Role of Corporate Social Responsibility in Supply Chain Management and Increasing Corporate Value

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Abstract- This study aims to determine the effect of profitability, leverage and company size on firm value as well as the role of corporate social responsibility (CSR) in supply chain management, moderating the effect of profitability, leverage and company size on firm value. The sample comprises 28 manufacturing companies listed on the Indonesia Stock Exchange, taking their financial reports from 2015 to 2017. Data were collected from the annual financial statements of the companies obtained from the IDX. Data were analysed through classic assumption test, interaction test with moderated regression analysis and F and t test for significance. Results showed that profitability positively and significantly affects 4,679 firm value with a significance level of 0.000. Leverage negatively and significantly affects -2.682 firm value with a significance level of 0.009. The size of the company positively and significantly affects 3,851 company value with a significance level of 0.000. Interaction analysis results show that CSR moderates the effects of profitability, leverage and company size on firm value.

Keywords- profitability, leverage, company size, CSR, supply chain management and company value.

1. Introduction

CSR is an important element in the framework of business sustainability of an industry that covers economic, environmental and sociocultural aspects. CSR is usually seen solely as a tool for enhancing a company’s reputation and generating goodwill among customers [1-3]. The World Business Council for Sustainable Development in [4] defines CSR as the business world’s continuing commitment to act ethically and contribute to the economic development of the local or the wider community, thus improving the living standards of workers and their families. [5] define CSR as a corporate commitment and responsibility towards the social and environmental impacts of corporations as well as efforts of corporations to adapt to the social environment of the community.

Outsourcing of activities, shorter production time and product life cycles have become an interesting strategic topic in the SCM process. When related to values and standards carried out in connection with the operation of a company (corporate), CSR is defined as the commitment of a business to act ethically, operate legally and contribute to improving the quality of life of employees and their families, local communities and the community as a whole. Meanwhile, [6] posit that social responsibility is a process of communicating the social and environmental impacts of the economic activities of an organization on specific groups of interest and on society as a whole.

The development of CSR issues is quite popular in Indonesia in recent years. Many companies are starting to be enthusiastic in carrying out CSR activities for several reasons such as to improve the image of the company, to bring its own benefits for the company and to ensure the sustainability of the company (going concern). Similar to manufacturing companies that are engaged in the utilization of natural resources, the implementation of CSR is considered as a form of survival guarantee.

Various studies investigated the factors that influence CSR disclosure. [7] suggest that company size variables influence the CSR disclosure, whereas [8] failed to find the effect of these variables. According to [9], profitability positively influences CSR disclosure. However, [10] find that profitability variables do not influence the CSR disclosure. Moreover, [11] claim that leverage positively affects the CSR disclosure, whereas [12] suggests that leverage negatively affects CSR disclosure. Furthermore, [13] find that public share ownership variables positively affect CSR disclosure. However, the findings of [14] contradict such results.

The differences in the results of research on the factors that influence CSR disclosure present an interesting premise for further investigation. In the current work, manufacturing companies are selected as research samples because they heavily influence or impact the surrounding environment due to their activities that meet certain aspects of the theme of CSR disclosure. Moreover, manufacturing companies also require a good image from the community because they are vulnerable to political influence and criticism from social activists. Hence, manufacturing companies provide wide CSR disclosure.
2. Literature Review

2.1 Areas of social responsibility in supply chains

Supply Chain Management is a process comprised of several distinct but interconnected functions and activities. Internal and external transportation management, warehousing, inventory management, acquisition management, logistics service provider’s management, resource management, packaging and assembly, customer services are among the most important ones. It is also possible to break down the supply chain management process into two main flows; i.e. forward flow and reverse flow.

2.2 Stakeholder Theory

According to stakeholder theory, companies do not only operate for their own interests, but they must also benefit their stakeholders (shareholders, creditors, consumers, suppliers, government, society, analysts and other parties) [4]. The running of a company is dependent on stakeholder support that must be sought by the company through its daily activities [15-18].

CSR is not only limited to increasing the profits and interests of shareholders, but it must also pay attention to the surrounding community, customers and suppliers as part of the company’s operations. Stakeholder theory is related to the concept of CSR where the survival of a company is strongly influenced by its stakeholders.

