FACTORS AFFECTING FIRM VALUE WITH THE SOCIAL RESPONSIBILITY OF THE COMPANY AS MODELING VARIABLES IN BANKING COMPANIES REGISTERED IN INDONESIA STOCK EXCHANGE

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Abstract: The purpose of this study was to examine the effect of firm size, firm age, profitability, the proportion of independent commissioners, institutional ownership, and leverage on firm value with corporate social responsibility (CSR) as a moderating variable. The population in this study are banking companies listed on the Indonesia Stock Exchange (IDX) in the period 2011-2017. Sampling uses a purposive sampling method, the sample used is 19 banking companies listed on the IDX. So, the number of observations in this study were 133 observations. The type of data used is secondary data derived from financial statements. The data were analysed using multiple linear regression techniques and moderated regression analysis (MRA) using the SPSS program. The results of this study indicate that the variable firm size, profitability, the proportion of independent commissioners, institutional ownership and leverage simultaneously have a significant effect on firm value. Partially, the proportion of the board of commissioners and institutional ownership has a positive but not significant effect on firm value. Variable firm size and profitability partially have a positive and significant effect on firm value, while leverage variables partially have a negative but not significant effect on firm value. CSR moderates the influence of firm size, profitability, institutional ownership, the proportion of independent commissioners and leverage on firm value.

Keywords: Firm Size, Profitability, Proportion of Independent Commissioners, Institutional Ownership, Leverage, Firm Value, Corporate Social Responsibility, CSR.

1. INTRODUCTION

Firm value that increases every year is a long-term goal of a company. Firm value is a measure of the prosperity and welfare of the owners and shareholders, the higher firm value, the more prosperous and prosperous the owners and shareholders. Firm value reflects the current value of desired income in the future and indicators for the market in valuing the company as a whole. Various factors that can affect a firm value are company management, capital structure, dividend policy and investment decisions (Utomo, 2016).

Firm size is also a consideration for investors in investing their capital in issuers. Investors and creditors also need to consider the financial characteristics of each company. High profitability reflects the company’s ability to generate high profits for shareholders. With a high profitability ratio, it will attract investors to invest their capital in the company (Sofyaningsih and Hardiningsih, 2011). The better the company’s shares, firm value also increases.
Purwantini (2011) states that outsider directors help plan the company’s long-term strategy and periodically review the implementation of these strategies which in the long run will increase firm value. Institutional ownership is the proportion of share ownership at the end of the year owned by institutions, such as insurance, banks or other institutions. (Tarjo, 2008). Funding decisions made by companies to use debt (leverage) in financing investments are expected to increase firm value, so as to provide prosperity for its shareholders, because the use of debt has two important advantages.

Servaes and Tamayo (2013) found that CSR activities can add value to a firm under certain conditions, according to Kwon (2016) research which found that CSR has a positive effect on firm value. Tjia and Setiawati (2012) tried to find the effect of CSR activities on firm value in banking companies in Indonesia, but the results contradicted the theory, so they suggested adding other variables as independent variables, such as financial performance variables. Because of the conflicting results of the two studies, this study tries to examine other factors that influence CSR activities and firm value. From the phenomenon and inconsistency of the results of the above research, this becomes the basis for researchers to make a study entitled Factors Affecting Firm Value with Corporate Social Responsibility as a Moderating Variable in Banking Companies Listed on the Indonesia Stock Exchange.

The purpose of this study was to examine the effect of firm size, profitability, the proportion of independent directors, institutional ownership, and leverage on firm value with Corporate Social Responsibility as a moderating variable.

2. LITERATURE REVIEW

2.1 Firm Value

According to Brigham & Houston in Lestari (2017) there are several ratio analysis approaches in assessing market value, consisting of price earning ratio (PER), price book value ratio (PBVR), market book ratio (MBR), dividend yield ratio, and dividends payout ratio (DPR). In this study the value of the company is measured by PBV.

\[
PBV = \frac{Stock\ Price}{Book\ Value\ Per\ Share}
\]

2.2 Firm Size

Firm size is a predictor variable that is widely used to explain disclosure variations in a company’s annual report. This is related to agency theory, where large companies will disclose broader information to reduce agency costs (Sembiring, 2005).

\[
Firm\ Size = Ln\ Total\ Assets
\]

2.3 Profitability

Profitability ratios are ratios used to measure the rate of return on a company’s investment (Brealy et al, 2007). Profitability ratios consist of two types of ratios that indicate profitability in relation to sales and ratios that show profitability in relation to investment.
ROE = \frac{\text{Net income}}{\text{Shareholders' Equity}}

