DETERMINANT OF PROFITABILITY AND ITS IMPACT ON FIRM VALUE: EVIDENCE FROM INDONESIA STOCK EXCHANGE

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ABSTRACT

Firm value is experiencing a downward trend is a problem that must be resolved. It is not firm's main objective of maximizing shareholder wealth. This study aimed to analyze the effect of the debt to equity (DER), sales growth (SG), current ratio (CR), and total asset turnover (TATO) to the price to book value (PBV) with return on equity (ROE) as a variable intervening.

Population in this research using manufacturing companies in Indonesia Stock Exchange in the period 2010-2015. Sampling technique used is purposive sampling with 34 companies selected according to predetermined criteria. The analysis technique used is the analysis using SPSS program, which previous research data has passed the test classic assumptions.

The first regression model showed that the DER has a negative effect on ROE and significantly affect ROE. Sales Growth and TATO has a significant and positive effect on ROE. Meanwhile, CR does not have an impact on ROE. The second model shows that ROE has a significant and positive effect on the level of 5% on PBV. CR significant and positive effect on the level of 10% on PBV. Meanwhile, SG, TATO, and DER does not have effect on PBV, the study also showed that the ROE mediating influence between SG and TATO on PBV.

Keyword: DER, Sales Growth, CR, TATO, ROE, and PBV.

INTRODUCTION

The main purpose of the company, namely maximizing the prosperity of the owners of capital of company. The normative objective here is manifested through maximizing the value of a firm's market. For companies that have gone public or have been listing on the IDX, maximizing the value of the market means maximizing the price of a company's stock market. (I Made Sudana, 2011). Maximizing the value of a company's stock means that the firm can maximize the present value of all the profits that future investors will accept or in other words be long-term oriented, consider several factors of risk, and not ignore social responsibility. The value of the firm can be reflected through Price to Book Value (PBV). (I Made Sudana, 2011). The choice of PBV as a parameter of firm value is because in PBV it takes into account the share price perceptions of how the investor appreciates or judges a company's stock with the supply and demand of
shares in the market. Then, compared to the equity per share written in the financial statements.

In optimizing the value of the company is the goal of the company should be achieved through the implementation of some functions of financial management. Financial policies that have been decided by financial managers will be able to influence other decisions. It could have an impact on the value of the company. Improvement of company value can be achieved, if there is a good cooperation between the management of the company with shareholders / stakeholders in making a decision. From the high value of the company can also reflect the performance of a good company. Profitability is reflected through Return on Equity (ROE). The phenomenon of gap in this study can be explained through empirical data about some variables used in this research, namely Debt to Equity Ratio, Sales Growth, Current Ratio, Total Asset Turn Over, and Return on Equity, and Price to Book Value can be seen In Table 1:

Table 1

<table>
<thead>
<tr>
<th>No.</th>
<th>Variabel</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>DER (x)</td>
<td>1.34</td>
<td>1.45</td>
<td>0.93</td>
<td>1.87</td>
<td>1.03</td>
</tr>
<tr>
<td>2.</td>
<td>SG (%)</td>
<td>15.29</td>
<td>24.82</td>
<td>10.58</td>
<td>12.88</td>
<td>14.3</td>
</tr>
<tr>
<td>3.</td>
<td>CR (x)</td>
<td>3.04</td>
<td>2.48</td>
<td>8.65</td>
<td>10.01</td>
<td>5.16</td>
</tr>
<tr>
<td>4.</td>
<td>TATO (x)</td>
<td>1.18</td>
<td>1.23</td>
<td>1.16</td>
<td>1.10</td>
<td>1.09</td>
</tr>
<tr>
<td>5.</td>
<td>ROE (%)</td>
<td>10.35</td>
<td>1.58</td>
<td>13.77</td>
<td>6.92</td>
<td>12.63</td>
</tr>
<tr>
<td>6.</td>
<td>PBV (x)</td>
<td>2.12</td>
<td>2.49</td>
<td>2.55</td>
<td>1.91</td>
<td>2.08</td>
</tr>
</tbody>
</table>

Table 1 shows the results of mean values, ie PBV shows the downward trend in 2011 to 2015, in 2011 by 2.12x and in 2015 by 2.08 times. The downward trend is not in accordance with the company's goal of maximizing the company's stock price for the welfare of investors. Good corporate value is an ever-increasing value, increasing the value of the company means that the price of the stock on the IDX also increases. Investors will flock to buy high stock prices because they have good business prospects in the future. The value of the company indicated by Price to Book Value (PBV) in 2011-2015 has decreased trend. The decline that occurs is a gap phenomenon because it is not in accordance with company goals, namely maximizing the interests of investors by increasing the value of the company through an increase in stock prices. The value of a good company always increases, meaning that stock prices in the capital market has increased as well. Rising stock prices in the market because investors flocked to buy shares in the stock market. Investors will judge that the company has a good prospect in the future.

