E-ISSN: 3025-0994
Halaman 466-486
Volume 3 Nomor 1 Tahun 2025

The Effect of Profitability on Firm Value With Leverage as The Intervening Variable and Company Size as The Control Variable

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Abstract

This research was conducted to determine the influence of profitability to firm value. Specifically, to test whether leverage is able to mediate profitability on firm value and test whether firm size contributes to strengthen firm value. The writer conducted research on stock index of LQ45 company listed on the IDX which are listed on the Indonesia Stock Exchange (IDX) in 2018 – 2022. Secondary data was obtained from www.idx.co.id. The results of the study show that profitability has a significant effect on firm value, leverage is able to mediate the relationship between profitability and firm value. In addition, the firm value becomes strong with firm size as control variable. The implications of this research are that the enhancement of profitability give trust to the investor so firm value will increase and leverage can strengthen the influence of profitability on firm value positively.

Keywords: Profitability, Firm Value, Leverage, Firm Size

BACKGROUND

A company can be expressed as an economic entity that has been established to generate and maximize company profits and increase the value of the company as high as possible by using the resources owned by the company. Companies that have a high company value certainly have many benefits or advantages for the company itself, one of which is easy access to obtain financing from the capital market and financial institutions, or the company gets a high selling price when at any time the company is sold or merged. (Dewi & Eka, 2020). The higher the value of the company, the prosperity of the shareholders will also be more guaranteed. Therefore, an increase in the share price will give positive signals from investors to the company's managers. (Rahmah & Fitri, 2020).

This research uses companies with the LQ45 stock index for the 2018-2022 period as the object of research. This is because LQ45 shares have high capitalization and high trading frequency so that the growth prospects and financial condition of the stock are good. However, the performance of the LQ45 stock index in the past few

years has suffered a deterioration in stock performance. This is caused by the COVID-19 virus which has become an outbreak almost all over the world, not only in Indonesia. Of the many variables affected, the author chooses to analyze the variables of company value, especially those included in the LQ45 stock index. Company value is one of the most important variables, and is often the main consideration for investors in organizing their investment portfolios, including those that are monitored by investors. The development of company value as measured by Price to Book Value (PBV).

The variable of company value is represented by PBV proxies which are the object of research today closely related to profitability variables. Because according to the theory proposed by Modigliani and Miller (1958) states that the value of the company or price to book value is determined by the profitability of the company. Profitability in question is the company's ability to generate net profit before interest and tax. Similar to the value of the company, profitability has also experienced fluctuations caused by the Covid19 pandemic. There was a phenomenon that in the 2018-2022 period where the Covid19 pandemic occurred, the company's value variable increased and was inversely proportional to the decreased profitability variable due to declining company activity. The variable value of the company increases to exceed the ratio of 1, while the ratio of the value of the company in good condition is <1.

RESEARCH METHOD

This research uses companies with the LQ45 stock index for the 2018-2022 period as the object of research. The population in this study was 45 companies with a research sample of 215. The sampling technique used is literature study and documentation. The sample used in the study must have several criteria, including: 1) Companies with the LQ45 stock index that are continuously listed on the Indonesia Stock Exchange during the 2018-2022 period, and 2) Companies with the LQ45 stock index that publish financial statements for the 2018-2022 period.

Company has a goal to achieve good profitability, because this can signal that the company's condition is in good condition and can determine the company's value, such as a statement from Sinta & Wiyono (2021), proving that high profitability can be a benchmark that a company has good potential because it is considered to be able to generate large profits for the company, especially for shareholders. Mahendra (2022) research proves that companies with high profitability show the company's high ability to earn profits and the better the company's performance, the higher the profitability will increase the company's value. Furthermore, Devid & Mujiyati's research (2022), profitability affects company value, the higher the company's ability to achieve profit or profit, the higher the company's value.

H1: Profitability has a positive effect on Firm Value

Research by Dewi & Wirajaya (2019), the greater the profit obtained, the greater the company's ability to pay dividends and this has an impact on increasing company value. Dewi & Ekadjaja (2020), high company profitability gives an indication

of better company prospects so that it can trigger investors to participate in increasing stock demand. Maharani (2021), high profitability reflects the company's ability to generate profits and if the bank's financial system runs efficiently, the bank's company value will increase.

