Free Cash Flow, Investment, Capital Structure and Firm Value

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Keywords: Firm Value, Free Cash Flow, Investment Level and Capital Structure

Abstract: Shareholders are very interested in the company's performance and prospects, which are generally referred to as company value. Information of corporate value declining is not mitigated by companies that have many stakeholders. Literature shows that the following factors have an impact on company values such as free cash flow, investment and capital structure. Decreasing the value of the company can endanger all parties including investors. A supervisory system for company management decisions is needed to reduce losses and adverse effects of a decrease in company value. However, in-depth research on corporate value models that are influenced by free cash flow and investment through capital structures is still rarely done. The purpose of the study was to examine the effect of intervening variable of capital structure in the relationship between free cash flow and investment with firm value. The research population is non-banking companies listed on the Indonesia Stock Exchange in 2014-2016. The dependent variable of this study is company value and the independent variable is free cash flow and investment. Intervening variable is capital structure. Control variable is company size, audit quality and company growth. The results of multiple regression analysis show that free cash flow and investment have a positive effect on firm value. The results of this research also show that free cash flow and investment have a negative effect on capital structure. However, this study did not find the effect of capital structure on firm value. Hence, capital structure does not play a role as an intervening variable between free cash flow and investment with firm value.

1 INTRODUCTION

Research on company value is important, which relates to the level of welfare of shareholders and the views of corporate stakeholders regarding future corporate prospects. Companies need to make effective decisions and take appropriate actions so that the company continues to survive with high profits and prosperity (Salvatore, 2005). The ratio of stock price and book value per share is one illustration of firm value (Ang, 1997). The firm stock price may be above or below of its book value which illustrate the investor's view of the company.

There are several factors affect the value of the company such as free cash flow, investment and capital structure. The first factor is free cash flow. The excess cash can be used for dividend payment or investment activity. The decision to use this free cash flow may cause agency conflict (Jensen & Meckling, 1976; Jensen, 1986). Dividend distribution correlates with the level of welfare of shareholders. But the value of the company decreases if management uses free cash flow in investment activities to safeguard its own personal interests. 0n the other side, profitable investment activities can improve shareholder welfare and company value (Perfect, Peterson, & Peterson, 1995; Richardson, 2005). Thus, effective use of free cash flow may increase company value

The second factor is investment. The company's investment activities should have a positive impact on the value of the company. This investment activity may bring the higher future cash flow, superior company competitiveness or new business areas (Agrawal & Zong, 2006). Therefore, a higher level of investment may create higher corporate value.

Then, the third factor is capital structure. The company's capital structure is not only covering equity value, but also all financial sources including debt. Debt is one of the financial resources in the company. Debt is also a tool used by companies to increase their capital in order to increase profits (Chowdhury & Chowdhury, 2010). Ogbulu and Emeni (2012) suggest that long-term debt has more roles in determining the value of a company than

Bukit, R., Mulyani, S., Nasution, F. and Chinomona, R.
Free Cash Flow, Investment, Capital Structure and Firm Value.
DOI: 10.5220/0009200001220126
In *Proceedings of the 2nd Economics and Business International Conference (EBIC 2019) - Economics and Business in Industrial Revolution 4.0*, pages 122-126
ISBN: 978-989-758-498-5

equity, especially in a country with a growing economy such as Nigeria.

Past study showed that firm size, audit quality and firm growth influence firm value. This study also tests firm size, audit quality and firm growth as control variables. First, company size can be expressed by total assets or total net sales. Assets are all resources and assets owned by the company for use in its operations. The size of the company is considered able to influence the value of the company. Because the larger the size or scale of the company, the easier it will be for the company to obtain funding sources both internal and external. Firm size is stated to be positively and significantly related to firm value (Bukit, Haryanto, & Ginting, 2016).

