ANALYSIS OF THE EFFECT OF WCTO, FATO AND TA ON COMPANY VALUE WITH ROE AS INTERVENING VARIABLES

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Abstract: The aims of this research is to examine the direct effect and indirect effect of Working Capital Turnover, Fix Asset Turnover and Total Asset on Value of Firm with Return On Equity as intervening variable. This sample of research is manufacturing companies that listed in Indonesia Stock Exchange (IDX) for the period 2017-2019. Sampling method in this research are using purposive sampling. There are 109 companies selected as sample. The analysis data used is Partial Least Square Analysis. The result of direct effect showed that WCTO has significant positive effect on Value of Firm. WCTO has a significant positive effect on ROE. FATO has a significant positive effect on ROE. TA has a significant positive effect on Firm Value. ROE has a significant positive effect on Value of Firm. The result of indirect effect showed that WCTO, FATO and TA influence Value of Firm through ROE. Besides, it was found that the greatest of indirect effect showed that FATO influence Firm Value through ROE.

Keywords: Working Capital Turnover, Fix Asset Turnover; Total Asset; Firm Value

1. Introduction

In order to manufacture products and/or services for sale, a corporation is an entity that integrates and organizes multiple resources. The main objectives of the establishment of the company are to obtain profitability, maximize profit or wealth, and maximize company value(Vijayakumar, 2012). The main objective of the company is to maximize firm value (value of the firm). One of the factors that influence the level of firm value is the financial performance of a company.

Companies with good financial performance will generate maximum profits so that they can provide a high return on investment. Thus, the increase in company value is indicated by the high share price of the company(Gill et al., 2010). Good or bad company performance can be seen from how much profitability the company has achieved. Profitability can be used as a measure of how effective management performance is seen from the benefits obtained compared to the sales and investment results of the company.

Return On Equity or often called Own Capital Rentability which is used to measure the company's ability to generate profits by utilizing the company's share capital. The high interest of investors to invest in the company and with a high ROE will increase the stock price. Profitability and firm value are influenced by several factors. Total Asset Turnover is a ratio to measure the effectiveness of the use of all assets in generating sales(Boisjoly et al., 2020).

The bigger the TATO, the more efficient the use of all company assets in supporting sales activities. Working Capital Turnover shows the working capital turnover when the company invests cash in several components of the working capital needed until it returns to cash(Li et al., 2014). The Fixed Asset Turnover Ratio is an activity ratio (efficiency ratio) which measures how...
effectively and efficiently a business uses its assets or fixed assets to produce revenue. The Fixed Asset Turnover Ratio is an activity ratio.

2. Literature Review

The value of the company

The main objective of a company is to maximize profit or wealth, especially for its shareholders, in the form of efforts to increase or maximize the market value of the share price of the company concerned. This objective is broad, because in practice this goal is always influenced by decisions in the financial sector.

ROE

Return On Equity (ROE) or often called Own Capital Rentability which is used to measure the company's ability to generate profits by utilizing the company's share capital. The high interest of investors to invest in the company and with a high ROE will increase the stock price.

WCTO

Working capital turnover is a ratio to measure or assess the effectiveness of the company's working capital during a certain period. Furthermore, according to Riyanto Working Capital Turnover (WCTO) is an activity ratio that measures the relationship between sales and the average amount of working capital. Working capital turnover is the operating activity of a cash invested in the working capital component until it returns to cash. The shorter the period means the faster the turnover (turnover) or the higher the turnover rate.

FATO

The Fixed Asset Turnover Ratio is an activity ratio (efficiency ratio) which measures how effectively and efficiently a business uses its assets or fixed assets to produce revenue. The Fixed Asset Turnover Ratio is an activity ratio. This ratio reflects the efficiency of fixed assets in revenue production. A firm with a high ratio of fixed asset turnover or fixed assets indicates that the company is capable.

Total Assets

Assets or assets are economic resources that are expected to provide business benefits in the future. Assets are included in the balance sheet with a normal debit balance. Assets are all rights that can be used in the company's operations. One of the things that can be included in the asset column is a building or building. So if a company owns a building worth one billion rupiah, then the assets calculated are one billion rupiah. Apart from buildings, what can be counted as assets can include: trademarks, technology patents, cash, cars, etc.