REVIEWS OF THE STUDY

1. Capital Structure to Profitability

Debt to Equity Ratio is the formula used to assess the amount of debt used by the company. (Agus Sabardi, 1994). Brigham (1988) states that lenders are more pleased with the modern debt ratio because of the low ratio. So that alleviate the loss of creditors in case of bankruptcy on the debtor. The company's profit and
loss statement shows that sales at the top spot are subtracted by several costs including interest costs and then earned the company's net profit. Firms with high levels of debt are characterized by high interest costs, thus reducing the company's net profit. That is, there is a negative influence between the level of corporate debt and corporate profitability. Funding decisions through debt should create an optimal capital structure, meaning to minimize the cost of interest company. Excessive debt carries a lot of risk for the company and for the creditor. Debts used for corporate investment activities, eg in increasing the volume of production to increase sales, hold promotional activities, and even the expansion of the company. If the investment is successful, then the company can generate more income, but if the investment made fails.

H1: Debt to Equity Ratio negatively affect Return on Equity

2. Capital Structure to Firm Value

Debt to Equity Ratio (DER) is the ratio between debt with the company's own capital. (I Made Sudana, 2011). The DER ratio is used to measure the proportion of the use of funding on a company's debt. Where, the higher the debt the risks are also borne high. The risk is not only borne by the company alone, but the shareholders also share it, so the investors are not interested in buying shares that have a high enough risk. Signaling Theory states if a company that has good quality can be used by management as an optimistic signal in the future. DER is used for the leverage ratio which is one of the measures reflecting the risk factors faced by the financiers. The high level of DER will result in higher financial risk of the company. Investors tend to choose stocks with low DERs. This means that the risks faced by investors also lower. A high DER gives a bad signal for investors.

H2: Debt to Equity Ratio negatively affect Price to Book Value

3. Sales Growth to Profitability

Sales are the activities of a company in selling a product or service. Sales growth is the number of sales from year to year. (Agus Sartono, 2001). A positive result means there is an increase in sales from the previous year. Similarly, negative results mean sales decline from the previous year. In the calculation of the company's profit / loss, sales are in the top spot in the calculation, then deducted various fees, including taxes to generate net income. The greater the company's sales rate means the company is able to convert the product into cash from the sales activities of the product. In addition, companies can also earn big profits because the greater the level of sales, the greater the company's profits. (Brigham, 1988).

H3: Sales Growth has a positive effect on Return on Equity

4. Sales Growth to Firm Value

The growth of the company is an increase in sales from year to year. The sales rate for the company aims to measure the company's ability to manage sales performance. High sales means the company is able to distribute goods well to consumers. The higher sales of a company indicates the progress of the company,
thus raising good prospects for the company. Signalling Theory states that companies that have good quality or prospects in the future, will deliberately give good signals to the market. The market will catch the signal well so investors will flock to buy the company's stock. This is what causes the stock price in the market to increase, this is what makes the value of the company to increase. Increased sales means that managers can manage the company well. The company has a good quality, so the prospects for the future are also getting better. Investors in buying shares will see which companies have good prospects ahead. Companies with good quality or prospects will send signals or information to the market, so investors will be interested in buying shares from the company. The more investors who are interested to buy, then the stock price in the market will rise.

H4: Sales Growth has a positive effect on Price to Book Value

5. Liquidity to Profitability

Current Ratio (CR) is one of liquidity ratio, that is ratio which have purpose to measure ability of a company to fulfill its financial obligation which should be fulfilled immediately. (S Munawir, 1995). Current ratio is calculated by dividing between current assets with current liabilities. Current assets usually consist of cash, securities, accounts receivable, and inventory. Meanwhile, current liabilities consist of trade payables, short-term notes payable, long-term debt maturing, and others. Current ratio is the most commonly used as a measure of the ability to pay short-term debt by a creditor that can be closed by the expected asset can be converted into cash at one time along with the repayment time of the debt. (Brigham, 1988). The high ability of the company in fulfilling short-term obligations, which means the company increasingly liquid. The higher the cash reserves used to meet liquidity needs, will be idle cash. Too much idle cash can be used by companies for investment activities, but companies also need to reserve cash for the need to pay short-term debt. Investments made can result in profit / profit. Managers must also keep in mind the optimal level of liquidity and pay attention to the short-term debt service schedule.

