Profitability, growth opportunity and free cash flow: Dividend policy with debt policy as the intervening variable on the manufacturing companies listed in Indonesia Stock Exchange

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# PROFITABILITY, GROWTH OPPORTUNITY AND FREE CASH FLOW: DIVIDEND POLICY WITH DEBT POLICY AS THE INTERVENING VARIABLE ON THE MANUFACTURING COMPANIES LISTED IN INDONESIA STOCK EXCHANGE

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#### **ABSTRACT**

This research analyzed the effect of profitability, growth opportunity and free cash flow on dividend policy with debt policy as the intervening variable. The variables used included dividend policy proxied by debt payout ratio as the dependent variable, profitability proxied by net profit margin, growth opportunity and free cash flow as independent variables and debt policy proxied by debt-to-equity ratio as the intervening variable on the manufacturing companies listed in the Indonesian Stock Exchange in the period of 2013-2016. The aims of this research were: to know the effect of profitability, growth opportunity and free cash flow on dividend policy on the manufacturing companies in 2013-2016; to know the effect of profitability, growth opportunity and free cash flow on dividend policy with debt policy as the intervening variable on the manufacturing companies in 2013-2016. The research determined the appropriate samples as the representatives of the population by using various sampling technique.

## **MEY WORDS**

Profitability, growth opportunity, free cash flow, dividend.

Efficiency and effectiveness become the main strength of a company so that it can survive in the increasingly fierce competition. Decisions taken by a company must be made with careful consideration so as not to harm the sustainability of the company. One of the important decisions that must be faced is the determination of the dividend policy that best suits the company's condition (Alzomaia and Khadhiri, 2013). According to Brigham and Houston (2011), the optimal company's dividend policy is a policy that results in a balance between current dividend and future growth which maximizes the stock prices.

Profitability is a net profit generated by a company from various operating activities run by the management of the company. The greater the profit a company gets, the greater its ability to pay dividends to investors or shareholders (Denis and Osobov, 2008). Net profit margin (NPM) shows how much percentage of net profit earned from each sale (Heikal et al., 2014). Net profit margin is a ratio used to demonstrate a company's ability to generate net profits after taxes (Stahl et al., 2012). Net profit margin is the comparison between the net sales. The greater the net profit margin then the company's performance will be more productive. Thus, it increases investor confidence to invest in the company.

Measuring company profitability can be performed by using net profit margin (NPM). Profitability affects growth through assets owned. The higher the profitability level of a company, it will also increase the growth of the asset (Heikal et al, 2014). Van Horne and Wachowicz (2005) argued that profitability ratios consist of two types, namely ratio indicating profitability related to sales and ratio indicating profitability related to investment. Profitability related to sales consists of gross profit margin and net profit margin. Profitability related to investment consists of return on total assets and return on equity (Kothari et al., 2009). The growth of manufacturing industry companies holds a dominant position in the development of

the economy in Indonesia because it deals directly with the purchasing power of the people in everyday life (Adnyana and Badjra, 2014). Companies in manufacturing sector listed in ISE also hold the highest number compared to other sectors with a population of 150 companies in 2016 which is listed in ISE by taking the sample of the companies issuing complete financial statements from 2012 to 2016 as many as 45 companies.

The decision to share profits in the form of dividends will reduce the company's internal resources. On the other hand, if the company retains the earnings, it will increase the formation of internal funding sources that can be used to finance the company's activities because the retained earnings is one of the internal funds used by the company for investment and expansion (La Porta, 2000). It will reduce the company's dependence on external funds so as to minimize the risk borne by the company.

The dividend policy is also one way to increase shareholder wealth. However, in fact, dividend payments are sometimes limited by the management due to some obstacles, such as a decrease in corporate profits, interest payments, or future lucrative investment opportunities. This condition leads the management to retain the earnings to be used as a source of internal funds.

In the selection of free cash flow (FCF), debt can be used to control the excessive use of free cash flow (FCF) for managers. In addition, shareholders will enjoy the work of their management team. For example, if a company issues new debts and uses the proceeds to repurchase shares, usually those that are owed, then management is obliged to pay cash to cover this debt in other words it can reduce the amount of cash flow on management. Jensen et al., (1986), related with free cash flow (FCF), stated that market pressure will encourage the managers to distribute FCF to shareholders or risk losing control of the company. FCF is the excess cash needed to fund all projects that have a positive net present value after dividend.

According to Baker et al., (2012) there are several factors affecting dividend policy such as profitability, liquidity, funding decision, firm size, free cash flow, collateralizable assets, growth, earning after tax, financial performance, net income, operating cash flow, investment opportunity set (IOS), and cash position. However, among all, there are some that have the appeal such as profitability, growth and free cash flow, especially for the shareholders or potential investors in a company.

