

# THE DETERMINANT OF VALUE OF FIRM THROUGH STRUCTURE OF CAPITAL OF MANUFACTURING FIRMS LISTED IN IDX

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## ABSTRACT

*This study aims to expand the research of Bhagat & Bolton in 2010 by explaining relation of the effect of CEO capability, CEO share and internal factors on value of firm through structure of capital. This study also reveals a different approach from previous studies, namely a quantitative approach and interviews to facilitate researchers to provide additional explanations for the quantitative findings. The research object is manufacturing firms listed on the Indonesian Stock Exchange (IDX) for the 2016-2020 periods. The population is 202 firms. The analysis tool is Partial Least Square (PLS) facilitated by SmartPLS Software. The results showed that the CEO's ability cannot determine the structure of capital, while the CEO's ownership and internal factors can determine the structure of capital. Regarding the indirect effect of CEO capability, CEO share and internal factors on value of firm through structure of capital, only internal factors determine the value of firm, while CEO capability and CEO share cannot determine the structure of capital. The debt usage in the structure of capital can increase the value of firm.*

**Keywords:** CEO Capability, CEO Shares, Internal Factors, Structure of Capital, Value of Firm.

## INTRODUCTION

The structure of capital decision has a very strategic role for owner welfare and firm survival. Various theories explained differences in structure of capital decisions on value of firm. Modigliani & Miller (1963) reveal that structure of capital decisions can affect value of firm.

The structure of capital should be decided to improve the shareholders welfare shown by higher value of firm (Sutrisno, 2005). The value of firm can be measured by the stock price, in addition to the dividend yield (Hamington & Wilson, 1989). The value of firm as measured by stock prices have empirical facts to explain that manufacturing firms listed on Indonesia Stock Exchange (IDX) have increased starting in 2016 with an

average of IDR 15,436 to IDR 16,177 in 2018, then increased again in 2019 to become IDR 17,655 and IDR 20,976 in 2020 (data processed from 2016-2020 report).

The phenomenon of value of firm increase continuously occurs when the structure of capital of manufacturing firms listed on IDX has more own capital than foreign capital. The amount of foreign capital is IDR 2,756,785 million, while the average equity is IDR 2,989,867 million. This happens because net income has grown by an average of 22.35% per year. It increases the equity in form of retained earnings.

Above conditions are contrary to Modigliani & Miller (1963) findings that more debt of a firm increases the value of firm. This is due to savings in taxes and corporate interest expenses. These findings are consistent with Kim (2007) that greater debt usage will increase the risk of investment, and will reduce the value of firm. Sujono (2010) also had the same finding that manufacturing firms in Indonesia use more debt; it will reduce the value of firm. Ross (1977) also explained that one strategy to give a positive signal to firm performance is that firm uses a higher portion of debt; it will provide high corporate value.

Based on above phenomena, researchers will expand the research by Bhagat & Bolton (2010) by explaining the relation of CEO capability, CEO share and internal factors on value of firm with structure of capital as mediation variable. Previous studies tended to look at determinants of value of firm without seeing their effects directly or indirectly through the structure of capital. This research will examine the direct and indirect effects of structure of capital.

## Theory and Research Hypothesis Development

Bhagat & Bolton (2010) examined the structure of capital. The research results explain that CEO capability affects negatively on structure of capital. Moh'd et al. (1998) and Bhagat & Bolton (2010) found almost the same results, namely CEO share, which illustrates that ownership of shares by management affect negatively on firm's structure of capital. Robbins & Judge (2013), Huang (2010) explained that CEO capability and value of firm are proxied as the time at the work with positive direction. Therefore, the hypotheses can be stated below.

*H<sub>1</sub> CEO capability affect negatively on structure of capital.*

*H<sub>2</sub> CEO capability has positive effect on value of firm, both directly and through structure of capital.*

Bhagat & Bolton (2010); Moh'd et al. (1998) & Huang (2006) stated that manager ownership is a percentage of management share and affecting negatively on structure of capital. Likewise López-Iturriaga & Rodríguez-Sanz (2001) also showed that managers have a positive relationship to corporate value. This was consistent with findings of Cole & Mehran (1998) that Chief Executive Officer Ownership affects significantly and positively on firm performance. The hypotheses are below.

*H<sub>3</sub> CEO share affect negatively on structure of capital.*

*H<sub>4</sub> CEO share affect positively on value of firm, both directly and through structure of capital*

Related to profitability, non-debt tax shield, dan cash flow and Huang (2006) explained that internal factors will have a negative effect on structure of capital. Profitability dan non debt-tax shield has a positive effect on value of firm (Jiraporn et al., 2008; Cleary, 1999). Meanwhile, cash flow affect positively on the value of firm (Gugler et al., 2007). It can be stated in hypotheses below.

