FACTORS INFLUENCE ON DIVIDEND PAYOUT RATIO WITH RETURN ON EQUITY AS A MEDIATING VARIABLE

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Abstract

One of the most important decision for a financial decision is Dividend Policy. Dividend Policy is related to the decision of what portion of the profits to be paid as dividend and what part reinvested in the company as retained earning. There are some factors that influence on Dividend Payout Ratio(DPR). This study aims (1) to analyze the effect of Cash Ratio (CR), Debt to Equity Ratio (DER), Net Profit Margin (NPM), Return on Investment (ROI), and Tax Rate (TR) on Dividend Payout ratio (DPR), (2) to analyze the effect of ROE on DPR (3) to analyze effect of CR, DER, NPM, ROI, TR on DPR (4) to analyze effect of CR, DER, NPM, ROI, TR on DPR with ROE as a mediating variable. The population of this research is 41 mining companies listed on BEI in the period of 2010-2014. Sampling method used is purposive sampling method. Data analysis technique used on this study is Path Analysis and t test hypothesis testing. The result showed that (1) CR, NPM, TR do not affect on ROE, while DER and ROI have positive effect on ROE (2) all the independent variables (CR,DER,NPM,ROI,TR,ROE) partially have no effect on DPR (3) NPM affect on DPR through ROE as an intervening variable.

Keyword: Cash Ratio, Debt to Equity Ratio, Net Profit Margin, Return on Investment, Tax rate, Return on Equity, Dividend Payout Ratio.
Introduction

Stock is one source of funding for the company. With the development of capital markets easier for companies to obtain financing through the sale of company stock. Investors invest their money in a company, the investor has the main goal to find the return in the form of dividend yield as well as capital gains (income from the difference between selling price to the market price), therefore the dividend policy is a very important for the management as it involves two different interests, that are the shareholders interests and company interests. The shareholders want to get high dividends while management prefers to hold some profit to grow their company. Dividend policy is related to decisions on what portion of profits to be distributed as dividends and how much a part of retained earnings. The higher dividend, the smaller income allocation for retained earnings, whereas retained earnings is very important for the development and continuity of the company. Cornell and Shapiro (1987) in Ritha (2013) states that the ability of the manager to pay large dividends relatively would give a positive signal about the prospects of the company in the future. Dividend payout policy is reflected in the dividend payout ratio, it is the ratio of dividends to earnings after tax (Sudana, 2011: 23).

The company's financial performance is closely related to the determination of the dividend Payout Ratio. Several studies have been carried out by previous researchers produce different findings. The findings Arilaha (2007) proved that the Return on Investment (ROI) has a significant influence on the dividend payout ratio (DPR), while the other three variables, namely free cash flow, liquidity, and leverage do not have a significant effect on the DPR. The study results Jannah and Agustin (2014) found the same conclusion, namely Return on Investment (ROI) significantly affects DPR, while the other variable is the cash ratio, DER, Growth effect not significant on DPR. Ritha and Koestiyanto (2013), conducted a study on 12 companies listed on the Stock Exchange. The results of recent research concludes that the cash ratio, Debt to Total Asset (DTA), Institutional ownership significant positive effect on DPR, while the growth significant negative effect on the DPR.

This study used several different ratios including Cash Ratio (CR), Net Profit Margin (NPM), Return On Investment (ROI) Tax rate (TR) and add the Return On Equity (ROE) as a variable
Based on the description a few questions need to be answered in this study is

1. Are Cash Ratio (CR), Debt to Equity Ratio (DER), Net Profit Margin (NPM), Return On Investment (ROI) Tax rate (TR) partially affect the Return On Equity (ROE).

2. Is Return On Equity (ROE) effect on Dividend Payout Ratio (DPR).

3. Are Cash Ratio (CR), Debt to Equity Ratio (DER), Net Profit Margin (NPM), Return On Investment (ROI) Tax rate (TR) partially affect Dividend Payout Ratio (DPR).