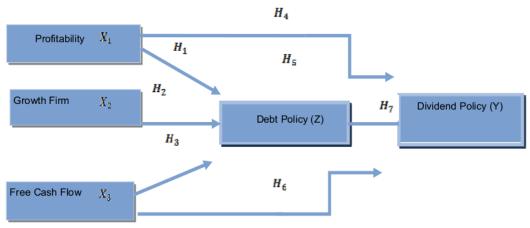


Figure 1 - Theoretical Framework

The research problems to be discussed in this research are: 1) how is the effect of profitability, growth and free cash flow to dividend policy on manufacturing companies listed in ISE in 2012-2016?, 2) how is the effect of profitability, growth and free cash flow on dividend policy with debt policy as the intervening variable on manufacturing companies listed in ISE in 2013-2016?

The aims of this research were to know the effect of profitability, growth and free cash flow on dividend policy on manufacturing companies in 2013-2016 and to know the effect of profitability, growth and free cash flow on dividend policy with debt policy as the intervening variate on manufacturing companies in 2013-2016.

This research analyzed the effect of profitability, growth opportunity and free cash flow on dividend policy with debt policy as the intervening variable. The variables used included dividend policy proxied by debt payout ratio as the dependent variable, profitability proxied by net profit margin (NPM), growth opportunity and free cash flow (FCF) as independent variables and debt policy proxied by debt-to-equity ratio (DER) as the intervening variable on the manufacturing companies listed in the Indonesian Stock Exchange (ISE) in the period of 2013-2016.

This research was 1 med to see how the effect of profitability, growth and free cash flow on dividend policy with debt policy as the intervening variable. Based on literature review, hypothesis and previous research, the theoretical framework developed in this research could be presented as follows:

#### METHODS OF RESEARCH

This research analyzed the effect of profitability, free cash flow, growth and debt policy to dividend policy on manufacturing companies listed in Indonesia Stock Exchange. The variables used in the research were:

- Profitability, free cash flow and growth as independent variables;
- Debt policy as intervening variable;
- Policy as dependent variable measured by using Tobin's Q.

The research determined the appropriate samples as the representatives of the population by using various sampling technique. The sampling technique of this research applied purposive sampling. There were 45 companies that met the criteria to be the samples of this research. The number of the samples of this research was 45 companies with the total number of 180 (45 × 4 years).

The data analysis of this research applied path analysis method with the assistance of structural equation modeling (SEM) which was operated through analysis of moment structure (AMOS) program. Path analysis method is the development of the regression model used to test the fit of correlation matrices of two or more models which were compared by the researchers. The regression was performed for each variable in the model. The regression value predicted by the model was compared with the correlation matrix namely the results of variable observation. Then, the goodness of fit value was calculated. After that, the best model was chosen based on the goodness of fit (Ghozali, 2011). In addition, path analysis can also measure the direct or indirect correlations between variables in a model (Ghozali, 2011).

Currently, the AMOS program is one of the most sophisticated new generation programs to work on multidimensional and tiered research models, which was developed by Dr. J. Arbucle. The AMOS program has its advantages because it is a user-friendly graphical interface program (Ghozali, 2011).

The steps in performing path analysis test in this research were as follows: classical assumption test, normality test, multicollinearity test, linearity test, heteroscedasticity test, and calculating path coefficient based on regression coefficient.

Hypothesis testing on the research variables were tested by multivariate regression method with the level of profitability of 0.05 ( $\alpha$  = 0.05). This testing was conducted to determine whether or not the changes of independent variable have an effect on the dependent variable. The research hypothesis would be accepted if one of the independent variables had an effect on the dependent variable. Hypothesis testing was performed by: simultaneous significant test (F statistic test), individual-parameter significant test (t statistic test), and total determination coefficient ( $Q^2$ ).

A direct correlation occurs when one variable affects the other and no third variable mediates/intervenes the correlation between the two variables (Ghozali, 2011). Direct testing

examined the correlation of independent variables and intervening (mediation) variables directly to the dependent variable.

The indirect correlation occurs when the third variable mediates the correlation between the two variables (Ghozali, 2011). The indirect effect testing examined the correlation effect of the independent variable to the dependent variable through the intervening variable (mediation).

The sobel test was used to find out whether the correlation through a mediation variable was significantly capable of being a mediator within the correlation. Sobel test was performed by testing the indirect effect of independent variable (X) to the dependent variable (Z) through the intervening variable (Y).

