

# The Effect of Firm Size and Profitability on Firm Value with Capital Structure as Intervening Variables in Indonesia

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**Abstract** - This study examines the impact of firm size and profitability on firm value with capital structure as an intervening variable in financial companies listed on the Indonesia Stock Exchange during three years. The method used for sampling is purposive sampling based on predetermined criteria. The number of samples in this study were 73 companies. Measurement of profitability is using ROA and ROE as one indicator to see company performance. The main purpose of companies that have gone public is to increase the prosperity of the owners or shareholders through increasing the value of the company. The results showed that the improvement of profitability and firm size may improve its capital structure. The improvement of profitability and the firm size may increase significantly the firm value. The results of mediating test showed that the capital structure is not able to mediate the relationship between the profitability and firm size to firm value.

**Keywords** - capital structure, company performance, firm value, firm size, profitability

## I. Introduction

In the face of the digitalization era, the company made innovations and new breakthroughs to be able to survive and compete with other competing companies. One of the ways to get additional capital from the community is to make the company go public. The main purpose of companies going public is to improve the welfare of shareholders or investors through increasing the value of the company (Salvatore, 2005). Firm value is the investor's perception of the level of success of the company that is often associated with stock prices. High stock prices make the value of the company high, and increase market confidence not only in the company's current performance but also in the company's prospects in the future.

Maximizing the value of the company is very important for a company, because maximizing the value of the company also means maximizing the company's main goals. Increasing the value of the company is an achievement in accordance with the wishes of its owners, because with the increase in the value of the company, the welfare of the owners will also increase (Brigham, 2006). Globalization is not just something that happens in the modern world, it happened all the time since people started trading and was part of everybody's lives. No one can say that the countries nowadays are not ready for global trade because they were ever since the first traders were sailing from one continent to another (Denner, 2018).

With increasing value the company will also contribute to shareholders or investors. Some of the factors that can improve the performance of company values are: profitability as measured by Return on Assets and Return on Equity, firm size is measured by the number of assets held, and capital structure is measured by the ratio of debt to equity. The growth of company performance can be seen from the increase in company profits. Investment does not only focus on how to generate income and profits, but how to manage profits, working capital and create strategies to enter the market (Damodaran, 2011).

The purpose of this study is to: (a) examine the effect of company profitability and size on capital structure; and (b) examine the effect of capital structure on firm value.

From previous research, it is known that some studies focus on the value of companies, especially financial companies. Thus, it is interesting to conduct this research on the value of go-public companies. Although the analysis is limited to financial firm values, the basic analysis of previous research remains important as a comparison for this study. there are inconsistencies between the results of previous studies and opportunities for

profitability, firm size and capital structure to fair value because of the type and size of the company, state policy, and conditions of industrial competition.

## II. Hypothesis

### 1. Effect of Profitability and Capital Structure

Profitability or ability to obtain profits is a measure in the percentage used to assess the extent to which a company is able to generate profits at an acceptable level. Company performance can be reflected in profitability in financial statements. Companies with large profit levels have larger internal funding sources and have a need to finance investments through smaller external funding (Schoubben and Van Hulle, 2004). According to the pecking order theory, internal funding takes precedence over funding from external companies. This theory emphasizes low risk in the company's internal funding.

H1 : Profitability has a negative effect on capital structure

### 2. Effect of Firm Size and Capital Structure

Firm size (number of assets) is one of the factors considered in determining how much funding decision policy (capital structure) in meeting the size or size of the company's assets. Companies in high growth will always need capital that is getting bigger as well as vice versa companies in low sales growth, the need for capital is also getting smaller. So that the size of the shape of the company will affect the capital structure.

H2 : Firm size has a positive effect on capital structure

### 3. Effect of Capital Structure and Firm Value

Measurement of capital structure by using the debt to equity ratio (DER) of the company describes the ratio of debt and equity in corporate funding and shows the company's own capital capability to fulfill all its obligations. The higher this ratio, the greater the risk faced and investors will ask for a higher level of profit. The high ratio also shows the low proportion of own capital to finance assets. In addition, creditors also assume there is a large risk from the company so that creditors can only provide substantial interest, so the company's ability to get money from outside sources is limited.