Social disclosure is part of the dialogue between the company and its stakeholders [8]. The company does not only operate for its own interests and obtain support from stakeholders, but it must provide benefits to its stakeholders. Stakeholders can regulate the company or influence the consumption of goods and services produced by the company as well as the ability to influence the current use of limited economic resources such as capital and labour [19].

In [20] define stakeholders as any group or individual that can influence or be influenced by the achievement of organizational goals. Stakeholders can be divided into primary and secondary based on their characteristics [5]. Primary stakeholder is a person or a group without which the company cannot survive going concern, including shareholders, investors, employees, consumers and suppliers, together with those defined as public stakeholder groups, namely, the government and the community. Secondary stakeholder groups are defined as those who influence or are influenced by the company, but they are not related to transactions with the company and are not essential to its survival.

Of the two types of stakeholders, primary stakeholders are the most influential stakeholders for the survival of the company because they have substantial control over the availability of company resources. Therefore, ‘when stakeholders control economic resources that are important to the company, the company will react in ways that satisfy stakeholder desires’ [4]. Furthermore, stakeholder theory generally relates to the ways companies manage their stakeholders [8].

Basically, stakeholders can control or influence the users of economic resources of the companies used by [22]. One strategy to maintain relationships with company stakeholders is to implement CSR. As such, the wishes of the stakeholders can be accommodated and thus promote harmonious relationship between the company and its stakeholders. A harmonious relationship results in sustainability.

2.3 Agency Theory

[22] define agency relationships as a contract between one or more people (principals) who want another person (manager) to carry out services by delegating certain decision-making authority to the agent. Agency theory views the company as a nexus of contracts, namely, organizations that are related to contracts with several parties such as shareholders, suppliers, employees (including managers) and other parties with Scott’s interests [23] in [15]. The contractual relationship between the principal and the manager always may bring up conflicts of interest and trigger agency costs.

Symmetrical information must exist between managers and principals. Thus, all information about the company owned by the manager should be disclosed to the principal. However, agents always have opportunities to behave opportunistically and cause asymmetric information. Thus, the principal to pay additional supervision fees to supervise agents. Three factors affect agency relationships, namely, monitoring costs, contract costs and political visibility. Companies facing high supervisory and contracting costs are likely to choose accounting methods that can increase reported earnings, whereas companies that face high political visibility tend to choose accounting methods and techniques that can report low earnings [16].

In [6], problems arise with the existence of agency relationship when: (a) agency conflict exists, where the desires or goals of the principal and the agent vary; and (b) overseeing the output of the agent is difficult or expensive for the principal. In [24] explain the existence of a conflict of interest in the agency relationship caused by differences in the goals of each party. Managers as agents in carrying out their duties must to maximize the welfare of the company owners (principal) in the short and the long term. However, the manager also has an interest in maximizing his own welfare. Conflicts between managers and owners increase when ownership of the manager decreases. Hence, the manager will attempt to maximize his interests. Conversely, the greater the ownership of the manager in the company, the more productive his actions in maximizing the value of the company. As such, the contract and supervision costs decrease. The manager will disclose social information to improve the image or reputation of the
company, though he or she has to sacrifice resources for the activity.

As a form of accountability, agency theory can be used to explain why managers as agents attempt to fulfil the wishes of the principal, in this case, the CSR disclosure information. Agency costs rise with the company. To reduce agency costs, the company tends to disclose more extensive information [25-27]. Large companies are issuers that are highlighted, and great disclosure reduces political costs via CSR [24]. One form of responsibility of the agency to the principal is to disclose information about the financial situation and CSR through the annual report of the company.

3. Hypothesis

H1 : Profitability positively affects the company’s value.
H2 : Leverage negatively affects firm value.
H3 : Size positively affects firm value.
H4 : CSR can moderate the effect of profitability on the value of the company.
H5 : CSR can moderate the effect of leverage on firm value.
H6 : CSR can moderate the effect of company size on firm value.