The indirect effect of X to Z through Y was calculated by multiplying the path  $X \to Y$  (a) by the path  $Y \to Z$  (b) or ab, so the coefficient ab = (c - c'). The coefficient c was the effect of X on Z without controlling Y while c' is the coefficient of X effect against Y after controlling Y. From the standard error of coefficient a (Se<sub>a</sub>) and coefficient b (SE<sub>b</sub>), the indirect standard error (indirect effect) of SE<sub>ab</sub> was calculated by using the following formula (Ghozali, 2011):

$$SE_{ab} = \sqrt{b^2 SE_a^2 + a^2 SE_b^2 + SE_a^2 + SE_b^2}$$

To test the significance of indirect effect on the sobel test, we need to calculate the t-value of the ab coefficient with the following formula:

$$t = \frac{ab}{SE_{ab}}$$

If the value of  $t_{calculate} > t_{table}$ , it could be concluded that the effect of mediation occurred.

#### **RESULTS AND DISCUSSION**

The result of regression analysis in this research was used to determine how big the effect of each independent variable (profitability, free cash flow and growth) to intervening variable (debt policy).

Table 1 – Summary Model of Regression Analysis Result on Independent Variables to Intervening Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.257 <sup>a</sup>	.066	.050	0. 55857

a. Predictors: (Constant), Growth, NPM, FCF

b. Dependent Variable : DER

Based on the results of the regression analysis in Table 1, it was known simultaneously the profitability (ROA), Free Cash Flow (FCF) and Growth against debt policy (DER). The simultaneous effect was 0.066 or 6.6% which was the contribution of the independent variable to profitability as the intervening variable. The remaining 93.4% was affected by other factors outside the research model.

Table 2 – ANOVA on Regression Analysis Results from Independent Variables to Intervening Variable

ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	3.876	3	1,292	4.141	.007 <sup>a</sup>
1 Residual	54.911	176	.312		
Total	58.787	179			

a. Predictors: (Constant), growth, NPM, FCF

b. Dependent Variable : DER

This simultaneous model occurred significantly. It could be seen from the probability value (sig.) of 0.000 < from 0.05. Independent variables were linearly correlated.

Table 3 - Coefficient on Regression Result from Independent Variables to Intervening Variable (Coefficients a)

Model	Unstanda Coefficie		Standard Coefficie				Collinearity Statistics
	В	Std. error	Beta	T	sig	tolerance	VIF
1.(Constant)	1.466	.229		6.414	0.000		
NPM	018	.019	075	928	.355	.808	1.237
FCF	002	0.20	007	-0.91	.927	.927	1.079
GROWTH	061	.024	213	-2.548	0.12	0.760	1.315

Based on the results of data processing, it could be seen that profitability (NPM) affected debt policy (DER) -0.075 with p-value of 0.355 in which it was not significant because p-value < 0.05. It could be interpreted that the increased profitability of 1% would lead to a decrease in debt policy variable of 35.5% and vice versa. The analysis result on free cash flow (FCF) on debt policy (DER) was equal to -0.007 with p-value 0.927 > 0.05. Based on the results of the data processing, it meant that free cash flow did not partially affect debt policy in which the increased free cash flow of 1% would not affect the debt policy. The analysis result on growth to debt policy (DER) was equal to -0.213 with p-value 0.12 > 0.05. Based on the results of data processing, it meant that the growth did not partially affect debt policy in which the increased growth of 1% would not affect debt policy.

The regression analysis result of this research was used to determine how big the effect each independent variable (profitability, free cash flow and growth) to dependent variable (dividend policy). The result of direct testing on the hypothesis through regression analysis was as the following:

Table 4 - Summary Model on Regression Result of Independent Variables and Intervening Variable to Dependent Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.322 <sup>a</sup>	.104	.083	.16501

a. Predictors: (Constant), DER, Growth, FCF, NPM

The above table showed the regression result that profitability (NPM), free cash flow (FCF), growth and debt policy (DER) simultaneously had a positive and significant effect on dividend policy (DPR). The simultaneous effect was 0.83 or 8.3% which was the contribution of independent and intervening variables to the dividend policy whereas the rest of 91.7% was affected by other factors outside the research model.