H2: Leverage has a positive effect on Firm Value

Research by Aditya et al (2021), companies can use leverage to get high profits and can increase company value due to high leverage so there is tax protection that companies will get. Another study by Budi & Rachmawati (2014), capital structure can balance the benefits and value of the company and the sacrifices incurred as a result of the use of debt. Vernando & Erawati (2020), the company's capital structure position is below the optimal point, so every additional debt will increase the company's value.

H3: Profitability negatively affects Leverage

According to Widyaningrum (2015), the higher profitability shows that the profit obtained by the company is also high. If the company's profit is high, then the company has a large enough source of internal funds so that the company requires less debt. In addition, if retained earnings increase, the debt ratio will naturally decrease, assuming that the company does not increase the amount of debt. Then Rahmiati et al (2015), if profitability increases, then the company will use the return in the form of retained earnings rather than using debt to finance the needs of the company. This is in accordance with the pecking order theory which states that companies prefer internal funding such as retained earnings. Furthermore, research conducted by Yudhatama & Wibowo (2020), profitability negatively affects capital structure. This means that the higher the company's profit generated will increase the company's profitability. High profits will also allow the company to reserve greater retained earnings. Therefore, companies with high profitability will use internal funding greater than external funds.

H4: Capital Structure can mediate Profitability to Company Value

In this study, capital structure has the potential to be a mediating variable in the relationship between profitability ratio to company value. As research conducted by Mirry et al (2016), the greater the DER, the greater the level of company risk because the greater the interest burden that must be paid by the company. This is because the company's capital structure uses more debt which results in an increase in interest costs. The higher the interest, the lower the profit earned by the company, which will affect the decline in stock price. The decline in stock price also affects the value of the company. Another study with the same results was conducted by Warisman & Amwila (2022), namely capital structure is one of the important investment consideration factors. This relates to the risk and income that investors will receive because the capital structure is a balance between the investor's capital and his own capital. Company value is indicated to be an intervening variable that connects Capital Structure (DER) to stock prices. With a higher capital structure, this reflects the company's high risk. This gives a bad assessment for the company, so it will reduce

investor interest in investing their capital. That way it will cause the value of the company to decrease so that the stock price will also decrease.

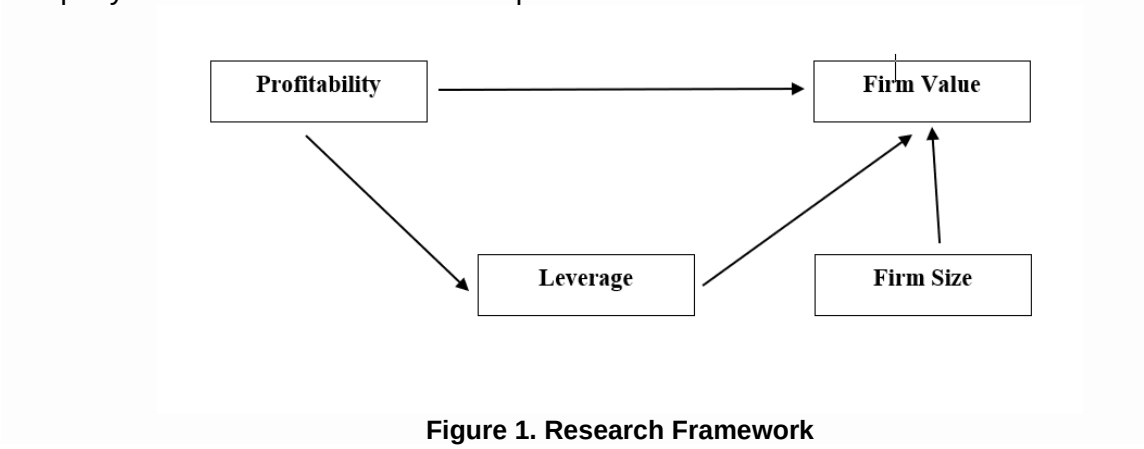


Figure 1. Research Framework

The figure above is an illustration of the relationship of profitability to company value mediated by capital structure with company size as a control variable. Based on the research model above, the variables used in this study will be explained as follows:

Table 1. Operational Variable

Variable	Definition	Formula
Dependent	The ratio used to measure the share price of a company to book value (Yusrianthe, 2022)	PBV= Price per Share/Book Value per Share
Independent	Ratio that shows how much success or failure the company's management has in maximizing the return on investment of shareholders and emphasizes the return on income in relation to the amount invested (Rahayu, 2018)	ROE= Net profit after tax/Total capital x 100
	Ratio that can compare net profit after tax (equity that has been invested by shareholders (Rahayu, 2018)	ROA= Net profit after tax-Total assets
Mediation	A ratio that measures how much assets are	DAR= Total Debt/Total

	financed by debt (Roni & Dewi, 2016).	Assets
	The ratio used to assess debt to equity (Rahayu, 2018).	DER= Total Debt/Total Equity.
Control	Ratio which is a reflection of the total assets owned by a company (Rahayu, 2018).	Firm Size = Ln Total Asset

Analysis of the relationship between variables of company value, profitability, capital structure, and company size specifically uses the following model:

Equation 1:
PBV= β0 + β1 ROE + β2 SIZE + e
Equation 2:
DER= β0 + β1 ROE + Ln Total Asset + e
Equation 3:
PBV= β0 + β1 DER + β2 SIZE + e
Equation 4:
PBV= β0 + β1 ROE + β2 DER + β3 SIZE + e

RESULTS AND DISCUSSIONS

Descriptive Statistical Analysis

Descriptive statistics are intended to describe sample data, which can be seen from the mean, maximum, minimum, and standard deviation values. The analysis was performed using the Stata 17 application.

Table 2. Descriptive statistical analysis table

Variable	Obs	Mean	Std. Dev.	Min	Max
PBV w	215	3.894	7.884	.3	60.67
DAR w	215	.485	.229	.06	.89
DER w	215	1.875	2.447	.07	16.08
ROA w	215	7.265	9.379	-30.5	46.66
ROE w	215	14.867	21.936	-38.43	145.09
LnTotalAsset w	215	17.793	1.495	13.407	21.413

The first line contains information about the value of the company represented by the Price to Book Value (PBV) proxy which has an average value of 3,894 or indicated that on average, companies with the LQ45 stock index are able to provide

wealth to shareholders of 3,894 times. This means that shares in companies incorporated in the LQ45 stock index have a value of 3,894 times the normal price. From the entire sample, the maximum value was 60.67 times in 2019. While the lowest PBV with a value of 0.3 times in 2020. Furthermore, the standard deviation value of PBV from the research sample was 7.884 times, this figure is greater than the average value, so it was concluded in the research data PBV has a large enough deviation or the distribution of data is less stable.

Leverage variables are proxied with Debt to Asset Ratio (DAR) and Debt to Equity Ratio (DER) values. Where the average value of DAR is 0.485 or it is indicated that on average, the ability of companies with the LQ45 stock index to balance the use of capital from investors with assets is only 0.485 times. This value means that every Rp 1 of capital used will generate assets of Rp 0.00485. From the overall sample and year of observation, the highest value of DAR was 0.89 in 2020. Then, the minimum DAR value is 0.06. Furthermore, the standard deviation value of the DAR from the research sample was 0.229 times, this figure is smaller than the average value, so it was concluded in the DAR research data to have a small deviation or stable data distribution. Followed by the Debt to Equity Ratio (DER) where the average value of DER is 1.875 times or it is indicated that on average, the ability of companies with the LQ45 stock index is 1.875 times. This value means that every Rp 1 of capital used will generate equity of Rp 0.009371163. From the entire sample and year of observation, the highest value of DER was 16.08 in 2018. Then, the minimum DER value is 0.07. Furthermore, the DER standard deviation value from the research sample was 2.447 times, this figure is greater than the average value, so it was concluded in the DER research data to have large deviations or unstable data distribution.

The profitability variable is represented by the proxy Return on Assets (ROA) and Return on Equity (ROE). Where the average ROA value is 7,265 or it is indicated that on average, the ability of companies with the LQ45 stock index to manage company assets into net income is 7,265 times. This value means that every Rp 1 of assets used will generate a net profit of Rp 7,265. From the entire sample and year of observation, the highest value of ROA was 46.66 in 2018. Then, the minimum ROA value is -30.5. Furthermore, the standard deviation value of ROA from the research sample is 9.379, this figure is greater than the average value, so it is concluded in the research data ROA has a large deviation or the distribution of data is less stable. Followed by ROE where the average value is 14,867 or it is indicated that on average, the ability of companies with the LQ45 stock index is 14,867 times in sharing profits with shareholders. This value means that every Rp 1 of capital issued by shareholders will generate a return of Rp 14,867. From the entire sample and year of observation, the highest ROE value was 145.09 in 2020. Then, the minimum ROE value is -38.43. Furthermore, the standard deviation value of ROE from the research sample was 21,936, this number is greater than the average value, so it was concluded in the research data ROE has a large deviation or unstable data distribution.

