

The Effects of Current Ratio and Debt to Equity Ratio on Dividend Policy through Net Profit Margin (A Study on Manufacturing Companies Listed in Indonesia Stock Exchange in the Period of 2013)

Gresylia Ekawati Bambang Banu Siswoyo Faculty of Economics, State University of Malang Jl. Semarang No. 5 Malang

Abstract

This study aims at determining the effects of Current Ratio and Debt to Equity Ratio on Dividend Policy both directly or through Net Profit Margin. The variables employed cover the Current Ratio, Debt to Equity Ratio, Net Profit Margin and Dividend Policy. Data processing used in this study is descriptive analysis techniques and path analysis by SPSS 16.0. The population of this study is 134 manufacturing companies listed in BEI in the period of 2013. By using purposive sampling technique, it is obtained a sample of 39 companies. The study finds that: (1) Current Ratio has no effect on either Dividend Policy; Debt to Equity Ratio or Net Profit Margin; (2) Net Profit Margin and Debt to Equity Ratio have positive effects on Debt to Equity Ratio; (3) Net Profit Margin does not function as an intervening variable in the equity ratio of Debt to Equity Ratio on Dividend Policy, but as a dependent variable that has positive effects upon Dividend Policy.

Keywords: Current Ratio, Debt to Equity Ratio, Net Profit Margin, Dividend Policy

1. Introduction

The main aim of a company is to improve the welfare of shareholders. Investors, basically, expect a yield on their investment in the form of dividends. The amount of the dividend depends on the profits earned and dividend policy set by the company (Sartono, 2001: 73). Factors that affect dividend policy include: (1) internal factors such as the position of liquidity, debt, profitability and (2) external factors such as inflation, taxes on dividends, and law (Weston & Copeland, 1996: 98).

High Current Ratio (CR) of a company indicates its high ability to share Dividend that will attract investors. Current Ratio (CR) is used as a measurement of a company's liquidity, included in the assessment of company's health and utilized to predict Net Profit Margin (Prasetyo, 2011), that at last will give effects to the amount of Dividend Payout Ratio (Rahmawati, 2008: 40; Oladipupo & Peter, 2013). CR, fundamentally, has positive effects on Net Profit margin in which, that short-term debt can pay the expense for the purpose of company's operational activities (Alavinasab & Esmail, 2013).

Besides CR, Debt to Equity Ratio (DER) can also affect Net Profit Margin and Dividend Policy. Debt to Equity Ratio (DER) reflects a company's ability in fulfilling its obligation to pay the debts from their own capital (equity) of the company. The high level of DER indicates the sufficient fund provision to pay the expense of company's operations, and it can also increase Net Profit Margin (NPM), and eventually the NPM will affect Dividend Policy (Deitiana, 2013). Study conducted by Wahdaniah et al (2013) suggests that DER gives significant effects on profitability (Martina, 2012).

The increase of Net Profit Margin (NPM) will be followed by the rise of company's Dividend Policy. According to Muhardi (2013: 64) the higher the NPM, the higher the ability of a company to pay dividend since it can produce net profit of each sale. Based on the explanation, the study aims to investigate the effects of variables Current Ratio and Debt to Equity Ratio on Dividend Policy through Net Profit Margin.

2. Methods

The study employed ex post-facto quantitative approach and based on the relationship among its variables, this study is categorized as associative causality study. Below is the overview of the relationships among independent, intervening and dependent variables.



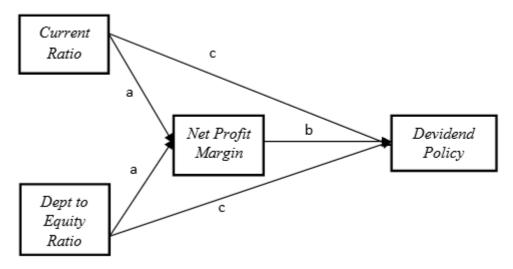


Figure 1. The relationships among independent, intervening and dependent variables

Notes:

a : direct effect
b : direct effect
c : direct effect
(a) x (b) : indirect effect
C+(axb) : total effect

Current Ratio : independent variable 1
Debt to Equity Ratio : independent variable 2
Net Profit Margin : variable 1 intervening
Dividend Policy : dependent variable

If the number of total effect is greater than the direct effect, then Z is referred as a moderator variable and if there is no significant effect on Y, whereas X to Z is a significant and Z to Y is also significant, then Z is an intervening variable (Siswoyo, 2004).