4. Are Cash Ratio (CR), Debt to Equity Ratio (DER), Net Profit Margin (NPM), Return On Investment (ROI) Tax rate (TR) affect the Dividend Payout Ratio (DPR) through Return On Equity (ROE).

**Objective**

1. To analyze the effect of partial variable Cash Ratio (CR), Debt to Equity Ratio (DER), Net Profit Margin (NPM), Return On Investment (ROI) Tax rate (TR) on Return On Equity (ROE).

2. To analyze the effect of Return On Equity (ROE) effect on Dividend Payout Ratio (DPR).

3. To analyze the effect of partial variable Cash Ratio (CR), Debt to Equity Ratio (DER), Net Profit Margin (NPM), Return On Investment (ROI) Tax rate (TR) partially affect the Dividend Payout Ratio (DPR).

4. To analyze the effect of variable Cash Ratio (CR), Debt to Equity Ratio (DER), Net Profit Margin (NPM), Return On Investment (ROI) Tax rate (TR) on the Dividend Payout Ratio (DPR) through veriabel Return On Equity (ROE).

**Theoretical Framework and Hypothesis Development**

**Agency Theory**

Jensen and Meckling (1976) is a pioneer of the agency theory and he defines that the

"Agency relationship as a contract under the which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf the which involves delegating some decision making authority ".

According to the definition Agency relationship is an agreement between one or more
individuals (principal) that employs another person (the agent) to act on behalf of he principal, delegating the power to make decisions to agents and employees. Principal is shareholders or the owner while the agent is a manager who manages the company. Agency relationships often lead to conflicts of interest between owners and manager. In the dividend policy owners (shareholders) want to get high dividends, while managers prefer to reinvest profit to develop the company.

**Signal Theory(Signaling Theory).**

Signaling Theory (Theory Signals) developed by Ross in 1977. This theory arises because there is information asymmetry between the management and shareholders therefore the company needs to deliver a good signal or information to convince the public or the market. One of information that must be submitted is the information regarding the dividend. According to the Dividend Signaling Theory stated by Battachairya, information regarding the cash dividend paid to investors is a signal of the company's prospects for the future. Meanwhile, according to Modigliani and Miller increase in the dividend is a positive signal to investors that the company estimates a good income in the future.

**Dividend Policy**

Dividend is part of the company's profit that is distributed to the investors (shareholders). Profits of the company is not entirely distributed to shareholders as dividends but some of profit are reinvested. The undistributed profits called Retained Earnings (RE) and used to develop the business. While the DPR is the ratio between the dividends paid and the profit available for shareholders. According Gitosudarmo (2002) the size of the dividend payout ratio is influenced by the following factors:

a. Liquidity factors, the higher the liquidity will improve DPR and vice versa.

b. Needs the funds to pay off debt, the greater the funds used to pay off debt, both for bonds and mortgages, taken from the cash it will result in lowering DPR and vice versa.

c. Expansion plan, the higher the expansion planned by the company result in reducing DPR, because the profits is prioritized to buy assets.
d. Controll Factors, increasing openness of the company will strengthen its own capital, resulting in the increase in the *dividend payout ratio* and conversely the closing of the company will reduce the *dividend payout ratio*.

e. Government relating to corporate profits and paying dividends.

f. Income Tax, if the shareholder come from weak society which they do not pay tax (tax-free), \(\textit{dividend payout ratio}\) is higher than if the shareholders are from high class.

**Cash Ratio**

Cash ratio is a liquidity ratio to measure the ability of the company to meet its short term obligations (Brigham and Eugene, 2004). The higher cash ratio means the more likely companies to distribute dividend in larger quantities. Ritha and Koestianto (2013) conducted study in 12 companies listed on the Stock Exchange. They found that the cash ratio has a positive and significant impact on the DPR. However, Jannah and Agustin (2014), shows different finding that cash ratio is not significant affect towards DPR.

