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## **Capital Structure and Firm Size on Firm Value Moderated by Profitability**

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**Abstract:**

*The purpose of this study is to determine the effect of capital structure and firm size on firm value, moderated by profitability.*

*The sample of this research is mining sector companies listed on IDX. This research uses the non-participant observation method with path analysis technique. The method of data analysis used is multiple linear regression with data analysis tool using SPSS 22.*

*Based on the analysis results, it was concluded that capital structure has a significant positive effect on firm value while firm size has a significant negative effect on firm value.*

*Profitability has no significant effect on firm value, whilst company size has a significant positive effect on profitability.*

*However, profitability is not able to mediate the influence of capital structure and firm size on firm value.*

**Keywords:** *Capital structure, company size, Profitability, corporate value.*

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## 1. Introduction

The mining sector is an industry that utilizes natural resources in its operations. Along with the development of technological advancements, that enable the management of natural resources, the current world economic conditions are transforming the mining sector into one of the industries that are considered for investment. Sukirno (Bisnis.com) April 18, 2016 said that the jump in mining stock prices will continue to be sustained by the growth of the coal commodity sub-sector in 2016. When the Composite Stock Price Index (IHSG) jumped 5.02%, the mining sector jumped 18.02%. Of the 43 stocks listed in the mining sector, several issuers shot as optimist investors started rebounding world crude oil prices. The projection of crude oil price recovery could improve the performance of mining commodity issuers. A total of 20 stocks of the mining sector grew positively since the beginning of the year. In fact, shares of PT Delta DuniaMakmurTbk. (DOID) and PT Aneka Tambang (Persero) Tbk. (ANTM) shot over 100% year-to-date.

Corporate value is the result of the work management does in several dimensions, including net cash flow from investment decisions, growth and capital cost of the company. For investors, corporate value is an important concept because corporate value is an indicator of how the market perceives the company. High corporate values lead to good company performance. Creditors view company value closely. For the creditor, the value of the company is related to the liquidity of the company, i.e. if the company is considered capable or not to return the loan provided by the creditor. If the implied value of the company is not good, then the investor will rate the company as having a low value, (Rahman, 2014).

One of the most widely used ratios in making investment decisions is the ratio of the stock price to the book value of the firm (price book value). The book value of a company is the value of the company's assets divided by the number of shares issued by the company. In other words, the share book value is the fair value of the issuer's stock, while the stock price can be affected by many factors and various sentiments. The stock price on the stock exchange always reflects the company's performance estimate or book value in the future, because basically the person buying the stock is buying for the future, to invest in the long term. The value of the mining company between 2011-2015 has fluctuated, namely because of the increase and also the decrease of the PBV value in each year ([www.idx.co.id](http://www.idx.co.id), 2016). The price book value (PBV) indicator is used to show how far a company can create a firm's value relative to the amount of capital invested. The higher the ratio, the more successful the firm is in creating value for shareholders. By knowing the PBV ratio, the investor can identify which shares are prices reasonably, those which are undervalued, and those which are overvalued. The use of PBV is used as a proxy representing firm value and is also used in most studies that utilize firm value in research variables (Rahman, 2014).

Modigliani and Miller (1958) published what is called the most influential financial article ever written on modern capital structure theory. By using a set of questionable assumptions, they proved that the value of an enterprise should not be influenced by its capital structure. By demonstrating the requirements that make the capital structure irrelevant, they provided a clue as to what is required if the capital structure becomes relevant and affects the value of an enterprise. Based on the capital structure theory, if the capital structure position is above the optimal capital structure target, then any increase of debt will decrease the value of the company.

The capital structure is the proportion of corporate financing with debt, namely the ratio of corporate leverage. Thus, debt is an element of the firm's capital structure. Capital structure is key to improving productivity and company performance. Capital structure theory explains that the company's financial policy in determining capital structure (mix between debt and equity) aims to optimize the value of the company (value of the firm). Managers should choose the capital structure that they believe will have the highest firm value because this capital structure will be most beneficial to the firm's stockholders (Ross *et al.*, 2013). One disadvantage is that if the company is experiencing bad times and its operating profit is insufficient to cover the interest, the shareholders are forced to cover the shortfall; if they can not, then the company will go bankrupt (Brigham and Houston, 2011).