The last variable is the size of the company represented by the Ln Total Asset proxy. Where the average value of Ln Total Assets is 17,793 or it is indicated that on

average, the size of companies with the LQ45 stock index has a value of 17,793. From the entire sample and year of observation, the highest value of Ln Total Assets was 21,413 in 2022. Then, the minimum Ln Total Asset value is 13,407. Furthermore, the standard deviation value of Ln Total Asset from the research sample is 1.495, this figure is smaller than the average value, so it is concluded in the research data Ln Total Asset has a small deviation or stable data distribution.

Inferential Statistical Analysis
Baseline Model 1
PBV= β0 + β1 ROE + β2 SIZE + e

Table 3. Baseline Model Equation 1

	(1) PBV_w
_cons	29.6588***
	(6.0647)
ROE_w	.4626***
	(.0511)
LnTotalAsset_w	-1.6264***
	(.3276)
2018b.YEAR	
2019.YEAR	.6067***
	(.0124)
2020.YEAR	2.1568***
	(.351)
2021.YEAR	.2987
	(.2455)
2022.YEAR	-.4155
	(.0992)
Observations	215
R-squared	.7528
Firm Dummy	YES
YEAR dummy	YES
Std err clustered by firm and year	YES

Standard errors are in parentheses
**** p<.01, ** p<.05, * p<.1*

A constant value of 29.6588 with a positive sign indicates a unidirectional relationship between the independent variable and the dependent variable. This shows that if all independent variables including profitability (ROE) and company size (Ln Total Assets) are 0 percent or unchanged, then the company value (PBV) on the LQ45 stock index will be 29.6588. The regression coefficient values for profitability variables

0.4626 for ROE significant at a level of 1%. This shows that if profitability increases by 1%, then the value of the company will increase 0.4626 for assuming other independent variables are considered constant. A positive sign means that it shows a unidirectional influence between the independent variable and the dependent variable. Assuming that the other variables remain constant. The value of the regression coefficient for the company size variable (Ln Total Assets) is -1.6264 and is significant at the level of 1%. This shows that if the size of the company increases by 1%, then the value of the company will decrease by -1.6264 assuming the other independent variables are considered constant. The negative sign means that it indicates an undirectional influence between the independent variable and the dependent variable. Assuming that the other variables remain constant.

Baseline Model 2

DER= β0 + β1 ROE + Ln Total Asset + e

Table 4. Baseline Model Equation 2

	(1) DER_w
_cons	34.1670**
	(8.405)
ROE_w	-.6583
	(.1473)
LnTotalAsset_w	.0546**
	(.7658)
2018b.YEAR	
2019.YEAR	.4729***
	(.0407)
2020.YEAR	1.4118***
	(.0208)
2021.YEAR	1.2528***
	(.2006)
2022.YEAR	1.0594**
	(.3370)
Observations	215
R-squared	.4283
Firm Dummy	YES
YEAR dummy	YES
Std err clustered by firm and year	YES

Standard errors are in parentheses
**** p<.01, ** p<.05, * p<.1*

A constant value of 34.1670 with a positive sign indicates a unidirectional relationship between the independent variable and the dependent variable. This shows that if all independent variables including profitability (ROE) and firm size (Ln Total Assets) are 0 percent or unchanged, then the leverage (PBV) in the LQ45 stock index will be 34.1670. The regression coefficient values for the profitability variable (ROE) was -0.6583 for significant DER at the level of 1%. This indicates that if the capital structure increases by 1%, then the value of the company will decrease by -0.6583 for assuming other independent variables are considered constant. A positive sign means that it shows a unidirectional influence between the independent variable and the dependent variable. Assuming that the other variables remain constant. The value of the regression coefficient for the variable company size (Ln Total Assets) is 0.0546 and is significant at the level of 5%. This shows that if the size of the company increases by 1%, then the value of the company will increase by 0.0546 assuming the other independent variables are considered constant. The negative sign means that it indicates an undirectional influence between the independent variable and the dependent variable. Assuming that the other variables remain constant.

