

**THE INFLUENCE OF FREE CASH FLOW ON THE FIRM VALUE USING
DIVIDEND POLICY AS A MEDIATING VARIABLE**

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Abstract

Purpose of this study is to investigate whether the dividend policy can mediate the influence of free cash flow on the firm value in all industrial firms contained in IDX. Regression is the model used by this study to test the mediating variable in this case the dividend policy as measured by the dividend payout ratio (DPR) to the free cash flow as independent variable on the firm value as dependent variable. As well as firm size as control variable. Sample in this study are the entire firm in all industries during the period 2008-2013 with certain criteria. The result show that the dividend policy has positive and significant value in the influence of free cash flow on the firm value.

Keywords :Free cash flow, Dividend policy, Firm value, Firm Size

H₁ : The Dividend Policy Positively Mediates the Influence of the Free Cash Flow on the Firm Value.

3. Research Methodology

3.1 Population and Sample

Population refers to the entire group and also something that researcher hope to investigated (Sekaran 2010:262). The population in this study uses all firms listed in Indonesian Stock Exchange during 2008-2013. Sampling was conducted by research purposive sampling method. Purposive sampling is a sampling technique in which certain types can provide the expected information (Sekaran 2010:276). Criteria samples used in this study are:

- a. All firms listed in Indonesia Stock Exchange and published its financial statements during 2008-2013.
- b. Firms that had completeness data of financial statement used in this research.
- c. The financial statemetn are in Rp
- d. The financial statement has positive equity
- e. The financial statement has positive income

Based on several criteria in the sample selection, the sample of firms used in this study are 209.

3.2 Research Variables

a) Independent variable

i. Free cash flow

Cash flow from operating activities can be directly derived from the statement of cash flow, while investment is obtained with an increase in total assets (Philips, 2003). Ross et al. (2000) Free cash flow calculated with the formula as follows:

Free Cash Flow = cash flow from operations– net capital expenditure/total asset

where :

Cash flow from operations = net value of increase / decrease in cash flow from operating activities

Net capital expenditure = the value in the end of fixed asset – the value in the beginning of fixed asset.

Total asset = total assets at the year.

Free cash flow represents the financial flexibility of the firm, that is these funds represent the ability to take advantage of investment opportunities beyond than investment and how much cash a firm has after paying it bills for ongoing activities and growth (McClure, 2010). International Accounting Standards (IAS) 7 recommended free cash flow should be recognized as cash from operations less the amount of capital expenditures requires to maintain the firm present productive capacity.

b) Dependent variable

ii. Firm value

Firm Value is a perception of investor on how the firm shows the wealth of shareholders. reflected in the stock price (Brigham and Ehrhardt, 2005:7-8). In this research i used closing price at 31 December to determine the PBV. The market price used is the closing price, it beacuse of the market price which stated the fluctuation of the stock (Ang, 1997). Jogiyanto (2000), mentioned by looking at the book value and the market value, the firm's growth can be known. The higher the ratio, the more successful firm creates value for shareholders (Ang 1997). PBV formulated as follows:

PBV : Price per share at 31 December (the end of the year) / book value per share

Book Value (Book Value) is the price ratio that calculated by dividing the total net assets (assets - debts) with total shares outstanding. Price-book value or PBV describes how big the market appreciates the shares of the book value in the firm. The higher this ratio means the market believes the firm prospects. When the firm goes well, generally PBV ratio reaches more than one, which indicates that the market value is greater than its book value (Ang, 1997).

Where : $BV = \text{total equity} / \text{total shares}$.

c) Mediating variable

iii. Dividend policy

Dividend payout ratio (dividend payout ratio) is the percentage of profit paid out on dividends or the ratio between the earnings paid in dividends to total earnings available for shareholders (Sartono 2001). Dividend payout ratio is an indication of the percentage of the amount earned that is distributed to shareholders in the form of cash (Gitman, 2003). Dividend Payout Ratio (DPR) determined to pay a dividend to shareholders every year, the determination of the size of the DPR based on the profit after tax. $\text{Dividend per share} / \text{income per share} \times 100\%$ (M.Hanafi and Abdul Salim, 2007:86).

d) Control variable

iv. Firm size

Weston and Copeland (1996: 100) it is called large for the firm in order to firm size when the firm could give a dividend pay out rate higher than the small firm or new. Kartika (2005), the firm that has the size of a large firm would be easier to enter the capital market so that with this opportunity the firm pay a big dividends to shareholders. Benchmark that indicates the size of a firm concerns, the total sales, the average level of sales and total assets (Ferry and Jones, 1979).