Capital structure is the ratio of the value of debt to the value of its own capital, which is reflected in the company's financial statements at the end of the year. Capital structure can be measured by using Debt to Equity Ratio (DER). If the DER gets higher, then the value of the firm will increase, as long as, the DER has not reached its optimum point in accordance with the trade-off theory. Trade-off theory also states that with increasing the DER value (increasing the amount of debt) can increase profitability, only if the debt increased is used correctly. Ahmad *et al.* (2015) have conducted research on the relationship between capital structure and stock value. Antwi *et al.* (2012) state that the result of their research found that capital structure has no significant effect on company value. However, this is contrary to Rahman's (2014), Suffah & Riduwan (2016), and Manoppo and Arie (2016) who state that the capital structure has a significant impact on firm value.

The size of large companies shows that the company is experiencing growth, so that investors will respond positively, and the value of the company will increase. The greater the total assets and sales, the greater the size of a company. The larger the size or scale of the company, the easier it will be for the company to get funding, both internal and external. It is assumed that larger companies have greater sensitivity and relatively greater wealth transfer compared to smaller companies. With more and more sales, the quicker the money reaches the company. Thus, firm size reflects the size or amount of assets owned by the company and has an influence on the value of the company (Horne & Wachowicz, 2009). Several studies have been conducted to investigate the relationship between firm size and profitability and firm value. Suffah & Riduwan (2016) and Niesh & Velnampy (2011) prove that

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firm size has no effect on firm value. While Manoppo & Arie (2016) prove that firm size has a positive effect on company value.

Corporate value can also be influenced by the size of the profit generated by the company. Company management should pay attention to the capital structure, company size and profitability, so that the share price will increase and have an impact on the company's value on the investors. Return on equity (ROE) is a ratio that indicates a company's ability to generate net income for shareholder equity returns. The greater the ROE results, the better the company's performance. The presence of ROE growth shows the prospect of a better company because it means a potential increase in profits obtained by the company. This is captured by investors as a positive signal from the company that will increase investor confidence and will facilitate the management of the company to attract capital in the form of shares. If there is an increase in a company's stock demand, it will raise the price of the stock in the capital market. Research conducted by Hamidah and Umdiana (2017), Suffah & Riduwan (2016), Sucuahi & Cambarihan (2016), and Tiska (2015) show the influence of profitability to the value of the company. While research by Manoppo & Arie (2016) proves that profitability as measured by ROE does not affect the value of the company.

Based on the above discussion, previous theories and studies on the influence of capital structure and firm size on profitability and corporate value show inconsistent results. This study was conducted to determine the effect of capital structure and firm size on stock value with the role of profitability as an intervening variable, whereby research with profitability as an intervening variable has not been studied much by previous researchers.

## **2. Literature review**

The company's value is an investor's perception of the company, which is often associated with stock prices. The main purpose of the company, according to the theory of the firm, is to maximize the wealth or value of the said company. Maximizing the value of a company is very important for a company, because by maximizing the value of the company, one also maximizes shareholder wealth, which is the main goal of the company. The value of the company is reflected in the bargaining power of the stock; if the company is seen as a company that has a good prospect in the future, the value of the stock will be very high. Company value can be seen through the market value or the book value of the company from its equity. Equity describes the total capital of the company in the balance sheet. In addition, the market value can be a measure of corporate value. Assessment of company value not only refers to the nominal value, as the condition of the company experiences many changes.

According to Brigham and Houston (2011) there are several approaches to ratio analysis in the valuation of market value, consisting of price earnings ratio (PER),

price book value ratio (PBV), market book ratio (MBR), dividend yield ratio and dividend payout ratio (DPR). The proxy used in this study is PBV. The ratio of stock price to the book value of a company or price book value (PBV) shows the level of the company's ability to create a value relative to the amount of capital invested. High PBVs reflect the high stock price compared to the book value of the stock. The higher the stock price, the more successful the company is in creating value for shareholders. The success of the company creates the hope in shareholders in the form of greater profits as well. This proxy also refers to studies by Manoppo & Arie (2016), Hamidah & Umdiana (2017), Suffah and Riduwan (2016), Sucuahi & Cambarihan (2016), Abeywardana and Krishanthi (2015), and Tiska (2015) using PBV as a variable of firm value.

