Firm Value in a Situation of Free Cash Flow and Investment Sensitivity, External Finance Constraint and Information Asymmetry

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Abstract: Good company value is an important goal of the company. But companies that have many stakeholders and face various problems such as conflict of incentives and information asymmetry, often have difficulty in maximizing the value of their companies. A fall in the value of a company can harm all parties including investors. The supervisory system for company management decisions is very necessary to reduce losses and adverse effects from the decline in company value. However, in-depth research on the company's value model in situations where there is sensitivity to cash flows and investment, information asymmetry and restrictions on external funding are still rarely carried out. The research objective is to test the company's value model in situations there is free cash flow, investment, information asymmetry, and external funding restrictions. The study population is a non-banking company listed on the Indonesia Stock Exchange in 2014-2016. This study uses secondary data. The dependent variable of this study is the value of the company and the independent variable is the sensitivity of cash and investment flows, information asymmetry, and external funding restrictions. The data analysis method used in this study is a multiple regression analysis model. This study finds that free cash flow, investment and external funding restrictions influence firm value.

1 INTRODUCTION

A company is established with the aim of increasing the value of the company so that it can provide prosperity for the owner or shareholders. The value of a company is important because it relates to the welfare of its shareholders. The value of the company can be described from the level of the stock price that shows the future prospects of the company. Some researchers have previously described the value of the company by Tobin Q, which is the ratio of the company's market value to the book value of the company's equity. In other words, the firm's value is the current financial market estimate of the return value of each additional investment rupiah or is an illustration of the effectiveness of company management utilizing economic resources in its strength. The company's goal to maximize company value can be achieved through better performance (Bukit, Haryanto, &Ginting, 2016; Moeljadi&Supriyati, 2014). The reality is not easy for all companies to maximize the value of their company. Among the important factors that influence the value of the company are the level of free cash flow and investment, information asymmetry and funding restrictions.

The findings of previous studies on the level of sensitivity of free cash flow and investment indicate a gap in theory and practice. Efficient financial market theory explains that the flow of internal funds should not be related to the level of investment. However, in practice there is a positive relationship between internal funds flow and investment level. Previous research noted several reasons for the discovery of this positive relationship, including 1) agency issues arise in the case of managers are involved in using internal cash flows in non-prospective investment activities (for example, Jensen 1986). 2) Relating to imperfect capital markets so that expensive external funding sources may cause managers to use internal funds to finance projects / investments (Agrawal&Zong 2005).

Past studies show that investment companies that are limited financially are more sensitive to internal funds than companies that have access to outside

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funding. For example, Agrawal&Zong (2005) used the company data in the four largest industrialized countries (such as US, UK, Japan and Germany) and found that investment rates were significantly related by internal cash levels. More specifically, this shows that companies face limitations in accessing external finance.

Research on the value of the company is still interesting because information about the value of the company is very important for stakeholders. Previous research shows that several factors influence firm value such as company performance, company size, and debt monitoring (Bukit, Haryanto, &Ginting, 2016). First, company performance is often described as company efficiency, financial stability or financial health. Information on company performance is important for shareholders, which is related to their interests and welfare. Second, the literature finds that company size is one of the determinants of firm value. The size of the company is a reflection of the total assets of the organization. Managers of companies with greater assets are more flexible in using existing company assets. Large companies have easy access to capital markets to get funds. Higher company size is captured by investors as a positive signal and good prospects so that the size of the company can positively influence the company's value. Third, the level of debt monitoring is measured by the ratio of total debt to total assets. A company that borrows funds from a bank must sign a debt agreement contract. Company managers must run the company efficiently and effectively to avoid breach of debt agreement contracts. Companies with high debt ratios receive additional supervision from banks. Thus, debt monitoring tends to have a positive impact on company value.

However, previous studies noted that the influence of other factors such as the level of sensitivity of cash flow and investment, the constraints of funding and information asymmetry of firm value are still rarely examined and the results are still inconsistent. The purpose of this study was to examine the effect of the level of free cash flow and investment, information asymmetry and funding constraints on firm value.