4. Research Method

The sample of the present research comprised financial reports of 28 manufacturing companies listed on the Indonesia Stock Exchange from 2015 to 2017. The sampling method used was purposive sampling technique which determines the sample using certain considerations [25]. The criteria for determining the samples used in this study are as follows. Firstly, the manufacturing companies are listed on the Indonesian Stock Exchange from 2015 to 2017. Secondly, the manufacturing companies publish CSR. Thirdly, the manufacturing companies have information about the data needed in research, such as company size, profitability, leverage and company value. Data were analysed using moderated regression analysis (MRA) which is a special application of linear multiple regression where the regression equation contains elements of interaction [9].

5. Result

5.1 Descriptive analysis

This study has 84 observations, with three independent variables, one moderation variable and one dependent variable. The profitability variable (P) has an average value of 6.91. The highest value is 52.67, whereas the lowest is -15.85 with a standard deviation of 11.82. On average, the sample companies in this study can generate high profits at around 6.91 percent.

Leverage (LEV) has a mean, a maximum, and a minimum value of 43.07, 110.88 and 5.45, respectively, with a standard deviation of 20.57. Thus, the average company used as a sample has a ratio between total debt and assets owned high enough so that the company has a high risk in its business activities.

Company size (UP) refers to the size of the company measured by the natural logarithm of its total assets. This variable has a mean, a maximum, and a minimum value of 3.64, 5.47 and 2.08, respectively, with a standard deviation of 0.70.

CSR disclosure refers to the disclosure of information related to CSR activities. This variable has average, highest, and lowest disclosure per cent of 52.20, 81.00 and 29.00, respectively, with a standard deviation of 11.07. Based on the average value of CSR disclosure, the sample companies are generally above 50 per cent.

Company value can be measured via PER which is a comparison between the price of shares of a company with earnings per share (ESP). The highest and the lowest PER value of the company is 201.59 and -136.23, respectively, with an average PER of 19.25 and a standard deviation of 54.27.

Table 1. Descriptive Analysis result

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>84</td>
<td>-15.55</td>
<td>52.57</td>
<td>8.910</td>
<td>11.81815</td>
</tr>
<tr>
<td>LEV</td>
<td>84</td>
<td>5.46</td>
<td>110.88</td>
<td>43.065</td>
<td>20.56093</td>
</tr>
<tr>
<td>UP</td>
<td>84</td>
<td>2.08</td>
<td>5.17</td>
<td>3.6102</td>
<td>0.70211</td>
</tr>
<tr>
<td>CSR</td>
<td>84</td>
<td>29.00</td>
<td>5.45</td>
<td>5.70914</td>
<td>11.06805</td>
</tr>
<tr>
<td>Value/N (float)</td>
<td>84</td>
<td>-136.23</td>
<td>201.59</td>
<td>19.25</td>
<td>54.27917</td>
</tr>
</tbody>
</table>

Source: Data Analysis

5.2 MRA Test Results

Table 2. MRA Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient of regression</th>
<th>t-table</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta</td>
<td>86.238</td>
<td></td>
<td>0.033</td>
</tr>
<tr>
<td>P</td>
<td>2.780</td>
<td>2.166</td>
<td>0.000</td>
</tr>
<tr>
<td>LEV</td>
<td>-1.889</td>
<td>-2.682</td>
<td>0.009</td>
</tr>
<tr>
<td>UP</td>
<td>4.180</td>
<td>3.851</td>
<td>0.000</td>
</tr>
<tr>
<td>CSR</td>
<td>0.155</td>
<td>0.336</td>
<td>0.737</td>
</tr>
<tr>
<td>P*CSR</td>
<td>0.054</td>
<td>3.705</td>
<td>0.000</td>
</tr>
<tr>
<td>LEV*CSR</td>
<td>0.027</td>
<td>2.012</td>
<td>0.048</td>
</tr>
<tr>
<td>UP*CSR</td>
<td>0.389</td>
<td>2.658</td>
<td>0.010</td>
</tr>
</tbody>
</table>

Source: Data Analysis
Based on the table above, the regression equation is as follows:
NP = 86,238 + 2,780P - 1,889LEV + 4,180UP + 0.155CSR + 0.054P * CSR + 0.027LEV * CSR + 0.389UP * CSR

### 5.3 Goodness of fit testing

<table>
<thead>
<tr>
<th>Table 3. F-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: Data Analysis</td>
</tr>
</tbody>
</table>

The coefficient of determination reflects how much of the variation of the dependent variable can be explained by the independent variable. From the R² test results obtained by 0.357, 35.7 per cent of the value of the company can be explained freely via profitability, leverage, company size, CSR and moderation variables, whereas the remaining 64.3 per cent is influenced by other variables not included in the research model.