Second, audit quality is related to the quality of company profits. Past study (for example, Alfraih, 2016) supported that the better the quality of external auditors used by a company, the better the quality of the value relevance of financial reporting. The amount of large costs incurred to utilize external auditor quality is worth the results of the audit produced. Therefore audit quality is considered capable of increasing the value of the company.

Third, the company's growth also affects the value of the company. Companies with high growth rates are relatively easy to access the capital market. A high growth company shows its ability to increase the company value. For example, (Bukit, Haryanto, & Ginting, 2016) suggest that firms with high growth rate influence firm value in a positive and significant way. In this study, company size, audit quality and company growth are control variables. The purpose of this research is twofold: First, to tests the effect of free cash flow, investment and capital structure on firm value. Second, this study aims to examine the effect of free cash flow and investment through capital structure.

2 CONCEPTUAL FRAMEWORK AND HYPOTHESES

Agency theory explains that the use of excess cash raises the potential for conflicts of interest where the excess money is intended for activities that bring their personal benefits that may be in line or not in line with the interests of shareholders (Jensen 1986; Jensen & Meckling 1976; Chung et al. 2005). Previous research states that companies that have free cash flow tend to be involved with activities that do not increase the value of the company; this is predicted in the theory of free cash flow (Ang et al. 2000; Jensen 1986). Research needs to be conducted to examine the effect of free cash flow, investment and capital structure on firm value. Based on the prior arguments, this study show that free cash flow and investment affect capital structure, and subsequently capital structure is also related to firm value. Therefore, this study argues that capital structure mediates the relationship between free cash flow and investment on firm value. The research framework is shown as follows (see in Figure 2.1):

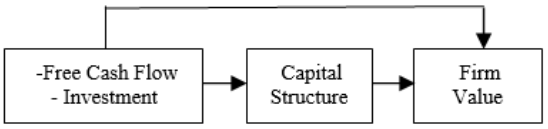

Figure 2.1: Firm Value Model

Furthermore, based on the explanation above, this study develops several hypotheses as follow

H1. Free cash flow, investment and capital structure are associated with firm value

H2. The effects of free cash flow and investment on firm value are mediated by capital structure

3 METHOD

3.1 Population and Sample

The population of this study is all non-banking companies listed on the Indonesia Stock Exchange during 2014-2016. The selection and collection of sample data needed in this study was conducted by purposive sampling. The data analysis method used in this study is Multiple Regression Analysis with multiple path analysis.

3.2 Type and Method of Data Collecting

This study uses secondary data which is collected from annual reports and published financial reports, books, and scientific journals related to this research. Data is obtained from the internet by downloading the required data by accessing it from the Indonesia Stock Exchange website (www.idx.com), www.ssrn.com, www.search.proquest.com, and the website of each company.

3.3 Variable Definition and Operationalization

Operational definitions and variable measurements are shown in Table 4.1 (please see Appendix 1)

3.4 Method of Data Analysis

Data analysis method is a multiple regression analysis model. Before data analysis is performed, the classical assumption test is carried out which includes normality test, multicollinearity test, heteroscedasticity test and autocorrelation test. First, the data normality test is done by probability plot analysis and the Kolmogorov-Smirnov test. If the probability is> 0.05 then the data distribution is normal and if the probability is <0.05 then the data distribution is not normal. Secondly, a multicolinearity test is run to examine the correlation between independent or independent variables that are expected to not exceed 0.8 (Gujarati, 2003). Third, heteroscedasticity test aims to test whether in the regression model there is a variance inequality from residual observation to another observation. If the variance from residual one to another observation remains, then it is called homoscedasticity and if it is different is called heteroscedasticity. Fourth, the autocorrelation test aims to test whether in a linear regression model there is a correlation between confounding errors in period t with errors in periods t-1 or earlier.