H5: Current Ratio has positive effect on Return on Equity

6. Liquidity to Firm Value

The liquidity ratio calculated through the current ratio is the adequacy of cash flow in settling the short-term debt. Liquidity of a company, then the investor confidence will be good and this will provide an opportunity for the company to grow so as to increase the company's stock price. The market will catch this as something good from the company. According to signalling theory, a company that gives a good signal to the market will be well-received and interested in buying the company's shares, on the contrary if the company has poor quality, it will send bad signal to the market so that it makes the company's stock down and decrease the value company.

H6: Current Ratio has positive effect on Price to Book Value
7. Asset Turnover to Company Profitability

TATO is the ratio of the last asset management, measuring the rotation or utilization of all company assets. If the company does not get enough business volume for the size of the investment of its total assets, then sales should be increased. Some assets must be sold, or a combination of these steps should be done. In addition, the high turnover of total assets will reduce the company's lending to others, with this high turnover, unnecessary costs (borrowing costs) will be reduced. Reducing these unnecessary costs will also increase the company's operating profit. (Weston and Brigham, 1989). Dupont Theory or Dupont Method is a method that combines Net Profit Margin, Total Asset Turnover, and Equity Multiplier to Return on Equity. The higher the ratio of NPM, TATO, and EM will make the ROE value higher. The higher the TATO ratio, the more efficient the asset user and the speed of the refund in cash. TATO is the ratio between sales with assets to measure the efficiency of asset use as a whole. If the TATO ratio weakens then indicate if the company does not operate in a volume that is adequate for its investment capacity or the company is less able to manage its assets. Company assets become less effective and efficient in generating sales. However, when TATO is high, then this means that the selling rate is also high and resulted in the company's profits come high. This hypothesis supports previous research.

H7: Total Asset Turnover positively affects Return on Equity

8. Asset Turnover to FirmValue

Total asset turnover (TATO) is one of the activity ratios that measure efficiency and effectiveness in managing assets owned by the company through the level of sales. (I Made Sudana, 2011). High asset turnover indicates that the company is able to provide flexibility for the company in its operations. A high TATO will provide a good signal to the market because the company is able to manage its assets well so that it can generate a high level of sales. Signalling theory states that a good quality company will send a good signal to the market. Investors will look at it so well that the financiers are willing to buy a stock of the company. With high TATO, it will give more value to the company. The company is considered able to manage with good assets owned.

H8: Total Asset Turnover has a positive effect on Price to Book Value

9. Profitability to Firm Value

Profitability will be considered as a barometer of success of a company in applying the decisions that have been taken. So, if the performance of a company is shown by a good profitability ratio, which is indicated by ROE, then the investor will respond by investing in the company. This may push the company's stock price up, and as the company's stock price increases, the value of the firm also rises. Profitability shows that a company's ability to generate profit by utilizing its total equity. The limitation of firm capacity depends on the amount of capital intensity. Meanwhile, competition restrictions are influenced by the form of competition within an industry. A company that has a great ability to generate profits through its total equity will have substantial cash in the coming year, it will
keep the company in place to put its funds on profitable investment outlooks in the future. The influence of ROE on company value is supported by signaling theory, where the positive signal shown by the company through high profitability level will give value to the company, where the profitable company will deliberately give the signal to the market in the form of information so that the signal is effective, And well perceived, and not easily imitated by poor quality companies.

H9: Return on Equity has a positive effect on Price to Book Value

10. Profitability mediates the Capital Structure to Firm Value

The Company has a choice in funding its business or investment activity. First, from retained earnings which is funded internally or secondly from the use of debt obtained from the creditor. When a company uses external funding or debt, the company must actually take into account the costs and risks contained in the debt. The Company believes that the investments carried out will bring substantial profits to the company and investors. So, by increasing the debt for investment purposes the company will generate profits that much in the future. However, the higher the debt the higher the interest cost. Interest expense will reduce the company's profit rate. Not just the burden of interest, but the company has various risks. These investments do not generate profits when the company is wrong to take policy or when the economy is sluggish. If the company can not make a profit, then investors are reluctant to invest in the company.

