.0903 with small variations (standard deviation 0.20687) and a value range of -0.31-1.81.
3. Profitability has an average of 0.0812 with low variation (standard deviation 0.05408) and a value range of 0.01-0.31.
4. Company value has an average of 1.9047 with significant variation (standard deviation 1.69170) and a value range of 0.21-7.81.

These results indicate that there are significant variations among the sample companies in terms of capital structure, asset growth, profitability, and firm value during the study period.

### Traditional assumption test

#### Test of normalcy

The normality test is a test conducted to determine whether the data distribution is normal or not. The normality test aims to test whether the residual or confounding variables in the research regression model are normally distributed. The normality test in this study used a statistical analysis of the One-Sample Kolmogorov-Smirnov (K-S) test with a significance value of 0.05. If the significance or value of Asymp. Sig. (2-tailed)  $\geq 0.5$  then the data is normally distributed. Conversely, if the significant value is  $\leq 0.5$ , the data is not normally distributed (Ghozali, 2021).

**Table 2. Normality Test Results 1**  
**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual	
N		105	
Normal Parameters <sup>a,b</sup>	Mean	-.0952381	
	Std. Deviation	1.11943364	
Most Extreme Differences	Absolute	.081	
	Positive	.081	
	Negative	-.068	
Test Statistic		.081	
Asymp. Sig. (2-tailed) <sup>c</sup>		.087	
Monte Carlo Sig. (2-tailed) <sup>d</sup>	Sig.	.093	
	99% Confidence Interval	Lower Bound	.085
		Upper Bound	.100

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 1502173562.

Source: 2024 processed original data

**Table 3. Normality Test Results 2**  
**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual	
N		105	
Normal Parameters <sup>a,b</sup>	Mean	-.0053333	
	Std. Deviation	.04030814	
Most Extreme Differences	Absolute	.087	
	Positive	.087	
	Negative	-.056	
Test Statistic		.087	
Asymp. Sig. (2-tailed) <sup>c</sup>		.051	
Monte Carlo Sig. (2-tailed) <sup>d</sup>	Sig.	.052	
	99% Confidence Interval	Lower Bound	.046
		Upper Bound	.057

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 926214481.

Source: 2024 processed original data

Based on tables 2 and 3 above, the results of the Normality test using One-Sample Kolmogorov-Smirnov obtained a significance value of Asymp. Sig. (2-tailed) is more than 0.05. So in accordance with the basis for decision making in the Kolmogorov-Smirnov normality test above, it can be concluded that the data used by researchers is normally distributed.

### Test of Multicollinearity

The multicollinearity test is a test that aims to test whether there is a correlation between the independent variables in the regression model. This study uses the tolerance value and variance inflation factor (VIF) to measure the multicollinearity test. If the tolerance value > 0.10 and the VIF value < 10, it means that there is no multicollinearity, otherwise if the tolerance value < 0.10 and the VIF value > 10, it means that there is multicollinearity (Ghozali, 2021)

**Table 4. Results of the Multicollinearity Test 1**

Model		Coefficients <sup>a</sup>				Sig.	Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients			Tolerance	VIF
		B	Std. Error	Beta	t			
1	(Constant)	-.135	.376		-.360	.720		
	Capital Structure	.887	.263	.318	3.368	.001	.766	1.306
	Asset Growth	-.806	.689	-.099	-1.168	.245	.960	1.041
	Profitability	18.518	2.754	.626	6.725	.000	.787	1.270

a. Dependent Variable: Firm Value

Source: 2024 processed original data

**Table 5. Results of the Multicollinearity Test 2**

Model		Coefficients <sup>a</sup>				Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients		Tolerance	VIF
		B	Std. Error	Beta	t		
1	(Constant)	.109	.008		13.232	.000	
	Capital Structure	-.044	.008	-.467	-5.243	.000	.972 1.029
	Asset Growth	.028	.025	.100	1.120	.265	.972 1.029

a. Dependent Variable: Profitability

Source: 2024 processed original data

Based on Tables 4 and 5, it can be seen that the Tolerance value of each variable is greater than 0.10. In addition, the Variance Inflation Factor (VIF) value of each variable is also less than 10, thus it can be concluded that this regression model does not contain multicollinearity. This means that the independent variables do not interfere or affect each other.