**Debt to Equity Ratio**

Debt to Equity Ratio (DER) is comparison between total debt and equity (Sartono, 2009: 66). This ratio to measure a company's ability to pay debts to creditors with equity provided. The greater dependence of the company to creditors will result in reduced levels of profitability due to the interest expense paid is greater, which in turn reduces the rights of shareholders. This means the DER and DPR have negative correlation. Setiowati (2013), concluded that the DER has no a negative significant effect on the *DPR*. The research of Jannah and Agustin (2014) the influence of DER on DPR is not significant.

**Net Profit Margin**

Net Profit Margin is a ratio that measures a company's ability to generate net income from the sale of the company (Sudana, 2011: 23). Therefore, the dividend is part of the company's net profit, the higher this ratio means the greater DPR.

**Return on Investment**
Profitability ratios that are commonly used is the ROI (Return on Investment) or ROA (Return on Assets). These ratios measure the company's ability to use all the assets to generate a profit after tax (Sudana, 2011: 22) and to measure the efficiency and effectiveness of the management in managing its assets. Increasing efficiency of the company can increase the DPR. Dwiyani’s research (2007), found that the ROI is the most dominant variable influence on DPR. While Arilaha (2007) concluded that the ROI has a significant impact on dividend policy. Moreover research conducted by Ritha and Koestianto (2013) found different conclusion, namely ROA has no effect on the DPR

Return On Equity (ROE)

Return on Equity (ROE) measures the ability of the bank’s management in managing capital to get net income (Kashmir, 2003). ROE is a comparison between earning after tax and total equity. The higher of ROE, the performance of the company more effective. ROE is also used to measure the ability of their own capital to generate profits for shareholders, both common stock and preferred stock.

Tax rate

Each country has rules about taxes. If the tax imposed on capital gains are smaller than tax of dividend income, it would be more profitable if the company retained earnings rather than paying dividends or otherwise.

Conceptual Framework
Factors Influence on Dividend Payout Ratio with Return on Equity as Mediating Variable

CR = Cash Ratio  TR = Tax Rate
DER = Debt to Equity Ratio  ROE = Return on Equity
NPM = Net Profit Margin,  DPR = Dividend Payout Ratio.
ROI = Return on Investment

Research Hypothesis

H1: Cash Ratio, Debt to Equity Ratio, Net Profit Margin, Return on Investment, Tax Rate have direct effect on Return on Equity.

H2 = ROE affect on Dividend Payout Ratio.

H3 = Cash Ratio, Debt to Equity Ratio, Net Profit Margin, Return on Investment, Tax Rate have direct effect on Dividend Payout Ratio.

H4 = Cash Ratio, Debt to Equity Ratio, Net Profit Margin, Return on Investment, Tax Rate influence on Dividend Payout Ratio through Return on Equity.

Research methods.

Population and Sample

Population in this study is mining companies listed on the Stock Exchange in 2010-2014. The sampling method used is purposive sampling, that is sampling according to specific criteria. The sampling criteria are as follows:

1. Mining companies listed on the Stock Exchange and publish financial statements during the period 2010-2014.
2. Mining companies that have complete financial statement for the period 2010-2014 (especially items of the financial statements used to calculate the ratios listed in this study).
3. Mining companies that reported its financial statements in base currency (rupiah).
4. Mining companies that not doing mergers and acquisitions because after the merger of the company's financial condition and position changes in a company report.
5. Mining companies that distribute dividends the period 2010 to 2014.