2.4 Proportion of Independent Commissioners

General Provisions for Registering Equity Securities on the Exchange that have been in effect since July 1, 2000, that is, companies listed on the IDX must have independent commissioners provided that the number of independent directors is at least 30% of the total members of the commissioners. Sari and Riduan (2014), the proportion of independent commissioners is formulated as follows:

\text{Proportion of Independent Commissioners} = \frac{\text{Number of Independent Commissioners}}{\text{Number of Commissioners}}

2.5 Institutional Ownership

Institutional ownership according to Tarjo (2008) is ownership of company shares owned by institutions or institutions such as insurance companies, banks, investment companies and other institutional ownership. Institutional ownership is formulated:

\text{IO} = \frac{\%\text{Institutional ownership}}{\text{Total Shares}} \times 100\%

2.6 Leverage

If the amount of debt can increase the level of the owner we can use it (Keown et al, 2001). Leverage is measured using Debt On Equity Ratio, where DER measures the extent to which companies use the money they borrow.

\text{DER} = \frac{\text{Total Debt}}{\text{Shareholders' Equity}}

2.7 Corporate Social Responsibility (CSR)

The World Business Council for Sustainable Development (WBCSD), an international institution established in 1955 and consisting of 120 multinational companies from 30 countries in the world, through its publication "Making Good Business Sense", defines Corporate Social Responsibility or corporate social responsibility as business commitments to contribute to sustainable economic development, in collaboration with employees and their representatives, their families, the local community and the general public to improve the quality of life in ways that benefit both the business itself and for development. Measurement of Corporate Social Responsibility by using social costs (Puspaningtyas, 2016).

\text{Social costs} = \text{environmental costs} + \text{employee welfare costs} + \text{community costs}
The conceptual framework in this study is presented in Figure 1.

**Figure 1. Conceptual Framework**

Research hypotheses based on literature review and conceptual framework are:
H1: Company size has a positive and significant effect on firm value
H2: Profitability has a positive and significant effect on firm value
H3: The proportion of independent commissioners has a positive and significant effect on firm value
H4: Institutional Ownership has a positive and significant effect on firm value
H5: Leverage has a positive and significant effect on firm value
H6: There is an effect on firm size, profitability, proportion of independent commissioners, institutional ownership and leverage simultaneously on firm value
H7: There is an effect of firm size, profitability, proportion of independent commissioners, institutional ownership and leverage on firm value with corporate social responsibility as moderating variables

3. **METHOD**

This type of research is causal associative research that aims to determine the relationship between two or more variables. The population used in this study is the banking sector companies listed on the Indonesia Stock Exchange in the period of 2011 to 2017, amounting to 45 populations. Sample selection criteria by purposive sampling, with the following criteria;
1. Is a banking sector company listed on the Indonesia Stock Exchange during the year of observation.
2. Publish financial statements and annual reports that are equipped with variables observed during the observation year.

Based on these criteria a sample of 19 companies was obtained for 7 years with a total of 133 observational data. Data analysis methods in this study used...
descriptive statistics, multiple regression, and moderating regression analysis for moderating variables. The following is a regression equation in this study.

\[ a. \quad Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon \]

\[ b. \quad Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6M + \beta_7M.X_1 + \beta_8M.X_2 + \beta_9M.X_3 + \beta_{10}M.X_4 + \beta_{11}M.X_5 + \epsilon \]

Information:
- \( Y \) = Firm Value
- \( X_1 \) = Firm Size
- \( X_2 \) = Profitability
- \( X_3 \) = Proportion of Independent Commissioners
- \( X_4 \) = Institutional Ownership
- \( X_5 \) = leverage
- \( M \) = CSR
- \( M.X_1 \) = Interaction between Firm Size and CSR
- \( M.X_2 \) = Interaction between Profitability and CSR
- \( M.X_3 \) = Interaction between the Proportion of Independent Commissioners and CSR
- \( M.X_4 \) = Interaction between Institutional Ownership and CSR
- \( M.X_5 \) = Interaction between Leverage and CSR

