The Influence of Capital Structure, its Size, Growth of the Value of the Company With its Profitability as Variable Intervening the Company LQ45 Are Listed In Indonesia Stock Exchange

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Abstract---*This study aimed to determine the effect of capital structure, firm size, firm growth on firm value with profitability as an intervening variable in LQ45 companies listed on the Indonesia Stock Exchange in 2018-2020. The sample used is 33 LQ45 companies during the period 2018-2020. This research uses multiple linear regression and path analysis. The results showed that the capital structure had a significant adverse effect on profitability and firm value. Meanwhile, firm size and growth do not significantly affect profitability and firm value. Profitability has a significant positive effect on firm value. Indirectly, capital structure affects firm value through profitability, while firm size and growth do not indirectly affect firm value.*
Keywords---*capital structure, company growth, company size, company's value, profitability.*

Introduction

Good management of company resources is needed so that the company can achieve its goals. The purpose of a go public company is to prosper the shareholders or owners of the company by increasing the value (Salvatore, 2005).

The company's value is an important thing to increase because it is related to the welfare of the owner of the company (Dagilienė, 2013). The company's value will be a positive signal for investors who want to invest in the company, while for creditors, the company's value will be one of the added value considerations in providing loans (De Almeida & Eid Jr, 2014). A stock index is a statistical measure that reflects the overall price movement of a group of stocks selected based on specific criteria and methodologies and evaluated regularly (www.IDX.co.id). The LQ45 stock index is often used in research because it measures the stock price movements of 45 companies with high liquidity and good fundamentals to be suitable as samples in this study.

The rise and fall of stock prices reflect the value of the company. A low stock price indicates a low company value, which means low investor interest in investing in the company. On the other hand, it reflects the high stock price of investors' confidence in the company because it is considered to have a high value (Natsir & Yusbardini,

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2020). The problem of capital structure is a significant problem for every company because good and bad capital structures will directly affect its financial position (Antoro et al., 2020).

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Based on previous studies, different results were found or a research gap. Natsir & Yusbardini (2020), research state that capital structure positively affects firm value, while Antoro et al. (2020), found negative results. Natsir & Yusbardini (2020), found a positive effect of firm size on firm value, while Antoro stated that the results of his research did not have a significant effect on firm size in increasing firm value. Another example of the difference in results is Natsir & Yusbardini (2020), research concluding that profitability positively affects firm value, while Sulastri et al. (2018), stated that profitability does not affect firm value.

The difference between this study and previous studies is that the object of this research is different where this study uses samples from companies that are only listed on the LQ45 index and the research period is also different. Different studies show differences in results based on the object of research and different periods. Apart from the results of other studies, capital structure, company size, and company growth are essential in increasing company value directly and indirectly (Gleason et al., 2000; Serghiescu & Văidean, 2014).

Research Methods

This study takes the type of secondary data, and the data source is taken from the financial statements on the Indonesia Stock Exchange (IDX). The population used in this study are companies listed on the LQ45 index on the Indonesia Stock Exchange (IDX). The research period was only three years, namely 2018-2020. Determination of the sample used in this study is by purposive sampling method. The purposive sampling selected thirty-three listed companies on the LQ45 index as research samples. This study's variable-dependent will be used as the dependent variable/dependent is LQ45 enterprise value as measured by price-to-book value (PBV). The independent variable n in this research is the capital structure measured by debt to equity ratio (DER), firm size is measured by total assets transformed to natural log (Ln), firm growth is measured by asset growth. The intervening variable in this study is profitability, as measured by the return on assets (ROA) ratio (Alsyouf, 2007; Slater & Narver, 2000).

Descriptive statistics, F test, and t-test were used in this study to determine the role of the independent variables. Descriptive analysis is an analysis used to provide an overview or description of data seen from the average value (mean), standard deviation, variance, maximum, minimum, sum, range, kurtosis, and skewness of the distribution (skewness). Ferdinand (2014), explains that descriptive analysis provides an overview of the data presented in the study. The data analysis technique used in this research is path analysis and multiple linear regression. Path analysis uses regression analysis to estimate causality between predetermined variables. The path analysis is calculated by looking at the standardized path coefficients (standardized regression weight). The relationship between variables is seen from the path coefficients either directly or indirectly, and the interpretation of the intervening is to compare the direct and indirect effects. This study looks at how capital structure, firm size, and firm growth influence firm value while profitability is an intervening variable (Kosasih et al., 2021). The path analysis regression equation used is as follows:

$ROA = \beta 0 + \beta 1\ DER + \beta 2\ Company\ Size + \beta 3\ Company\ Growth + e_i$ .... (equation 1)
$PBV = \beta 0 + \beta 4\ DER + \beta 5\ Company\ Size + \beta 6\ Company\ Growth + \beta 7\ ROA + e_i$ .... (equation 2)

Intervening variables can be tested for their effect using the Sobel test by calculating the Sobel test formula to see the indirect effect based on the provisions of the z- value > 1.96 or p-value < = 0.05. According to Ghozali (2011), the Sobel test requires that the number of samples is large and the coefficient values are normally distributed. Preacher & Hayes (2004), stated that the formula that can be used with the Sobel test is as follows:

$$Z = \frac{ab}{\sqrt{(b^2 S_a^2) + (a^2 S_b^2)}}$$

a = unstandardized regression coefficient independent variable to intervening
b = unstandardized regression coefficient of intervening variable to dependent

S_a = *standard error* of independent variable to intervening
S_b = *standard error* of intervening variable to the dependent variable

Results and Discussion

Descriptive analysis results

Table 1
Descriptive statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
DER(x)		0.14	16.08	1.8630	2,61348
Size (ln)		15,70	21.14	18,1268	1.33220
Growth (%)	99	-20.00	168.00	10.1808	21.13612
ROA (%)		-6.00	46.30	7.8242	8.26452
PBV(x)		0.55	60.67	3.6468	8.93008

Source: SPSS output data processing

The table above represents each variable's minimum, maximum, mean, and standard deviation. The variables DER, growth, ROA, PBV have an average value that is smaller than the standard deviation value, which means that the data distribution of these variables is not good. While the size variable has an average value that is higher than the standard deviation value, which means that the distribution of the data pattern is good.

F-Test (F-Test)

The F-test aims to see the effect of all independent variables on the independent variables. If the F *probability is* less than 5%, it can be concluded that the variables have a combined effect.

Table 2
F-test results equation 1

Mark	Coefficient
F count	3,724
F table	2,70
Sig	0,014

Table 3
F-test results in equation 2

Mark	Coefficient
Account	19.49
F table	2.47
Sig	0.000

Source: SPSS output data processing

Based on the two outputs above, the significance value is 0.00 below 5% or 0.05, so it can be concluded that together the independent variables affect the dependent variable.

Individual parameter significance test (t-Test)

The t-test shows the effect of each variable individually on the independent variable. Decision-making by looking at the probability value where if it is less than the significance level of 5% (0.05), then the variable has an effect. The following table shows the results of the t-test equation 1:

Table 4
Results of t-test equation 1

Independent Variable	Path Coefficient	t count	t table	Sig
DER	-,295	-3,023	1.98	,003
Size	-,046	-,471	1.98	,639
Growth	,167	1,718	1.98	,089

The path regression equation that can be made from the table above is as follows:

$$Y_{ROA} = -0.295_{DER} - 0.046_{Size} + 0.167_{growth} + e_i$$

The t-test table of equation two is shown in table 5 below:

Table 5
Results of t-test Equation 2

Independent Variable	Path Coefficient	t count	t table	Sig
DER	-,368	-4,385	1.98	,000
Size	,145	1639	1.98	,104
Growth	,038	,476	1.98	,635
ROA	,578	7,097	1.98	,000

The path regression equation that can be made from the table above is as follows:

$$Y_{PBV} = -0.368_{DER} + 1.45_{Size} + 0.038_{growth} + 0.578_{ROA} + e_i$$

Based on the two tables above, it can be seen how the influence of the individual independent variables on the variables will be explained as follows:

a) The capital structure variable as measured by DER can be seen from tables 4 and 5 has a significant negative effect on profitability and firm value. Sig value. Below 5% (0.05) and the value of count, greater than a table and a negative path coefficient, are the basis for decision making. Based on this, hypotheses 2 and 5 that have been proposed are accepted.
b) Size variables based on tables 4 and 5 are found not to affect profitability and firm value. Hypotheses 3 and 6 that have been proposed previously were rejected based on the results of this study.
c) The company growth variable has no significant effect on profitability, and firm value is based on tables 4 and 5. Hypotheses 4 and 7 are also rejected because they are not following the results obtained.
d) The profitability variable (ROA) in table 5 with a sig value was below 5% (0.05), and the count is more significant than stable; it is concluded that ROA has a significant effect on firm value. The coefficient has a positive value indicating that ROA has a positive effect so that it follows the proposed hypothesis 1.

