Effect of Corporate Social Responsibility on Company Value
With Company Size and Profitability as Moderated Variables in
Pharmaceutical Companies Listed on the Indonesia Stock Exchange

Ni Luh Laksmi Rahmantari, Ni Wayan Sitiari, Ida Bagus Agung Dharmenegara
Universitas Warmadewa, Denpasar Bali
setia_dari@yahoo.com

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Abstract—This study aims to analyze the effect of Corporate Social Responsibility on firm value, the size of the company against firm value, profitability against firm value, company size in moderating the relationship between Corporate Social Responsibility and company value, profitability in moderating the relationship between Corporate Social Responsibility to the value of the company. This study uses a quantitative method which uses time series or past data related to the Annual Report of Pharmaceutical Companies listed on the Indonesia Stock Exchange. The technical data analysis in this study uses Analysis Moderated Regression with SPSS for Windows 25.0. The sample in this study used eight pharmaceutical companies listed on the Indonesia Stock Exchange. Use annual reports with the 2014-2017 period. The results of the research obtained are Corporate Social Responsibility has a significant positive effect on firm value, Firm size has a significant positive effect on firm value, Profitability has a significant negative effect on firm value, Firm size is not able to moderate relationships between Corporate Social Responsibility (CSR) and company value, Profitability is not able to moderate the relationship between Corporate Social Responsibility (CSR) and company value.

Keywords: Company size, Corporate Social Responsibility, Profitability, Return On Assets (ROA), Tobins’ Q.

INTRODUCTION
Company value is the most important thing that must be obtained by the company to the maximum. The maximum assessment of a company can be seen from its ability to survive in the company's survival, so that the company's value can be maintained properly (Rumajjar, 2018). The value of the company relates to profits and increases in stock prices, as well as the ups and downs of market share conditions that are automatically related to the rate of growth and the value of the company. One of the things that can be seen is pharmaceutical companies. Pharmaceutical companies are companies that are very active in the field of health support. However, pharmaceutical companies experienced a decline in share prices, for example Kalbe Farma Tbk in 2016 which increased by 1,515 rupiah and decreased in 2017 by 1,380 rupiah. In addition, Kimia Farma (Persero) Tbk experienced an increase in 2016 of 2,750 rupiah and decreased in 2017 by 2,550 rupiah. Something similar happened to Merck Tbk and Tempo Scan Pacific Tbk which decreased in 2017 by 5,700 rupiah and 1,405 rupiah. The result is a slow growth rate in pharmaceutical companies where the Industry Development Analysis Edition II-2018 by the Ministry of Industry of the Republic of Indonesia that in 2015-2016 always recorded the highest...
growth, but in the fourth quarter of 2017 there was a decrease of 5.46% to contraction in the amount of 6.30% in the first quarter of 2018. Thus, optimization is needed in upholding company valuation, so additional information is needed related to corporate social responsibility, namely Corporate Social Responsibility.

Corporate Social Responsibility is a concept of corporate responsibility committed to contributing to sustainable economic development looking at the balance of social, economic and environmental aspects. Corporate Social Responsibility is a mandatory thing to be carried out in accordance with Law Number 40 of 2007. However, (Widokarti, 2014) states that the fundamental problem that occurs is the distribution and management of CSR funds in Indonesia, namely the clarity of how a company should implement a CSR program. From 2009 to 2011. In 2011, as many as 16 companies, the average allocation of CSR funds was 1.6 percent of company profits, for state-owned enterprises the average allocation was 2.7 percent of profits, as well as for private companies are 0.53 percent of profits. Therefore, the role of moderation is needed to be able to strengthen the relationship between CSR and company values, namely the size of the company and profitability.