Baseline Model 3

PBV= β0 + β1 DER + β2 SIZE + e

Table 5. Baseline Model 3 equation 3

	(1) PBV_w
_cons	34.1675** (8.465)
DER_w	-.0953*** (.1173)
LnTotalAsset_w	-2.0566** (.5439)
2018b.YEAR	
2019.YEAR	.5729*** (.0419)
2020.YEAR	1.7108*** (.0608)
2021.YEAR	1.2528*** (.2206)
2022.YEAR	1.0594** (.3376)
Observations	215
R-squared	.1283
Firm Dummy	YES
YEAR dummy	YES
Std err clustered by firm and year	YES

Standard errors are in parentheses
**** p<.01, ** p<.05, * p<.1*

The table above presents the baseline regression results of the hypothesis test. From the multiple linear regression equation above, it can be explained as follows: A constant value of 34.1675 with a positive sign indicates a unidirectional relationship between the independent variable and the dependent variable. This shows that if all independent variables including the capital structure (DER) are valued at 0 percent or do not change, then the value of the company (PBV) on the LQ45 stock index will be 34.1675. The regression coefficient value for the capital structure variable (DER) was -0.0953 significantly at the level of 1%. This shows that if the value of the company increases by 1%, then the capital structure will fall by -0.0953 assuming other independent variables are considered constant. A positive sign means that it shows a unidirectional influence between independent variables and dependent variables. Assuming that the other variables remain constant. The regression coefficient value for the company size variable (Ln Total Asset) is -2.0566 and is significant at the level of 5%. This shows that if the size of the company increases by 1%, then the value of the company will fall by -2.0566 assuming other independent variables are considered constant. A negative sign means that it indicates a non-directional influence between the independent variable and the dependent variable Assuming that the other variables remain constant.

Baseline model 4

PBV= β0 + β1 ROE+ β2 DER + β3 SIZE + e

Table 6 Baseline Model 4

	(1) PBV_w
_cons	27.5128**
	(6.5181)
ROE_w	.4362***
	(.3420)
DER_w	.0086
	(.0467)
LnTotalAsset_w	-1.0171**
	(.2329)
2018b.YEAR	
2019.YEAR	.5866***
	(.0412)
2020.YEAR	2.0408***
	(.0309)
2021.YEAR	.8579

	(.2588)
2022.YEAR	-.5033
	(.3138)
Observations	215
R-squared	.7547
Firm Dummy	YES
YEAR dummy	YES
Std err clustered by firm and year	YES

Standard errors are in parentheses
**** p<.01, ** p<.05, * p<.1*

A constant value of 27.5128 with a positive sign indicates a unidirectional relationship between the independent variable and the dependent variable. This shows that if all independent variables including profitability (ROE), capital structure (DER) and company size (Ln Total Asset) are valued at 0 percent or do not change, then the company's value (PBV) on the LQ45 stock index will be 27.5128. The regression coefficient value for the profitability variable (ROE) is 0.4362 for significant ROE at the level of 1%. This shows that if profitability increases by 1%, then the value of the company will increase by 0.4362 assuming other independent variables are considered constant. A positive sign means that it shows a unidirectional influence between independent variables and dependent variables. Assuming that the other variables remain constant. The regression coefficient value for the capital structure variable (DER) is 0.0086 for DER is significant at the level of 1%. This shows that if profitability increases by 1%, then the value of the company will increase by 0.0086 assuming other independent variables are considered constant. A positive sign means that it shows a unidirectional influence between independent variables and dependent variables. Assuming that the other variables remain constant. The regression coefficient value for the company size variable (Ln Total Asset) is -1.0171 and is significant at the level of 1%. This shows that if the size of the company increases by 1%, then the value of the company will fall by -1.0171 assuming other independent variables are considered constant. A negative sign means that it indicates a non-directional influence between the independent variable and the dependent variable. Assuming that the other variables remain constant.