### Test of Heteroscedasticity

The heteroscedasticity test aims to test whether there is an inequality of variance between the residuals of one observation and another observation in a regression model. If the variance of the residuals of each observation is fixed, it is called homoscedasticity and if it is different, it is called heteroscedasticity. This study tested for heteroscedasticity using the Glesjer test with a significance level of 5%. Based on this, the model used to test heteroscedasticity is: (1) If the significance value > 0.05 then there is no heteroscedasticity in the data. (2) If the significance value < 0.05, it means that there is heteroscedasticity in the data (Ghozali, 2021).

**Table 6. Results of the Heteroscedasticity Test 1**

Model		Coefficients <sup>a</sup>				Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	
1	(Constant)	1.014	.120		8.482	.000
	Capital Structure	-.102	.117	-.087	-.871	.386
	Asset Growth	.032	.344	.009	.094	.925
	Profitability	-.423	.252	-.166	-1.679	.096

a. Dependent Variable: ABS\_RES1

Source: 2024 processed original data

**Table 7. Results of the Heteroscedasticity Test 2**

Model		Coefficients <sup>a</sup>				Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	
1	(Constant)	.033	.004		8.004	.000
	Capital Structure	-.002	.004	-.041	-.412	.681
	Asset Growth	.004	.012	.036	.357	.722

a. Dependent Variable: ABS\_RES2

Source: 2024 processed original data

Based on the results of the heteroscedasticity test in tables 6 and 7 using the Glejser test requires that the Sig. value must be greater than the alpha value of 5% or 0.05. This means that in this study there is no heteroscedasticity.

### Test of Autocorrelation

The autocorrelation test aims to test whether there is a correlation between confounding error in period  $t$  and confounding error in period  $t-1$  (previous) of the linear regression model I mean. There are several ways to determine the presence or absence of autocorrelation, this study uses the Durbin-Watson test (DW test). The Durbin-Watson test has criteria in decision making to determine whether there is autocorrelation, namely  $DU < DW < 4-DU$  (Ghozali, 2021).

**Table 8. Results of the Autocorrelation Test 1**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.557 <sup>a</sup>	.310	.690	2.42553	2.073

a. Predictors: (Constant), Capital Structure, Asset Growth, Profitability

b. Dependent Variable: Firm Value

Source: 2024 processed original data

Based on table 8, it shows that the Durbin-Watson value is 2.073. Based on the Durbin-Watson distribution table with the number of independent variables ( $k$ ) of 3 and the number of samples ( $N$ ) of 105 at the 5% significance level, the  $du$  value is 1.7411. The  $4-du$  value is calculated as  $4 - 1.7411$ , resulting in 2.2589. Thus, the Durbin-Watson value (2.073) is in the range of  $du$  (1.7411) to  $4-du$  (2.2589), which indicates that the regression model does not experience autocorrelation problems.

**Table 9. Results of the Autocorrelation Test 2**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.461 <sup>a</sup>	.213	.197	1.75126	1.834

a. Predictors: (Constant), Capital Structure, Asset Growth

b. Dependent Variable: Profitability

Source: 2024 processed original data

Based on table 9, it shows that the Durbin-Watson value is 1.834. Based on the Durbin-Watson distribution table with the number of independent variables ( $k$ ) of 2 and the number of samples ( $N$ ) of 105 at the 5% significance level, the  $du$  value is 1.7209. The  $4-du$  value is calculated as  $4 - 1.7209$ , resulting in 2.2791. Thus, the Durbin-Watson value (1.834) is in the range of  $du$  (1.7209) to  $4-du$  (2.2791), which indicates that the regression model does not experience autocorrelation problems.

### Analysis of Regression

Multiple linear regression analysis is a statistical method used to measure and analyze the relationship between independent variables and dependent variables. This method helps determine the degree of relationship and direction of association between the two types of variables (Ghozali, 2021).