Firm size is the size of the total assets of a company because total assets are a reflection of the company's wealth (Goh & Simanjuntak, 2018), (Pratama & Wiksuana, 2016) state that the greater the company will influence the determination of funding to be able to optimize company value, stated by (Sofia & Akhmadi, 2018) that large companies easily access to the capital market easily obtain larger funds, so that they are able to obtain positive signals from investors. (Putri, Sudarma, & Purnomosidhi, 2016) and (Puspaningrum, 2017) shows that the size of the company is able to moderate the relationship between Corporate Social Responsibility and corporate value means that large companies will disclose information related to social, economic and environmental aspects more because large companies tend to do a lot of activities that tend to attract investors interest in investing. In addition to the size of the company the factors that can increase and strengthen the relationship of CSR with company value are profitability.

Profitability is the ability of the company's management to earn profits. In the Signaling Theory stated by (Sofia & Akhmadi, 2018) that high profitability will give a good response from investors because it can increase stock prices and increase company value. (Humairoh, 2017), who stated that profitability was able to moderate the relationship of CSR with company value. Because some of the company's profits are absorbed for the benefit of the program related to corporate social responsibility. The absorption of the profits obtained by this company can maintain the continuity of the company's life based on its operations.

CONCEPT AND HYPOTHESIS

Company value is market value or related to stock prices, securities, capital and debt in outstanding companies (Ananda, Hermanto, & I Nyoman Nugarah AP, 2016). The value of the company increases if the company is able to maximize the welfare and prosperity of shareholders (Rumajar, 2018). (Putra & Wiagustini, 2013) stated that CSR can help in increasing company value by reducing financial and non-financial information asymmetry. To find out the relationship between them, the role of moderation is of course related to company value factors, namely company size and profitability as a part that this variable can improve the relationship between the two.

The size of the company or firm size is the size of the company by taking into account the total assets as a reflection of the development of the company's wealth in accordance with company activities. Thus, the size of the company is able to strengthen the relationship of CSR to the value of the company because large companies implement various types of activities related to CSR that are not only for external companies but for internal companies. The size of the company is able to moderate the relationship of CSR with the value of the company because the company provides an opportunity to be able to develop in aspects that need to be considered in the welfare of society that are not only for the sake of the company.

Increasing profitability raises the condition of companies that are at an increasing level so that the growth of the company will be helped and can attract investors in making investments because profitability will provide a signal for investors through stock demand. Profitability can improve CSR because some of the company's profits are intended to carry out CSR programs as the company's obligation to increase company value. Companies with good levels of profitability are able to provide stability in
carrying out CSR programs because CSR programs require funds.

Based on the explanation above, therefore, the hypothesis that can be made are:

H1 :Corporate Social Responsibility significant positive effect on Company Values on Pharmaceutical Companies listed on the Indonesia Stock Exchange.

H2 :Size of an influential company significant positive effect on Company Values on Pharmaceutical Companies listed on the Indonesia Stock Exchange.

H3 :Profitability has a positive effect significant value of the Company in Pharmaceutical Companies listed on the Indonesia Stock Exchange.

H4 :Company size moderates the relationship of Corporate Social Responsibility to Company Values in Pharmaceutical Companies listed on the Indonesia Stock Exchange.


METHOD

This study uses a quantitave method which uses time series or past data related to the Annual Report of Pharmaceutical Companies listed on the Indonesia Stock Exchange. The annual report period or timeframe is 2014-2017 which can be accessed at www.idx.com. The variables in this research consist of Corporate Social Responsibility (X1), Company size (X2), Profitability (X3), and Company Value (Y).

The formula for corporate value measured by Tobin’s Q (Waluyo, 2017).

\[ Q = \frac{MVS + D}{BVE + D} \]

**Information**:
- Q = Company Value
- MVS = Stock market value
- BVE = Book Value Equity
- D = Debt or Book Value from Total Debt

Whereas, CSR is calculated as follows (Wulandari, 2015).

\[
\text{CSR}_j = \frac{\sum X_{ij}}{n_j}
\]

**Information**:
- CSR$_j$ = Disclosure of Corporate Social Corporate Responsibility Index j
- N$_j$ = Number of items for company j, n$_j$ = 91
- X$_{ij}$ = 1 if item i is expressed, 0 if item i is not disclosed

Profitability measured by using ROA is as follows (Nugroho, 2012).

\[ \text{ROA} = \frac{\text{NIAT}}{\text{TA}} \]