(LnTA) Firm size can be calculated through the natural log of total assets each year (Kartika, 2005).

3.3 Method of data analysis

The regression performed on the following equations:

- $DP_t : \alpha_1 + \beta_1 FCF_{t-1} + \beta_2 FS_t + e_1$ equation I
- $FV_t : \alpha_1 + \beta_2 FCF_{t-1} + \beta_3 FS_t + e_2$ equation II
- $FV_t : \alpha_1 + \beta_3 FCF_{t-1} + \beta_1 DP_t + \beta_4 FS_t + e_3$ equation III

Information:

FCF_{t-1} : free cash flow from previous year

DP_t : Dividend policy current the year

FV_t : Firm value current the year

$\beta_1 FCF$: free cash flow intercept

$\beta_1 DP$: dividend policy intercept.

FS : Firm size

e : Error

After that we performed follow-up analyses to test the indirect effect. Baron and Kenny (1986) provide an approximate significance test for the indirect effect. The path from respectively, free cash flow to dividend policy is denoted α and its standard error s_α ; the path from dividend policy to firm value is denoted to β and its standard error s_β . The product $\alpha\beta$ is the estimate of the indirect effect of free cash flow to dividend policy and dividend policy to firm value. The standard error of $\alpha\beta$ is:

$$s_{ab} = \sqrt{b^2 sa^2 + a^2 sb^2 + sa^2 sb^2}$$

Where :

a= beta of DP

b= beta of FV

Sa²= std. error on DP

Sb²= std. Error on FV

4. Data Analysis and Discussion

a. Regression analysis model 1

From the results of regression analysis below, researcher is able to derive a regression model as follows: $DP = -0,563 + 0,169FCF + 0,029FV$. On the table also obtains value of Adjusted R Square (Adj. R²). Value of Adjusted R Square (Adj. R²) is 0,106. This condition shows that free cash flow is able to explain the changes on the dividend policy, that is about 10,6% on the other hand and the rest 89,4% is explained by other variables that are not explain in this research. Significant F value is 0,000 under 0,05 indicates that the regression model used is this research feasible and shows that the regression equation model has fulfilled goodness of fit. On partial testing variables (t-test) the free cash flow variable has t-count value for about 3.142, regression coefficient value is 0,169 and the probability is 0,002 (<0,05). Alternative hypothesis is accepted if the sig < 5%. The results of the regression testing suggest that the free cash flow variable, as indicated by the CFO-CE/TA, positively affects the dividend policy, as indicated by the DPR, of all industrial firms in Indonesia. This can be seen from the significant value by less than 5%. The results of this study support the results of the

research conducted by White et al. (2003), Rosdini (2009), and Thanatawee (2011) that the free cash flow positively affects the dividend policy. Thus, it can be concluded that the more free cash flow a firm has, the higher the dividends it will pay to its shareholders.

b. Regression analysis model 2

From results of regression analysis below, researcher is able to derive a regression model as follows: $FV = -2,801 + 0,456FCF + 0,113FS$. On the table also obtains value of Adjusted R Square (Adj. R^2). Value of Adjusted R Square (Adj. R^2) is 0,087. This condition shows that free cash flow is able to explain the changes on firm value also, that is about 8,7% on the other hand and the rest 91,3% is explained by other variables that are not explain in this research. Significant F value is 0,000 under 0,05 indicates that the regression model used is this research feasible and shows that the regression equation model has fulfilled goodness of fit. On partial testing variables (t-test) the free cash flow variable has t-count value for about 1,990, regression coefficient value is 0,456 and the probability is 0,047. Alternative hyphotesis is accepted if the sig < 5%. The results of the regression testing suggest that the free cash flow variable, as indicated by the CFO-CE/TA, positively affects the firm value of all industrial firms in Indonesia. This can be seen from the significant value by less than 5% is 0,47. Because the free cash flow has potentially pay dividend in the future and it will increase shareholder' wealth. Studied by Cruthley and Hansen (1989) that managers make financial policy tradeoffs such as paying dividend to control agency costs. It means that the higher free cash flow will increase the firm value as well. Higher firm value can be measured by increases in the stock price. Therefore dividend payment is one of the benchmark that increase the stock price.

c. Regression analysis model 3.