Capital structure is a description of the financial proportion of the company, that is, between capital owned sourced from long-term debt and own capital (equity). Pecking order theory states that *"Companies with high profitability levels have low debt, because companies with high profitability have abundant internal funding resources"*. In this pecking order theory there is no optimal capital structure (Myers, 1977) the company has a sequence of preferences (hierarchy) in the use of funds. According to the pecking order theory, quoted by Megginson *et al.* (2007), there is a hierarchy of scenarios in selecting funding sources; firms prefer to use internal funding rather than external funding. Pecking order theory can explain why companies that have a high profit rate actually have a small debt level.

The trade-off theory of leverage is a theory that explains that the optimal capital structure is found by balancing the benefits of debt financing (favorable corporate tax treatment) with higher interest rates and bankruptcy (Brigham and Houston, 2011). Debt Equity Ratio reflects the ability of the company to fulfill all its obligations indicated by its own capital used as debt payment. This will affect investor confidence in the company and will further affect the value of the company. This alternative refers to Manoppo and Arie's (2016) study and Ahmad *et al.* (2015) study, who use DER as a variable of the capital structure. The size of the company is a reflection of the size that appears in the total value of the company's assets. Investors have big expectations for big companies and have big expectations for dividends from the company. The larger the size of the company, the greater the investor's inclination to own its stock, so that it will lead to an increase in stock prices. The increase in stock prices will lead to an increase in price book value (PBV) or the company value. Large companies can cause the market to be willing to pay more for their shares because they believe they will get a favorable return from the company (Brealey *et al.*, 2011).

Profitability is the company's ability to generate profits and measure the level of operational efficiency in using its assets. According to Sucuahi & Cambarihan (2016), profitability is a description and performance management in managing the company. Profitability is one of the factors that affect the value of the company. The measurement of profitability used in this study is the ratio of return on equity

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(ROE) because this ratio is closely related to the capital structure used by the company, whether influenced by the proportion of long-term debt or own capital, (Sucuahi & Cambarihan, 2016, Manoppo & Arie, 2016).

### **3. Hypotheses**

#### **3.1 Effect of capital structure on profitability**

Trade-off theory does not explain the negative correlation between the level of profitability and debt ratio. Trade-off theory suggests that with increasing DER value (increasing the amount of debt) one can increase profitability, only if the debt is used correctly, according to Myers (1977). Studies by Abeywardhana and Krishanthi (2015), Ahmad *et al.* (2015) and Antwi *et al.* (2012) found out that capital structure has a positive effect on profitability. This study intends to re-examine the effect of capital structure on profitability, with the hypothesis:

*H<sub>1</sub>: The capital structure affects profitability.*

#### **3.2 The influence of company size on profitability**

Company size is a determinant of the profits of the company. The assets owned by the company indicate whether the company is classified as a large company or not. Company size is measured using Ln total assets. Companies with large assets will use the resources available as much as possible to generate maximum business profits and companies with small assets, will of course, also generate profits in accordance with their resources (Brealey *et al.*, 2011). Research conducted by Hamidah and Umdiana (2017), Suffah & Riduwan (2016), Sucuahi & Cambarihan (2016), and Tiska (2015) show that the company size has a positive effect on profitability. This study intends to re-examine the effect of company size on profitability, with the hypothesis:

*H<sub>2</sub>: Company size affects profitability.*

#### **3.3 Effect of capital structure on corporate value**

Trade-off theory in capital structure suggests using DER (Debt Equity Ratio) by balancing the benefits and costs arising as a result of the use of debt. The higher the debt (DER), the greater the risk. This will affect investor confidence in the company and will further affect the company's value. This research was conducted by Rahman (2014), Suffah & Riduwan (2016), Manoppo & Arie (2016) and Sunarto and Agus (2009) who stated that capital structure has a positive effect on company value. This study intends to re-examine the effect of capital structure on company value, with hypothesis:

*H<sub>3</sub>: The capital structure affects the firm's value.*

#### **3.4 Effect of company size on company value**

The size of the company in this study is a reflection of the size of the company that appears in the total value of the company's assets. This influences the investor's expectation of dividend from the company. Increased demand for shares of the company will be able to spur on the increase in stock prices in the capital market. The increase shows that companies are considered to have a greater "value". Such studies was conducted by Hamidah & Umdiana (2017), Suffah & Riduwan (2016), & Analisa (2011) who said that profitability has a positive effect on firm value. This study intends to re-examine the effect of firm size on the company value, with the hypothesis:

*H<sub>4</sub>: Firm size affects company value.*

### **3.5 Effect of profitability on corporate value**

Profitability can be calculated with ROE (return on equity). ROE reflects the return on investment for shareholders. High profitability reflects the company's ability to generate high returns for shareholders. High profitability ratio owned by a company will attract investors to invest in the company. The high interest of investors to invest in companies with high ROE will increase stock prices. Thus, there will be a positive relationship between profitability and stock prices, where high stock prices will affect the value of the company. Such research was conducted by Sucuahi & Cambarihan (2016), Hamidah and Umdiana (2017), Suffah & Riduwan (2016), Sucuahi & Cambarihan (2016), and Tiska (2015) who said that profitability affect the value of the company. This study intends to re-examine the effect of profitability on the value of the company, with the hypothesis:

*H<sub>5</sub>: Profitability affects the firm's value.*

### **3.6 Effect of capital structure on firm value with profitability as intervening variable**

Capital structure is the ratio of the value of debt to the value of a company's own capital, which is reflected in the company's financial statements at the end of the year. Capital structure can be measured by using Debt to Equity Ratio (DER). If the DER gets higher, then the value of the firm will increase as long as the DER has not reached its optimum point in accordance with the trade-off theory. Trade-off theory also states that with increasing DER value (increasing the amount of debt) one can increase profitability, only if the debt is increased and used correctly. Research on this relationship was once done by Rahman (2014) who concluded that profitability is able to mediate the influence of capital structure on firm value. This study intends to re-examine the effect of capital structure on firm value with profitability, with the hypothesis:

*H<sub>6</sub>: Profitability has an affect as an intervening variable mediating the influence of capital structure on firm value.*

### **3.7 Effect of firm size on firm value with profitability as intervening variable**

The size of the company is a substitute of the total assets of the company, which shows how much property the company has. Companies with large assets will use the resources possessed to the maximum to generate maximum profits as well. With the growing size of a company, then there is a tendency that more investors will pay attention to the company. This condition will cause a rise in stock prices of companies in the capital market that will, in turn, raise the value of the company (Brealey *et al.*, 2011). Research on this relationship was done by Pratama & Wiksuana (2016). This study intends to re-examine the effect of firm size on firm value with profitability as an intervening variable, with the hypothesis:

*H<sub>7</sub>: Profitability affects as an intervening variable that mediates the effect of firm size on firm value.*

#### **4. Research methodology**

##### **4.1 Design Research**

The design of this study is a causal comparative study. Subana (2013) states that quantitative research is divided into experimental research, descriptive correlational research, evaluation and comparative causal research. Comparative causal research is often difficult to distinguish from correlational research. Emzir (2011) suggests that correlational and comparative causal studies are difficult to distinguish since both of these studies conduct the same manipulation and interpretation of results. However, there is also a difference between the two. Comparative causal studies usually involve two or more groups and one independent variable.

##### **4.2 Population and sample research**

According to Sugiyono (2015), "*Population is a generalization region consisting of objects / subjects that have certain qualities and characteristics set by researchers to be studied and from which conclusions are drawn*". The population in this study are the companies that are in the mining sector, amounting to 47 companies that have gone public. A sample is a part of the number possessed by that population. The sample was selected by purposive sampling method, which means the sample to be used is taken in accordance with the criteria specified as follows: (a) Mining companies listed continuously on the Indonesia Stock Exchange during the period 2011-2015; (b) Companies in the metals and minerals mining sub-sector listed in Indonesia Stock Exchange; (c) Companies in the metal and mineral mining sub-sector that have complete financial statements in the period 2011-2015. Based on these criteria, the sample is of 7 companies, as follows:

ANTM Aneka Tambang Tbk, TINS Timah (Persero) Tbk, CITA Cita Mineral Investindo Tbk, CKRA Cakra Mineral Tbk, DKFT Central Omega Resources Tbk, INCO Vale Indonesia Tbk, and PSAB J Resources Asia Pasifik Tbk.

##### **4.3 Data collection technique**

The type of data used in this study is quantitative data and the data collection techniques used are non-participant observation, by collecting, recording and reviewing secondary data in the form of annual financial statements of mining companies listed on the IDX period 2011- 2015. Understanding of secondary data, according to Sugiyono (2015), is "*Source data that does not directly provide data to data collectors, for example through others or through documents*".