- NIAT = Net Income After Tax (income clean after tax)
- TA = Total Assets

The target population in this study are pharmaceutical companies that go public on the Indonesia Stock Exchange with the period 2014 - 2017. This study uses sample access with fairly easy conditions because the data obtained through the website and if it is not accessible the data cannot be used. There were eight pharmaceutical companies which were made into this study. The technical data analysis in this study uses Moderated Regression Analysis. Previously, classical assumptions were tested to fulfill the
RESULT AND DISCUSSION

Classical Assumption Test Model 1

Classical assumption model 1 to compare CSR with firm size against firm value. Previously the regression equation was done by making it log to minimize the deviation or bias. With the regression equation as follows: $LY_1 = bo + b1LX_1 + b2LX_2 + b3LX_1LX_2$.

1. Model 1 Normality Test The residual values of $Z_1$ and $Z_2$ are 1.208 and 0.108 and have a significance above the level of 0.05 so that the model is normally distributed.

2. Model 1 Autocorrelation Test Model 1 dL value table (at $n = 32$ and independent variable $k = 3$) is 1.244 and dU table is 1.650 while the dw value of the calculated result is 1.571. So that it is located in criterion two, that is $dL < dW < dU$ or there is no conclusion.

3. Model 1 Multicollenity Test All variables contain multicol because of the independent variable VIF> 10, this is a common occurrence in the case of equations that contain interactions (Ghozali, 2016).

4. Model 1 heterocedasticity test The estimation model shows that model 2 forms an irregular distribution between regression student deleted residuals and regression standardized predictive value, meaning that it does not contain heteroscedastic.

Model 1 Regression Analysis

This model 1 analysis will illustrate the interactions that occur between CSR (X1) which simultaneously with company size (X2) on firm value (Y). With the results that CSR has a significant negative effect on the value of the company with a regression coefficient of 80.630 with a significance of 0.003. The size of the company has a significant positive effect on the value of the company coefficient of 32.352 significance level of 0.05. The interaction of CSR and company size with respect to firm value is equal to 59,215 and the significance level is smaller than 0.05. These results are shown in table 1 as follows.

<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>(Constant)</td>
<td>-43,059</td>
<td>14,540</td>
<td>-2,961</td>
<td>,008</td>
</tr>
<tr>
<td>LY1</td>
<td>-80,630</td>
<td>24,351</td>
<td>-3,311</td>
<td>.003</td>
</tr>
<tr>
<td>LX2</td>
<td>32,352</td>
<td>10,378</td>
<td>3,117</td>
<td>.005</td>
</tr>
<tr>
<td>X1X2</td>
<td>59,215</td>
<td>17,407</td>
<td>3,402</td>
<td>.003</td>
</tr>
</tbody>
</table>

Moderation Analysis Model 1

Model 1 Moderation analysis shows that the regression coefficient $\beta_1$ firm value (LY) to the value of absolute $|e_1|$ is positive at 0.219 and significant at the 0.05 level with a calculated T value of 2.318 and a Sig value of 0.030 smaller than p value which is equal to 0.05. It means that company size variable (X2) is not a moderation between Corporate Social Responsibility (X1) and firm value (Y). The moderation requirements are significantly negative. The moderation of model 1 uses the residual test shown in table 2 as follows.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95.0% Confidence Interval for B</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.043</td>
<td>.101</td>
<td>,428</td>
<td>,673</td>
<td>,167</td>
</tr>
<tr>
<td>LY</td>
<td>.219</td>
<td>.094</td>
<td>.443</td>
<td>2,318</td>
<td>,030</td>
</tr>
</tbody>
</table>

Classical Assumption Test Model 2

The classic assumption model 2 is to compare CSR with profitability against firm value. Previously the regression equation was done by making it log to minimize the
deviation or bias. With the regression equation as follows.

\[ LY1 = b_0 + b_1LX1 + b_3LX3 + b_4LX1.LX3. \]

Model 2 Normality Test
The residual value of model 2 has a value of Z1 and Z3 of 0.697 and 0.717 and has a significant level above 0.05 so that the model is normally distributed.