<table>
<thead>
<tr>
<th>Table 4. t-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: Data Analysis</td>
</tr>
</tbody>
</table>

From the test results, the following can be explained:

1. **Effect of profitability on firm value**
   
   T-test results of profitability variable of 4.679 with sig. of 0.000 which is below 0.05 and a regression coefficient of 2.780. Thus, H₁ is accepted, that is, profitability positively affects firm value.

2. **Effect of leverage on firm value**
   
   T-test results for variable leverage of -2.682 with sig. of 0.009 which is below 0.05 and a regression coefficient of -1.889. Thus, H₂ is accepted, that is, leverage negatively affects firm value.

3. **Effect of company size on firm value.**
   
   T-test results of the company size variable amounted to 3.851 with sig. of 0.000 which is below 0.05 and a regression coefficient of 4.180. Thus, H₃ is accepted, that is, company size positively affects firm value.

4. **Effect of CSR on the relationship of profitability with firm value.**
   
   T-test results for moderation variable (P * CSR) of 3.705 with sig. of 0.000 which is below 0.05. Thus, H₄ is accepted, that is, CSR affects the relationship between profitability and firm value.

5. **Influence of CSR on the relationship of leverage with firm value.**
   
   Results of the moderation variable t test (LEV * CSR) were 2.012 with sig. of 0.048 which is below 0.05. Thus, H₅ is accepted, that is, CSR affects the relationship between leverage and firm value.

6. **Effect of CSR on the relationship of company size with firm value.**
   
   The moderation variable t test results (UP * CSR) of 2.658 with sig. of 0.010 which is below 0.05. Thus, H₆ is accepted, that is, CSR affects the relationship between company size and firm value.

### 6. Discussion

1. **Effect of Profitability on Company Value**

   Profitability ratio is used to assess the ability of a company to seek profits. It measures the profit or operating success of a company in a given period. This ratio also provides a measure of the effectiveness of management of a company. Profitability ratios also have goals and benefits—not only for business owners or management who need them but also for parties outside the company, especially those who have relationships and interests with the company.

   Results of this study indicate that company profitability positively affects firm value. The greater the ability of the company to generate profits, the higher the value of the company. High profitability shows a good company prospect that triggers demand for shares by investors. Positive response from investors affects the stock price as well as the value of the company.

   Results of this study are consistent with the findings of [23-33] who examined the effect of profitability on firm value. Profitability positively affects firm value. The findings of [30] show that the return on equity variable positively affects company value (PBV). In [23] found that profitability...
significantly influences company value. In [34] also indicate that high profitability increases the company’s EPS, thus increasing the value of the company.

2. Effect of Leverage on Company Value

Leverage is an income policy that is related to the decision of a company to fund an investment. Companies that use debt have obligations for interest and loan principal expenses. The use of debt carries a significant risk of debt being unpaid. A company that has debt will have a fixed financial burden, interest and credit returns. As a result, companies tend to pay low dividends because they have to pay their obligations first.

Results of this study indicate that leverage negatively affects firm value. Thus, companies that use large debts in their operations tend to reduce the value of their companies in the eyes of investors. The higher the leverage, the larger the debt owned by the company. Hence, the risk of the company will increase with the debt. This situation causes the value of the company to decrease because high leverage will cause the value of the company to fall. A high DER rate means that the use of debt by the company is higher than the capital itself.