Robustness Test

Robustness Test Equation 1

Several analyses were performed to verify the results that were considered robust with various changes in measurements and variable conditions. Equation 1 Table 7 presents a model robustness test for the relationship between profitability and company value, along with the test results.

Table 7. Robustness Test Equation 1

	(1)

	PBV_w
_cons	.6622
	(.3183)
ROA_w	-.4329***
	(.0737)
LnTotalAsset_w	.4214***
	(.0422)
2018b.YEAR	
2019.YEAR	.5246***
	(.0153)
2020.YEAR	1.877***
	(.0469)
2021.YEAR	-.4662***
	(.0974)
2022.YEAR	-1.3784***
	(.1185)
Observations	215
R-squared	.6707
Firm Dummy	YES
YEAR dummy	YES
Std err clustered by firm and year	YES

Standard errors are in parentheses
**** p<.01, ** p<.05, * p<.1*

The profitability represented by the ROA proxy has a positive and significant relationship with the company's value, it shows that companies that are able to increase their profits will increase the company's value. Likewise, the size of the company has a positive and significant relationship with the value of the company, indicating that a large company will increase the value of the company. The table above shows consistent results across each model and confirms the baseline findings. This shows that the findings in table 7 are strong for the value of the company.

Robustness Test Equation 2

Table 8 presents a model robustness test for the relationship between profitability and company size to capital structure, by changing the dependent variable, namely using Debt to Asset Ratio (DAR) as an alternative measurement of capital structure with the following results.

Table 8 Robustness Test Equation 2

	(1)

	DAR_w
_cons	9.6151***
	(1.2758)
ROA_w	.3497***
	(.0309)
LnTotalAsset_w	.043
	(.0946)
2018b.YEAR	
2019.YEAR	-.1638***
	(.0113)
2020.YEAR	-.1967**
	(.0614)
2021.YEAR	.5275***
	(.111)
2022.YEAR	.1969
	(.1319)
Observations	215
R-squared	.7898
Firm Dummy	YES
YEAR dummy	YES
Std err clustered by firm and year	YES

Standard errors are in parentheses
**** p<.01, ** p<.05, * p<.1*

Debt to Asset Ratio (DAR) proxies are used as an alternative capital structure. Profitability has a positive relationship, indicating that companies that maximize their profits will improve their capital structure. Followed by the size of the company has an insignificant positive relationship with the capital structure, indicating that the size of the company will affect the capital structure even though it is not significant. This equation shows different results with the baseline model.

Robustness Test Equation 3

Table 9 presents a model robustness test for the relationship between capital structure and company size to company value, by changing independent variables using Debt to Asset Ratio (DAR) as an alternative measurement of capital structure, following the results of the robustness test.

Table 9 Robustness Test Equation 3

	(1)

	PBV_w
_cons	.7279
	(.6074)
DER_w	.4871***
	(.0763)
LnTotalAsset_w	3.5113***
	(.9131)
2018b.YEAR	
2019.YEAR	.4096***
	(.0057)
2020.YEAR	1.4694***
	(.007)
2021.YEAR	.4508***
	(.0143)
2022.YEAR	-.1387***
	(.0293)
Observations	215
R-squared	.0277
Firm Dummy	YES
YEAR dummy	YES
Std err clustered by firm and year	YES

Standard errors are in parentheses
**** p<.01, ** p<.05, * p<.1*

Debt to Asset Ratio (DAR) proxies are used as an alternative capital structure. The capital structure has a positive and significant relationship with the company's value, showing that companies that can utilize their capital well and efficiently are considered a positive signal by investors so that they are able to increase the company's value. This implies that when the capital structure measurements are replaced with DAR, the results are consistent and confirm the baseline findings. This shows that the findings in table 8 are strong for LnTotalAsset to be used as an alternative company size. The size of a company has a positive and significant relationship with the value of the company. Overall these results imply that when capital structure measurements are replaced with DAR, the results are consistent across each model and confirm the baseline findings.

Robustness Test Equation 4

Table 10 presents a model robustness test for the relationship between profitability and company value mediated by capital structure and strengthened by company size, in this equation the independent variables are converted into Debt to Asset Ratio (DAR) and Return on Asset (ROA). Below are the results of the equation test.