H10: Return on Equity Ratio mediates the influence of Debt to Equity Ratio on Price to Book Value

11. Profitability mediates Sales Growth on Firm Value

A positive sales growth indicates that the company has increased its sales from the previous year. This is good news because the company is able to distribute its products well to consumers. The higher the sales of the company, it means the profits obtained by the company also high. This is in accordance with the calculation of profit / loss company. High sales, high profit. This can be a signal to investors that the company has good quality because it can generate profits for investors. Investors will flock to buy stocks because a company with high sales is a company that has good quality, so it will benefit investors. The influence of Sales Growth on Price to Book Value shows a positive influence. The influence of Sales Growth on Return on Equity also shows a positive relationship.

H11: Return on Equity mediates the effect of Sales Growth on Price to Book Value

12. Profitability mediates Liquidity against Firm Value

High liquidity means the company is increasingly liquid in paying short-term debt. The higher the CR, the more funds are idle, the funds can be used for investment companies so as to generate profits for the company. Thus, the high CR value, it will increase the profitability of the company. The higher CR company, will increase the company's profit. Things like this will give a good signal for the financiers. The Company is able to pay its short-term liabilities so
that the company avoids the risk of default. This information will be captured both by investors so that stock prices in the market rise because the company is considered to have good quality in managing the company's liquidity and generate profits. The effect of Current Ratio (CR) on Price to Book Value (PBV) shows a positive influence. The effect of Current Ratio on Return on Equity also shows a positive influence. 

H12: Return on Equity mediates the influence of the Current Ratio on Price to Book Value

13. Profitability mediates Asset Turnover to Firm Value

In the DuPont method, the high value of TATO will increase the value of ROE. A large asset turnover will make the company gain an increased profit as the company's sales rate goes up by using its assets. That is, companies are more effective and efficient on the use of assets to sell products. The high turnover of assets, the greater the profit earned. This will be interesting information for investors. Because the company is considered capable in managing its assets and make efficiency in asset management resulting in high sales. Investors will be interested in buying company shares because the company is considered capable of managing the company well and can generate high profits. Total Asset Turnover (TATO) is the ratio of activity that shows the level of net sales to total assets. High TATO can increase the value of the company, with ROE as a mediation showing if a company with a large profit rate can manage the company effectively and efficiently.

H13: Return On Equity mediates the effect of Total Asset Turnover on Price to Book Value

METHODOLOGY OF THE STUDY

The object of this thesis using a manufacturing company has been listing on the Indonesia Stock Exchange (BEI) in 2010-2015. The reason for using the manufacturing industry is manufacturing companies is the largest sector with the largest number of companies that will be expected to represent the study population. Data source of each factor used Total Asset Turn Over (TATO), Sales Growth (SG), Current Ratio (CR), Debt to Equity Ratio (DER), Return on Equity (ROE), and Price to Book Value PBV obtained through Indonesian Capital Market Directory (ICMD) in 2011-2016. Population in this research, that is manufacturing company has been listing in Indonesia Stock Exchange (BEI) period 2010-2015 amount 173. The sample in this research use purposive sampling method, the criteria as follows: manufacturing company which have go public in BEI and never delisting from IDX during the study period (2010-2015 period).
Table 2  
Operational Definition of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition of variable</th>
<th>Measurement</th>
<th>Scale/Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price to Book Value</td>
<td>Comparison of share price (earnings per share) with the book value (equity per share) of the company</td>
<td>Share price</td>
<td>Rasio/I Made Sudana (2011)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Book value</td>
<td></td>
</tr>
<tr>
<td>Debt to Equity Ratio</td>
<td>Comparison of total debt (total debt) with total equity (total equity) of the company</td>
<td>Debt Equity</td>
<td>Rasio/Agus Sabardi (1994)</td>
</tr>
<tr>
<td>Sales Growth</td>
<td>Sales next year minus sales of the previous year, then divided by the previous year's sales</td>
<td>Sales t-1 – Sales t Sales t-1</td>
<td>Rasio/I Made Sudana (2011)</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>Comparison of current assets with current liabilities of the company</td>
<td>Current assets</td>
<td>Rasio/Brigham &amp; Weston (1988)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Current liabilities</td>
<td></td>
</tr>
<tr>
<td>Total Asset Turnover</td>
<td>Comparison between sales (sales) company with total assets (total assets) owned by the company</td>
<td>Sales Total Assets</td>
<td>Rasio/I Made Sudana (2011)</td>
</tr>
<tr>
<td>Return on Equity</td>
<td>Comparison between profit after tax (earnings after tax) with total equity (total equity) of the company</td>
<td>Earning after tax Equity</td>
<td>Rasio/I Made Sudana (2011)</td>
</tr>
</tbody>
</table>