3. Effect of Company Size on Company Value

Company size is a characteristic of a company in relation to company structure. It can be interpreted as a comparison of the size of a company. The size of the company is a reflection of the size of the company that appears in the total value of assets of the company. Results showed that firm size (FS) positive affects firm value. The greater the size of the company, more investors will pay attention to the company. Positive results show that the high size of the company causes the size of the company to be higher too. Increased company size can be valued from assets (earning assets) owned by the company, with large productive assets that will affect production activities of the company and can generate profits in the future. Large-scale companies will be assessed as having good prospects by investors and will increase the value of the company.

4. Role of CSR in Supply chain management, Moderating the Effect of Profitability on Company Value

Results showed that CSR disclosure can strengthen the effect of profitability on firm value. The higher the profitability of the company coupled with an increase in CSR disclosure by the company, the better the value of the company. The financial performance of the company can be seen from the level of the ability of the company to manage resources to generate profits effectively and efficiently. Companies with high profitability will be active in disclosing information on CSR activities as a form of corporate responsibility to stakeholders. The company must fulfil these responsibilities so that stakeholders support every activity carried out by the company to increase the value of the company. The higher the profitability, the higher is the value position of the company in the eyes of investors. Reporting information related to increased profitability and wider CSR disclosure will impact the quality of the financial statements of the company, where the report is considered in making investment decisions for investors. Both information can describe a good business prospect in the future so that it will be captured by investors as a positive signal which impact rising stock prices and company value.

5. Role of CSR in Moderating the Effect of Leverage on Company Value

Based on the results, CSR can strengthen the relationship of leverage to the value of the company. Thus, the higher the level of corporate debt coupled with CSR disclosure, the higher the company value will be.

Leverage measures how much the company is financed with debt. The survival of the company is also determined by how much the company uses debt in supporting the company. If the debt is too large, it can endanger the survival of the company in the future and the risk of bankruptcy of the company will be higher. The lower the level of leverage ratio of a company, the higher the CSR will be which will affect the value of the company. Company funds will continue to be used to disclose CSR to attract the level of trust of potential investors.

6. Role of CSR in Moderating the Effect of Company Size on Company Value

Based on the results, CSR can strengthen the relationship between company size and company value. The greater the size of the company followed by CSR disclosure, the higher the company causes the value of the company to increase.

CSR disclosure moderates the effect of company size on firm value. Large companies tend to disclose social information to avoid costs incurred if the company does not carry out social responsibility activities. Large companies will also disclose CSR information broadly. Hence, the image of the company improves and later affect the increase in company value.

7. Conclusions

This research analyzed the social practices of CSR with an approach directed towards the efficient management of the supply chain. Based on the results of the analysis and discussion in the previous chapter, the following conclusions can be drawn:

1. Profitability positively affects the value of companies listed on the Indonesia Stock Exchange in 2015 to 2017. The greater the ability of the company to generate profits, the higher the value of the company.
2. Leverage negatively affects the value of companies listed on the Indonesia Stock Exchange in 2015 to 2017. Thus, companies that use large debts in their operations tend to reduce the value of their companies in the eyes of investors.
3. The size of the company positively affects the value of companies listed on the Stock Exchange in 2015 to 2017. The greater the size of the company, the more investors pay attention to the company. Positive results show that the high size of the company causes the size of the company to rise as well.

4. CSR can moderate the relationship between profitability and the value of companies listed on the Indonesia Stock Exchange in 2015 to 2017. The higher the profitability of the company accompanied by an increase in CSR disclosure by the company, the better the value of the company.

5. CSR can moderate the relationship between leverage and the value of companies listed on the Indonesia Stock Exchange in 2015 to 2017. Thus, an increase in the level of corporate debt coupled with high CSR disclosures also causes the value of the company to rise.

6. CSR can moderate the relationship between company size and the value of companies listed on the Indonesia Stock Exchange in 2015 to 2017. The greater the size of the company, the higher the CSR disclosure and thus the company value will be.

8. Recommendations

The variables in this study only use profitability, leverage and size in determining the relationship to the value of the company and examining the effect of the moderating variable, CSR. The researcher can then add variables other than those already used in this study such as corporate governance and moderating variables.

Companies that are used as research samples are only limited to the manufacturing sector. Hence, they do not represent all sectors in the Indonesia Stock Exchange. Further researchers should use the entire company to generalize the current results.

References


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