Table 6 - ANOVA on Regression Result of Independent Variables and Intervening Variable to Dependent Variable

ANOVA <sup>b</sup>					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	.552	3	.138	5.069	.001 <sup>a</sup>
1 Residual	4.765	176	.027		
Total	5.317	179			
a Prodictors: (Cons	stant) DED Growth ECE NDM				

a. Predictors: (Constant), DER, Growth, FCF, NPM

This simultaneous model occurred significantly. It could be seen from the probability (sig.) of 0.001 < from 0.05. The test was then continued by individual testing through coefficient parameters.

b. Dependent Variable: DPR

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Table 7 – Coefficient on Regression Result of Independent Variables and Intervening Variable to Dependent Variable

Model	Unstandardized Coefficients		Standardized Coefficients		
	В	Std. Error	Beta	t	Sig
1. (constant)	.074	.075		.988	.324
NPM	.009	.006	.132	1.660	.099
FCF	.015	.006	.195	2.626	.009
GROWTH	.001	.007	.012	.143	.887
DER	049	.022	162	-2.186	.030

Dependent Variable: DPR.

The result of regression data processing on profitability (NPM) to debt policy (DER) obtained insignificant result which was equal to 0.099 > 0.05 and did not have effect which was equal to 0.132. The conclusion of this research was that profitability (NPM) partially did not significantly affect dividend policy (DPR).

The free cash flow (FCF) variable to dividend policy (DPR) obtained insignificant results with the significance value of 0.009 > 0.05 and its effect was 0.195. It meant that free cash flow partially had no significant effect on dividend policy (DPR). Regression test conducted on growth variable to dividend policy obtained the effect equal to -0.012 with significant value 0.887 > 0.05 which meant that growth did not have significant effect to dividend policy.

Debt policy (DER) on dividend policy (DPR) variables had an effect of 0.162 with significant value 0.030 > 0.05 which meant that debt policy (DER) had no significant effect on dividend policy.

Direct test on independent variables and intervening variable to the dependent variable in this research was illustrated in the following path diagram:

Table 8 - Testing Results on NPM, FCF, GROWTH and DER to DPR

Independent Variables	Dependent Variable	Path Coefficient	p-value	Description
NPM	DPR	0.132	0.099	Not significant
FCF	DPR	0.195	0.009	Not significant
GROWTH	DPR	0.012	0.887	Not significant Not significant
DER	DPR	-0.162	0.030	

Source: Processed Data by the Researcher.

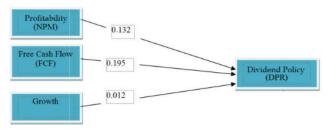


Figure 2 – Path Diagram on the Testing of NPM, FCF, GROWTH and DER to DPR

Analysis on profitability (NPM) variable to dividend policy variable (DPR) got coefficient value of 0.132 with significant value of 0.099 to positive direction. It meant that profitability (NPM) had no significant effect on dividend policy (DPR). The high or low level of profitability (NPM) affected dividend policy (DPR) and vice versa. Hypothesis 1 (H<sub>1</sub>) stated that profitability had a positive and insignificant effect on the dividend policy was rejected.

The significance value of the effect on free cash flow to dividend policy variables was 0.009 with coefficient value of 0.195. It meant that free cash flow (FCF) had no significant effect on dividend policy (DPR). The high or low level of free cash flow (FCF) did not affect

dividend policy (DPR) and vice versa. Hypothesis 2 (H<sub>2</sub>) stated that free cash flow had a negative and insignificant effect on dividend policy was rejected.

The effect of growth variable on dividend policy variable (DPR) got the coefficient value of -0.012 with significant value of 0.887 to the negative direction. It meant that growth had no significant effect on dividend policy. Hypothesis 3 ( $H_3$ ) stated that growth had a negative and insignificant effect on the dividend policy was rejected.

The direct test of the intervening variable on the dependent variable in this research was illustrated in the following path diagram:

Table 9 - Testing Result on DPR to DER

Independent Variable	Dependent Variable	Path Coefficient	p-value	Description
DER	DPR	-0.162	0.030	Not Significant
	Debt Policy (DER)	-0.162	Dividend Policy (DPR)	

Figure 3 - Path Diagram of Testing on DER to DPR

The effect of debt policy variable (DER) on dividend policy variable (DPR) got coefficient value of -0.162 with significant value of 0.030 to the negative direction. It meant that debt policy (DER) had no significant effect on dividend policy. Hypothesis 4 ( $H_4$ ) stated that the debt policy (DER) had a negative and insignificant effect on the dividend policy was rejected.

The test of indirect effect aimed to detect the position of the mediation variable in a model. Examination of the characteristics of the mediation variable could be performed by multiplying path coefficient value of the effect of independent variables with mediation variable and the coefficient value of the effect of mediation variable and dependent variable. The total of the effect was calculated by summing the coefficient of direct effect with the result of the coefficient of indirect effect (Ghozali, 2011).