The companies that became the population of this study were manufacturing companies listed in Indonesia Stock Exchange in 2013 as many as134 companies but only 39 companies were selected. The criteria employedto determine the sample of this study are: (1) manufacturing companies that are listed in Indonesia Stock Exchange in the period of 2013, (2) manufacturing companies that produce profit (positive income) in the period of 2013,and (3) manufacturing companies that distribute its dividend in period of 2013. Analysis of statistical data used in this study is the path analysis. What follows is the measurement of the variables used in the study.

• Dividend Policy (DPR) can be measured by the formula:

$$DPR = \frac{Dividend Per Share}{Earning Per Share (EPS)}$$
(1)

• Current Ratio (CR) can be measured by the formula:

$$CR = \frac{Current Assets}{Current Liabilities}$$
 (2)

• Debt to Equity Ratio (DER) can be measured by the formula:

$$DER = \frac{\text{Total Debt}}{\text{Total Equities}}$$
 (3)

• Net Profit Margin (NPM) can be measured by the formula:

$$NPM = \frac{\text{Net Profit}}{\text{Sales}} \tag{4}$$

3. Research Findings

Based on the classic assumption test, normality test results of this study indicated that the regression model had met the assumptions of normality and appropriate. Heteroscedasticity test results indicated that the data did not occur heteroscedasticity (occurs homoscedasticity). Collinearity test results showed that there was no correlation between variables

In analyzing the data, this study used linear regression analysis with SPSS 16.0.Below is the study result by testing the sub-structure and hypothesis testing.



3.1 The effect of X1, X2 variables on Z

Table 1. Summary of Path Coefficient Result X1, X2 on Z

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	Unstandardized Coefficients		Standardized Coefficients							
Model	В	Std. Error	Beta	t	Sig.					
1 (Constant)	.064	.046		1.384	.175					
Current Ratio	.021	.009	.446	2.262	.030					
Debt to Equity Ratio	025	.054	092	465	.645					

Dependent Variable: Net Profit Margin

R : 0.513 or 51.3%

R Square: 0.263

Based on the analysis on Table 1, regression equation can be formulated as follows.

$$Z = 0.064 + 0.021 \text{ X}_1 - 0.025 \text{ X}_2 + \varepsilon_1 \text{ and } R_1^2 = 0.263$$

- Beta = 0.064 can not be interpreted, because sig t $(0.175) > \alpha(0.05)$
- Beta = 0.021 means that if the Current Ratio rise 1%, the Net Profit Margin will be increase by 2.1%.
- Beta = -0,025 cannot be interpreted, because sig t $(0,645) > \alpha(0,05)$
- R1² stated that the Current Ratio and Debt to Equity Ratio variation contributes to the variation of Net Profit Margin 26,3% and the remaining 73,7% is influenced by other variables outside the variable study.

Based on the results of path analysis step 1, it was obtained the value below.

$$P_{e1} = \sqrt{1 - R_{1^2}} = \sqrt{1 - 0.263} = 0.858$$

With error influence as much as 0,852, it can be interpreted that the information contained in the results of the calculation are only able to explain the effect of independent variables on the dependent variable of 0.148 while the rest of 0.852 influenced by other variables that had not been present in the model.

3.2 The effect of X1, X2 and Z variables on Y

Table 2. Summary Results of Path coefficient Testing X1, X2 and Z on Y

	Unstandardized Coefficients		Standardized Coefficients		
Model	В	Std. Error	Beta	t	Sig.
1 (Constant)	149	.157		949	.349
Current Ratio	.055	.033	.343	1.676	.103
Debt to Equity Ratio	.490	.180	.522	2.718	.010
Net Profit Margin	1.561	.552	.458	2.827	.008

Dependent Variable: Dividend Policy

R : 0.569 or 56.9%

R Square: 0.323

Based on the analysis in Table 2, regression equation can be formulated as follows.