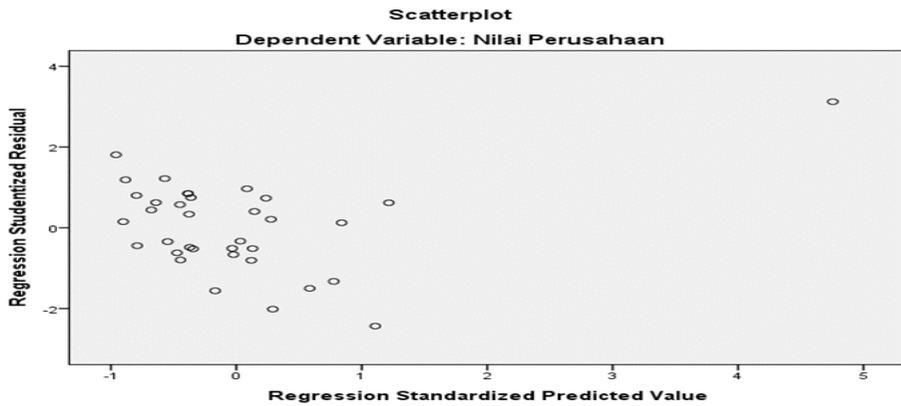
## **5. Analysis and discussion**

### **5.1 Descriptive statistics test**

The result of descriptive statistic test in this research shows that the average value of company value (PBV) that is 1,3714, with standard deviation 0,85325, minimum value 0,27, maximum value 5,21 and median 1,2600. The average value of company size (SIZE) is 29.1463, with standard deviation 1.60688, minimum value 23,05, maximum value 31,08, and median 29,4400. The average value of profitability (ROE) is 0.580, with a standard deviation of 0.17588, a minimum value of 0.53, a maximum value of 0.33, and a median of 0.800. The average value of capital structure (DER) is 0.6374, with a standard deviation of 0.66937, minimum value 0.01, maximum value 2.96, and median 0.4300.

### **5.2 The results of classic assumption tests**

1. The normality test. The normality test aims to test whether in the regression model, the intruder or residual variable has a normal distribution. Here are the results of normality test with Kolmogorov Smirnov (K-S) in this study: based on the results of testing Kolmogorov - Smirnov (KS) the author obtained a value Asymp.Sig. (2-Tailed) in the Undstandardized Residual column of 0.200, which is greater than 0.05 ( $0.200 > 0.05$ ) so that  $H_0$  is received. So it can be argued that all data used in this study is normally distributed.
2. The multicollinearity test. The calculation results show a Tolerance of 0.871 for capital structure, firm size of 0.751 and Profitability of 0.679. No independent variable has Tolerance values less than 0.10 (Tolerance > 0.10), which indicates that there is no multicollinearity. The non-occurrence of multicollinearity can also be proven with no independent variables having Variance Inflation Factor (VIF) values greater than 10 (VIF < 10). It can be concluded that in this research there is no multicollinearity between independent variables in the regression model.
3. The heteroscedasticity test. From the scatterplot chart, one can observe that the dots spread randomly and are randomly dispersed and do not form a specific pattern. It can be concluded that there is no heteroscedasticity in this regression model, so this model is feasible to be used to predict Company Value based on the available independent variables.

**Figure 1: The Scatterplot Chart**

*Source: Data processed with SPSS 22.*

4. The autocorrelation test. The following table shows results of autocorrelation test calculations with Durbin-Watson test for this study. The result of SPSS output shows that the DW test value in this research is 1,150, that is, between -2 to 2. So it can be concluded that there is no autocorrelation on the relationship between capital structure and firm size to firm value with profitability variable as an intervening variable, thus data can continue to the next measurement stage.

### 5.3 Regression analysis results

Regression analysis used in this research is multiple linear regression analysis with two regression models to find the direct relation between independent variables and dependent variables and also to find the relation between free and direct variable through intervening variable.

**Table 1. Result of Regression 2 test**

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	-1.312	.478		-2.747	.010
Capital Structure	-.074	.039	-.283	-1.912	.065
Ukuran Perusahaan	.049	.016	.444	3.003	.005

*a. Dependent Variable: Profitability*

*Source: Data processed with SPSS 22*

Based on the output of multiple linear regression testing with SPSS 22, the equation can be as follows:

$$Y_p : \alpha + \beta_1.X_1 + \beta_2.X_2 + e_1$$

$$Y_p : -1,312 -0.74X_1 + 0.49X_2 + e$$

$\alpha$  : -1,312, means that if all the independent variables (capital structure and firm size) are equal to 0, then the value of the dependent variable (profitability) is - 1.312.