4. RESULT AND DISCUSSION
4.1 RESULT

Descriptive Statistic

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Value</td>
<td>0.11</td>
<td>4.64</td>
<td>1.63</td>
<td>1.01</td>
</tr>
<tr>
<td>Firm Size</td>
<td>16.7</td>
<td>34.66</td>
<td>29.29</td>
<td>5.48</td>
</tr>
<tr>
<td>Profitability</td>
<td>-48.9</td>
<td>60</td>
<td>13.52</td>
<td>13.10</td>
</tr>
<tr>
<td>Proportion of Independent</td>
<td>33.3</td>
<td>80</td>
<td>57.75</td>
<td>9.98</td>
</tr>
<tr>
<td>Commissioners</td>
<td>3</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional Ownership</td>
<td>0.00</td>
<td>0.000000011</td>
<td>0.000000059</td>
<td>0.000000023</td>
</tr>
<tr>
<td>Leverage</td>
<td>3.03</td>
<td>15.62</td>
<td>7.36</td>
<td>2.20</td>
</tr>
<tr>
<td>CSR</td>
<td>16.2</td>
<td>30.57</td>
<td>22.24</td>
<td>2.89</td>
</tr>
</tbody>
</table>

Classical Assumption Testing

1. Normality Test

Residual normality test is carried out by Kolmogorov-Smirnov (K-S) non-parametric statistical test. Kolmogorov-Smirnov Z value of 0.590 and its significance at 0.590 values above \( \alpha = 0.05 \) (Asymp. Sig = 0.590 > 0.05). Then it can be concluded that the research data is normally distributed.
2. Multicollinearity Test

The multicollinearity test was performed using the variance inflation factor (VIF). Data is said to not experience multicollinearity when the VIF value is ≤ 10. The test results show all independent variables have a VIF value ≤ 10 so that the data of this study do not experience multicollinearity.

3. Heteroscedasticity Test

Heteroscedasticity test is done by looking at the scatterplot graph that is the distribution of the plot does not form a specific pattern and is spread above and below the number 0 on the Y axis. Based on the test results it is known that the distribution of the plot on the scatterplot graph does not form a specific pattern and spreads above and below the number 0 on the Y axis, then it is said that all variables in the study are free from heteroscedasticity assumptions.

Hypothesis testing

1. The Effect of Firm Size, Profitability, Proportion of Independent Commissioners, Institutional Ownership and Leverage on Firm Value Both Partially and Simultaneously

<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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.617</td>
<td>0.380</td>
<td>0.356</td>
<td>0.54118</td>
</tr>
</tbody>
</table>

Based on the model summary table, note the R Square value of 0.380. This means that 38% of the Firm Value variable can be explained by Firm Size. The remaining 62% is explained by other factors outside the research variable.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficient</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>1 (Constant)</td>
<td>-1.104</td>
<td>0.450</td>
<td>0.281</td>
<td>-2.456</td>
</tr>
<tr>
<td>X1</td>
<td>0.035</td>
<td>0.009</td>
<td>0.505</td>
<td>3.760</td>
</tr>
<tr>
<td>X2</td>
<td>0.026</td>
<td>0.004</td>
<td>0.012</td>
<td>6.988</td>
</tr>
<tr>
<td>X3</td>
<td>0.001</td>
<td>0.005</td>
<td>0.003</td>
<td>0.162</td>
</tr>
<tr>
<td>X4</td>
<td>8816.23</td>
<td>215732.46</td>
<td>0.003</td>
<td>0.041</td>
</tr>
<tr>
<td>X5</td>
<td>-0.002</td>
<td>0.023</td>
<td>-0.007</td>
<td>-0.092</td>
</tr>
</tbody>
</table>

Based on the table coefficients, the regression equation built for this hypothesis is:

\[ Y = -1.104 + 0.035X_1 + 0.026X_2 + 0.001X_3 + 8816.213X_4 - 0.002X_5 \]

The details can be explained, namely:

**H1**: Firm size (X1) has a positive and significant effect on firm value (Y)

In the coefficient table, it is known that the significance value of Firm Size (X1) influences on Firm Value (Y) of 0.035 with sig 0.000 < 0.05 meaning that Firm Size (X1) has a positive and significant effect on Firm Value (Y).
H2: Profitability (X2) has a positive and significant effect on Company Value (Y). In the coefficient table, it is known that the significance value of Profitability (X2) affects on Firm Value (Y) of 0.026 with sig 0.000 < 0.05, which means that Profitability (X2) has a positive and significant effect on Firm Value (Y).

H3: The proportion of Independent Commissioners (X3) has a positive but not significant effect on Firm Value (Y). In the coefficient table, it is known that the significance value of the Independent Commissioner Proportion (X3) influences on Firm Value (Y) of 0.001 with sig 0.871 > 0.05 meaning that the Proportion of Independent Commissioners (X3) has a positive but not significant effect on Firm Value (Y).