**Table 10. Results of Multiple Linear Regression I**

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	-.051	.078		-.650	.517
	Capital Structure	.806	.053	.583	15.229	.000
	Asset Growth	.467	.198	.081	2.356	.020
	Profitability	15.322	.562	1.045	27.249	.000

a. Dependent Variable: Firm Value

Source: 2024 processed original data

Based on table 10, it can be concluded that capital structure (X1), asset growth (X2), and profitability (Z) have a significant effect on firm value.

- The constant value in the regression equation of -0.051 indicates that mathematically, if all independent variables, namely Capital Structure, Asset Growth, and Profitability, are 0, then Firm Value is estimated at -0.051.
- The regression coefficient of Capital Structure is 0.806. That is, the positive coefficient direction indicates that if the Capital Structure increases, it will potentially increase the Company Value by 0.806 units. the significance value (0.000) is smaller than 0.05, which indicates that the effect of Capital Structure on Company Value is significant.
- The Asset Growth regression coefficient is 0.467, meaning that the positive coefficient direction indicates that if Asset Growth increases, it will potentially increase Firm Value by 0.467 units. However, the significance value (0.020) is smaller than 0.05, which indicates that the effect of Asset Growth on Firm Value is significant.
- The Profitability regression coefficient is 15.322. This means that the positive coefficient direction indicates that if Profitability increases, it will potentially increase the Company Value by 15.322 units. In addition, the significance value (0.000) is smaller than 0.05, which indicates that the effect of Profitability on Firm Value is significant.

e. At that point the relapse condition can be composed as takes after:

$$Y = (-0,051) + 0,806 X1 + 0,467 X2 + 15,322 Z + e$$

**Table 11. Results of Multiple Linear Regression II**

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	.040	.021		1.913	.059
	Capital Structure	.181	.070	.253	2.580	.011
	Asset Growth	.399	.069	.495	5.806	.000

a. Dependent Variable: Profitability

Source: 2024 processed original data

Based on table 11, it can be concluded that capital structure (X1), asset growth (X2), have a significant effect on Profitability.

- The constant value in the regression equation of 0.040 indicates that mathematically, if all independent variables, namely Capital Structure and Asset Growth, are 0, then Profitability is estimated at 0.040.
- Capital Structure regression coefficient is 0.181. That is, the positive coefficient direction shows that if the Capital Structure increases, it will potentially increase Profitability by 0.181 units.
- Asset Growth regression coefficient is 0.399. This means that the direction of the positive coefficient shows that if Asset Growth increases, it will potentially increase Profitability by 0.399 units.
- At that point the relapse condition can be composed as takes after:  

$$Y_1 = 0,040 + 0,181 X_1 + 0,399 X_2 + e$$

### Stimulant Test (F Test)

The F test aims to test the strength of the research model, namely to ascertain or test whether there is an influence of the independent variable on the dependent variable, and can be seen using the can regression model equation. If the sig value  $< 0.05$  then there is an influence of variable X on variable Y simultaneously (Ghozali, 2021).

**Table 12. Results of Stimulant Test (F Test) I**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.500	3	21.500	251.480	.000 <sup>b</sup>
	Residual	8.635	101	.085		
	Total	73.135	104			

a. Dependent Variable: Firm Value

b. Predictors: (Constant), Capital Structure, Asset Growth, Profitability

Source: 2024 processed original data

Based on the results of the ANOVA table output above, it is known that the significance value is 0.000. This value is smaller than the specified significance level (0.05). Therefore, it can be concluded that simultaneously the variables of Capital Structure, Profitability, and Asset Growth have a significant effect on the dependent variable of Firm Value.

**Table 13. Results of Stimulant Test (F Test) II**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.828	2	.414	20.454	.000 <sup>b</sup>
	Residual	2.064	102	.020		
	Total	2.892	104			

a. Dependent Variable: Profitability

b. Predictors: (Constant), Capital Structure, Asset Growth

Source: 2024 processed original data

Based on the results of the ANOVA table output above, it is known that the significance value is 0.000. This value is smaller than the specified significance level (0.05). This shows that simultaneously the Capital Structure and Asset Growth variables have a significant effect on the dependent variable Profitability.