$\beta_1$  : -0.74, means that if the capital structure variable (DER) experienced an increase of 1% then the value of Profitability decreased by 0.114 with the assumption that the other independent variables of the regression model is constant.

$\beta_2$  : 0.49, this means that if the size of the firm increases, then the value of the profitability of the company will also increase, assuming that the independent variable of the regression model is constant.

**Table 2.** Result of Regression 2 test

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
		B		Beta		
1	(Constant)	6.334	2.350		2.696	.011
	Capital Structure	.386	.182	.303	2.123	.042
	Company Size	-.176	.081	-.332	-2.171	.038
	Profitability	-1.292	.782	-.266	-1.651	.109

a. Dependent Variable: Company Value

Source: Data processed with SPSS 22.

The output of multiple linear regression testing with SPSS 22, the equation can be as follows:

$$Y_{np} : \alpha + \beta_1.X_1 + \beta_2.X_2 + \beta_3.X_3 + e_1$$

$$Y_{np} : 6,334 + 0.386X_1 - 0.176X_2 - 1.292X_3 + e_1$$

$\alpha$  : 6,334, means that if all the capital structure, firm size and profitability equals 0, then the value of firm value is equal to 6,334

$\beta_1$  : 0.386, it means that if the value of capital structure is increased then the value of the company value (PBV) has increased by 0.366.

## 5.4 The test of conformity model (Goodness of Fit)

### 5.4.1 Coefficient of determination (R<sup>2</sup>)

The result of adjusted R<sup>2</sup> test in model was R<sup>2</sup> value of 0.278 or 28%. The value of 28% indicates that the percentage of the contribution of capital structure and firm size to profitability is 28%. In other words, the variation of independent variables used in the model is able to explain 28% of the variation of the dependent variable, while the rest of 72% is influenced or explained by other variables not included in

this research model. From the result of adjusted test of  $R^2$  in model obtained a value of adjusted  $R^2$  equal to 0,399 or 39%. The value of 39% indicates that the percentage of contribution of capital structure, firm size and profitability to the firm value is 39%. In other words, the variation of independent variables used in the model is able to explain 39% of the variation of the dependent variable, while the remaining 61% is influenced or explained by other variables not included in this research model.

#### 5.4.2 Statistical F Test

Statistical F test aims to show whether all independent variables in the model have a mutual influence on the dependent variable and whether the model used is correct.

**Table 3.** Results of F1 Test

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.337	2	0.169	7.559	.002 <sup>b</sup>
	Residual	0.714	32	0.022		
	Total	1.052	34			

a. Dependent Variable: Profitability

b. Predictors: (Constant), Company Size, Capital Structure

Source: Data processed with SPSS 22.

Based on Table 3, it can be seen that the significance value 0.002 <from alfa 0.05, therefore  $H_0$  is rejected and  $H_a$  accepted, it can be stated that the capital structure and the company size, jointly, effect the profitability of a company and this proves that the regression model used is appropriate.

**Table 4.** Results of F2 Test

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.195	3	3.732	8.53	.000 <sup>b</sup>
	Residual	13.558	31	0.437		
	Total	24.753	34			

a. Dependent Variable: Company Value

b. Predictors: (Constant), Profitability, Company Size, Capital Structure

Source: Data processed with SPSS 22

Based on Table 4, it can be seen that the significance value 0.000 <from alfa 0,05, therefore  $H_0$  is rejected and  $H_a$  accepted, hence it can be stated that capital structure, Company Size and Profitability jointly influence to Profitability of a Company and this proves that regression model used is right.

### 5.4.3 The results of hypothesis test

Individual Parameter Significance Test (t test statistic), Individual significance test (t test) aims to determine the relationship of each independent variable to the dependent variable.

**Table 5. Result of T1 Test**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	-1.312	.478		-2.747	.010
	Capital Structure	-.074	.039	-.283	-1.912	.065
	Ukuran Perusahaan	.049	.016	.444	3.003	.005

a. Dependent Variable: Profitability

Source: Data processed with SPSS 22

From Table 5, the following results can be concluded:

- Effect of capital structure on profitability: From the result of t test for capital structure variable, the regression coefficient value is -0,074 and the significance value is 0,065. The value of significance is greater than the fault tolerance value of 0.05. Because the value of coefficient is negative and significance value is greater than 0.05, then the variable of capital structure has no effect on profitability, so  $H_{01}$  is rejected and  $H_{a1}$  is accepted. The same conclusion is also obtained by comparing the value of t arithmetic and table, from the above model one obtained a t value of -1.912 < of t table 2.037, it can be concluded that the capital structure does not affect the profitability of the company.
- The effect of firm size on profitability value: From result of t test for company size variable, one obtained value of regression coefficient 0,49 and significance value equal to 0,005. The value of significance is smaller than the fault tolerance of 0,05. Because the value of the coefficient is positive and the value of significance is smaller than 0.05 then the firm size variable affects the profitability, so that  $H_{02}$  is rejected and  $H_{a2}$  is accepted. The same conclusion is also obtained by comparing the value of t arithmetic and table, from the above model one obtained a t value of 3.003 < from t table 2.037, so it can be concluded that firm size variables significantly influences the profitability of the company.

**Table 6. Result of T2 Test**

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error			

1	(Constant)	6.334	2.350		2.696	.011
	Capital Structure	.386	.182	.303	2.123	.042
	Ukuran Perusahaan	-.176	.081	-.332	-	.038
	Profitability	-1.292	.782	-.266	-	.109
					1.651	

a. *Dependent Variable: Company Value*

*Source: Data processed with SPSS 22*

- a) The effect of capital structure on firm value:  
The result of partial t test for capital structure variable, one obtained a regression coefficient value of 0,386 and significance value equal to 0,042. The value of significance is smaller than the fault tolerance of 0,05. Because the value of coefficient is positive and significance value less than 0.05, then the variable of capital structure has an effect on the firm value, so that  $H_03$  is rejected and  $H_{a3}$  accepted. Result of t count is  $2.123 >$  from t table 2,040 also indicates that the variable of capital structure significantly influences company value.
- b) The effect of firm size on firm value:  
From the result of partial test of t for company size variable, one obtained a regression coefficient value of -0.176 and significance value equal to 0,038. The value of significance is smaller than the fault tolerance of 0,05. Because the value of coefficient is negative and significance value is less than 0.05, then the firm size variable has a significant negative effect on firm value, so that  $H_03$  is rejected and  $H_{a3}$  accepted.
- c) Effect of profitability on company value:  
From the results of partial t test for the profitability variable, one obtained a regression coefficient value of -1.292 and the value of significance of 1.09. The value of significance is greater than the fault tolerance value of 0.05. Because the value of coefficient is negative and significance value greater than 0.05, then profitability variable does not affect the company value, so that  $H_05$  is accepted and  $H_{a5}$  is rejected.

#### 5.4.4 Path analysis test results

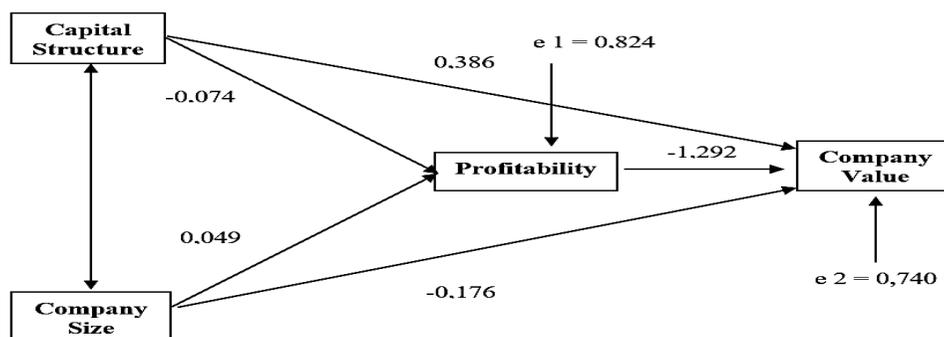
Path analysis aims to determine the effect of independent variables on the dependent variable by using an intermediate variable. The path diagram provides explicitly the relationship of causality between variables based on the theory. From the path diagram for the regression model of this study presented below we have:

- a) Capital structure of corporate value through profitability.

The direct effect of the capital structure to the company value is of 0.386. While the indirect effect of capital structure through profitability to firm value is the multiplication between beta value of capital structure to profitability with beta value of ROE to PBV, that is  $(-0,074 \times -1,292 = 0,095)$ . Then the total influence is of

0.481. The direct effect of capital structure on corporate value is of 0.386, while the indirect effect through profitability is 0.204 which means that direct influence has a greater value than indirect influence through profitability. It shows that Profitability is not able to mediate the influence of capital structure on corporate value.