3.5 Research Model

The first hypothesis will be tested with the regression equation 1 as follows:

$$\mathbf{Y= b_0 + b_1X_1 + b_2X_2 + b_3X_3 + CV + \varepsilon}$$ **..... Equation 1**

Where:

Y	=	Firm value
X_1	=	Free cash flow
X_2	=	Investment
X_3	=	Capital structure
X_{c1-c3}	=	Control variables
$b_1 – b_3$	=	beta of each variable
ε	=	Error Term

The second hypothesis will be tested by the four steps Baron and Kenny (1986) approach.

4 RESULTS

4.1 Descriptive Statistics

Descriptive statistics provide a general description of the object of research sampled. Explanation of data through descriptive statistics is expected to provide an initial description of the problem under study (see Table 4.1, in Appendix).

4.2 Correlation Coefficient

This study conducted the correlation coefficient test between independent variables. Table 4.2 (see in Appendix) shows the highest correlation coefficient is between the variable of free cash flow and investment which is -0.164 where the correlation coefficient number is still below 0.8 (Gujarati, 2003). Thus it can be concluded that in this research model there is no problem of multicollinearity.

4.3 Research Regression Results

The results of this research also show that free cash flow and investment have positive effects on firm value. Hypotheses 1 is supported. This study also finds that free cash flow and investment have negative effects on capital structure. This study finds the positive effect of capital structure on firm value. However, the coefficients of free cash flow and investment are still positive and significant in Model 4; it means that capital structure does not play a role as fully mediating variable between free cash flow and investment with firm value. (Please see Table 4.3 in the Appendix).

5 CONCLUSION

The results of this research also show that free cash flow, investment and capital structure have positive effects on firm value. However, capital structure does not play a role as an intervening variable between free cash flow and investment with firm value.

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APPENDIX

Descriptive Statistics

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
FIRM_SZ	382	12,230	33,650	27,460	3,184
AUDIT_QLT	382	0,000	1,000	0,393	0,489
GROWTH	377	-58,450	192,250	18,767	39,936
FCF	377	-1,150	0,330	-0,008	0,158
INV	377	-1,000	3,210	0,138	0,525
DER	377	0,030	5,060	0,584	0,625
FIRM_VALUE	382	0,080	23,180	1,813	2,927
Valid N (listwise)	375				

Correlation Coefficient

Table 4.2. Correlation Coefficient

	FIRM_SZ	AUDIT_QLT	GROWTH	FCF	INV	DER	FIRM_VALUE
FIRM_SZ	1						
AUDIT_QLT	0,061	1					
GROWTH	0,090	-0,033	1				
FCF	-0,013	0,084	0,074	1			
INV	0,021	0,035	-0,017	-0,164	1		
DER	-0,126	-0,102	-0,114	-0,055	-0,157	1	
FIRM_VALUE	0,150**	0,130*	0,117*	0,092	0,118*	0,050	1

Regression Results

Table 4.3. Regression Analysis Results

	Model 1 DV : Firm Value	Model 2 DV : Capital Structure	Model 3 DV : Firm Value	Model 4 DV : Firm Value
Constant	-2,064 (-1,609)	1,262 (4,622) ***	-2,587 (-1,953)*	-2,798 (-2,134)**
Independent Variable				
Free Cash Flow	1,847 (1,914) *	-0,295 (-1,435)		2,018 (2,099)**
Investment	0,724 (2,534) **	-0,198 (3,256)***		0,839 (2,915)***
Mediating Variable				
Capital Structure			0,446 (1,839)*	0,582 (2, 393)**
Control Variable				
Firm Size	0,124 (2,649)***	-0,021 (-2,122) **	0,134 (2,831)***	0,136 (2,913)***
Audit Quality	0,669 (2,190) ***	-0,105 (-1,613)	0,807 (2,630)***	0,730 (2,397)**
Growth	0,008 (2,008) ***	-0,002 (-2,045)**	0,009 (2,294)**	0,008 (2,263)**
R^2	0,071	0,064	0,058	0,085
Adj R^2	0,058	0,051	0,047	0,070
F	5,636	5,058	5, 663	5,711
Prob F	0,000	0,000	0,000	0,000