Method Of Analysis

Data analysis method used in this research is quantitative analysis. The analysis was conducted on the reports of the companies studied, then analyzed by statistical methods. Before multiple regression analysis, regression model should avoid classical assumption test in the form of normality test that is test whether the data used in regression model is normal distribution or not. Multicollinearity test aims to test whether the regression model found a correlation between independent variables. The autocorrelation test aims to test whether in the linear regression model there is a correlation between the confounding error in period t and the intruder error in period t-1. Finally, heteroscedasticity tests test whether in the regression model the variance inequality of one residual observation to another observation occurs. (Imam Ghozali, 2011). The regression equation used in this research is as follows:

\[ ROE = \alpha + \beta_1 \text{DER} + \beta_2 \text{SG} + \beta_3 \text{CR} + \beta_4 \text{TATO} + \epsilon_1 \]
\[ \text{PBV} = \alpha + \beta_5 \text{DER} + \beta_6 \text{SG} + \beta_7 \text{CR} + \beta_8 \text{TATO} + \beta_9 \text{ROE} + \epsilon_2 \]

\[ \text{ROE} = \text{Return on Equity} \]
\[ \text{DER} = \text{Debt to Equity Ratio} \]
\[ \text{SG} = \text{Sales Growth} \]
\[ \text{CR} = \text{Current Ratio} \]
\[ \text{TATO} = \text{Total Asset Turnover} \]
\[ \text{PBV} = \text{Price to Book Value} \]
\[ \alpha = \text{Constant} \]
\[ \beta = \text{coefficient of regression} \]
Sobel test is done by testing the indirect effect of independent variable (X) to the dependent variable (Y) through the intervening variable (M). The indirect effect of X to Y through M is calculated by multiplying the path X $\rightarrow$ M (a) by the path M $\rightarrow$ Y (b) or ab. Thus the coefficient ab = (c - c'), where c is the effect of X against Y without control M, while c’ is the coefficient of influence X against Y after controlling M. (Ghozali, 2011).

RESULT

In this study have been free from the test of classical assumptions and distributed normally. So the research can be continued by testing the coefficient of determination, F test, t test, and test sobel.

**Determination Coefficient**

Table 3 below states the coefficient of determination of the first equation of 0.26 or 26%. This means that 26% of ROE variables can be explained by the four independent variables, namely total asset turnover, sales growth, current ratio, and debt to equity ratio. Meanwhile, 74% are influenced by other factors of the regression model. Meanwhile, the coefficient of determination of the equation is 0.445 or 44.5%. This means that 44.5% of PBV is influenced by independent factors, namely total asset turnover, sales growth, current ratio, debt to equity ratio, and return on equity. Meanwhile, 55.5% is influenced by other factors.

<table>
<thead>
<tr>
<th>Coefficient Determination</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²</td>
<td>0.278</td>
<td>0.461</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.26</td>
<td>0.445</td>
</tr>
<tr>
<td>Standard error of the estimate</td>
<td>0.94968</td>
<td>0.45747</td>
</tr>
</tbody>
</table>

**Statistical Test F**

F test is functioned to know the influence of factors tied simultaneously or together to the dependent factor. Table 4 shows that the F value is 15.874 with a significance value of 0.000. Due to F arithmetic (15.874) > F table (1.96) and significance value < from 0.05. Then H0 is rejected and HA is proved to be, this first model is feasible to be researched or independent variables (TATO, SG, CR, and DER) together influence the ROE variable. The equation of the two statistical results in the F test can be seen in Table 4 showing the value of F of 28,059 and the significance level of 0.000. F-count (28,059) > F-table (1.96). Level of significance < from 0.05. Then H0 is rejected means HA is proved so that this first equation model can be researched or independent variables (TATO, SG, CR, DER, and ROE) together influence the PBV variable.
Table 4

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F</strong></td>
<td>15.874</td>
<td>28.059</td>
</tr>
<tr>
<td><strong>Sig</strong></td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Statistical Test t**

Table 5 shows that if the value of beta standarized coefficient (0.347) and unstandardized coefficients (3.127) which has the greatest value is the sales growth (SG) variable, then sales growth is considered the most influential on ROE compared to other independent variables. So the form of the equation is as follows:

\[
ROE = 4.361 + 3.127SG - 2.316DER + 1.833TATO + 1.138CR
\]