**Partial Test (t Test)**

The t test is used to show how much influence each independent variable has individually in explaining the variation in the dependent variable. If the p-value must be smaller than the significance level of 0.05 ( $\alpha = 5\%$ ) and the tcount value must be greater than the ttable ( $t_{count} > t_{table}$ ), then the independent variable affects the dependent variable or the  $H_a$  is accepted (Ghozali, 2021).

**Table 14. t Test Results I**

		<b>The Firm Value Effects of Capital Structure, Asset Growth and Profitability Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardize d Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	-.051	.078		-.650	.517
	Capital Structure	.806	.053	.583	15.229	.000
	Asset Growth	.467	.198	.081	2.356	.020
	Profitability	15.322	.562	1.045	27.249	.000

a. Dependent Variable: Firm Value

Source: 2024 processed original data

**Table 15. t Test Results I**

		<b>The Profitability Effects of Capital Structure and Asset Growth Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	.040	.021		1.913	.059
	Capital Structure	.181	.070	.253	2.580	.011
	Asset Growth	.399	.069	.495	5.806	.000

a. Dependent Variable: Profitability

Source: 2024 processed original data

Regression analysis results lead to the following outcome:

1. the effect of Capital Structure on Firm Value

Hypothesis 1 states that Capital Structure has a positive and significant effect on Firm Value. In the Coefficients table, the t-count value for Capital Structure variable is 15.229, while the t-table value at 5% (0.05) significance level with degree of freedom  $df = 101$  is 1.660. It shows that  $t_{count} > t_{table}$  ( $15.229 > 1.660$ ). In addition, the significance value of Capital Structure variable is 0.000, which is smaller than 0.05 ( $0.000 < 0.05$ ). Thus, it can be concluded that Capital Structure has a positive and significant effect on Firm Value, so  $H_0$  is rejected and  $H_a$  is accepted.

2. the effect of Asset Growth on Firm Value

Hypothesis 2 states that Asset Growth has a positive and significant effect on Firm Value. In the Coefficients table, the t-count value for the Asset Growth variable is 2.356, while the t-table value at a significance level of 5% (0.05) with  $df = 101$  is 1.660. This shows that the  $t_{count} > t_{table}$  ( $2.356 > 1.660$ ).

In addition, the significance value of the Asset Growth variable is 0.020, which is smaller than 0.05 ( $0.020 < 0.05$ ). Thus, it can be concluded that Asset Growth has a significant effect on Firm Value, so  $H_0$  is accepted and  $H_a$  is rejected.

3. Effect of Capital Structure on Profitability

Hypothesis 3 states that Capital Structure has a positive and significant effect on Profitability. In the Coefficients table, the t-count value for the Capital Structure variable is 2.580, while the t-table value at the 5% (0.05) significance level with  $df = 102$  is 1.659. It shows that  $t\text{-count} > t\text{-table}$  ( $2.580 > 1.659$ ). In addition, the significance value of Capital Structure variable is 0.011, which is smaller than 0.05 ( $0.011 < 0.05$ ). Thus, it can be concluded that Capital Structure has a significant effect on Profitability, so  $H_0$  is rejected and  $H_a$  is accepted.

4. Effect of Asset Growth on Profitability

Hypothesis 4 states that Asset Growth has a positive and significant effect on Profitability. In the Coefficients table, the t-count value for the Asset Growth variable is 5.806, while the t-table value at the 5% (0.05) significance level with  $df = 102$  is 1.659. This shows that the  $t\text{-count} > t\text{-table}$  ( $5.806 > 1.659$ ). In addition, the significance value of the Asset Growth variable is 0.001, which is smaller than 0.05 ( $0.001 < 0.05$ ). Thus, it can be concluded that Asset Growth has a positive and significant effect on Profitability, so  $H_0$  is rejected and  $H_a$  is accepted.