 $Y = -0.149 + 0.055 X_1 + 0.490 X_2 + 1.561 Z + \varepsilon_2 \text{ and } R_2^2 = 0.323$

- Beta = -0.149 cannot be interpreted, because sig t $(0.349) > \alpha(0.05)$
- Beta = 0.055 cannot be interpreted, because sig t $(0.103) > \alpha(0.05)$
- Beta = 0.490 means if Debt to Equity Ratio rises 1%, the dividend policy will increase by 49%.
- Beta = 1.561 means if Net Profit Margin rises 1%, the dividend policy will be increase by 156.1%.
- R2² = 0.323 suggests that the variation of Current Ratio, Debt to Equity Ratio and Net Profit Margin contributes to the variation of 32.3% Dividend Policy and the remaining 67.7% is influenced by other variables outside the study variables.

Based on the path analysis results of step 2, it was obtained the value.

$$P_{e2} = \sqrt{1 - R_{24}} = \sqrt{1 - 0.323} = 0.822$$

With the influence of error of 0.822, it means that the information contained in the results of the calculation are only able to explain the effect of independent variables on the dependent variable of 0.172 while the rest of 0.822 influenced by other variables that have not been present in the model.

3.3 Hypothesis Testing

Hypothesis testing in this study results as follows.

• Current Ratio has significant positive effect on Net Profit Margin (beta coefficient = 0.021 with sig t $(0.030) \le \alpha (0.05)$).



- Debt to Equity Ratio has no significant positive effect on Net Profit Margin (beta coefficient = -0.025 with sig t $(0.645) > \alpha (0.05)$).
- Current Ratio has no significant positive effect on Dividend Policy (beta coefficient = 0.055 with sig t $(0.103) > \alpha (0.05)$).
- Debt to Equity Ratio has significant positive effect on Dividend Policy (beta coefficient = 0.490 with sig t $(0.010) \le \alpha (0.05)$).
- Net Profit Margin has significant positive effect on Dividend Policy (beta coefficient = 1.561 with sig t = $0.008 \le \alpha (0.05)$).

Based on the results of statistical tests, there were found direct and indirect effects which can be explained as follows.

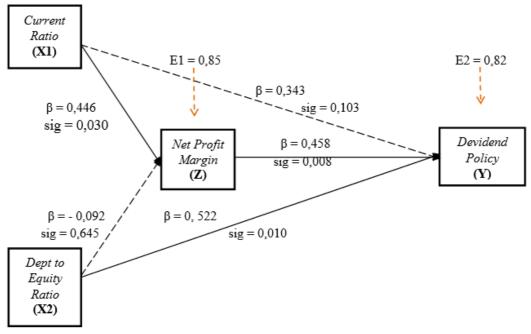


Figure 2. The relationship of Variable Structure X1, X2 upon Y through Z

Based on Figure 2, it is concluded that the Z variable functions as a mediator variable in terms of the effect of X_1 on Y, but Z variable functions neither as mediator nor moderator to equity ratio variables in terms of the effect of X_2 to Y.

4. Discussion

4.1 The Effect of Current Ratio on Net Profit Margin

Current Ratio had significant positive effect on Net Profit Margin of manufacturing companies that are listed in Indonesia Stock Exchange in the period of 2013. This goes hand in hand with the results of study conducted by Setiawan (2013) suggesting that luquidity has significant positive effects on the increase of profitability (Elshatti, 2015; Alavinasab & Esmail, 2013). Mardianto (2009:77) stated that in order to sustain the sale increase, a company needs to increase the assets (current assets and fixed assets). With the increase of assets, working capital or current assets will rise simultaneously. This will give effects on the continuity of the company's operations, and consumers' demand can be met and at the end total revenue or income of the company will rise. The increase of income will give effects on the increase of Net Profit Margin (Brigham, 2006; Bagchi et al, 2012). Thus, if the company needs more internal source of fuds to finance operational activities or production, the company will usually increase the external fund in the forms of debts to another party. With short-term debts the company can perform the operational activities without significant constraint so that it can create profits (Setiawan, 2013).