Model 2 Autocorrelation Test
The value of dL in model 2 (at n = 32 and independent variable k = 3) is 1.244 and dU table is 1.650 while the dW value of the calculated result is 1.802. So that it is located in criterion 3 which is dU <dW <4 - dU or does not contain autocorrelation.

Model 2 Multicolourity Test
The LX3 and X1X3 variables contain multicoll because the value of the independent variable VIF> 10, this is a common occurrence in the case of equations that contain interactions (Ghozali, 2016).

Model 2 Heteroscedasticity Test
The estimation model 2 shows the form of irregular distribution between regression studentized residuals and regression standardized predictive value, meaning that it does not contain heteroscedastic.

Model 2 Regression Analysis
The analysis of model 2 will illustrate the interactions that occur between CSR (X1) which are juxtaposed with profitability (X3) on firm value (Y). With the results that CSR has a significant positive effect on the value of the company with a regression coefficient of 5.519 on the value of the company a significance level of 0.004 is smaller than 0.05. Profitability has a significant positive effect on the value of the company and the relationship has a significance of 0.029 smaller than 0.05. The interaction of CSR and profitability was -7.194 and significant at the 0.05 level with respect to company values. The results shown in table 3 are as follows.

<table>
<thead>
<tr>
<th>Model 2 Regression Analysis</th>
<th>Coefficients</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>3.951</td>
<td>1.077</td>
<td>1.138</td>
<td>2.004</td>
<td>.060</td>
<td></td>
</tr>
<tr>
<td>LX1</td>
<td>5.519</td>
<td>1.671</td>
<td>1.141</td>
<td>3.302</td>
<td>.004</td>
<td></td>
</tr>
<tr>
<td>LX3</td>
<td>-3.845</td>
<td>1.614</td>
<td>-4.034</td>
<td>-2.383</td>
<td>.029</td>
<td></td>
</tr>
<tr>
<td>X1X3</td>
<td>-7.194</td>
<td>2.641</td>
<td>-4.446</td>
<td>-2.724</td>
<td>.014</td>
<td></td>
</tr>
</tbody>
</table>

Moderation Analysis Model 2
The moderation analysis of Model 2 shows that the regression coefficient value for the effect of firm value on absolute value e2 | e2 | is positive 0.164 and not significant at the 0.05 level with a calculated T value of 2.004 with a Sig value of 0.060 greater than p value which is equal to 0.05. This means that the profitability variable (X3) is not a moderation between Corporate Social Responsibility (X1) and firm value (Y). The moderation analysis of model 2 shown in table 4 is as follows.

<table>
<thead>
<tr>
<th>Model 2 Moderation Analyses</th>
<th>Coefficients</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.094</td>
<td>.082</td>
<td>1.138</td>
<td>.269</td>
<td>-.079</td>
<td>.266</td>
</tr>
<tr>
<td>LY</td>
<td>.164</td>
<td>.082</td>
<td>.418</td>
<td>2.004</td>
<td>.060</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.007</td>
<td>.335</td>
<td>.418</td>
<td>.418</td>
<td>.418</td>
<td>1.000</td>
</tr>
</tbody>
</table>

The Effect of CSR on Company Values
When interaction with profitability, it will produce dominant results, namely Corporate Social Responsibility, which has a significant positive effect on firm value. If, Corporate Social Responsibility is interact with company size, the effect is Corporate Social Responsibility has a significant negative effect on firm value, meaning that companies implementing Corporate Social Responsibility...
take at least 0.5% of the profits obtained by pharmaceutical companies. So, it can advance the Corporate Social Responsibility program well in accordance with the company’s operations. the company can increase the concern and welfare of the company in the company environment both externally and internally which involves three aspects, namely social aspects, economic aspects, and environmental aspects and build a positive image for the community for the company. This result is in line with the study of (Susanti, Marietsa, & Indriani, 2012); (Wulandari, 2015); (Humairoh, 2017); Thus CSR has a significant positive effect on firm value. So, Hypothesis 1 is accepted.