The test of indirect effect in this research was conducted to test the effect of debt policy mediation (DER) on the effect of profitability (NPM), free cash flow (FCF) and growth variables to dividend policy (DPR) variable. The test results of indirect effect were obtained as the following:

Table 11 - Test Results of NPM, FCF and Growth to DER

Independent Variables	Dependent Variable	Path Coefficient	p-value	Description
NPM	DER	-0.075	0.355	Not significant
FCF	DER	-0.007	0.927	Not significant
GROWTH	DER	-0.213	0.012	Not significant

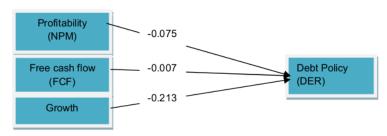


Figure 4 – Path Diagram on the Test Results of NPM, FCF and Growth to DER

The analysis of profitability variable (NPM) to debt policy (DER) variable obtained a coefficient value of -0.075 with a significant value of 0.355 to the negative direction. It meant that profitability (NPM) went against debt policy (DER). If profitability increased by 1% then

debt policy decreased by -0.075 or 7.5% and the remaining 92.5% was affected by other variables outside the research model. Hypothesis 5 ( $H_5$ ) stated that profitability had a negative and insignificant effect on debt policy was accepted.

The effect of free cash flow (FCF) variable to debt policy (DER) variable obtained a coefficient value of -0.007 with a significant value of 0.927 to the negative direction. It meant that free cash flow (FCF) had no significant effect on debt policy (DER). Hypothesis 6 ( $H_{\rm e}$ ) stated that free cash flow (FCF) had a negative and insignificant effect on debt policy was rejected.

The effect of growth variable to debt policy (DER) variable obtained a coefficient value of -0.213 with a significant value of 0.012 to the negative direction. It meant that growth had no significant effect on debt policy (DER). Hypothesis 7 (H<sub>7</sub>) stated that growth had a negative and insignificant effect on debt policy was rejected.

Test Result of Mediation Effect of Debt Policy on Profitability to Dividend Policy

The regression analysis result showed that the value of path coefficient correlating profitability to debt policy (DER) was -0.075 with the t-test of -0.928. The value of path coefficient of debt policy (DER) to the dividend policy (DPR) was 0.162 with t-test of -2.186. Moreover, the value of path coefficient of profitability (NPM) to the dividend policy (DPR) was 0.132 with the t-test of 1.660. The correlation of the three variables could be illustrated in the path diagram in the following Figure 5:

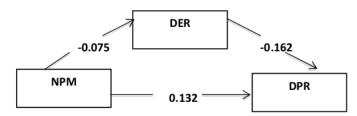


Figure 5 – Path Diagram on Profitability Testing to Dividend Policy through Debt Policy

The calculation of indirect effect was derived from the results of NPM against DER and DER against DPR. The calculation of the total effect was the addition of indirect effect and direct effects as follows:

Indirect Effect = 
$$-0.075 \times -0.162 = 0.237$$
  
Total Effect =  $-0.075 + 0.132 = 0.057$ 

The calculation results obtained that the coefficient of the total effect (0.057) was smaller than indirect effect (0.237) and direct effect (0.132). It was assumed that partial mediation occurred by looking at sobel statistical value and its significance value. The sobel statistics result was shown in Figure 6 below:

Input:		Test statistic:	p-value:
t <sub>a</sub> -0.928	Sobel test:	0.87915393	0.37931782
t <sub>b</sub> -2.746	Aroian test:	0.83108475	0.40592575
	Goodman test:	0.93666172	0.34893259
	Reset all	Calculate	

Figure 6 - Test Result of Sobel Test of Profitability to Dividend Policy through Debt Policy

The sobel statistic obtained a value of 0.879 with p-value 0.379 > 0.05. Thus, it could be said that the sobel statistic was insignificant. The value of indirect effect of 0.237 was greater than the direct effect of 0.132 but the sobel test did not show significant results. Sobel test required large sample quantities and the value of normally distributed mediation

coefficient but this assumption had been heavily criticized. According to Bollen and Stine (1990), in general, small samples had abnormal distribution. It could be concluded that debt policy was able to act the intervening variable. Thus, it can be concluded that debt policy acted as the intervening variable in the form of partial mediation. Hypothesis 8 ( $H_8$ ) stated that debt policy was able to mediate profitability to dividend policy was accepted.