5. Effect of Profitability on Company value

Hypothesis 5 states that Profitability has a positive and significant effect on Firm Value. In the Coefficients table, the t-count value for the Profitability variable is 27.249, while the t-table value at a significance level of 5% (0.05) with  $df = 101$  is 1.660. This shows that  $t\text{-count} > t\text{-table}$  ( $27.249 > 1.660$ ). In addition, the significance value of the Profitability variable is 0.000, which is smaller than 0.05 ( $0.000 < 0.05$ ). Thus, it can be concluded that Profitability has a positive and significant effect on Firm Value, so  $H_0$  is rejected and  $H_a$  is accepted.

### Coefficient of Determination (R Square)

The coefficient of determination ( $R^2$ ) basically measures how well a model can explain the variation in the dependent variable. The coefficient of determination is between 0 and 1. A small  $R^2$  value indicates that the independent variables can provide almost all the information needed to predict changes in the dependent variable (Ghozali, 2021).

**Table 15. R Square Test Results, Phase I**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.939 <sup>a</sup>	.882	.878	.29239

a. Predictors: (Constant), Capital Structure, Asset Growth, Profitability

b. Firm Value

Source: 2024 processed original data

Based on the output in table 15 regression model 1, it can be seen that the coefficient of determination or Adj R Square of 0.878 or 87.8% indicates that variations in the firm value variable can be explained by the independent variables, namely Capital Structure and Asset Growth and profitability of 87.8%. Meanwhile, the remaining 12.2% is influenced by variables not examined.

**Table 17. R Square Test Results Phase II**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.535 <sup>a</sup>	.286	.272	.14225

a. Predictors: (Constant), Capital Structure, Asset Growth

b. Dependent Variable: Profitability

Source: 2024 processed original data

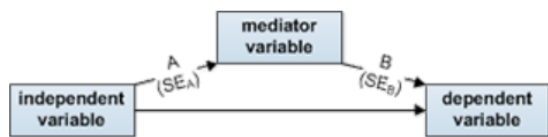
Based on the output in table 17 regression model 2, it can be seen that the coefficient of determination or Adj R Square value of 0.272 or 27.2% indicates that variations in the Profitability variable can be explained by the independent variables, namely Capital Structure and Asset Growth by 27.2%. Meanwhile, the remaining 72.8% is influenced by variables not examined.

**Sobel Test (Mediation Test)**

The Sobel test is carried out by testing the strength of the indirect effect of the independent variable (X) on the dependent (Y) through the mediating variable (Z), (Ghozali, 2021). In this study, researchers used an online calculator to test the independent variable (X) on the dependent (Y) through the mediating variable (Z) which can be accessed at the following link:

<https://www.danielsoper.com/statcalc/calculator.aspx?id=31>.

**Sobel Test Results Phase I**



A: 0.181 ?

B: 15.322 ?

SE<sub>A</sub>: 0.070 ?

SE<sub>B</sub>: 0.562 ?

**Calculate!**

**Sobel test statistic:** 2.57416286

**One-tailed probability:** 0.00502415

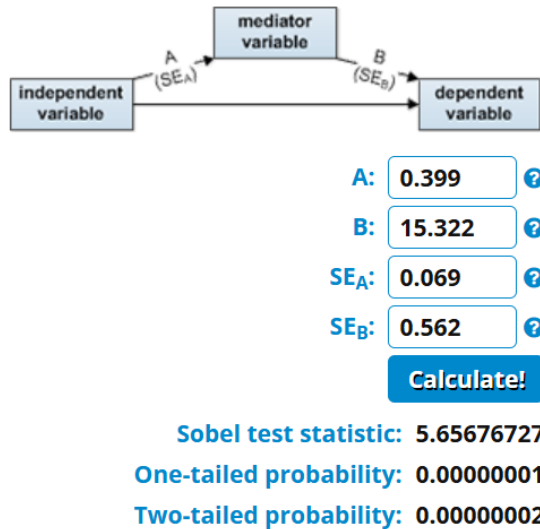
**Two-tailed probability:** 0.01004830

**Figure 1**

Source: 2024 processed original data

Based on the result of Sobel test with One-tailed probability value of 0.00502415 for the effect of Capital Structure on Firm Value mediated by Profitability, which is smaller than 0.05 ( $0.005 < 0.05$ ), it can be concluded that Profitability acts as a significant mediating variable in the relationship between Capital Structure and Firm Value.