*H<sub>5</sub> Internal factors have negative effect on structure of capital.*

*H<sub>6</sub> Internal factors have positive effect on value of firm, both directly and through structure of capital.*

The corporate debt increase provides benefits in form of tax savings but also will cause financial difficulties (Titman & Tsyplakov, 2007; Fattout et al., 2005) and Harris & Raviv (1991) showed that value of firm can be affected by structure of capital.

*H<sub>7</sub> Structure of capital has positive effect on the value of firm.*

## METHODOLOGY

The in-depth interviews are used to support qualitative approach. In-depth interviews are used to facilitate researchers to provide additional explanations for quantitative findings. The research object was manufacture companies firms listed in Indonesian Stock Exchange (IDX) in 2016-2020. Population is 202 firms. The samples are selected with sample saturated method with by following criteria: a) the firm has been listed on IDX until 2020, b) having financial reports, especially non-negative profit and not negative Equity balance, and c) the CEO share can be seen in annual report.

Based on the criteria, 26 firms are selected to become sample with number of observations are 120, namely 5 years x 24 firms. Secondary data is collected by documentation techniques and pooled type. The primary data was obtained by in-depth interviews with several CEO of sample firms. Data analysis uses descriptive statistics which are an average to describe the mean values of studied variables (Ferdinand, 2006). In addition, inferential analysis is done by Partial Least Square (PLS).

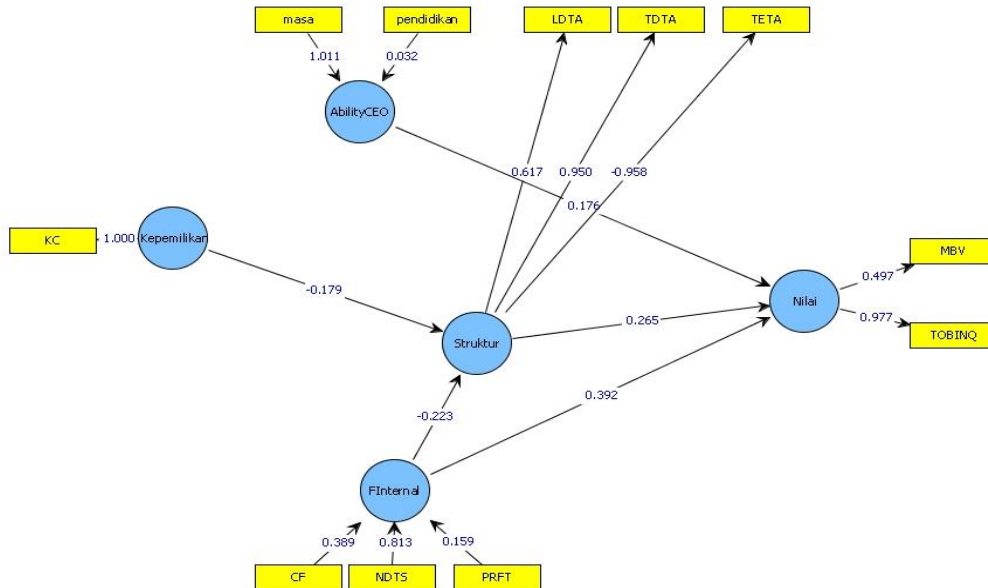
## RESULTS AND DISCUSSION

### Inner Model

Figure 1 shows the results of PLS inner model for CEO capability, CEO share, and internal factor, structure of capital and value of firm. The path coefficient test for initial inner model shows 7 paths and 3 paths are insignificant. The initial model is often faced with unsatisfactory results. Therefore, it needs to evaluate the model to improve the suitability of the model. The model re-specification approach can be done by 'trimming theory' (Dillon & Goldstein, 1984). The first evaluation is done by eliminating the path with lowest T value (0.036 and insignificant), namely the path from CEO share to value of firm.

The results of the analysis of the first evaluation model show 6 paths and there are 2 insignificant paths. This model is re-evaluated by eliminating one path that has the

lowest T value (0.631 and insignificant), namely the path from the CEO's ability to the structure of capital. The results are shown in Table 1 and Figure 1.