The Effect of Company Size on Company Values.

The size of the company that is proxied by the logarithm of total assets owned by pharmaceutical companies is getting higher or increasing the assets owned by the company are getting better and the value of pharmaceutical companies is also shown in the increase in total assets of the company from 2014-2017 to pharmaceutical companies. It is this increase in the size of the company based on assets that makes pharmaceutical companies able to grow and grow well so that they will slowly increase the value of the company. So that hypothesis 2 is accepted and in line with the research of (Pratama & Wiksuna, 2016); (Andawasatya, Indrawati, & Aisjah, 2017); (Hamyat, Sarita, & Hasbudin, 2017); (Sofia & Akhmadi, 2018).

The Effect of Profitability on Company Values

Profitability has a significant negative value on company value, meaning that profitability increases, the value of the company will tend to decrease. Increased profitability is not accompanied by an increase in stock prices which has an impact on the decline in company value. The company focuses on short-term orientation techniques so that it can reduce the value of the company. Because the value of the company is comprehensive, that is long term. Thus the third hypothesis in this study was rejected. This is supported by (Herawati, 2013); (Ananda et al., 2016); and (Thaib & Dewantoro, 2017).

Company Size moderates the relationship of CSR to Company Value

The size of the company cannot moderate the relationship of CSR to company value because the pharmaceutical company has allocated its own funds specifically to fund Corporate Social Responsibility, both small and large size companies. In addition, the indicator of measurement of Corporate Social Responsibility using GRI 4 has no limitations seen from the size of the company both large or small so that to apply the broad disclosure of Corporate Social Responsibility to large and small pharmaceutical companies with good image in the eyes of investors does not become the main focus in the company’s valuation so that it cannot affect the value of the company. So, the fourth hypothesis is rejected. This is not in line with (Putri et al., 2016); (Puspaningrum, 2017); (Kiptoo, Soi, & Chepsergon, 2017); (Waluyo, 2017); (Jekwam & Hermuningsih, 2018). But this result is supported by (Humairoh, 2017); (Sari, Wahyudi, & Isnurhadi, 2018) and (Karundeng, Nangoi, & Karamoy, 2018).

Profitability moderates the relationship of CSR to Corporate Value

Profitability cannot moderate the relationship between Corporate Social Responsibility and company value because the

![Figure 2](image-url)
profitability of a company in implementing Corporate Social Responsibility influences a non-strong relationship with firm value. Pharmaceutical companies are still classified as economical companies which according to (Wahyuni, 2018) economical companies are companies that have high profitability but the budget for Corporate Social Responsibility is still low. In terms of acquiring company assets, it can be said to be good, because the assets owned can be increased. But the increase in assets also does not guarantee that profits will increase because if there is a turnover of assets, it will increase but not accompanied by an increase in stock prices. This result is not as accurate as that of (Ekatah, Samy, Bampton, & Haabi, 2011); (Wulandari, 2015); (Nawaishe, Boa, & Zaid, Rezk Abou, El-shoohnah, 2015); (Humairoh, 2017); (Karundeng et al., 2018). So this result rejects the fifth hypothesis.

![Diagram](image)

**Figure 3**
Company Size and Profitability cannot moderate the relationship between Corporate Social Responsibility (CSR) and Corporate Value

**CONCLUSIONS**

Corporate Social Responsibility has a significant positive effect on company value in pharmaceutical companies listed on the Indonesia Stock Exchange in 2014-2017. The size of the company has a significant positive effect on the value of the company in the pharmaceutical companies listed on the Indonesia Stock Exchange in 2014-2017. Profitability has a significant negative effect on company value in pharmaceutical companies listed on the Indonesia Stock Exchange in 2014-2017. The size of the company is not able to moderate the relationship between Corporate Social Responsibility (CSR) and company value in pharmaceutical companies listed on the Indonesia Stock Exchange in 2014-2017. Profitability is not able to moderate the relationship between Corporate Social Responsibility (CSR) and company value to pharmaceutical companies listed on the Indonesia Stock Exchange in 2014-2017.

**REFERENCES**