Based on that criterias above, four companies are obtained as samples.
Factors Influence on Dividend Payout Ratio with Return on Equity as Mediating Variable

Research Variables

Variables used in this study, are:

1. Exogenous Variables: \( \text{Cash Ratio} (X_1), \text{Debt to Equity Ratio} (X_2), \text{Net Profit Margin} (X_3), \text{Return On Investment} (X_4) \) and \( \text{Tax Rate} (X_5) \)

2. Endogenous variable: \( \text{Dividend Payout Ratio} (Y_2) \).

3. Mediation/intervening Variable: \( \text{Return On Equity} (Y_1) \)

Operational Definition of Variables

1. \( \text{CR} (X_1) \)

   Cash ratio liquidity aims to measure the ability of a company to meet its short-term liabilities with its current assets (current assets). This ratio is calculated by dividing the cash to current liabilities (Brigham, 1983).

2. \( \text{DER} (X_2) \)

   DER is a ratio that measures the ability of companies with equity and capital have in paying debts to creditors. This ratio is calculated by dividing total debt by total equity (Kashmir, 2012).

3. \( \text{NPM} (X_3) \)

   NPM is a ratio that measures the level of efficiency and effectiveness in management of the company. This ratio is calculated by dividing net income by net sales operation (Sawir, 2005).

4. \( \text{ROI} (X_4) \)

   ROI is a ratio showing how much net profit derived from all property owned by the company. This ratio is calculated by dividing net income by total assets (Helfert, 1997).

5. \( \text{TR} (X_5) \)

   Tax rate is the tax rate to be paid by the company in accordance with the taxable income of the company. According to Law 36 of 2008 Article 17 and Article 31e of the Income Tax Agency, obtained tax rate of 25% of the company's taxable income (gross income
above 50milyar).

6. ROE (Y1)
ROE is a variable mediating/intervening variable that theoretically affect the relationship between independent and dependent variables into an indirect relationship (Supardi, 2012). This ratio is calculated by dividing the net profit after tax to total equity (Kashmir, 2003).

7. DPR(Y2)
Parliament is an endogenous variable is the variable that has the arrows moving towards these variables (Sarwono 2006). In this study, which is an endogenous variable that is the dividend payout ratio. Dividend payout ratio is the ratio of dividend per share and earnings per share (Bryan A, 2015).

Data Collection Methods

Data collection Methods used are:

This study used secondary data. Data of financial statements are obtained from www.idx.co.id, and other information from study library by journals.

Analysis Method
1. Path Analysis
According Supranto and Limakrisna (2016: 101), Path Analysis is used to determine the direct and indirect effects of some exogenous variables on endogenous variable. Path analysis can not determine causality or used as a substitute to see a causal relationship between variables (Ghozali, 2013: 249).

2. Classical Assumption Test
Classic Assumptions Test is used to test whether there are irregularities classical assumptions of the model used. Classic assumption test includes:

a. Multikolonierias Test
It is used to indicate whether there is a linear relationship between the independent variables in the regression model. To determine the presence of symptoms multicoloniiarity,
we look at the value of *Variance Inflation Factor* (VIF).

b. Autocorrelation Test

It is used to test whether there is a correlation between the error used in period \( t \) to the previous period \( (t-1) \) of the regression model. Autocorrelation test is done by using Durbin Watson.

c. Heteroskedasticity Test

Heteroskedasticity Test is intended to determine whether irregularities models *variance* interference differ from one observation to another observation. If the variance of the residual observation is the same from one observation to another, then called homoskedastisitas, if different called Heteroskedasticity.

d. Normality Test

Normality Test is used to test whether a disturbance variable in the regression model or residuals have a normal distribution. Normality test is done with the One Sample Kolmogorov-Smirnov Test.

3. Hypothesis Testing

Hypothesis test used is uji- t. T-test is intended to determine the influence of each of the exogenous variables on endogenous variables.