Hypothesis 1 proves that the debt to equity ratio (DER) has a negative direction on the return on equity variables. SPSS calculation results obtained significance value, is 0.000. Means smaller than 0.01 significance. On the one hand t-count (3.683) > of the t-table (1.961). According to this data, H1 proved to have a significant influence between debt to equity ratio factor to ROE. Hypothesis 3 proves that sales growth (SG) has a positive direction on return on equity (ROE). SPSS results, can be obtained significance value is 0.000. This means less than 0.01 significance. On the other hand t-count (5.047) > from t-table (1.961). This data, meaning H2 has been proven to have influence between sales growth variable to ROE factor. Hypothesis 5 proves that the current ratio (CR) has a positive direction on the return on equity variable. The SPSS result is a value of significance of 0.437. The value of significance is greater than 0.05 or 0.10. Calculation proves t-count (0.779) < from t-table, then H3 is not proven so there is no significant influence between variable CR to ROE. Hypothesis 7 proves that total asset turnover (TATO) has a positive direction to return on equity. The results of this calculation obtained a significance value of 0.000. Means smaller than the significance value of 0.01. On the other hand t-count (3.777) > from t-table (1.961). Based on the results of SPSS, so H4 has been proven so that there is a significant influence between TATO variables on ROE.

Table 5 shows that if the value of beta standarized coefficient (0.552) and unstandardized coefficients (0.307) which has the greatest value is the return on equity (ROE), then return on equity is considered the most influential on PBV compared with other independent variables. The form of the equation is:

\[
PBV = 0.289 + 1.169CR + 1.132TATO + 0.614ROE - 0.418DER - 0.055SG
\]

Hypothesis 2 proves if the debt to equity ratio has a negative direction on price to book value. From the data above can be concluded if the value of significance is 0.187. This means greater than the significance level of 0.05 or 0.10 so that H5 is not proven, so there is no significant influence between the factor of debt to equity ratio on price to book value. Hypothesis 4 proves if sales growth (SG) obtained the result of a positive direction on the variable price to book value (PBV). Results from the above data, namely the significance value of 0.864. Therefore, this means greater than its significance, that is 0.05 or 0.10. The above data concluded that H6 is not proven and there is no significant direction of
sales growth factor to variable price to book value. Hypothesis 6 proves if current ratio (CR) has a positive direction toward price to book value (PBV). So the result of this calculation got the result of significance value that is 0.053. The significance value is greater than 0.05, so it means not significant at the 5% level, but the significant data is 10%. Thus, H7 proved to be, there is a significant direction between current ratio factor to price to book value. Hypothesis 8 proves if total asset turnover (TATO) has a positive direction toward price to book value (PBV). The result of this calculation is the significance value of 0.127. So it can be concluded that means the data is not significant at the level of 5% or 10%. Based on these findings, H8 is not proven so that there is no significant influence among the TATO variables on PBV. Hypothesis 9 proves if return on equity (ROE) has a positive direction on price to book value (PBV). The results of this calculation gained significance of 0.000. So this means less than its significance value, that is 0.05 or 0.10, then H9 is proven and there is a significant direction between return on equity variable to price to book value.

### Table 5
**t Test**

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B</strong></td>
<td><strong>T</strong></td>
<td><strong>Sig</strong></td>
</tr>
<tr>
<td>Constant</td>
<td>4.361</td>
<td>11.963</td>
</tr>
<tr>
<td>DER</td>
<td>-2.316</td>
<td>-3.683</td>
</tr>
<tr>
<td>SG</td>
<td>3.127</td>
<td>5.047</td>
</tr>
<tr>
<td>CR</td>
<td>1.138</td>
<td>0.779</td>
</tr>
<tr>
<td>TATO</td>
<td>1.833</td>
<td>3.777</td>
</tr>
<tr>
<td>ROE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Sobel Test
ROE in this study is used to be a mediation variable, which we can know how strong the ROE variable mediates between independent factors to dependent factors. And in this research use sobel test. The value of t arithmetic obtained from the results p2p3 divided by Sp2p3 results. If t arithmetic greater than t-table through the significance level of 0.05, that is the magnitude of 1.96, so concluded, the coefficient can be between and there is significant meaning ROE can be an intermediate variable. By using the test sobel, then obtained the following results:

### Table 7
**Sobel Test**

<table>
<thead>
<tr>
<th>Variabel</th>
<th>p2p3</th>
<th>Sp2p3</th>
<th>t hitung</th>
</tr>
</thead>
<tbody>
<tr>
<td>DER</td>
<td>0.355506</td>
<td>0.338</td>
<td>1.0518</td>
</tr>
<tr>
<td>SG</td>
<td>0.959989</td>
<td>0.22</td>
<td>4.3636</td>
</tr>
<tr>
<td>CR</td>
<td>0.03991</td>
<td>0.04052</td>
<td>0.9849</td>
</tr>
<tr>
<td>TATO</td>
<td>0.186042</td>
<td>0.054</td>
<td>3.4452</td>
</tr>
</tbody>
</table>