4.2 Debt to Equity Has no Effect on Net Profit Margin

The results of this study shows that Debt to Equity Ratio (DER) has no significant effect on Net Profit Margin (NPM) of a manufacturing company listed in Indonesia Stock Exchange in 2013 period. The results of this study suggest that the variation of capital structure in the form of DER does not affect the variation of NPF. The average of DER shows a number of 46%, and the average of NPM is mostly (69%) included in low classification. This shows that the sample of company still encounters a problem in increasing the sales. In other words, the



high DER that has been assumed to indicate the sufficiency of fund allocated to finance company's operations, still does not sustain the obtain of profit margin of the company. One of the causes is the fluctuative condition of macro economy such as the exchange rate of rupiah towards dollar, the inflation rate, or world crisis triggered by Greek's crisis in 2008 that brings impacts to the world economy. Therefore, cost of product of a manufacturing company in which the raw materials are imported will undergo compression on its NPM, and eventually that will affect the Dividend policy (Deitiana, 2013). This is in line with the results of Nugroho's study (2011) showing that Debt to Equity Ratio has no significant effect on Net Profit Margin.

4.3 Current Ratio Has no Effect on Dividend Policy

The results of the study showed that Current Ratio (CR) has no significan effect on Dividend Policy of manufacturing company listed in Indonesia Stock Exchange in 2013 period. The previous discussion has explained that CR affects the NPM, and the NPM affects the Dividend Policy. However, CR variation does not affect the variation of Dividend Policy directly. This indicates that the high CR (average of 64%) cannot increase Dividend Policy. Probably, the measure on Dividend Policy is not yet based fully on the condition of fundamental variabel (one of them is CR). Dividend Policy is frequently linked to the company's interest in keeping the value of firm, which is reflected through the value of the stock price (Murhadi, 2013). Furthermore, companies often abandon fundamental variabel in determining Dividend Policy. This goes hand in hand with the study of Sandy & Nur (2013) dan Dawati (2012) suggesting that Current Ratio has no significant effect on Dividend Policy.

4.4 Debt to Equity Ratio Has Positive Effect on Dividend Policy

The study results suggested that Debt to Equity Ratio has positif significant effect on Dividend Policy of manufacturing companies listed in Indonesia Stock Exchange in 2013 period. This is in line with the study conducted by Muhammad, et al (2012) suggesting that Debt to Equity Ratio has significant positive effect on Dividend Payout Ratio. High Debt to Equity Ratio indicates increasing capital resources of a company. The increase of the source of funds reflects better trust of the creditors of the company. If the company utilizes the source of funds from the debts wisely for the behalf of company's operation, the company's productivity will get better as well, the sales increases, and the company's profits will also rise (Brigham, 2006). The increase of company's profitability will elevate the amount of allocated Dividend for the shareholders (Deitiana, 2013). Hence, it can be understood that if DER rises, then Dividend policy will move to the same direction, and vice versa.

4.5 The Effect of Net Profit Margin on Dividend Policy

Based on the study results, it is found that Net Profit Margin has positive effect on Dividend Policy of manufacturing company listed in Indonesia Stock Exchange in 2013 period. Basically,, the Dividend Policy of a compay is determined by its net profit (Fred J & Thomas, 1996; Parsian & Amir, 2014). And the net profit itself is determined by the the amaunt of Net Profit Margin. This is in line with the study conducted by Pasadena (2013) stating that profitability has significant positive effect on Dividend Payout Ratio. This can be interpreted that the higher the value of Net Profit Margin, the more capable the company in paying dividend since the company can create net profit from each sale, in which the company will share the Dividend in a big portion while gaining big profits. A company that has profit stability can set the rate of Dividend payment certanly and give the signal of the quality of their profits. It is because the investors will see the profits of the company, if the laba has a positive value or increases, the investors will consider that the company has a good prospect and guarantees the share of Dividend to the shareholders. Therefore, it can be understood that NPM has positive effects on Dividend Policy.