**Research Results**

**Path Analysis**

Technique of analysis used this study is Path analysis using software SPSS for windows ver 20. It is used to analyze direct and indirect effect of *cash ratio* \( (X_1) \), *debt to equity ratio* \( (X_2) \), *net profit margin* \( (X_3) \), *return on investment* \( (X_4) \), *tax rate* \( (X_5) \) on *return on equity* \( (Y_1) \). Table 1 shows the direct effects of *cash ratio* \( (X_1) \), *debt to equity ratio* \( (X_2) \), *Net profit margin* \( (X_3) \), *return on investment* \( (X_4) \), *tax rate* \( (X_5) \) on *return on equity* \( (Y_1) \). Then table 2 shows the direct effects of *cash ratio* \( (X_1) \), *debt to equity ratio* \( (X_2) \), *Net profit margin* \( (X_3) \), *return on investment* \( (X_4) \), *tax rate* \( (X5) \) and ROE on *Dividend Payout ratio*. 
Table 1: Results of Regression Coefficients calculation

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>10,835</td>
<td>18,468</td>
<td>,587</td>
<td>,567</td>
</tr>
<tr>
<td>CR</td>
<td>.002</td>
<td>.003</td>
<td>,040</td>
<td>,621</td>
</tr>
<tr>
<td>DER</td>
<td>.025</td>
<td>.006</td>
<td>,302</td>
<td>4,312</td>
</tr>
<tr>
<td>NPM</td>
<td>.031</td>
<td>.175</td>
<td>,029</td>
<td>,179</td>
</tr>
<tr>
<td>ROI</td>
<td>1.445</td>
<td>.185</td>
<td>1.116</td>
<td>7,793</td>
</tr>
<tr>
<td>TR</td>
<td>-4.434</td>
<td>.739</td>
<td>-0.043</td>
<td>-5.587</td>
</tr>
</tbody>
</table>

Dependent Variabel : Return on Equity

Table 2: Results of Regression coefficients Calculation (Equation 2

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-17924,039</td>
<td>71731,251</td>
<td>-2.50</td>
<td>,807</td>
</tr>
<tr>
<td>CR</td>
<td>3,020</td>
<td>13,262</td>
<td>,064</td>
<td>,228</td>
</tr>
<tr>
<td>DER</td>
<td>35,633</td>
<td>33,375</td>
<td>,497</td>
<td>1,068</td>
</tr>
<tr>
<td>NPM</td>
<td>-225,424</td>
<td>672,100</td>
<td>-0.238</td>
<td>-3.353</td>
</tr>
<tr>
<td>ROI</td>
<td>1986,202</td>
<td>1643,768</td>
<td>1.741</td>
<td>1,208</td>
</tr>
<tr>
<td>TR</td>
<td>714,024</td>
<td>2871,528</td>
<td>,080</td>
<td>,249</td>
</tr>
<tr>
<td>ROE</td>
<td>-734,744</td>
<td>1025,540</td>
<td>-0.834</td>
<td>-7.16</td>
</tr>
</tbody>
</table>

From the analysis that has been done to measure the magnitude of the regression coefficient of variable 

CR (X1), DER (X2), NPM (X3), ROI (X4), TR (X5), ROE (Y1) and DPR (Y2),equation as follows:

\[ Y_1 = 0.002 (x_1) + 0.025 (x_2) + 0.031 (x_3) + 1.445 (x_4) - 0.434 (x_5) + e \]

\[ Y_2 = 3.020 (x_1) + 35.633 (x_2) - 225.424 (x_3) + 1986.202 (x_4) + 714.024 (x_5) - 734.744 (Y_1) + e \]

Regression Equation above can be explained as follow:

Table 1 shows that regression coefficient of CR, DER, NPM, ROI are positive, means that increasing in those variables can increase ROE. While regression coefficient of Tax Rate is negative. It means
increase in tax rate will reduce ROE. Table 2 show that regression coefficient of CR, DER, ROI and TR are positive, means that increasing in those variables can increase DPR.

**Classical Assumption Test**

**Multicoliarity Test**

Test of multicoliarity used to indicate whether there is a linear relationship between the vari-independent variables in the regression model. To determine the presence of symptoms multicoliarity is to look VIF on multiple regression analysis. Is VIF> 10 then the regression model is symptomatic multicoliarity (Ghozali, 2001). Based on the below table, it can be seen that the VIF for each each independent variable is less than 10, then it is said that the regression model did not happen multicoliarity.