From the table above it can be concluded that ROE can mediate SG and TATO to price PBV.
Discussion

Hypothesis 1 proves if the DER factor has a negative direction on ROE. The result of this calculation has a significant value, that is 0.000. Smaller than the significance value of 0.05. The result of this data, it is concluded that H1 is accepted, so there is negative direction and significant value of DER variable to ROE. The higher the company's debt, it can lower profitability. High debt can have high interest costs. Such costs can reduce the level of profitability. Thus, the higher the company's debt, the lower the profit earned. Hypothesis 2 proves that DER has a negative direction toward PBV. From the statistical results obtained significance of 0.187. The result of this research is smaller than its significance, that is, 0.05. According to this data, H2 is rejected, so there is a negative and insignificant direction between the TATO factor to the PBV. Hypothesis 3 verifies if SG has a positive direction on ROE. The result of the above data is there is significance value, that is 0.000. The results of this study is smaller than the significance value of 0.05. The findings of this data, concluded that H3 is accepted, and the positive and significant influence on the SG factor on ROE. The higher the level of company sales, it will also increase the profitability of the company. In accordance with the company's profit / loss calculation, sales are at the top of the calculation, subtracted by various costs, including taxes to generate net income. The greater the level of company sales means the company is able to convert the product into money from the sales activities of the product. In addition, the company is also able to generate big profits because the greater the level of sales, the greater the company's profits. (Brigham, 1988). Hypothesis 4 proves that SG has a positive influence on PBV. The results of statistical data obtained significance value of 0.864 and has a negative direction. The results of this study is greater than the significance of 0.05. This data can be concluded that, then H4 is rejected, so the negative direction is not significant between the SG variable to PBV.

Hypothesis 5 proves if CR has a positive direction on ROE. From statistical data obtained significance that is 0.437. This result is bigger than its significance, that is 0.05. In accordance with the above data, so H5 is rejected, and there is a positive direction and no effect or not significant between variables CR to ROE. Hypothesis 6 states that CR has a positive effect on PBV. The calculation results obtained significance value of 0.053 and has a positive direction. The results of this study is greater than the significance of 0.05, but smaller than the significance of 0.10. Based on this data, H6 is received at a significance level of 0.10 or 10%, so there is a positive and significant direction between the CR factors for PBV. The higher the CR number, then it can minimize the risk of corporate default in the short term. According to signalling theory, companies that give good signals to the market, will be well received by investors and interested in buying shares of the company. If the company can pay its obligations on time, it will be better so avoid risk. Investors will choose stocks that avoid or do not have the risk of default.

Hypothesis 7 proves if TATO has a positive direction on ROE. According to the data obtained the significance is 0.000. The result of this research is smaller than its significance, that is 0.05. According to this data, H7 is accepted, and it can
be concluded that there is a positive and significant direction between TATO variable to ROE. The high value of TATO, the higher the value of the company's ROE. This is in accordance with the Dupont Method which is a method that combines Net Profit Margin, Total Asset Turnover, and Equity Multiplier to Return on Equity. The higher the ratio of NPM, TATO, and EM will make the ROE value higher. The high ratio of TATO means the more efficient the users of the assets and the faster the refund. TATO itself is the ratio between sales with assets that measure the efficiency of overall asset usage. When the TATO ratio is low then it indicates that the company is not operating at capacity that is adequate for its investment capacity or the company is less able to manage its assets. Company assets become less effective and efficient in generating sales. However, when TATO is high, then this means that the selling rate is also high and leads to the profit the company gets high.

Hypothesis 8 shows the research if TATO has a positive influence on PBV. The calculation results obtained significance value of 0.127 and has a positive direction. The results of this study is greater than the significance of 0.05. According to the results of the study, H8 is rejected, and there is a positive and insignificant direction between the TATO factor to the PBV.