Table 10 Robustness Test Equation 4

	(1) PBV
_cons	4.0741**
	(1.238)
ROA_w	.4899***
	(.0439)
DAR_w	5.1561**
	(1.7703)
LnTotalAsset_w	.2862**
	(.0664)
2018b.YEAR	
2019.YEAR	.4748***
	(.0278)
2020.YEAR	1.8859***
	(.0583)
2021.YEAR	-.3711*
	(.1343)
2022.YEAR	-1.4313***
	(.1298)
Observations	215
R-squared	.7019
Firm Dummy	YES
YEAR dummy	YES
Std err clustered by firm and year	YES

Standard errors are in parentheses
**** p<.01, ** p<.05, * p<.1*

Return on Asset (ROA) proxies are used as an alternative to profitability. Profitability has a positive and significant relationship with the value of the company in the table, indicating that companies that can increase the company's profits are considered a positive signal by investors so that they are able to increase the value of the company. This implies that when profitability measures are replaced with ROA, the results are consistent and confirm the baseline findings. The capital structure has a positive and significant relationship with the value of the company, indicating that a company that can manage the use of its debt well will increase the value of its company. This implies that when capital structure measurements are replaced with DAR, the results are consistent across each model and confirm the baseline findings. The size of the company has a positive and significant relationship with the value of the company, indicating that a company with a large size will increase the value of the company because investors feel that a large company is more capable and stable in

managing finances. This implies that when other variables are changed, the results are consistent across each model and confirm the baseline findings.

Hypothesis Test
Partial test
Test the Effect of Profitability on Firm Value

In the baseline table model 1 above, the value of the ROA coefficient is -0.58 which means that if there is an increase of 1 value in profitability, it can reduce the value of the company measured by PBV by -0.58 while the value of the ROE coefficient is 0.4626 which means that if there is an increase in value in profitability, it can increase the value of the company measured by PBV of 0.4626. The significance value used in this equation is 0.1 according to the results in the table above. The significance value for the ROA coefficient is at 0.1039 ≥ α (0.1), so it is concluded that H0 is accepted and H1 is rejected while the ROE coefficient significance value is at 0.0511 ≤ α (0.1). This means that profitability represented by the ROA coefficient has a negative effect on company value, while the ROE coefficient has a significant positive effect on company value.

Test the Effect of Leverage on Firm Value

In the baseline table model 2, the value of the DAR coefficient is 11.5096 which means that if there is an increase of 1 value in the capital structure, it can increase the value of the company measured by PBV by 11.5096 while the value of the DER coefficient is -0.0953 which means if there is an increase in value in the capital structure, it can reduce the value of the company measured by PBV by -0.0953. The significance value used in this equation is 0.1 according to the results listed in the table. The significance value for the DAR coefficient is at 2.3764 ≥ α (0.1), so it is concluded that H0 is accepted and H1 is rejected while the significance value of the DER coefficient is at 0.0173 ≥ α (0.1), so it is concluded that H0 is rejected and H1 is accepted. This means that the capital structure variable represented by the DAR coefficient has a significant negative effect while the DER coefficient has a significant positive effect on the value of the company.

Test the Effect of Profitability on Leverage

In the baseline table 3, the value of the DAR coefficient is -0.0156 which means that if there is an increase of 1 value in profitability, it can reduce the capital structure measured by DAR by -0.0156 while the value of the DER coefficient is 0.0058 which means that if there is an increase in value in profitability, it can increase the capital structure measured by DAR by 0.0058. The significance value used in this equation is 0.1 according to the results in the table above. The significance value for the DAR coefficient is at 0.0027 ≤ α (0.1), so it is concluded that H0 is rejected and H1 is accepted while the significance value of the DER coefficient is at 0.0004 ≤ α (0.1). This

means that the variable profitability represented by the coefficient of ROA and ROE has a significant negative effect on profitability.