4.6 Current Ratio Has Indirect Effects on Dividend Policy through Net Profit Margin

Based on te relationship between the variables mentioned above, it can be understood that Current Ratio (CR) does not affect directly Dividend Policy, but affects indirectly Dividend Policy through Net Profit Margin (NPM). NPM holds a role as an intervening variable or mediator (Siswoyo, 2004) that functions as a mediator of the effect of CR on Dividend Policy. This result is supported by the study of Sandy & Nur (2013) showing that Current Ratio has no significant effect on Dividend Policy. The study conducted by Setiawan (2013) suggests that liquidity has significant positive effect on profitability (Saleem & Ramiz, 2011). The study done by Pasadena (2013) shows that profitability has effect on Dividend payout ratio. Thus, NPM becomes an important variable in increasing Dividend Policy. There is a number of strategies to be performed in order to increase the NPM such as pressing the cost of production and increasing market share through increasing the sales of company's product. Besides, increasing CR with debts until an appropriate threshold can be performed by the company. The saturation level of this short-term debt use has to be considered. One effective way to take is perform cash management wisely, so that idle cash can be avoided as early as possible. The presence of idle cash



can increase the cost of capital of the company and eventually can decrease company's net income. If this happens simultaneously, then the Dividend Policy will decrease as well.

4.7 Net Profit does not Mediate the Effect of Debt to Equity Ratio on Dividend Policy

Based on the result of the study, it is shown that DER has no effect on NPM, while DER and NPM have effect on Dividend Policy. Hence, NPM functions neither as mediator nor moderator variable (Siswoyo, 2004) for the effect of DER on Dividend Policy, but DER only functions as dependent variable. This is supported by the study of Muhammad, et al (2012) showing that Debt Equity Ratio has significant positive effect on Dividend Payout Ratio (Thaddeus, et al, (2014); the study by Nugroho (2011) shows that Debt to Equity Ratio has no significant effect Net Profit Margin; and the study conducted by Pasadena (2013) showing that profitability affects the Dividend payout ratio. One measure can be taken by the company to increase Dividend Policy is by increasing bot DER and NPM (as explained before). DER can be done by increasing the amount of debt, but it must be done wisely. It means that if the company uses saturated debts, financial distress or the increase of the company's risk will take place and cause the decrease of company's value.

5. Conclusion and Suggestions

5.1 Conclusion

Based on the topic being discussed in the study, the conclusions to be drawn are as follows:

- Current Ratio has significant positive effects on Net Profit Margin of manufacturing companies listed in Indonesia Stock Exchange in the period of 2013.
- Debt to Equity Ratio has no significant effect on Net Profit Margin of manufacturing companies listed in Indonesia Stock Exchange in the period of 2013.
- Current Ratio has no significant effect on Dividend Policy of manufacturing companies listed in Indonesia Stock Exchange in the period of 2013.
- Debt to Equity Ratio has significant positive effect on Dividend Policy of manufacturing companies listed in Indonesia Stock Exchange in the period of 2013.
- Net Profit Margin has significant positive effect on Dividend Policy of manufacturing companies listed in Indonesia Stock Exchange in the period of 2013.
- Net Profit Margin as an intervening variable functioning as mediator in the effect relationship of Current Ratio on Dividend Policy.
- Net Profit Margint does not function as intervening variable in the effect relationship Debt to Equity Ratio on Dividend Policy. In this case, Net Profit Margin as a dependent variable having positive effect on Dividend Policy.

5.2 Suggestions

A company should improve CR, DER and NPM in order to increase Dividend Policy. It is also suggested that investors consider CR, DER and NPM while taking decisions on their investment. Further studies should take other dependent variables outside the variables that have effects on Net Profit Margin and Dividend Policy. Besides cash devidend, the future researchers should take the variation of Dividend such as share Dividend, property Dividend, liquidity Dividend and notes Dividend into account and take them as the determinant of company's Dividend Policy.

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