**Table 3: Test Results of Multicoliarity Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>1.462</td>
<td>No multicoliarity</td>
</tr>
<tr>
<td>DER</td>
<td>1.755</td>
<td>No multicoliarity</td>
</tr>
<tr>
<td>NPM</td>
<td>9.444</td>
<td>No multicoliarity</td>
</tr>
<tr>
<td>ROI</td>
<td>7.333</td>
<td>No multicoliarity</td>
</tr>
<tr>
<td>TR</td>
<td>1.906</td>
<td>No multicoliarity</td>
</tr>
<tr>
<td>ROE</td>
<td>1.000</td>
<td>No multicoliarity</td>
</tr>
</tbody>
</table>

**Autocorrelation Test**

A good regression model is a regression that is free from autocorrelation. To detect autocorrelation, use the numbers DW (Durbin Watson) listed in the table *Model Summary* is output regression test results. Criteria for decision-making are:
Table 4: Decision-making of Autocorrelation test

<table>
<thead>
<tr>
<th>null hypothesis</th>
<th>Decisions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No positive autocorrelation</td>
<td>Reject</td>
<td>0 &lt; DW &lt; dl</td>
</tr>
<tr>
<td>No positive autocorrelation</td>
<td>No Decision</td>
<td>DL ≤ DW ≤ DU</td>
</tr>
<tr>
<td>No negative correlation</td>
<td>Rejects</td>
<td>4 - dl ≤ DW ≤ 4</td>
</tr>
<tr>
<td>No negative correlation</td>
<td>No Decision</td>
<td>4 - du ≤ DW ≤ 4 - dl</td>
</tr>
<tr>
<td>No autocorrelation either positive or negative</td>
<td>No rejected</td>
<td>du ≤ DW ≤ 4 - DU</td>
</tr>
</tbody>
</table>

From table Durbin Watson (DW) for n = 20 the number of independent variables (k = 5) to equation 1 and (k = 6) for the equation 2, the obtained value du = 1.9908 and 0.7918 for the equation dl = 1 and du = 2.1619 and 0.6915 for the equation dl = 2. While the value DW obtained from the analysis are shown as the table below:

Table 5: Test Results Autocorrelation (Equation 1)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.980</td>
<td>.961</td>
<td>.947</td>
<td>.02427</td>
<td>1.250</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), TR, CR, DER, ROI, NPM  
b. Dependent Variable: ROE

Table 6: Test Results Autocorrelation (Equation 2)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>557</td>
<td>311</td>
<td>-.008</td>
<td>93.13791</td>
<td>2.281</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), ROE, TR, DER, CR, NPM, ROI  
b. Dependent Variable: DPR

From the table above, the value of DW by 1.250 to equation (1) and 2.281 to equation (2). Du value of 1.9908 and at 0.7918 dl to equation (1) (k = 5) and the value du of 2.8854 and at 0.3357 dl to equation (2) (k = 6). Du and dl value obtained from table Durbin the attached Watson.

- dl ≤ DW du (Equation I)  
- 4 - du ≤ DW ≤ 4 - dl (Equation II)  
- 0.7918 ≤ 1.9908 ≤ 1.250 ≤ ......... (1)  
- 1.8381 ≤ 2.281 ≤ 3, 3085 ......... (2)

on the basis of criteria 2 (dl ≤ DW du) and criteria 4 (4 - du ≤ DW ≤ 4 - dl), it can be concluded that in this study no positive autocorrelation (equation I) and negative autocorrelation (equation II).
Factors Influence on Dividend Payout Ratio with Return on Equity as Mediating Variable