3. Research Method

Population and Sample

The population in this sample comprised 138 manufacturing firms that were listed on the Indonesia Stock Exchange during the 2019 period. The survey for this analysis was 109 businesses. The sampling procedure was carried out using the process of purposeful sampling. The criteria used in this study are as follows:


b. The company was continuously listed on the IDX during 2017-2019.

c. The company always has a positive ROE value during the year of observation.

d. The company has a positive WCTO value during the year of observation.

e. The company has complete data needed in the research.
Method of Analysis

This study uses a variance based or component based approach model with the Partial Least Square (PLS) method. Testing the results of the structural equation modeling with the PLS approach is carried out by looking at the results of the measurement model (outer model) and the results of the structural model (inner model) of the model under study. The following is a model obtained by the Partial Least Square (PLS) method:

![Figure 1. Structural Model Measurement](image_url)

Discriminant Validity

Discriminant validity can be done by comparing the AVE root value of each construct with the correlation between constructs. Discriminant validity is comparing the square root of average extracted (AVE) value of each construct with the correlation between constructs and other constructs in the model. If the square root value of AVE is greater than the correlation value between constructs and other constructs, it is said to have good discriminant validity. The results of discriminant validity testing are presented in the following table:
Table 1. Discriminant Validity Test Results

<table>
<thead>
<tr>
<th>Construct</th>
<th>FATO</th>
<th>NP</th>
<th>ROE</th>
<th>TA</th>
<th>WCTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>FATO</td>
<td>1,000</td>
<td>0.680</td>
<td>0.650</td>
<td>0.331</td>
<td>0.406</td>
</tr>
<tr>
<td>NP</td>
<td></td>
<td>1,000</td>
<td>0.918</td>
<td>0.506</td>
<td>0.619</td>
</tr>
<tr>
<td>ROE</td>
<td></td>
<td></td>
<td>1,000</td>
<td>0.476</td>
<td>0.558</td>
</tr>
<tr>
<td>TA</td>
<td></td>
<td></td>
<td></td>
<td>0.179</td>
<td>1.000</td>
</tr>
<tr>
<td>WCTO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.000</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

From the table above it can be concluded that all constructs are different from one another. The diagonal shows the square root of the AVE value of each construct and the construct correlation value is higher than the other correlation values between the constructs.

Measurement of the Structural Model (Inner Model)

Inner Model is a test on the structural model which is conducted to test the relationship between latent constructs. In this study, the inner model testing was carried out by showing the R2 value of the endogenous latent construct. Furthermore, the structural model in the inner model is tested using the predictive-relevance value (Q2).

Coefficient of Determination (R2 Test)

The value of R2 can be used to measure the degree of variation in changes in the independent variable on the dependent variable. The higher the R2 value means the better the predictive model of the proposed research model. The following are the results of R2 obtained using SmartPLS 3.0:

Table 2. The value of the coefficient of determination (R2 test)

<table>
<thead>
<tr>
<th>Construct</th>
<th>R2 value</th>
</tr>
</thead>
<tbody>
<tr>
<td>The value of the company</td>
<td>0.877</td>
</tr>
<tr>
<td>ROE</td>
<td>0.594</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on the above, the coefficient of determination (R-Square) shows that the Firm Value is influenced by WCTO, FATO, TA, and ROE by 87.7%, the remaining 12.3% is influenced by other factors not in the model. Then the R-Square ROE value of 59.4% means that ROE is a fairly strong mediating variable because it is influenced by exogenous variables, namely WCTO, FATO, and TA.

Predictive - Relevance (Q2)

A model is considered to have a relevant predictive value if the Q-square value is more than 0 (> 0). Predictive value - relevance is obtained by the formula:

\[ Q2 = 1 - (1 - R_{12})(1 - R_{22}) ... (1 - R_{n2}) \]

\[ Q2 = 1 - (1 - 0.877)(1 - 0.594) \]

\[ Q2 = 0.9501 \]

The result of the calculation of Q-Square in this study is 0.9501. This means that 95.01% of the exogenous variables, namely WCTO, FATO, and TA in this study are appropriate to explain the endogenous variable, namely Firm Value. Thus it can be concluded that the model in this study has a relevant predictive value.
4. Research Results And Discussion

Results of Hypothesis Testing Analysis Direct Effect

Hypothesis testing in PLS is carried out by using the bootstrapping method of the sample. The results of the calculation of the entire model using SmartPLS 3.0 are as follows:

![Figure 2. Hypothesis Testing](image)

**The Effect of WCTO on Firm Value**

Hypothesis 1: There is a significant influence between WCTO on Firm Value.

<table>
<thead>
<tr>
<th>Construct Relations</th>
<th>Path Coefficient</th>
<th>T Statistics</th>
<th>T-table</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCTO -&gt; Company Value</td>
<td>0.160</td>
<td>2.449</td>
<td>1.96</td>
<td>0.015</td>
</tr>
</tbody>
</table>

Based on the table above, the t-statistic value for the WCTO variable on Firm Value is obtained at 2.449. This value is greater than 1.96, so it can be concluded that there is a significant positive effect of WCTO on Firm Value. Based on testing the first hypothesis which states that WCTO has a positive effect on Firm Value, it can be said that an increase in WCTO value can increase Firm Value. The increase in WCTO value shows that when companies are more efficient in using working capital, then Firm Value will increase. The increase in company profits will have an impact on the increase in corporate value. The findings of this analysis are in line with the studies done by (Hamzah et al., 2020) and (Vahid et al., 2012) which states that WCTO has a significant positive effect on Firm Value.
Effect of WCTO on ROE
Hypothesis 2: There is a significant effect between WCTO on ROE.