H4: Institutional Ownership (X4) has a positive but not significant effect on Firm Value (Y). In the coefficient table, it is known that the significance value of Institutional Ownership (X4) has an effect on Firm Value (Y) of 8816.231 with sig 0.967 > 0.05 meaning that Institutional Ownership (X4) has a positive but not significant effect on Firm Value (Y).

H5: Leverage (X5) has a negative but not significant effect on Firm Value (Y). In the coefficient table, it is known that the significance value of Leverage (X5) has effect on Firm Value (Y) of -0.002 with sig 0.926 > 0.05 means that Leverage (X5) has a negative but not significant effect on Firm Value (Y).

Table 4. ANOVA Test F

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regressions</td>
<td>22.821</td>
<td>5</td>
<td>4.564</td>
<td>15.584</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>37.196</td>
<td>127</td>
<td>0.293</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60.017</td>
<td>132</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

H6: There is an effect of firm size, profitability, proportion of independent commissioners, institutional ownership and leverage simultaneously on firm value. Based on the ANOVA table, it is known that the F test value of 15,584 with sig 0.000. This means that variable firm size, profitability, the proportion of independent directors, institutional ownership and leverage simultaneously have a significant effect on firm value (0.000 < 0.05).

2. Effect of Firm Size, Profitability, Proportion of Independent Commissioners, Institutional Ownership and Leverage on Firm Value with CSR as a Moderating Variable.

Table 5. Model Summary

<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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.686</td>
<td>0.471</td>
<td>0.423</td>
<td>0.51223</td>
</tr>
</tbody>
</table>

Based on the table above, it is known that the R Square value is 0.471, which means 47.1% of the variable Company Value is explained by Firm Size, Profitability, Proportion of Independent Commissioners, Institutional Ownership,
Leverage and CSR. The remaining 52.9% is explained by other factors outside the research model.

### Table 6. Coefficient t Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficient</th>
<th>Standardized Coefficient</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std.Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1(Constant)</td>
<td>12.083</td>
<td>3.897</td>
<td>3.101</td>
<td>0.002</td>
</tr>
<tr>
<td>X1</td>
<td>-0.122</td>
<td>0.090</td>
<td>-0.992</td>
<td>1.353</td>
</tr>
<tr>
<td>X2</td>
<td>-0.001</td>
<td>0.032</td>
<td>-0.024</td>
<td>0.001</td>
</tr>
<tr>
<td>X3</td>
<td>-0.092</td>
<td>0.035</td>
<td>-1.355</td>
<td>-2.606</td>
</tr>
<tr>
<td>X4</td>
<td>6730291.55</td>
<td>5651505.73</td>
<td>2.342</td>
<td>1.191</td>
</tr>
<tr>
<td>X5</td>
<td>-0.477</td>
<td>0.225</td>
<td>-1.557</td>
<td>-2.119</td>
</tr>
<tr>
<td>M</td>
<td>-0.610</td>
<td>0.178</td>
<td>-2.617</td>
<td>-3.418</td>
</tr>
<tr>
<td>X1M</td>
<td>0.007</td>
<td>0.004</td>
<td>1.750</td>
<td>1.797</td>
</tr>
<tr>
<td>X2M</td>
<td>0.001</td>
<td>0.002</td>
<td>0.476</td>
<td>0.675</td>
</tr>
<tr>
<td>X3M</td>
<td>0.004</td>
<td>0.002</td>
<td>1.664</td>
<td>2.649</td>
</tr>
<tr>
<td>X4M</td>
<td>-302972.44</td>
<td>252180.51</td>
<td>-2.361</td>
<td>-1.201</td>
</tr>
<tr>
<td>X5M</td>
<td>0.023</td>
<td>0.011</td>
<td>1.705</td>
<td>2.109</td>
</tr>
</tbody>
</table>