**Heterokedasticity Test**

Good regression model is not happening heterokedastisitas. Heterokedastisitas can be detected by looking at whether there is a specific pattern on a graph. *scatterplot* Heterokedastisitas test is intended to determine whether there is deviation models *variance* disturbance differ from one observation to another observation. *Scatterplot* test results of the first and second regression model indicate that the dots spread randomly above and below the number 0 and the Y axis. It can be concluded that there is no heterokedastisitas in regression models, so the regression model utilizable to predict *Dividend Payout Ratio* based on input from the independent variable *Cash Ratio, Debt to Equity Ratio, Net Profit Margin, Return on Investment, Tax Rate* and *Return on Equity*.

**Normality Test Data**

Regression Model good is to have a data distribution normal or near normal. Normality test aims to test whether a disturbance variable in the regression model or residuals have a normal distribution. Normality test is possible by means of statistical analysis by looking at the table *One-Sample* Kolmogorov-Smirnov. Normality test results as presented above demonstrate that research data was normally distributed as evidenced by *asymp sig* of 0.413 greater than 5% significance level research. Therefore the research data was normally distributed, it can be used in testing the regression model.

**Hypothesis Testing**

**t-Test**

t-test done to prove the effect of variable *cash ratio, debt to equity ratio, net profit margin, return on investment, tax rate, and return on equity* of the *dividend payout ratio* is partially or individually.
Effect of Variable CR, DER, NPM, ROI, TR on ROE

Table 7: Results of Test Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
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<tr>
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<td>.006</td>
<td>.302</td>
<td>4.312</td>
</tr>
<tr>
<td>NPM</td>
<td>.031</td>
<td>.175</td>
<td>.029</td>
<td>.179</td>
</tr>
<tr>
<td>ROI</td>
<td>1,445</td>
<td>.185</td>
<td>1,116</td>
<td>7,793</td>
</tr>
<tr>
<td>TR</td>
<td>-.434</td>
<td>.739</td>
<td>-.043</td>
<td>-.587</td>
</tr>
</tbody>
</table>

a. Dependent Variabel : ROE

Effect of variable CR, DER, NPM, ROI, TR, ROE on DPR

Table 8: Results of t- Test Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-17924,039</td>
<td>71731,251</td>
<td>-.250</td>
<td>.807</td>
</tr>
<tr>
<td>CR</td>
<td>3,020</td>
<td>13,262</td>
<td>.064</td>
<td>.228</td>
</tr>
<tr>
<td>DER</td>
<td>35,633</td>
<td>33,375</td>
<td>.497</td>
<td>1,068</td>
</tr>
<tr>
<td>NPM</td>
<td>-225,424</td>
<td>672,100</td>
<td>-.238</td>
<td>-.335</td>
</tr>
<tr>
<td>ROI</td>
<td>1986,202</td>
<td>1643,768</td>
<td>1,741</td>
<td>1,208</td>
</tr>
<tr>
<td>TR</td>
<td>714,024</td>
<td>2871,528</td>
<td>.080</td>
<td>.249</td>
</tr>
<tr>
<td>ROE</td>
<td>-734,744</td>
<td>1025,540</td>
<td>-.834</td>
<td>-.716</td>
</tr>
</tbody>
</table>

a. Dependent Variabel : Deviden Payout Ratio

Result of analysis as shown From table 7 is that significant variables that affect ROE is DER (significance value 0.001) and ROI (significance value of 0.000). The significant value of these two variables is less than 0.05. While variable CR, NPM and TR have significant value less than 0.05 means that there is no significant effect of the variable CR on ROE, NPM on ROE, and TR to ROE.

While the test results of variable CR, DER, NPM, ROI, TR and ROE against DPR indicate that
all the exogenous variables have a significance level greater than 0.05 means that the variable CR, DER, NPM, ROI, TR and ROE have no effect on the DPR.