Table 4. WCTO t test against ROE

<table>
<thead>
<tr>
<th>Construct Relations</th>
<th>Path Coefficient</th>
<th>T Statistics</th>
<th>T-table</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCTO -&gt; ROE</td>
<td>0.338</td>
<td>5.383</td>
<td>1.96</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on the table above, the t-statistic value for the WCTO variable on ROE is 5.383. This value is greater than 1.96, so it can be concluded that there is a significant positive effect between WCTO on ROE. Based on testing the second hypothesis which states that WCTO has a positive effect on Firm Value, it can be said that an increase in WCTO value can increase Firm Value. The increase in the value of WCTO shows that when companies are more efficient in using working capital, the ROE will increase. The increase in company profits will have an impact on increasing ROE. The findings of this analysis are in line with the studies done by (Jessica et al., 2019) and (Kusjono & Rohman, 2020) which states that WCTO has a significant positive effect on ROE.

Effect of FATO on ROE
Hypothesis 3: There is a significant effect between FATO and ROE.

Table 5. FATO t test against ROE

<table>
<thead>
<tr>
<th>Construct Relations</th>
<th>Path Coefficient</th>
<th>T Statistics</th>
<th>T-table</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FATO -&gt; ROE</td>
<td>0.421</td>
<td>6.446</td>
<td>1.96</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on the table above, the t-statistic value for the FATO variable on ROE is obtained at 6.446. This value is greater than 1.96, so it can be concluded that there is a significant positive effect between FATO on ROE. Based on testing the third hypothesis which states that FATO has a positive effect on ROE, it can be said that an increase in the value of FATO can increase ROE. The increase in the value of FATO shows that when the company is more efficient in using fixed assets, the ROE will increase. The increase in company profits will have an impact on increasing ROE. The findings of this analysis are in line with the studies done by (Sari & Pratiwi, 2020) which states that FATO has a significant positive effect on ROE.

The effect of TA on ROE
Hypothesis 4: There is a significant effect between TA on ROE.

Table 6. TA t test against ROE

<table>
<thead>
<tr>
<th>Construct Relations</th>
<th>Path Coefficient</th>
<th>T Statistics</th>
<th>T-table</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA -&gt; ROE</td>
<td>0.277</td>
<td>3.743</td>
<td>1.96</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on the table above, the t-statistic value for the TA variable on ROE is 3.743. This value is greater than 1.96, so it can be concluded that there is a significant positive effect between TA on ROE. Based on testing the fourth hypothesis which states that TA has a positive
The effect on ROE, it can be said that an increase in the value of TA can increase ROE. The increase in the value of TA shows that when the company is more efficient in using all assets, the ROE will increase. The increase in company profits will have an impact on increasing ROE. The findings of this analysis are in line with the studies done by (Ambari et al., 2020) and (Angelina et al., 2020) which states that TA has a significant positive effect on ROE.

The Effect of TA on Firm Value
Hypothesis 5: There is a significant influence between TA on Firm Value.

Table 7. TA t test on Firm Value

<table>
<thead>
<tr>
<th>Construct Relations</th>
<th>Path Coefficient</th>
<th>T Statistics</th>
<th>T-table</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA -&gt; Company Value</td>
<td>0.104</td>
<td>2.22</td>
<td>1.96</td>
<td>0.026</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on the table above, the t-statistic value for the TA variable on the Firm Value is 2.228. This value is greater than 1.96, so it can be concluded that there is a significant positive effect between TA on Firm Value. Based on testing the fifth hypothesis which states that TA has a positive effect on Firm Value, it can be said that an increase in TA value can increase Firm Value. The increase in TA value shows that when the company is more efficient in using all assets, the Firm Value will increase. The increase in company profits will have an impact on the increase in Company Value. The findings of this analysis are in line with the studies done by (Gunawan, 2019) which states that TA has a significant positive effect on Firm Value.

The Effect of ROE on Firm Value
Hypothesis 6: There is a significant influence between ROE on Firm Value.