The constant value obtained is 12,083 indicating that if changes in the independent variable are firm size, profitability, proportion of independent commissioners, institutional ownership and leverage equal to zero or are constant, then the change in firm value is 12,083%. Coefficient value of β1 obtained by -0.122 indicates that each additional 1 percent of firm size will reduce firm value by 0.122 percent assuming other independent variables are constant. Coefficient value of β2 obtained by -0.001 shows that each increase in profitability of 1 percent will reduce firm value by 0.001 percent with the assumption that other independent variables are constant. Coefficient value β3 obtained by -0.092 indicates that each additional 1 percent of the proportion of independent directors will reduce firm value by 0.092 percent with the assumption that the other independent variables are constant. The coefficient value of β4 obtained is 6,730,291.5, indicating that every 1 percent increase in institutional ownership will increase firm value by 6,730,291.5 percent with the assumption that other independent variables are constant. Coefficient value of β5 obtained by -0.477 indicates that each addition of 1 percent leverage will reduce firm value by 0.477 percent with the assumption that other independent variables are constant. Coefficient value of β6 obtained by -0.610 indicates that each additional 1 percent of CSR will reduce firm value by 0.610 percent with the assumption that other independent variables are constant. The regression coefficient value of the Interaction of Firm Size and CSR is 0.007 with a significance level of 0.075. The significance results indicate that the significance level is greater than the significance level α = 0.05, it can be concluded that CSR is not able to moderate the effect of Firm Size on Firm Value. The value of the regression coefficient of interaction between Profitability and CSR is 0.001 with a significance level of 0.501. The significance results indicate that the significance level is greater than the significance level α = 0.05, it can be concluded that CSR is not a moderating variable between profitability and firm value. Interaction coefficient regression value The proportion of Independent...
Commissioners and CSR is 0.004 with a significance level of 0.009. The significance result shows that the significance level is smaller than the significance level $\alpha = 0.05$, it can be concluded that CSR is able to moderate the effect of the Independent Commissioner Proportion on firm value. The regression coefficient value for interaction between Institutional Ownership and CSR is -302.972.4 with a significance level of 0.232. The significance results indicate that the significance level is greater than the significance level $\alpha = 0.05$, it can be concluded that CSR is not able to moderate the effect of Institutional Ownership on Firm Value. The regression coefficient of the Leverage and CSR interaction is 0.023 with a significance level of 0.037. The significance results indicate that the significance level is smaller than the significance level $\alpha = 0.05$, it can be concluded that CSR is a moderating variable between leverage and firm value.

Table 7. F Test ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Squares</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>28.269</td>
<td>11</td>
<td>2.570</td>
<td>9.795</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>31.748</td>
<td>121</td>
<td>0.262</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60.017</td>
<td>132</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

H7: Effect of Firm Size, Profitability, Proportion of Independent Commissioners, Institutional Ownership and Leverage on Firm Value with Corporate Social Responsibility as a moderating variable

Based on the ANOVA table, it is known that the F test value of 9.795 with sig 0.000, meaning that Firm Size, Profitability, Proportion of Independent Commissioners, Institutional Ownership and Leverage have a significant effect on Firm Value by being moderated by Corporate Social Responsibility (0.000 < 0.05).

5. CONCLUSIONS AND SUGGESTION

5.1 Conclusions

Based on testing the hypothesis that has been done, then some conclusions can be drawn as follows:

1. The results show that the firm size variable has a positive and significant effect on firm value.
2. The results show that the profitability variable has a positive and significant effect on firm value.
3. The results show that the independent commissioner proportion variable has a positive but not significant effect on firm value.
4. The results show that the institutional ownership variable has a positive but not significant effect on firm value.
5. The analysis shows that the leverage variable has a negative but not significant effect on firm value.
6. The results show that the variable company size, profitability, proportion of independent commissioners, institutional ownership and leverage simultaneously have a significant effect on firm value.
7. The moderating test results above indicate that the variable firm value, profitability, proportion of independent commissioners, institutional ownership and leverage have a significant effect on firm value moderated by
corporate social responsibility. in other words, CSR is proven as a moderating variable that affect the relationship between independent and dependent variables.

5.2 Research Limitations
The limitations in this study are as follows:
1. The independent variable used is only able to explain 38% of its effect on firm value in banking companies listed on the IDX. So it is likely there are still many other variables that are possible to affect firm value.
2. The object of research is not too broad only on banking companies in Indonesia

5.3 Suggestions
Based on the research results and conclusions, the authors provide the following suggestions:
1. Investors need to be more in-depth in the process of making stock investment decisions in a company. Many considerations must be considered, not only looking at the financial ratios that are exposed in the financial statements, but seeing as a whole a company that will be an investment target.
2. Based on the limitations of the study, suggestions for further research for similar fields are:
   a. Adding, subtracting or replacing the use of independent variables used in research, there are still other variables, such as managerial ownership and other ratios.
   b. Change research objects in other company sectors, such as manufacturing or property and infrastructure.

References