The regression analysis result showed that the value of path coefficient correlating free cash flow to debt policy (DER) was -0.007 with the t-test of -0.091. The value of path coefficient of debt policy (DER) to the dividend policy (DPR) was -0.162 with the t-test of -2.186. Then, the value of path coefficient correlating free cash flow (FCF) to dividend policy (DPR) was 0.195 with the t-test of 2,626. These three variables could be illustrated in the path diagram in Figure 7 below:



Figure 7 - Path Diagram on Free Cash Flow (FCF) Testing to Dividend Policy through Debt Policy

The calculation of indirect effect was derived from the results of FCF against DER and DER against DPR. The calculation of the total effect was the addition of indirect effect and direct effects as follows:

Indirect Effect = 
$$-0.007 \times -0.162 = 0.169$$
  
Total Effect =  $0.169 + 0.195 = 0.364$ 

The calculation results obtained that the coefficient of the total effect 0.364 was bigger than indirect effect 0.169 and direct effect 0.195. It was assumed that partial mediation occurred by looking at sobel statistical value and its significance value. The sobel statistics result was shown in Figure 8 below:

Input:		Test statistic:	p-value:
t <sub>a</sub> -0.091	Sobel test:	0.09095007	0.92753226
t <sub>b</sub> -2.746	Aroian test:	0.08546522	0.93189154
	Goodman test:	0.09764751	0.9222122
	Reset all	Calculate	

Figure 8 – Test Result of Sobel Test of Free Cash Flow (FCF) to Dividend Policy through Debt Policy

The sobel statistic obtained a value of 0.090 with p-value 0.927 > 0.05. Thus, it could be said that the sobel statistic was insignificant. It was the same to the result calculated by indirect effect in which the indirect effect test was smaller than the direct effect test of 0.169 < 0.195. It could be concluded that debt policy was unable to act as the intervening variable. Hypothesis 9 (H<sub>9</sub>) stated that debt policy was not able to mediate free cash flow on dividend policy was rejected.

The regression analysis result showed that the value of path coefficient correlating growth to debt policy (DER) was -0.213 with the t-test of -2.548. The value of path coefficient of debt policy (DER) to the dividend policy (DPR) was -0.162 with the t-test of -2.186. Then, the value of path coefficient correlating growth to dividend policy (DPR) was 0.012 with the t-test of 0.143. The correlation of these three variables could be illustrated in the path diagram in Figure 7 below:

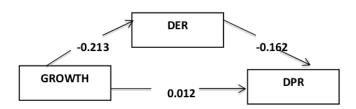


Figure 9 - Path Diagram on Growth Testing to Dividend Policy through Debt Policy

The calculation of indirect effect was derived from the results of GROWTH against DER and DER against DPR. The calculation of the total effect was the addition of indirect effect and direct effects as follows:

The calculation results obtained that the coefficient of the total effect 0.387 was smaller than indirect effect 0.375 and direct effect 0.387. It was assumed that partial mediation occurred by looking at sobel statistical value and its significance value. The sobel statistics result was shown in Figure 10 below:

Input:		Test statistic:	p-value:
t <sub>a</sub> -2.548	Sobel test:	1.86778756	0.06179169
t <sub>b</sub> -2.746	Aroian test:	1.80459491	0.0711381
	Goodman test:	1.93812042	0.05260853
	Reset all	Calc	ulate

Figure 10 - Test Result of Sobel Test of Growth to Dividend Policy through Debt Policy

The sobel statistic obtained a value of 1.867 with p-value 0.061 > 0.05. Thus, it could be said that the sobel statistic was insignificant. The value of indirect effect of 0.375 was greater than the direct effect of 0.012 but the sobel test did not show significant results. Sobel test required large sample quantities and the value of normally distributed mediation coefficient but this assumption had been heavily criticized. According to Bollen and Stine (1990), in general, small samples had abnormal distribution. It could be concluded that debt policy was able to act the intervening variable. Hypothesis 10 ( $H_{10}$ ) stated that debt policy was able to mediate growth to dividend policy was accepted.

## **RESULTS OF STUDY**

- Profitability (NPM) had a positive and significant effect on dividend policy (DPR);
- Free cash flow (FCF) had a negative and insignificant effect on dividend policy (DPR);
- Growth opportunity had a negative and insignificant effect on dividend policy (DPR);
- Debt policy (DER) had a negative and insignificant effect on dividend policy (DPR);
- Profitability (NPM) had a negative and insignificant effect on debt policy (DER);
- Free cash flow (FCF) had no significant effect on debt policy (DER);
- Growth opportunity had a positive and insignificant effect on debt policy (DER);
- Debt policy (DER) was able to mediate the profitability (NPM) variable to the dividend policy (DPR) variable;
- Debt policy (DER) was able to mediate free cash flow (FCF) variable to dividend policy (DPR) variable;
- Debt policy (DER) was able to mediate growth variable to dividend policy (DPR) variable.