2 CONCEPTUAL FRAMEWORK

Agency theory shows that excess cash can lead to conflict of incentives because managers tend to use corporate money for activities that do not benefit shareholders to achieve their personal interests (Jensen 1986; Jensen &Meckling 1976; Chung et al. 2005). Free cash flow theory predicts companies that have free cash flow tend to be involved with activities that do not increase firm value (Ang et al. 2000; Jensen 1986). Yoon and Miller (2002) say that managers tend to manipulate earnings to avoid companies reporting decreased income. Research needs to be done to examine the effect of conflict of free cash flow incentives, information asymmetry and monitoring system on firm value. The research framework is shown as follows:

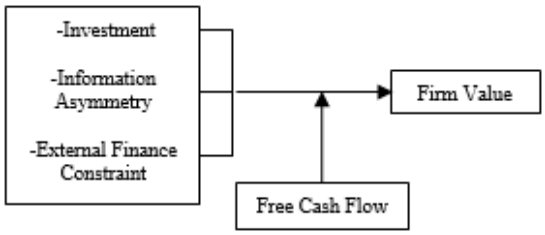

Figure 2.1: Firm Value Model

Excess cash is an incentive problem if in its use it creates a conflict of interest. The excess cash reinvested in projects that do not benefit the company is better distributed as dividends. In situations where companies are not easy to obtain investment capital from outside the company, free cash flow becomes an alternative to internal funding. Cash spending that are used efficiently to improve company performance will maximize the value of the company. Some research also proves that cash flow in the company gets a positive reaction from shareholders who can read important prospects of the use of cash (Perfect, Peterson, & Peterson, 1995). But on the other hand, the free cash flow hypothesis predicts that cash excess is often used opportunistically to finance investment projects with negative net present value (NPV) value (Jensen, 1986; Richardson, 2005). The use of cash excesses that do not improve shareholders' welfare results in incentive conflicts (Jensen, 1976) so that distributing excess cash in the form of dividends will reduce incentive conflicts.

In addition to cash flow, conflict incentives arise in situations of information asymmetry. Management as a company manager has more information about the company, while investors and creditors only have limited information. In this study, information asymmetry is measured in two ways: First, information asymmetry because there are inconsistencies between financial information (such as information on increasing the amount of income) and non-financial information (such as information on increasing the number of employees) (Brazel et al. 2009). Second, information asymmetry is due to

accounting fraud where managers change and manipulate profits with the aim of deceiving and misleading the views of readers of financial statements about the actual performance of the company (Healy &Wahlen 1999;Bukit &Iskandar, 2009). Information asymmetry causes shareholders to not get quality information in making decisions so that conflict of incentives occurs and the level of welfare of shareholders decreases. Given the impact of the losses caused by the fall of the value of the company, the precautionary measures through the monitoring system are very important.

Monitoring systems through external funding are expected to increase transparency, relevance, reliability and financial reporting timelines, reduce capital costs, and facilitate access to international capital markets (Choi & Meek, 2012). Increased accounting information quality can reduce conflict over cash incentives and information asymmetry to increase firm value.

The presence of a monitoring system is needed especially for companies that face incentive conflicts to increase company value. Among the monitoring systems that are expected to be able to oversee the company and reduce the conflict of incentives is external funding. Thus, the external funding constraint may have impact in reducing firm monitoring and firm value. Furthermore, based on the explanation above, this study develops several hypotheses as follow

H1. Free cash flow, Investment,Information asymmetry, and External finance constraintare related with firm value

H2. The influence of investment,information asymmetry, and external finance constraint on firm value are moderated by free cash flow

3 RESEARCH METHOD

3.1 Population and Sample

The research population is a non-banking company listed on the Indonesia Stock Exchange in 2014-2016. The research sample was taken randomly following the applicable research method.

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.