Direct and Indirect Effect of Exogenous Variables on Endogenous Variables through an intervening variable

Table 9: Results of the analysis of the direct and indirect effects of

<table>
<thead>
<tr>
<th>No.</th>
<th>Variabel</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cash Ratio</td>
<td>0.064</td>
<td>-0.033336</td>
<td>0.030644</td>
</tr>
<tr>
<td>2.</td>
<td>DER</td>
<td>0.497</td>
<td>-0.251868</td>
<td>0.245132</td>
</tr>
<tr>
<td>3.</td>
<td>NPM</td>
<td>-0.238</td>
<td>0.024186</td>
<td>0.213814</td>
</tr>
<tr>
<td>4.</td>
<td>ROI</td>
<td>1.741</td>
<td>-0.930744</td>
<td>0.810256</td>
</tr>
<tr>
<td>5.</td>
<td>Tax Rate</td>
<td>0.080</td>
<td>0.035862</td>
<td>0.43862</td>
</tr>
</tbody>
</table>

The results show on the above table can be explained as follow:

1. The direct effect of *the cash ratio on dividend payout ratio* amounted to 0.064, while the indirect effect is 0.033336. Therefore, coefficient a direct effect greater than indirect effect, it can be concluded that *cash ratio* is directly on *dividend payout ratio*. Total Effect of Cash ratio on dividend payout ratio is only 3%. It can be said that cash ratio has positive influence but it is not significant (value of significant > 0.05, see table 8)

2. The direct effect of *Debt to Equity Ratio on dividend payout ratio* is equal to 0.497, while the indirect effect is 0.251868. Therefore, coefficient direct effect greater than indirect effect, it can be concluded that *Debt to Equity Ratio* directly effect on *dividend payout ratio*.

3. The direct effect of *Net Profit Margin on dividend payout ratio* amounted to -0.238, while the indirect effect is -0.024186. Therefore coefficient direct effect smaller than indirect effect, it means that *Net Profit Margin* does not have a direct effect on *dividend payout ratio* or in other words *Net Profit Margin* influence on *dividend payout ratio* through intervening variable of
Factors Influence on Dividend Payout Ratio with Return on Equity as Mediating Variable

ROE.

4. The direct effect of ROI against dividend payout ratio is 1.741, while the amount of indirect effect is -0.930744. Therefore, coefficient direct effect greater than indirect effect, it can be said that ROI directly effect on dividend payout ratio.

5. The amount of direct influence Tax rate on dividend payout ratio amounted to 0.080, while indirect effect is 0.035862. Therefore coefficient direct effect smaller than indirect effect, it can be said that Tax rate does not have a direct effect on dividend payout ratio.

Conclusions, Implications, Limitations

Conclusions

Based on the results of the analysis that has been described above, conclusion that can be drawn are below.

1. Based on the t-Test described in table 7, CR, NPM and Tax Rate have no effect on ROE which in this study used as a mediation variable. While DER and ROI have a positive effect on ROE.
2. From the results of t- test that has been done show that the variabel on intervening ROE has no influence on dividend payout ratio (DPR)
3. The result of t- test that has been done with endogen variabel is DPR showing that variabel CR, CR, DER, NPM, ROI and Tax Rate has no effect on DPR.
4. The result of path analysis show that ROE is only able to be intervening variable on the influence of NPM on DPR. While for the influence of CR, DER, ROI, Tax rate on DPR, variable of ROE is not able to be intervening variable.

Implications

The results of this study indicate that all five exogenous variables and variables mediating that are cash ratio, debt to equity ratio, net profit margin, return on investment, Tax Rate and Return on Equity has no effect on dividend payout ratio. In order to a bonding factors can be used in measuring the size of dividends, then investors should be considering some other ratios such as loan to deposit ratio, Price Earning ratio, Firm Size.
Limitation

This study has limited number of samples and six variables. Therefore it still open up opportunity for other researchers to conduct a more indepth study by including other variables. In fact there are still many variables that affect the divident payout ratio.
REFERENCES