## **DISCUSSION OF RESULTS**

Profitability Had No Significant Effect on Dividend Policy. Based on the results of regression analysis, it was obtained that Hypothesis 1 ( $H_1$ ) was rejected with positive signified regression coefficient. Thus, it could be concluded that profitability had no significant effect on dividend policy because net profit margin (NPM) did not always affect dividend policy especially in the established companies that had been operating for a long time. The findings of this research indicated that the company would not pay high dividend to maintain its reputation when profitability decreased or was low. The company would use the reserved earnings to be reinvested or divided in the form of dividends without having to change the proportion for the managerial shareholder and without depending on the amount of NPM to be earned by the company and would pay the dividend with a fixed amount. Therefore, no matter how big the profitability of the company, it did not affect the amount of dividend which would be paid to the shareholders. So, no matter how big the profitability of the company, the company would still divide the dividend annually through the company's profit.

Free Cash Flow Had a Positive and Insignificant Effect on Dividend Policy. Based on the findings of this research, it was obtained that Hypothesis 2 (H<sub>2</sub>) was rejected with positive signified regression coefficient. Thus, it could be concluded that free cash flow had a positive and insignificant effect on dividend policy. According to Windiarti (2016), free cash flow was the excess cash needed to fund all projects that had a positive not present value after the dividend. That was because the size of free cash flow did not affect the high dividend distribution. If the company was willing to maximize the shareholder wealth by distributing dividends, free cash flow conditions were impossible because retained earnings were one of the most important sources of funds to finance corporate growth. Therefore, companies could use external financing in accordance with the pecking order theory concept in which the company preferred internal financing. Internal financing were derived from profits generated from company activities.

Growth Opportunity Had a Negative and Insignificant Effect to Dividend Policy. Based on the findings of this research, it was found that Hypothesis 3 (H<sub>3</sub>) was rejected with positive signified regression coefficient. Thus, it could be concluded that the growth opportunity had a negative and insignificant effect on the dividend policy. According to Kaplan et al., (2001) the growth ratio was a ratio that illustrated the company's ability to maintain its economic position in the middle of economic growth and its business sector.

That was because the greater the need for corporate funds in the future, the greater the possibility of companies retaining their profits by not paying dividends to the shareholders or investors. That was because the company preferred to reinvest its earnings or revenues in the expansion field that was in the form of expansion of the company. However, if a company had achieved the expected growth rate, then the company had advanced and developed by obtaining capital funds from outside parties or the capital market. This might be different so the company would set a high dividend. In accordance with the pecking order theory concept, companies adjusted their dividend payout ratio targets to their investment opportunities while avoiding dividends drastically.

Profitability Had a Negative and Insignificant Effect to Debt Policy. Based on regression analysis, it was obtained that Hypothesis 4 ( $H_4$ ) is received with negative regression coefficient. Thus, it could be concluded that profitability had a negative and insignificant effect on debt policy. Profitability was a net profit generated by the company from various operating activities run by the management company. The greater the profits was, the greater the company's ability to pay the dividends to investors or shareholders (La Porta et al., 2000). The higher the profitability, the lower the debt used.

Free Cash Flow Had a Negative and Insignificant Effect to Debt Policy. Based on the results of regression analysis, it was found that Hypothesis 5 (H<sub>5</sub>) had a negative and insignificant effect on debt policy. Free cash flow was the extra cash company that can be distributed to creditors or shareholders that were not used for operations or investments. This was because it showed that the company was in a stable state. In addition, to reduce the risk of bankruptcy caused by debt, the company would try to reduce it by allocating free cash flow

to pay the debt. It could be concluded that the greater the free cash flow, then it would result in the decline in corporate debt policy. The companies, in the year of research, were in stable condition. Thus, in order to reduce the risk of bankruptcy caused by debt, a company would try to reduce it by allocating free cash flow to pay the debt. In accordance with pecking order theory, a company would choose internal funding first then debt and stock were the last option.

Growth Opportunity Had a Positive and Insignificant Effect to Debt Policy. Based on the findings of this research, it was found that Hypothesis 6 (H<sub>6</sub>) was rejected with positive signified regression coefficient. Thus, it could be concluded that growth opportunity had positive and insignificant effect on dividend policy. Barclay et al., (1995) suggested that growth was one of the ratios that would affect dividend policy. The faster the growth rates of a company, the greater the level of need for the funds used to finance the expansion of the company. Companies with high growth rates should use equity as a source of financing to avoid agency costs between shareholders and company management. On the other hand, companies with low growth rates should use debt as a source of financing because the use of debt would require the company to pay interest on a regular basis. This was in line with the pecking order theory that established a sequence of funding decisions in which managers would first choose to use the retained earnings.