4 RESEARCH MODEL

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

$$\mathbf{Y= b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_{c1}b_7X_{c2}+ b_8X_{c3}+\varepsilon \quad \text{.....} \quad \text{Equation 1}}$$

Where:

Y	=	Firm value
X_1	=	Free cash flow
X_2	=	Investment
X_3	=	Information asymmetry $_1$
X_4	=	Information asymmetry$_2$
X_5	=	Constraint of financing
X_{c1-c3}	=	Control variables
$b_1 – b_5$	=	beta of each variable
ε	=	Error Term

The second hypothesis testing model

The second hypothesis will be tested by the interaction test method with equation 2 as follows:

$$\mathbf{Y= b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_1X_2 + b_7X_1X_3 + b_8X_1X_4 + b_9X_1X_5 + b_{10}X_{c1}+ b_{11}X_{c2}+ b_{12}X_{c3}+\varepsilon \quad \text{.....} \quad \text{Equation 2}}$$

Where:

X_1X_2; X_1X_3;X_1X_4; X_1X_5 : the interaction variables

5 RESULTS

5.1 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 5.1, in Appendix).

5.2 Classical Assumption Test

Classical assumption testing is done to find out whether there is a violation of the classic assumption test which forms the basis of multiple linear regression models. This research shows that this research data has passed the classical assumption test, so there are no problems with normality, multicollinearity, heteroscedasticity, and autocorrelation.

This study also conducted the correlation test between independent variables.Table 5.2 (see in Appendix) shows the highest correlation coefficient is between the variable earnings management (EM) and company growth (Gr) which is 0.180 where the correlationcoefficient number is still below 0.8 (Gujarati, 2003). Thus it can be concluded that in this research model there is no problem of multicollinearity.

5.3 Research Regression Results

This research develops the previous research by examining the effect free cash flow, investment, asymmetry information and constraint of external financing on the value of the company. This study also test the moderating effect of free cash flow on the relationship between investment, asymmetry information and constraint of external financing on firm value. As expected, this study shows that investment and external finance constraint (ie debt ratio) affect the value of the company. The results also show that the interaction of free cash flow and investment contributes to increasing the value of the company. However, this study found no effect of free cash flow and information asymmetry on firm value.This study also showed that the effect of information asymmetry and external finance constraint on firm value cannot be moderated by free cash flow (Please see Table 5.3 in the Appendix).

6 CONCLUSION

This study connects the concept of the level of free cash flow and investment, monitoring mechanisms, signal theory and firm value. Some managers have personal information to signal their best performance and the company's future prospects. Transparency of corporate information through low information asymmetry can reduce information gaps between company managers and shareholders. In addition, in order to protect the interests of shareholders, some companies implement effective oversight mechanisms, including monitoring by external auditors, control by creditors or banking and supervision by public shareholders. Generally, companies by suppressing agency issues widely and effective oversight mechanisms give better attention to the interests and welfare of shareholders and have a higher corporate value.

The findings of this research contribute to understanding the signalling issues by the company. Information transparency through low agency issues and effective monitoring can improve the alignment of interests between managers and shareholders and reduce agency conflicts. Consistent with signal theory, this study shows that broad investment shows that corporate managers run companies for the benefit of shareholders. The company's signal will show that the company achieves what is shown in the company's value.

The results of this research have significant implications for policy makers and practitioners. The findings show that good company value will be achieved when the company is in a state of low agency problems and effective monitoring by an external auditor. This finding informs that certain monitoring mechanisms will help the board of directors to explain the application of certain investment strategies, and understand the behaviour of the company's investment strategy. The practical implication of this research is that managers will have incentives to strengthen the monitoring mechanism to signal company performance and company value. This research contributes to signal theory.

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APPENDIX

Table. 4.1 Variable definition and operationalization

Variable	Definisi	Operasionalisasi
Dependent Variable		
FV	Firm Value	Tobin Q
Control Variable		
SIZE	Firm Size	Ln of total asset (Koh 2003).
DEBT	Debt	Ratio of total debt and total asset (Ang& Ding 2006).
AUD	Audit quality	Auditor size, Big 4=1; Non Big 4 = 0 (Becker et al. 1998).
GROWTH	Firm growth	Ratio of market value and book value (Chung et al. 2005).
Independent Variable		
FCF	Free cash flow	Operating profit before interest rates, taxes, depreciation and amortization / total assets at the beginning of the year (Chi 2005)
Investment	Purchasing assets that are expected to provide welfare in the future	Ratio of asset increase
Information asymmetry	The difference of financial data and non financialdata	Δ financial data– Δ non financial data (Brezel et al. 2009)
	Financial data manipulation	Discretionary accrual based on the performance match sample (Chen et al. 2008; Kothari et al. 2005).
ModeratingVariable		
External Financing Fund	Ratio of total debt and total asset	Debt to Equity Ratio