Sobel test

The results to determine the indirect effect of the DER variable on PBV through ROA were calculated through the Sobel test. The results of the calculation to determine whether the ROA variable is mediating or not can be seen from the Sobel test calculation below:

$$Z = \frac{ab}{\sqrt{(b^2 S_a^2) + (a^2 S_b^2)}}$$

$$Z = \frac{-0,214 \ x \ 1,041}{\sqrt{(1,041^2 0,071_a^2) + (-0,214^2 0,147_b^2)}}$$

$$Z = -0{,}223/0{,}080327092$$
$$Z = -2{,}77615$$

Look at the calculations above; the *Sobel test* value is -2.77615. The *Sobel test value* is smaller than the table value, which is -1.96, so we can conclude that ROA can mediate the effect of DER on PBV. Company size and company growth variables do not have a good effect on profitability and firm value, so it can be concluded that they do not affect ROA (Begley, 1995; Davila et al., 2003).

The results of this study indicate the effect of ROA where an increase in ROA will increase firm value. Companies with good or high ROA values indicate a high rate of return on assets or profits. Many other studies have used the ROA variable, and its effect on stock prices is apparent. ROA can be said to be profit can also be said as the value of the company itself because few studies proxy ROA as a company value. ROA can also be said as the company's overall financial performance. One of the essential ratios makes ROA a vital calculation and signals the company to external parties. The study results align with the signal theory, which states that companies always give good performance signals to outsiders, especially investors. These results are in line with the results of research conducted by Chabachib et al. (2020), Antoro et al. (2020), Natsir & Yusbardini (2020), Tumanggor (2019), Burhanuddin & Taufik (2019), Sahbany et al. (2019).

These results align with research conducted by Putri & Rahyuda (2020), Natsir & Yusbardini (2020), Rahman et al. (2019), Siddik et al. (2017), Sinaga (2016), Yapa Abeywardhana (2015). Their studies suggest that profitability is negatively affected by capital structure (Widaryanti et al., 2021). The negative effect indicates that the larger the DER or debt, the smaller the ROA.

The DER ratio, a measuring instrument for capital structure, is not an instrument in calculating the optimal capital structure. This ratio only provides a comparison value of debt with equity so that the greater the DER, the greater the company's debt. The results follow the *trade-off* theory, which states that debt will be optimal if it positively affects company performance and value. This also applies vice versa. If there is a negative influence, the debt becomes a burden and is outside the optimal world. If we mention the signal theory, this result is also in line where external parties capture good signals, but external parties also capture wrong signals. The higher the debt, the greater the interest expense that will be paid so that the profit to be obtained is getting smaller (Zahra et al., 2000; Laforet, 2008). Several studies show that company size and company growth do not affect Sinaga (2016). The results do not align with the existing signal theory, where growth should be an excellent signal to outsiders.

The results of this study conclude that the capital structure (DER) indirectly has a significant negative effect on firm value (PBV) through profitability (ROA). These results follow the proposed hypothesis 8 so that the hypothesis is accepted. If we look at the indirect effect of the flow, a high DER will negatively affect ROA (according to the results of the direct influence). The ROA value that decreases due to the influence of DER will affect the firm value (PBV), as seen from the substantial direct influence of ROA on PBV. The results of this study are in line with the results of research from Putri & Rahyuda (2020), Natsir & Yusbardini (2020), Sahbany et al. (2019). Their research indicates that capital structure indirectly influences profitability on firm value. Meanwhile, hypotheses 9 and 10 were rejected because they were not following the study results. Several previous studies found that size and growth did not affect profitability, such as Sinaga (2016).

Conclusion

After the discussion of the research results is described, the conclusion is that capital structure has a significant negative effect on profitability and firm value. Meanwhile, firm size and growth do not significantly affect profitability and firm value. Profitability has a significant positive effect on firm value. Indirectly, capital structure affects firm value through profitability, while firm size and growth do not indirectly affect firm value.

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