Mediation Test

The Effect of Profitability on Firm Value with Leverage as an Intervening Variable

PBV= β0 + β1 ROE + β2 DER + β3 SIZE + e

Table 11. Mediation test table

	(1) PBV_w
_cons	27.5128**
	(6.5181)
ROE_w	.4362***
	(.3420)
DER_w	.0086
	(.0467)
LnTotalAsset_w	-1.0171**
	(.2329)
2018b.YEAR	
2019.YEAR	.5866***
	(.0412)
2020.YEAR	2.0408***
	(.0309)
2021.YEAR	.8579
	(.2588)
2022.YEAR	-.5033
	(.3138)
Observations	215
R-squared	.7547
Firm Dummy	YES
YEAR dummy	YES
Std err clustered by firm and year	YES

Standard errors are in parentheses
**** p<.01, ** p<.05, * p<.1*

Based on the analysis of the path diagram in the figure above, the value of the direct influence of profitability represented by the ROE proxy on the company's value is 0.4626, a significance of 0.0511 < 0.1. The value of the indirect influence of profitability on the value of the company with a coefficient of -0.6583 x -0.0953 = 0.0627. Meanwhile, the total influence is the sum of direct and indirect influence values, which is 0.4626 + 0.0627 = 0.5253. From these calculations, the value of direct influence is smaller than the indirect influence of 0.4626 < 0.5253. Thus, the capital structure can

mediate the relationship of profitability to the value of the company with a significance of 0.467.

- Regress PBV_w ROA_w ROE_w DAR_w DER_w LnTotalAsset_w , vce(robust)

Linear Regression

Number of obs	= 215
F (5 , 209)	= 22.66
Prob > F	= 0.0000
R-Squared	= 0.7430
Root MSE	= 4.0443

Table 12. Regression Test

PBV_w	Coefficient	Robust std.err	t	P > |t|	[95% conf.	interval]
ROA_w	-.6327746	.0946317	-6.69	0.000	-.8193295	-.4462197
ROE_w	.4783082	.0487515	9.93	0.000	.3833715	-.573245
DAR_w	-1.944856	1.597809	-1.22	0.225	-5.094745	1.205033
DER_w	.0027422	.0862298	0.03	0.975	-.1672495	.1727339
LnTotalAsset_w	-1.569132	.350433	-4.48	0.000	-2.259969	-.8782957
_cons	30.23712	6.646983	4.55	0.000	17.13339	43.34085

The relationship between profitability to company value mediated by capital structure is also reinforced by the table above, with an R-Square value of 0.7430 which means the dependent variable can be explained through an independent variable of 0.7430. In addition, this research was also through a sobel test. The results are as shown below.

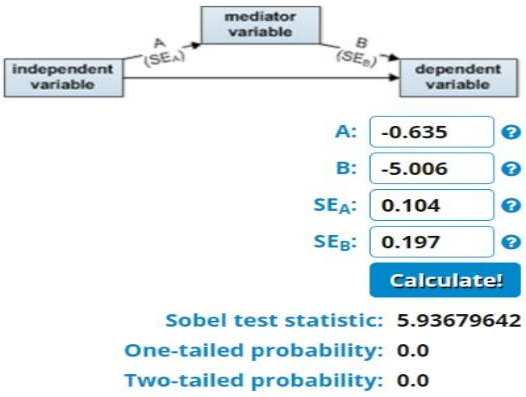


Figure 2. Sobel Test

This calculated t value is compared to the table t value, if the calculated t value is > t table, it can be concluded that there is an intervening influence (Prof. Dr. Sugiyono, 2022). The value of t (5.93679642) > 3.128570 (value t table) so that there is significantly indirect influence of profitability on the value of the company through the capital structure. This relationship explains that high profitability can positively affect a company's value through its capital structure. Thus from these results h0 is rejected and h1 is accepted or hypothesis 4 is accepted.

CONCLUSIONS

The results found that profitability had a significant positive effect on the value of the company. The results are in accordance with the principles of signalling theory which indicates that companies with high profitability are generally able to generate large profits in the future. Next, the results found that leverage had a significant positive effect on the value of the company. In line with trade off theory, a company's ability to efficiently utilize its assets attracts investors who want to invest shares in the company. This will have a direct impact on increasing the value of the company. The higher the capital structure, the company is considered able to maximize and manage the capital owned. The third result is found that profitability had a significant negative effect on capital structure. In accordance with the pecking order theory, profitability has a negative impact on the capital structure. When a company has high profits, the company's capital structure tends to decline. This gives a good indication to investors, because the company means that it has high profits so that the use of capital structure tends to be minimal. The last results found that profitability had a positive effect on the value of the company mediated by capital structure. The increase in profitability will have a negative impact on the capital structure because the company has been able to manage and maximize profits so that the use of capital from the other becomes minimal, which will sustainably increase investor confidence and company value.

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