H3 : Capital structure has a positive effect on firm value

## III. Research Methodology

The population used in this study are financial companies listed on the Indonesia Stock Exchange for three years, 2015 to 2017. The technique of selecting samples used in this study was purposive sampling method. The sample used in this study was 73 companies with 219 data. To test the hypothesis, Path Analysis is used.

This study uses Statistical Product and Service Solution (SPSS) combined with path analysis. Path Analysis is a method to test the effect of intervening variables or mediating variables that are shown in conceptual thinking and research conceptual frameworks. Path analysis can be considered as the development of multiple linear regression analysis that determines the causal relationship between variables in the study which was previously caused by theory (Ghozali, 2011). The relationship between variables is then converted in the form of a path diagram that can be used to calculate the direct and indirect effects of exogenous variables or independent variables on endogenous variables or dependent variables. The effect will be reflected in the form of a path coefficient.

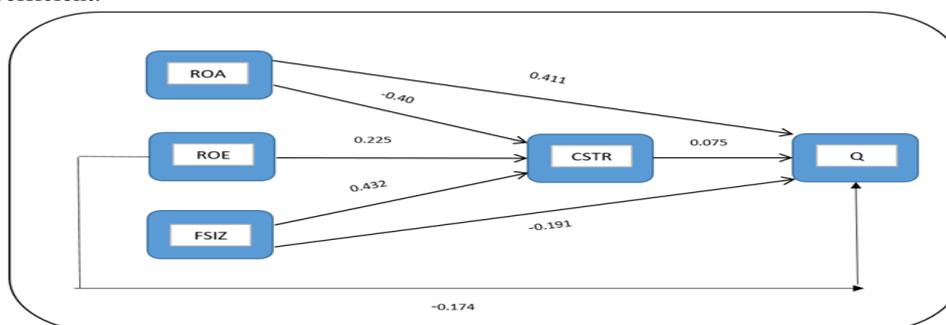


Figure 1 – Research Framework

Model 1 examines the relationship between profitability (ROA and ROE) and firm size (FSIZ) as an independent variable and capital structure (CSTR) as the dependent variable. Model 2 examines the relationship between capital structure (CSTR) as an independent variable and firm value (Q) as the dependent variable.

#### IV. Result

The direct influence of the independent variable on the dependent variable is known by looking at the beta coefficient which shows the direction of the relationship between the two. The direct effect of the variable (ROA) on the variable (CSTR) is known that the beta coefficient between ROA in CSTR is negative 0.40, which means that the lower the profitability the company gets will increase the company's capital structure. The beta coefficient between ROE in CSTR is positive 0.225, which means that the better the profitability obtained by the company will increase the company's capital structure. The beta coefficient between FSIZ on CSTR is 0.432 which means that the larger the size of the company (number of assets) obtained will increase the company's capital structure. The beta coefficient between CSTR at Q is positive 0.075, which means that the better the capital structure achieved by the company will increase the value of the company.

The indirect effect between the ROA variable on the Q variable, is obtained from the direct influence between the variable (ROA) to the variable (CSTR) and the direct effect of CSTR between variables to Q variables, so the number of indirect effects is  $-0.4 \times 0.075 = -0.03$ . By using the Sobel test, the significance value of -0.9067 is obtained smaller than t table 1.6518, then the indirect effect between the variables ROA on variable Q is not significant.

**Table 1: Path Analysis**

Independent Variabel	Dependent Variabel	Path	p-value	Sig
ROA	CSTR	-0.400	0.000	significant
ROE	CSTR	0.225	0.000	significant
FSIZ	CSTR	0.432	0.000	significant
ROA	Q	0.411	0.000	significant
ROE	Q	-0.174	0.013	significant
FSIZ	Q	-0.191	0.011	significant
CSTR	Q	0.075	0.366	not sig

The indirect effect between the ROE variable on the Q variable, is obtained from the direct influence between the variable (ROE) to the variable (CSTR) and the direct effect of the variable (CSTR) to the Q variable, so the number of indirect effects is  $0.225 \times 0.075 = 0.0618$  using the Sobel test , obtained a significance value of 0.8952 smaller than t table 1.6518, then the indirect effect between the variable ROE on variable Q is not significant.