From results of regression analysis below, researcher is able to derive a regression model as follows: $FV = -2,199 + 0,275FCF + 1,067DP + 0,083FS$. Significant F value is 0,220 for FCF it means above 0,05 indicates that the regression model used is this research unfeasible and shows that the regression equation model has not fulfilled goodness of fit. On partial testing variables (t-test) the free cash flow variable has t-count value for about 1,229, regression coefficient value is 0,275 and the probability is 0,220. Alternative hypothesis is accepted if the $sig < 5\%$. It can be concluded that free cash flow have no impact on the firm value.

Based on the output, we can concludes that dividend policy can be mediating variable. Perfect mediation holds if free cash flow have no effect when the effect of dividend policy for (model 3) (Baron and Kenny, 1986). The FCF in Model 3 is equal to 0.275, which is less than that in Model 2, which is 0.456 (Baron and Kenny, 1986). It means that the dividend policy does the mediating function. Results of this study support the results of the research conducted by Jensen (1986) as well as Martono and Harjito (2005) that the free cash flow affects the dividend policy. It means that the dividend policy will trigger the stock price so that the firm value will absolutely increase. The FCF in Model 3 is equal to 0.275, which is less than that in Model 2, which is 0.456 (Baron and Kenny, 1986).

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-.563	.109		-5.152	.000		
FCF	.169	.054	.127	3.142	.002	.999	1.001
FS	.029	.004	.304	7.525	.000	.999	1.001

a. Dependent Variable: DP

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-2.801	.465		-6.024	.000		
	FCF	.456	.229	.081	1.990	.047	.999	1.001
	FS	.113	.016	.286	7.003	.000	.999	1.001

a. Dependent Variable: FV

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-2.199	.461		-4.768	.000		
	FCF	.275	.224	.049	1.229	.220	.981	1.019
	DP	1.067	.176	.254	6.064	.000	.894	1.119
	FS	.083	.016	.209	5.025	.000	.905	1.104

a. Dependent Variable: FV

After measuring with in 3 models, then perform the indirect test. According to 3 regressing models, the results is:

$$z \text{ test} = \frac{(0,169 \times 1,067)}{\sqrt{(1,067^2) \times (0,054)^2 + (0,169)^2 \times (0,176)^2 + (0,054)^2 \times (0,176)^2}} = 2,75. \text{ The value is}$$

interpreted as z statistic, and it is greater than 1,96. Baron and Kenny (1986) provide an approximate significance test for the indirect effect. The results of the indirect effects how that the influence of the free cash flow on the firm value through the dividend policy as the mediating variable is represented by z statistics 2.75. The results is the z statistics is greater than 1,96. It means DPR as function to mediating variable. Basically, firms with a free cash flow are likely to pay dividends as dividend payment will increase their firm value as can be seen from their stock prices (Karnadi, 1993). Dividend distribution makes investors agree to invest because of the advantages offered and the future value of the firm (Fama et al., 1998).

Finally, it can be stated the dividend policy may serve as a mediating variable in the influence of the free cash flow on the firm value of all industrial firms listed in the IDX in the periods of 2008-2013.