Hypothesis 9 proves that profitability factor has positive direction toward PBV. The result of the calculation, namely the significance value of 0.000 and has a positive direction. The results of this study is smaller than the significance of 0.05. From the data that, H-9 can be proved to be a positive direction and the result is significant between ROE factor to PBV. Hypothesis 10 states that ROE can mediate the effect of DER on PBV. If seen from the calculation in Table 5 the value of t arithmetic is 1.0518 <of t-table or (1.96). It can be concluded that H-10 is unacceptable or rejected, ie that ROE is not capable of mediating between DER factors to PBV. Hypothesis 11 states that ROE can mediate the effect of SG on PBV. If seen from the calculation in Table 5 the value of t-count is 4.3636> from t-table or (1.96). It can be concluded that H-11 can be proven, that ROE is able to mediate the influence between SG variables on PBV. High sales, high profit, and vice versa. This is what can be used as a signal for investors, when companies have a good profitability can generate profits for investors. Investors will buy companies that can generate profits and have good prospects forwards. Hypothesis 12 states that ROE can mediate the effect of CR on PBV. If seen from the calculation in Table 5 the value of t arithmetic is 0.9849 <of t-table or (1.96). It can be concluded that H-12 is not accepted / rejected, ie that ROE is not able to mediate between CR factors on PBV.

Hypothesis 13 states that ROE can mediate the influence of TATO on PBV. When viewed from the calculation in Table 5 the magnitude of t-count is 3.4452 is greater than the value of t-table (1.96). It can be concluded that Hypothesis 13 is acceptable, ie that ROE is able to mediate the influence between TATO variables on PBV. The higher the asset turnover of the company, the higher the profit earned. This will be interesting information for investors. Because the company is considered capable in managing its assets and make efficiency in asset management resulting in high sales. Investors will be interested in buying company shares because the company is considered capable of
managing the company well and can generate high profits. High TATO can increase the value of the company, with ROE as a mediation showing that companies with high earnings can manage the company effectively and efficiently.

Conclusions and recommendations

Conclusion

Thirteen hypotheses have been proposed in this study, with the results of 7 (seven) hypotheses accepted and the remaining 6 (six) hypotheses are rejected.

1. The results of this study show hypothesis 1 shows in the partial test of the DER has a negative direction and the results are significant at the 5% level of ROE so, it can be concluded that hypothesis 1 has been accepted.
2. The results of this study indicate that hypothesis 2 shows that in the partial test the DER factor has a negative direction and the result is not significant or no effect on the PBV so, it can be concluded that hypothesis 2 is rejected.
3. The results of this study indicate that hypothesis 3 proves that the partial test of the SG factor has a positive and significant direction at the 5% level of ROE so, it can be deduced that the second hypothesis can be proved.
4. The results of this study indicate that hypothesis 4 shows that the partial test of the SG factor has a negative direction and the result is not significant or no effect on the PBV so it can be concluded that hypothesis 4 is rejected.
5. The results of this study indicate that hypothesis 5 shows that the partial test CR factor has a positive direction and the results are not significant or no effect on ROE so it can be concluded that hypothesis 5 is rejected.
6. The results of this study indicate that hypothesis 6 shows that in the CR partial test has a positive direction and the result is significant at 10% level against PBV can be concluded, that is hypothesis 6 is acceptable.
7. The results of this study indicate that hypothesis 7 shows that the partial test of the TATO factor has a positive direction and the result is significant at the 5% level of ROE so it can be concluded that hypothesis 7 is accepted.
8. The results of this study indicate that the hypothesis 8 shows that in the TATO partial test has a positive direction and insignificant results on the PBV so, can be drawn conclusion, that is, hypothesis 8 is not proven.
9. The results of this study show that hypothesis 9 shows that in the partial test ROE has a positive and significant direction at the level of 5% of the PBV so, it can be concluded that the 9th hypothesis proved.
10. The results of this study indicate that hypothesis 10 shows the absence of mediation ROE to the relationship between DER variables to the PBV so, it can be concluded hypothesis 10 has been rejected.
11. The results of this study indicate that hypothesis 11 indicates the presence of ROE mediation to the relationship between the SG variables to the PBV so, it can be concluded hypothesis 11 has been accepted.
12. The results of this study indicate that hypothesis 12 shows the absence of mediation ROE to the relationship between CR variables to PBV so, it can be concluded hypothesis 12 rejected.
13. The results of this study indicate that hypothesis 13 shows there is a mediation of ROE to the relationship between TATO variables to the PBV so, it is concluded that hypothesis 13 is acceptable.

**Suggestion**

The research of the authors still have various shortcomings, therefore the next research should do research in the future should add other factors that could affect profitability (ROE) and corporate value (PBV) as well as can increase the value of coefficient of determination (value adjusted $R^2$). Such as the ratio of firm size (size), equity multiplier, etc. Future research should not only focus on manufacturing firms alone. Can use the object of research other than the manufacturing company. For example, in a real estate company, transportation services, hotels, etc.

**Daftar Pustaka**