**FIGURE 1**  
**THE RESULTS OF INNER MODEL FOR SECOND EVALUATION**

Path Direction	Coefficient	Average Samples Coefficient	SE	T
CEO share → Structure of capital	-0.179	-0.169	0.079	2.255**
Internal Factor→ Structure of capital	-0.223	-0.217	0.111	2.000**
CEO capability → Value of firm	0.176	0.185	0.068	2.582**
Internal Factor → Value of firm	0.392	0.396	0.060	6.563**
Structure of capital -> Value of firm	0.265	0.262	0.091	2.921**

Note: Description: \* = significant at  $\alpha=0.10$  ( $1.64 < T < 1.96$ ); \*\* = significant at  $\alpha=0.05$  ( $T > 1.96$ )

Inner model test results (Table 1) show five significant paths. The endogenous construct of structure of capital shows the determining factors are internal factors. The most determining factor in structure of capital is the internal factor. Meanwhile, the endogenous construct of value of firm are internal factors.

**Outer Model**

It is evaluated to examine the relationship of indicators with latent constructs in structural model. Table 2 show analysis results.

Table 2 shows the test results for outer model. The tenure has highest loading factor, it means that longer the CEO tenure will increase the CEO capability. Latent constructs of internal factor show NDTS has the highest loading factor, it means that firms large NDTS can predict higher value of firm. Latent construct of structure of capital shows that TDTA and TETA have highest score. The reflection of TDTA on structure of capital is opposite to TETA, but TDTA has a strong correlation with TETA. In other

words, a strong value of firm is reflected in a high TDTA value or a low TETA value. Meanwhile, value of firm is very strong reflected by Tobin's Q index.

<b>Variables</b>	<b>Coefficients</b>	<b>Samples average coefficients</b>	<b>Standard Error</b>	<b>T</b>
<b>CEO capability</b>				
Tenure	1.011	0.943	0.230	4.407**
Education	0.032	0.022	0.288	0.111ns
<b>Internal Factors</b>				
CF	0.389	0.394	0.157	2.471**
NDTS	0.813	0.789	0.115	7.097**
PRFT	0.159	0.126	0.175	0.909ns
<b>Structure of capital</b>				
LDTA	0.617	0.593	0.140	4.419**
TDTA	0.950	0.893	0.311	3.052**
TETA	-0.958	-0.902	0.310	3.093**
<b>Value of firm</b>				
MBV	0.497	0.497	0.134	3.715**
TOBINQ	0.977	0.965	0.076	12.803**

Note: \*\* =significant at  $\alpha = 0.05$  ( $T > 1.96$ )

### **The Effect of CEO Capability on Structure of Capital**

Analysis results in Figure 1 show that CEO capability CANNOT determine the structure of capital. This means that CEO abilities as described by tenure cannot explain changes variations in structure of capital described TETA. This means that CEO tenure cannot increase the firm capital through CEO performance.

This is consistent with the opinion of Suwanto (2010) that someone with a older worker will more productive compared the new one. This is consistent with the opinion of one informant that:

*“Some CEOs... as CEO there are no added values during their tenure, little ideas and positive decisions to increase firm profits”.*

The interview results indicate that CEO tenure cannot contribute to an increase profits and capital. The firm tends to use debt financing to meet the structure of capital. This research results contradict with the opinion of Bhagat & Bolton (2010) that CEO capability affect significantly and negatively on structure of capital.

### **The Effect of CEO Capability on Value of firm, both directly and indirectly**

Table 1 show that CEO capability has a positive and significant effect on value of firm. The CEO capability which determined by tenure can explains the changes variations in firm's value based on Tobin's Q. This research results are consistent with empirical fact that the tenure is 16.65 years in 2016 and 19.52 years in 2020. Tobin's Q as the dominant indicator reflects the average value of firm of 88.79% by 2020. The above research results are consistent Huang (2010) that more experienced CEO will generate large profits and be able to increase value of firm. The higher the profit will give a good

signal for firm. This is also consistent with results of an interview from one informant below.

*"The incumbent CEO contributed to developing or increasing the value of firm with the positive correlation. If he only served for a long period of time without many added values for firm, of course the market response was mediocre and he might even ask to be replaced. However, if during his tenure he has had many ideas and positive decisions to increase the value of firm, such as efficiency, making innovations or creativity in firm, market will respond positively for the longer tenure. The profit will a lot in the future, the share price will increase".*

Furthermore, the indirect effect of CEO capability on value of firm through structure of capital is not decisive (Figure 1). This means that the CEO capability does not affect on value of firm through structure of capital. This finding is inconsistent with Huang (2010) and Demerjian et al. (2006) that more experienced CEOs can generate higher profits and increase value of firm.