5. Conclusion

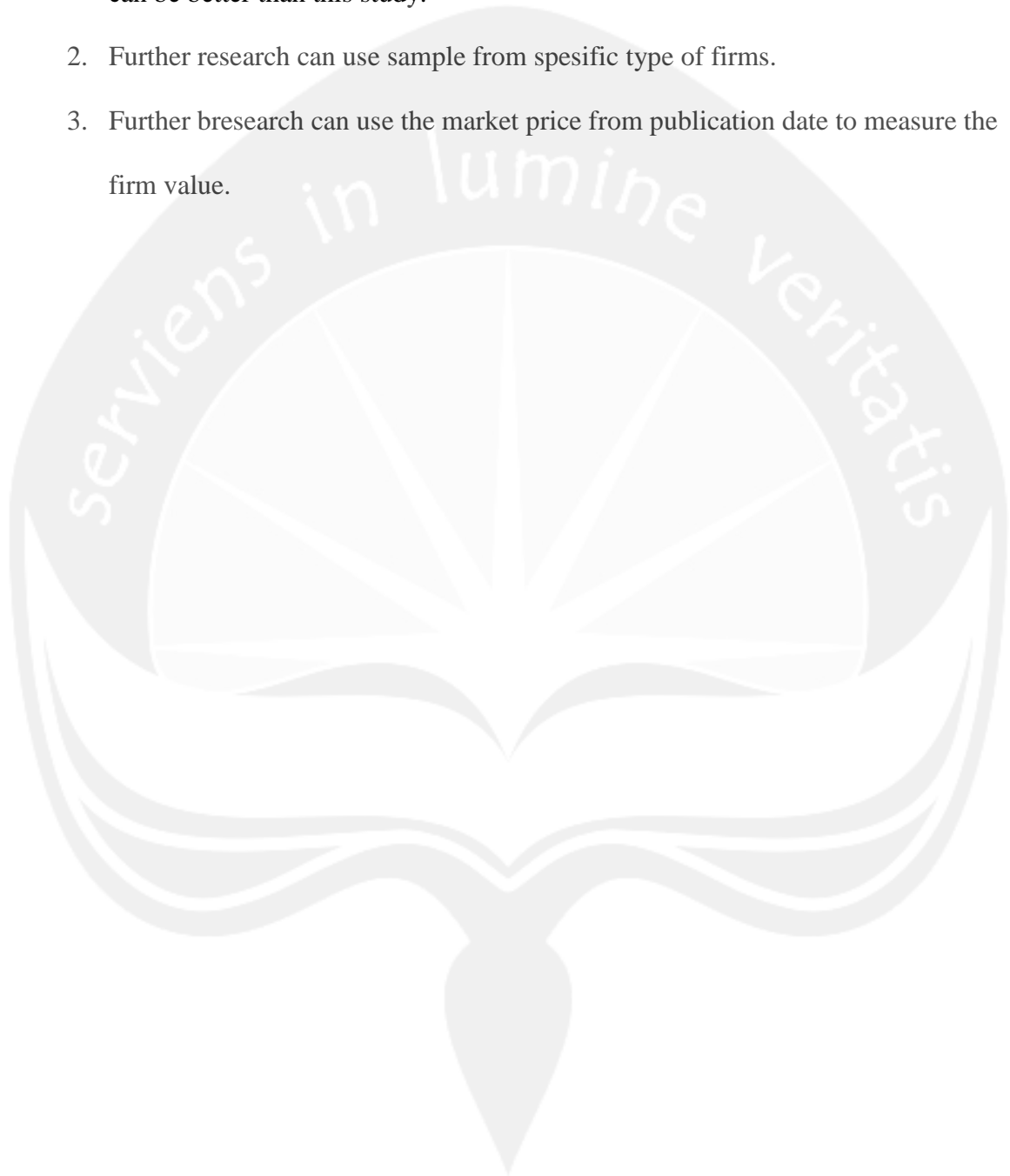
This study aims 1) to examine the direct effect of the free cash flow on the dividend policy and the effect of the free cash flow on the firm value; 2) to examine the effect of the free cash flow on the firm value through the dividend policy; and 3) to measure the indirect test. Based on the analysis and discussion that have been described in the previous chapter, the results of this study prove that:

1. The free cash flow directly affects the dividend policy with a significant result by 0.002 or less than 5%. This suggests that the presence of the free cash flow can make a firm pay dividends.
2. The results suggest that the free cash flow have no effect on the firm value when the dividend policy is controlled. Those results confirm that Hypothesis 3 generates a value which is smaller than 2. The results shows that the perfect mediation occurred as the free cash flow does not affect the firm value when the effect of the dividend policy is controlled. This means that the presence of the free cash flow may split the dividends and thus the dividend policy can increase the firm value. Dividend payment can raise the stock price and this will certainly increase the firm value.
3. The results of the indirect effect suggest that the z statistics is greater than the z table. This implies that the dividend policy positively mediates the effect of the free cash flow on the firm value.

5.1 Suggestion

The suggestion for further research are:

1. Further reasearch expected to add other mediating variables so the results obtain can be better than this study.
2. Further research can use sample from spesific type of firms.
3. Further bresearch can use the market price from publication date to measure the firm value.



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