**Figure 2.** Scheme of Path Analysis



b) Company size to company value through profitability.

Based on the above analysis one can see the direct effect of the size of the company to the value of the company has a beta value of -0.176. While the indirect effect of firm size through profitability to firm value is the multiplication between beta value of company size to profitability with beta value of profitability to firm value, that is  $(0.049 \times -1,292 = -0.063)$ . Then the total influence given the size of the company either directly or not is equal to -0.239. The direct effect of firm size to firm value is -0.176 while indirect effect through profitability is -0.063, which means that direct influence has a smaller value than indirect influence through profitability. It shows that Profitability is not able to mediate the influence of company size on corporate value.

## 6. Discussion

Capital structure variable obtained a regression coefficient value -0,074 and value of significance equal to 0,065. The value of significance is greater than the fault tolerance value of 0.05. Because the value of coefficient is negative and significance value greater than 0.05, then the variable capital structure has no effect on profitability. The results of this study are in accordance with previous research conducted by Nurcahyani (2014) which states that the capital structure does not affect profitability. The use of debt or own capital does not affect the company's ability to create profits. This may be due to many factors, such as the use of less than optimal capital. t test for company size variable obtained value of regression coefficient 0,49 and significance value equal to 0,005. The value of significance is smaller than the fault tolerance of 0,05. Because the value of the coefficient is positive and the value of significance is smaller than 0.05, then the firm size variables affect the profitability.

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The results of this study are in accordance with previous research conducted by Rifai *et al.* (2012) who state that the size of the company significantly affects the profitability of the company. The existence of this significant and positive influence indicates that the size of the firm can explain and predict the increase in profitability. This indicates that stocks of large corporations generally attract more investors because they are traded in larger quantities and frequencies in the capital market. Based on the result of partial t test for capital structure variable, one obtained a regression coefficient of 0,386 and significance value 0,042. The value of significance is smaller than the fault tolerance of 0,05. Because the value of coefficient is positive and the value of significance is less than 0.05, then the variable of capital structure affects the firm value.

This result is in accordance with research conducted by Rahman (2014) who says that the capital structure affects the value of the company: increasing the use of debt will increase the value of the company. In other words, taxes provide benefits in debt financing. Based on the results of partial t test for firm size variables, one obtained a regression coefficient value -0.176 and significance value of 0.038. The value of significance is smaller than the fault tolerance of 0,05. Because the value of coefficient is negative and significance value less than 0.05, then the variable size of the company negatively affect the value of the company.

The results of this study are in accordance with previous research conducted by Niesh & Velnampy (2014) who say that the size of the company negatively affects the value of the company. The size of the company is one measure of the performance of a company. The size of the company can be seen from the total assets. Companies with large assets and inventories may not be able to pay dividends (retained earnings) due to assets that accumulate on accounts receivable and inventory. Based on the results of partial t test for profitability variable, the regression coefficient value is -1.292 and the value of significance is 1.09. The value of significance is greater than the fault tolerance value of 0.05. Because the value of coefficient is negative and significance value greater than 0.05, then the profitability variable has no effect on corporate value. The results of this study are in accordance with previous research conducted by Hamidah & Umdiana (2017) who say that the profitability of the company does not affect the value of the company.

Based on the above data, it is established that the direct effect of capital structure on corporate value is of 0.386, while the indirect effect through profitability is 0.204, which means the direct influence has a greater value than indirect influence through profitability. It can be concluded that profitability is not able to mediate the influence of capital structure on corporate value. The results of this study are not in accordance with previous research conducted by Rahman (2014) who states that profitability, as a variable, is able to mediate the indirect effect of capital structure on corporate value.

Based on the above data it is acknowledged that the direct effect of firm size to the company's value is of -0.176, while the indirect effect through profitability is -0.063, which means that direct influence has a value smaller than indirect influence through profitability. It can be concluded that profitability is not able to mediate the effect of firm size on firm value. This result is in accordance with previous research conducted by Niesh & Velnampy (2011), who state that profitability is not able to mediate the effect of firm size on firm value.

## **7. Conclusion**

Based on the results of the first regression analysis in this study, it can be seen that the capital structure does not affect the profitability of the company. Capital structure has a positive effect on firm value and firm size positively affects the value of the company. From the results of the second regression analysis in this study it can be seen that profitability does not affect the value of the company. And on the results of the analysis using the path diagram, it is accepted that profitability is not able to mediate the influence between capital structure and firm value.

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