Table 8. ROE t test on Firm Value

<table>
<thead>
<tr>
<th>Construct Relations</th>
<th>Path Coefficient</th>
<th>T Statistics</th>
<th>T-table</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE -&gt; Company Value</td>
<td>0.695</td>
<td>8.448</td>
<td>1.96</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on the table above, the t-statistic value for the ROE variable on the firm value is 8.448. This value is greater than 1.96, so it can be concluded that there is a significant positive effect between ROE on Firm Value. Based on testing the sixth hypothesis which states that ROE has a positive effect on Firm Value, it can be said that an increase in ROE value can increase Firm Value. The increase in the value of ROE shows that when the company is more efficient in using capital to increase profits, the Firm Value will increase. The increase in company profits will have an impact on increasing the value of the company. The findings of this analysis are in line with the studies done by (Langju, 2016) and (Naryoto, 2013) which states that ROE has a significant positive effect on Firm Value.
5. Results And Discussion

Results of Hypothesis Testing Analysis of Indirect Effect

Testing the indirect effect was carried out using the procedure developed by Sobel. In this study, the sobel-test value was obtained from calculations using the Calculation for The Sobel test. The Sobel Test is used to further ensure the direct and indirect relationship between the independent variable and the dependent variable through the intervening variable.

The Effect of WCTO on Firm Value through ROE

Hypothesis 7: WCTO has a positive effect on Firm Value through ROE.

<table>
<thead>
<tr>
<th>Construct Relations</th>
<th>Sobel Test</th>
<th>T-table</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCTO -&gt; ROE -&gt; Company Value</td>
<td>4,540</td>
<td>1.96</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on the table above, the Sobel Test value is obtained at 4,540. This value is greater than 1.96, so it can be concluded that H0 is rejected and Ha is accepted, meaning that WCTO is proven to have a significant effect on Firm Value through ROE. This shows that the maximum use of capital is able to increase firm value and also increase company profits. Increased company profitability will make investors believe in buying shares because it is considered to provide good returns, so it can be said that profitability can increase firm value.

Effect of FATO on Firm Value through ROE

Hypothesis 8: FATO has a positive effect on Firm Value through ROE.

<table>
<thead>
<tr>
<th>Construct Relations</th>
<th>Sobel Test</th>
<th>T-table</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FATO -&gt; ROE -&gt; Company Value</td>
<td>5,125</td>
<td>1.96</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on the table above, the Sobel Test value is obtained at 5,125. This value is greater than 1.96, so it can be concluded that H0 is rejected and Ha is accepted, meaning that FATO is proven to have a significant effect on Firm Value through ROE. Management of the company's fixed assets needs to be done effectively and efficiently because it will affect the company's sales level and company profits. The proper use of fixed assets can boost sales which will increase company profits. Maximum profit can be achieved when the company is able to maximize the use of assets so that it will encourage investors to invest.
Effect of TA on Firm Value through ROE

Hypothesis 9: TA has a positive effect on Firm Value through ROE.

Table 11 TA t test of Firm Value through ROE

<table>
<thead>
<tr>
<th>Construct Relations</th>
<th>Sobel Test</th>
<th>T-table</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA -&gt; ROE -&gt; Company Value</td>
<td>3.442</td>
<td>1.96</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on the table above, the Sobel Test value is 3.442. This value is greater than 1.96, so it can be concluded that H0 is rejected and Ha is accepted, meaning that TA is proven to have a significant effect on Firm Value through ROE. Management of all company assets needs to be carried out effectively and efficiently because it will affect the company's sales level and company profits. According to Vijayakumar (2012) asset turnover shows the speed at which assets are converted or converted into sales and ultimately increase profitability. A company that is able to obtain maximum profit means that the company can properly manage its assets against sales. Investors will be interested in companies that can generate maximum profit.

6. Conclusion

The results of this study indicate that Working Capital Turnover has an effect on Firm Value. Working Capital Turnover has an effect on Return On Equity. Fix Asset Turnover affects Return On Equity. Total Asset has an effect on Return On Equity. Total Asset has an effect on Value of Firm. Return On Equity has an effect on Value Firm. The variable Return On Equity is able to mediate Working Capital Turnover, Fix Asset Turnover and Total Asset to Firm Value. Among the three mediated variables, the one with the greatest mediation value is Fix Asset Turnover. So it can be concluded that when the company can manage fixed assets well, it will have an impact on increasing company profits which will also increase company value.

Reference


Gunawan, H. (2019). ANALYSIS OF CURRENT RATIO (CR), DEBT TO EQUITY RATIO (DER), TOTAL ASSET TURNOVER (TATO) AND ITS EFFECT ON PROFIT GROSS AND ITS IMPACT ON COMPANY VALUE (Case Study of Companies in the Chemical Sector) on the decision to buy or sell shares”. Semarak Scientific Journal, 2 (1), 44–63. https://doi.org/10.32493/sm.k.v2i1.2665