Debt Policy Had a Negative and Insignificant Effect to Dividend Policy. Based on the results of regression analysis, it was obtained that Hypothesis 7 ( $H_7$ ) was rejected with negative signified regression coefficient. Thus, it could be concluded that the debt policy had a negative and insignificant effect on the dividend policy so that the increasing debt policy would be followed by a decrease in dividends. Debt was one of the external funding sources used by the company to finance the funding needs (Surya & Rahayuningsih, 2010).

Investors would not reinvest their shares in the company. As a result, the stock price on the company would decrease significantly. With this decline, the company tried to attract investors to maintain its reputation by using dividend policy constantly or not to change the share proportion. The company's debt would not affect the dividend payout ratio for the shareholders.

Debt Policy was Able to Mediate Profitability to Dividend Policy. Based on the calculation, it was obtained that Hypothesis 8 (H<sub>8</sub>) was accepted with the calculation of indirect effect and the total effect greater than the direct effect. In addition, the sobel test indicated that p-value had significant value. Debt policy, in this case, mediated partially on the profitability of dividend policy because there was a direct influence between profitability and dividend policy.

These findings indicated that with the debt policy, the effect of profitability on dividend policy became stronger so that companies tended to use more external funding for their operations. Companies with high return on investment would use relatively small debt. High retained earnings were sufficient to finance most of the funding needs.

Debt Policy was Able to Mediate Free Cash Flow to Dividend Policy. Based on the results of regression analysis that had been conducted, it was obtained that Hypothesis 9 (H<sub>9</sub>) was rejected with positive signified regression coefficient. It showed that the size of free cash flow had no significant effect on debt policy. According to Brigham & Houston (2007), free cash flow was the actual cash flow which was available for distribution to the shareholders and creditors. The cash distribution was made after the company invested in fixed assets and working capital needed to maintain the company's operations. It indicated that the company was in a stable state. To reduce the risk of bankruptcy caused by debt, the company would try to reduce it by allocating free cash flow to pay the debt. It could be concluded that the greater free cash flow would result in the decline of company's debt policy.

Debt Policy was Able to Mediate Growth to Dividend Policy. Based on the results of regression analysis that had been conducted, it was obtained that Hypothesis 10 (H<sub>10</sub>) was accepted with positive signified regression coefficient. Growth was a ratio that illustrated that this year's percentage increase in sales was proportional to last year's in which the higher the growth meant the better the company (Utomo et al., 2016). If the growth rate of a

company is fast, then it requires a greater need for funds to finance the growth of the company.

In line with pecking order theory, this theory was based on the existence of asymmetric information; a situation where the management had more information about the company than the owners of capital. This asymmetric information would affect the choice between the use of internal funds or external funds and between the options of adding new debt or issuing new equities.

### CONCLUSION

Based on the results of regression analysis, it was obtained that Hypothesis 1 (H<sub>1</sub>) was rejected with positive signified regression coefficient. Thus, it could be concluded that profitability had no significant effect on dividend policy. Hypothesis 2 (H<sub>2</sub>) was rejected with positive signified regression coefficient. Thus, it could be concluded that free cash flow had a positive and insignificant effect on dividend policy. Hypothesis 3 (H<sub>3</sub>) was rejected with positive signified regression coefficient. Thus, it could be concluded that growth opportunity had a negative and insignificant effect on dividend policy. Hypothesis 4 (H<sub>4</sub>) was accepted with negative signified regression coefficient. Thus, it could be concluded that profitability had a negative and insignificant effect on debt policy. Hypothesis 5 (H<sub>5</sub>) had a negative and insignificant effect on debt policy. Free cash flow was an extra cash company that could be distributed to the creditors or shareholders that were not used for operations or investments. Hypothesis 6 (H<sub>6</sub>) was rejected with positive signified regression coefficient. Thus, it could be concluded that growth opportunity had a positive and insignificant effect on dividend policy. Hypothesis 7 (H<sub>7</sub>) was rejected with negative signified regression coefficient. Thus, it could be concluded that debt policy had a negative and insignificant effect on dividend policy. Thus, an increase in debt policy would be followed by a decrease in dividends. Hypothesis 8 (H<sub>8</sub>) was accepted with the calculation of indirect effect and the total effect was greater than the direct effect. In addition, the sobel test indicated that the p-value had significant value. Hypothesis 9 (H<sub>9</sub>) was rejected with positive signified regression coefficient. It showed that the size of free cash flow had no significant effect on debt policy. Based on the results of regression analysis that had been done, it was obtained that Hypothesis 10 (H<sub>10</sub>) was accepted with positive signified regression coefficient.

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