### Sobel Test Results Phase II



**Figure 2**

Source: 2024 processed original data

Based on the results of the Sobel test with a one-tailed probability value of 0.00000001 for the effect of Asset Growth on Firm Value mediated by Profitability, which is smaller than 0.05 ( $0.000 < 0.05$ ), it can be concluded that Profitability acts as a significant mediating variable in the relationship between Asset Growth and Firm Value.

## 5. Discussion

This study highlights the significant relationship between capital structure, asset growth, and profitability on firm value, as well as the mediating role of profitability in the relationship in manufacturing companies listed on the Indonesia Stock Exchange. The results of this study also support and complement the findings of previous studies, as explained below.

Capital structure has a positive and significant influence on firm value. Effective debt management can increase investor confidence, which has an impact on increasing firm value. This result is consistent with the research of (Jufrizen & Al Fatin, 2020), which states that the use of debt as a form of investment can provide a positive image if managed properly.

Asset growth also shows a positive influence on firm value. An increase in assets signifies more productive operational activities, which generate higher cash flows in the future. This finding is in line with the research of (Ramdhonah et al., 2019), which confirms that asset growth provides a positive signal to investors and increases stock value.

Profitability is proven to have a significant positive relationship with firm value. High profits reflect operational efficiency and increase the attractiveness of the company in the eyes of investors. This finding supports the research of (Hirdinis, 2019) which show that profitability is a key indicator in assessing company performance and value.

Capital structure has a positive effect on profitability. Optimal capital structure decisions allow companies to increase operational efficiency and profits. These results are consistent with the research of (Rahmawati & Mahfudz, 2018), which shows that a good capital structure protects the company from financial risk and increases profitability.

Asset growth has a positive effect on profitability. An increase in assets reflects the company's ability to increase output, which strengthens investor confidence. This result is in line with the research of (Anggarsari & Aji, 2018) and (Amelya & Dermawan, 2024), which show that asset growth contributes to an increase in corporate profits.

Profitability mediates the relationship between capital structure and firm value significantly. This finding supports the research of (A'yun et al., 2022) and (L. S. Dewi & Abundanti, 2019), which show that a capital structure supported by high profitability provides a positive signal to investors and increases firm value.

Profitability also mediates the relationship between asset growth and firm value. Asset growth accompanied by increased profitability provides a positive signal to investors, which in turn increases firm value. This finding is consistent with (Melinia & Priyadi, 2021) research, which states that profitability strengthens the relationship between asset growth and firm value.

This study not only strengthens the findings of previous studies but also makes a new contribution by highlighting the mediating role of profitability in the relationship between capital structure and asset growth on firm value. These results provide strategic guidance for management to maximize firm value through effective management of capital structure, asset growth, and profitability.

## **6. Conclusions**

This study uses a quantitative method to analyze the relationship between independent variables (capital structure and asset growth), mediating variables (profitability), and dependent variables (firm value) in manufacturing companies listed on the Indonesia Stock Exchange during the period 2021-2023. The results of the normality test show

that the data used are normally distributed, while the multicollinearity test shows that there are no multicollinearity problems between the independent variables. In addition, the results of the autocorrelation and heteroscedasticity tests also show that there are no autocorrelation and heteroscedasticity problems in the data used, so that the regression model used is reliable.

Regression analysis shows that capital structure and asset growth have a significant effect on firm value. In addition, profitability is proven to play an important role as a significant mediating variable in the relationship between capital structure and asset growth on firm value.

The results of this study provide a deeper understanding of the factors that influence firm value in the manufacturing sector, which has an important contribution to the Indonesian economy. Overall, this study contributes to enriching the understanding of capital market dynamics and the factors that influence firm value. These findings can be a basis for better decision making in corporate financial management as well as a reference for further research in this field.

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