**Table 2: Mediation Effect**

Independent Variable	Mediate Variable	Dependent Variable	Path	Sobel Test	Sig
ROA	CSTR	Q	-0.0300	-0.9067	not sig
ROE	CSTR	Q	0.0168	0.8952	not sig
FSIZ	CSTR	Q	0.0324	0.9088	not sig

The indirect effect between the FSIZ variable on the Q variable, is obtained from the direct influence between variables (FSIZ) to variables (CSTR) and the direct effect of variables (CSTR) to the Q variable, so the number of indirect effects is  $0.432 \times 0.075 = 0.0324$  using the Sobel test , obtained a significance value of 0.9088 smaller than t table 1.6518, then the indirect effect between the variables ROE on variable Q is not significant.

**Table 3: Hypothesis Testing Results**

Hypothesis	Variable Independent	Variable Dependent	p-value	Significant
H1	ROA & ROE	CSTR	0.000	Significant
H2	FSIZ	CSTR	0.000	Significant
H3	CSTR	Q	0.366	Not Sig.

The test results show that the hypothesis of H1 and H2 is significant, which means that profitability (ROA & ROE) and company size (FSIZ) have an influence on the capital structure. While H3 is not significant, meaning that the capital structure does not affect the value of the company.

## V. Discussion and Conclusion

### 1.1. Direct influence of Profitability on Capital Structure

The results of the study show a significant effect of profitability on the capital structure. The higher the profitability, the company will use profits for the main capital of the company's operations rather than getting funds through debt. The negative coefficient indicates that with increasing profitability, there will be a tendency for the capital structure to decline. Conversely, when profitability decreases, there is a tendency for the capital structure to increase. Profitability has a negative effect on capital structure. The indication is that companies can manage revenues for the benefit of the company's operations.

### 1.2. Direct influence of firm size on capital structure

The results of the study indicate that there is a significant relationship between firm size and capital structure. The higher the total assets of the company, the higher the cost of the company in carrying out asset operations. Empirical evidence about the relationship between company size and capital structure supports a positive relationship. Research studies from Gathogo (2014) show that company size is very important in influencing capital structure decisions. This is stated by Riyanto (2008: 297), the greater the assets of a company, the easier the company gets debt. Large companies have easy access so that the flexibility of large companies is also greater. Creditors or lenders certainly prefer to give credit to large companies so that large companies have wider opportunities.

### 1.3. Direct influence of capital structure on firm value

Capital structure shows there is no direct influence on firm value. The results of this study are consistent with the results of previous studies by Sulistiono (2010) and Putri (2016). Sources of capital can come from within the company or internal sources and can also come from outside the company. Companies can also increase capital from within the company and from loans. The comparison between the amount of capital from the company and the loan capital reflects the composition of the source of capital. The composition will form the company's capital structure which will affect the cost of capital and company value. The right composition of expenditure will form an optimal capital structure, namely the capital structure that has the maximum company value with minimum capital costs.

### 1.4. Indirect influence of Profitability on Firm Value

The results of the research on profitability on company values show a negative significant relationship. This means that the profits obtained by the company do not directly influence. Capital structure as an intervening variable does not contribute to this study, so it can be concluded that profitability has a direct effect on firm value.

### 1.5. Indirect influence of Firm size on Firm value

The results of the study found that size of the company against the value of the company indirectly shows a positive relationship is not significant. Firm value is not influenced by the intervening variable capital structure. Thus, the size of the company measured in the number of assets has a direct effect on firm value.

Capital structure as an intervening variable does not affect the firm value for financial group companies. So that the increase in firm value can be directly influenced by the profitability and size of the company. Some elements such as total assets, total debt, total equity, capital market capitalization, outstanding shares and stock prices contribute to the measurement of this research model.

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