Table 5.1 A. Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
FIRM_SZ	382	12,229	33,648	27,460	3,184
GROWTH	377	-58,450	192,250	18,767	39,936
FCF	377	-1,150	0,329	-0,008	0,158
INV	377	-1,000	3,209	0,138	0,525
EM	374	-0,545	1,076	0,036	0,165
E_DIFF	372	-0,504	4,601	0,132	0,389
DER	377	0,032	5,056	0,584	0,625
FIRM_VALUE	382	0,079	23,181	1,813	2,927
Valid N (listwise)	369				

Table 5.1.B Data Frequency and Percentage of Auditor Types

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	232	60,7	60,7	60,7
	1	150	39,3	39,3	100,0
	Total	382	100,0	100,0	

Table 5.2 Multicollinearity test results

	FIRM_SZ	AUDIT_QLT	GROWTH	FCF	INV	EM	E_DIFF	DER
FIRM_SZ	1							
AUDIT_QLT	0,061	1						
GROWTH	0,173**	0,047	1					
FCF	-0,013	0,084	0,002	1				
INV	0,021	0,035	-0,070	-0,164**	1			
EM	-0,020	-0,036	0,180**	-0,089	0,012	1		
E_DIFF	0,028	-0,108*	-0,101	0,031	0,082	0,062	1	
DER	-0,126*	-0,102*	-0,302**	-0,055	-0,157**	-0,135**	0,067	1

Table 5.3 Regression Results

	Model 1 **DV : Firm Value**	**Model 2** **DV : Firm Value**	**Model 3** **DV : Firm Value**	**Model 4** **DV : Firm Value**	**Model 5** **DV : Firm Value**
Constant	-1,701 (-4,495)***	-1,799 (-4,783)***	-1,665 (-4,380)***	-1,701 (-4,489)***	-1,728 (-4,568)***
Independent Variable					
Free Cash Flow	0,414 (1,492)	0,059 (0,197)	0,572 (1,766)*	0,402 (1,429)	0,032 (0,081)
Investment	0,218 (2,625) ***	0,297 (3,425)***	0,216 (2,601)**	0,219 (2,629)***	0,216 (2,597)**
DA	0,180 (0,683)	0,210 (0,805)	0,239 (0,882)	0,182 (0,690)	0,202 (0,763)
Ediff	0,059 (0,534)	0,054 (0,491)	0,055 (0,498)	0,056 (0,508)	0,060 (0,542)
DER	0,351 (4,811)***	0,352 (4,879)***	0,351 (4,809)***	0,351 (4,810)***	0,375 (5,005)***
Moderating Variable					
FCF*INV		0,965 (2,873)***			
FCF*DA			-1,433 (-0,947)		
FCF*EDIFF				0,131 (0,248)	
FCF*DEBT					0,603 (1,370)
Control Variable					
Firm Size	0,039 (2,917)***	0,043 (3,228)***	0,038 (2,806)***	0,039 (2,914)***	0,040 (2,946)***
Audit Quality	0,158 (1,794)*	0,153 (1,753)*	0,166 (1,879)*	0,158 (1,790)*	0,162 (1,845)*
Growth	0,083 (4,520)***	0,082 (4,470)***	0,082 (4,428)***	0,083 (4,506)***	0,084 (4,579)***
R^2	0,125	0,145	0,128	0,126	0,130
Adj R^2	0,106	0,124	0,106	0,104	0,108
F	6,458	6,773	5, 838	5,732	5,963
Prob F	0,000	0,000	0,000	0,000	0,000