### **The Effect of CEO share on Structure of capital**

Table 1 shows CEO share affect negatively and significantly on structure of capital. This means that higher the CEO share will decrease the debt usage. This is consistent with empirical facts which explain that average shareholding of CEOs reaches 2.24% of overall shares. Meanwhile, the dominant indicator of structure of capital to shape the structure of capital is total equity to total assets with an average of 45.53% for five years. This means that CEO share decrease firm's debt proportion.

This finding support theory of firm Jensen & Meckling (1976) that ownership structure affects on the structure of capital. Higher CEO share structure gives CEO more control over the firm. This study results are consistent with Bhagat & Bolton (2010), Huang (2006), and Lestari & Hermanto (2015) that CEO share affect significantly and negatively to structure of capital. Claessens et al. (2000) found that most of the firms listed on the JSE are still family owned and the manager is taken by the family. The manager is controlled by family.

### **The Effect of CEO Share on Value of Firm, both Directly and Indirectly**

Figure 1 shows that CEO share does not determine value of firm. This means that CEO share, the proxy for share ownership, cannot explain changes variations in value of firm. This opinion is consistent with Sujoko (2007, Surayya dan Juliana (2020). This opinion is consistent with empirical fact that CEO share only varies between 1.89% in 2017 to 2.56% in 2020 with an average of 2.24%. Meanwhile, tobins Q varied between 68.73% in 2016 to 96.22% in 2020 with an average of 88.79%. Investors did not respond to small CEO share to show the CEO depend the hopes to firm. While the CEO share affect negatively on value of firm through structure of capital (Table 1).

Above research results are consistent with the opinion of one informant below.

*"CEO shares Ownership has been responded negatively by market. This is because we are in understanding of firm's profit. CEO can buy and sell shares, so we can play, CEO is considered to have more information than shareholders. It is unfair. The rules is everyone have the same / equality of information"*

Above opinion show that outer investors dislike to CEO share. CEO with large number of shares has a tendency to act mischievously.

### **The Effect of Internal Factor on Structure of Capital**

Table 1 show that internal factors affect negatively and significantly on structure of capital. This explains that internal factors can explain changes variations in structure of capital. It is consistent to facts that NDTS average was 16.10%. Meanwhile, TETA for same period reached an average of 45.53%. The increase in NDTS will be followed by an increase in TETA which forms the firm's structure of capital. The research results above are consistent with Deesomsak et al. (2004), Fattout at al. (2005), Huang (2006) that NDTS affect negatively and significantly on structure of capital. Higher the NDTS will decrease the firm's structure of capital.

### **The Effect of Internal Factor on Value of Firm, both Directly and Indirectly**

Table 1 shows the internal factors has a positive and significant effect on value of firm. This means that internal factors can explain changes variations in firm's value listed on Indonesia Stock Exchange. These study findings are consistent empirical fact that the average NDTS value during the study period was 16.01%. This means that every rupiah of assets can produce an NDTS of IDR 0.16. Meanwhile, value of firm as measured by Tobin's during the study period reached an average of 88.79%. This study results indicate that tax savings other than debt as reflected in depreciation and amortization will increase the firm's internal sources of funds for additional firm fixed assets. This finding supports the research results of Jiraporn & Liu (2008) that non-debt tax shields has a positive effect on value of firm measured by Tobin's Q indicator. However, internal factors affect negatively on value of firm through structure of capital (Table 1). This is because NDTS has a lower trend annually and less reliable to fund the company's operations. This finding indicates that internal funds and debt increase value of firm.

### **The Effect of Structure of Capital on Value of Firm**

Table 1 explains the structure of capital directly affect negatively and significantly on value of firm. This shows that structure of capital can explain variations changes in firms' value listed on Indonesia Stock Exchange. These findings are supported that the average value of structure of capital based on TETA was 45.53%. Meanwhile, value of firm reflected by Tobin's Q during the study period reached an average of 88.79%. TETA and Tobin's Q have a consistent relationship. These are consistent with research that structure of capital affects positively and significantly on value of firm (Mougoue & Mukherjee, 1994; Fattouh et al., 2005). Higher the debt ratio will increase the firm's value where the income tax savings from firm's debt expense is greater than the bankruptcy cost.

## **CONCLUSION**

CEO capability is not determinant for structure of capital, while the CEO's ownership and internal factors determine the structure of capital. The CEO's ability and

internal factors directly determine the value of the company. Regarding the indirect effect of CEO capability, CEO share and internal factors on company value through structure of capital, only internal factors and CEO share determine the value of firm, while CEO capability cannot determine the structure of capital through structure of capital. The debt usage in the structure of capital can increase the company value. Higher debt becomes good signal about the better prospects of the company for the benefits of tax savings.

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