Does BOC`s Characteristics Moderate The Effect of Corporate Social Responsibility on Performance? Evidence of Indonesian Mining Companies

Muhammad Taufik a,*, Tommy William b

aAccounting Department, Universitas Internasional Batam, m.taufik@uib.ac.id, Indonesia
bAccounting Department, Universitas Internasional Batam, 1842182.tommy@uib.edu, Indonesia

Abstract. This study investigates the moderation of BOC`s size and education level the relationship between corporate social responsibility (CSR) and performance which is proxied on Tobins Q, ROA, and ROE. The investigation was observed using the resource dependency theory (RDT) and stakeholder theory paradigms. Data were collected from mining companies listed on the Indonesia Stock Exchange for the 2015-2019 period with a total of 735 data and regressed using panel data techniques. The insignificant effect was found between CSR towards Tobins Q and ROA that indicate mining company focused on reputation and comply to regulatory than moral values. Meanwhile, CSR has significant effects to increase ROE that indicates mining companies tend to approach capital owners. BOC`s size was unpredispose to moderate between CSR and Tobins Q, ROA, ROE that confirm BOC dodge CSR around. The extremity point is BOC`s education level has negative moderate between CSR and Tobins Q. The key strength of this work adds to the growing literature body of BOC`s characteristics moderate CSR on performances types and has demonstrated the impartiality in CSR.

Keywords: Firm performance, corporate social responsibility, BOC, education level, mining companies.

*Corresponding author. E-mail: m.taufik@uib.ac.id
Introduction

If given a cycle, the company does not carry out business activities that are oriented only to profit but also needs to provide reciprocal benefits to stakeholders for operational sustainability (Hardi & Chairina, 2019; Masdupi & Yulius, 2017) which is following stakeholder theory (Wicks & Harrison, 2017; Zakhem & Palmer, 2017). Differences in interests between stakeholders and the company can arise as a result of the incompatibility of the company’s operating activities with the expectations of stakeholders so that pressure arises from stakeholders on the company, so the purpose of corporate CSR is to mitigate a gap between them (Benn et al., 2016; Lindawati & Puspita, 2015).

Stakeholders such as shareholders may focus on accounting information, but accounting information is considered traditional and not enough to make stakeholders fully assess the company (Reverte, 2016), even investors have paid attention to CSR (Arvidsson, 2014; Lindawati & Puspita, 2015). CSR is information that complements accounting information (Reverte, 2016). CSR is needed as a communication tool to all stakeholders (Morsing & Schultz, 2006) since companies are actors in a social system that grows in society so that companies try to show community engagement (Deegan & Rankin, 1997). If the company does not implement CSR or does not communicate, the company can experience legal problems, fines, and a bad image (Arvidsson, 2014). The negative implication is that the company is in a crisis of legitimacy (Gray et al., 1995) where the worst situation is that the community has the potential to stop operations (Deegan & Rankin, 1997; O’Donovan, 2002) and disrupt performance (Arvidsson, 2010). Thus, CSR is used by companies to build a corporate image and gain support from stakeholders (Guo et al., 2019; Masdupi & Yulius, 2017) with the motive of contributing to environmental improvement over the use of resources (Bajic & Yurtoglu, 2018; Lee et al., 2018). The positive implication is that companies avoid potential challenges and threats from external sources (Nyeadi et al., 2018) where CSR directs companies to achieve sustainable development (Nirino et al., 2020). This means that the company maintains the existence of life with ideal and continuous environmental factors (Hardi & Chairina, 2019).

However, previous studies found differences in empirical results. Melinda & Wardhani (2020); Bajic & Yurtoglu (2018); Alareeni & Hamdan (2020); Radhouane et al (2018); Nirino et al (2020); Fiandrino et al (2019); Aboud & Diab (2018); Sharma & Song (2018); Park (2017); Nirino et al (2020); Fiandrino et al (2019); Aboud & Diab (2018); Sharma & Song (2018); Park (2017); Griselda et al (2020); Alipour et al (2019); Buallay (2019); Nekhili et al (2017); Devie et al., (2020) found that the effect of CSR on company performance was significantly positive. Meanwhile, the research researched by Feng & Glenn Kreuze (2017); Buallay, Fadel, et al (2020); Buallay, Kukreja, et al (2020) found the effect of CSR on company performance was significantly negative. Meanwhile, the research studied by Janamrung & Issarawornrawanich (2015); Masdupi & Yulius (2017); Khlif et al (2015); Velt (2017); Lee et al (2018); Atan et al (2018); Horn et al (2018); Khlif et al (2015); Zhang & Jung (2020); Farman & B Setyo,(2018); M. S. Hermawan & Mulyawan, (2014) found that the effect of CSR on company performance was not significant. Our difference with previous research is that we focus on companies mining that refers to regulatory compliance in Indonesia.

The mining sector is required to carry out CSR according to Law no. 40 of 2007 Article 74 (Asmeri et al., 2017; Kumala & Siregar, 2020). Mining companies carry out company operational activities related to the environment, namely by dredging natural resources so that they are potentially damaging and harmful to the environment (Flammer, 2013; Griselda et al., 2020) so that public opinion on mining sector companies is not good (Isnalta & Narza, 2017). Considering that mining companies are required to carry out corporate CSR, companies need to have a board of commissioners (BOC) who oversees the performance of the board of directors in implementing the company’s CSR (Cahyadi et al., 2018; Hidayat & Utama, 2015; Sukmono, 2015).

The BOC is a representative of the shareholders to ensure that every decision taken by the management is for the benefit of the company (Cahyadi et al., 2018; A. A. Hermawan, 2011). Technically, the BOC functions and is responsible for monitoring (Darwis, 2009; Khoosyi et al., 2019; Sukandar, 2014), providing various suggestions and input to the board of directors (Setiawan et al., 2020) as well as supervising good corporate governance (Sukmono, 2015) including CSR (Agustia, 2018). Therefore, the BOC needs to have sufficient capital where the appropriate theory to explain this is resource dependence theory. Resource dependence theory (RDT) states that companies must have good governance including BOC that have human capital to...
survive and achieve competitive advantage (Davis & Cobb, 2010; Hillman et al., 2009).

The BOC size and education level can fill the human capital described by RDT. Companies with high members of BOC can increase oversight of the board of directors (BOD) in the implementation of CSR (Oktavianawati & Wahyuningrum (2019); A. Hermawan & Gunardi, 2019) and mitigate CSR information hidden by company management (Hafidzi, 2019). Furthermore, high members of BOC can provide useful input, advice to the BOD (Darwis, 2009; Sukandar, 2014) and the effectiveness of supervision to the BOD (Setiawan et al., 2020), which implies that the BOD is more careful in making decisions with strict supervision from the BOC so this affects the company's performance (Detthamrong et al., 2017).

To support the substance of the BOC size, the education level is needed to create a competitive advantage (Darwis, 2009). The BOC who have a higher education background have the intention of creating a company that is more open and can influence decision making so as to improve the company's reputation (Suhardjanto et al., 2017). Muhammad et al (2021) tested the shariah supervisory board at the doctoral level, considering that BOC also performs a supervisory function so we tested the education level of BOC at the doctoral level, while previous studies, Darmadi (2013) and Darmadi (2013) tested at the postgraduate level. Thus, this work contributes to getting the implication of BOC education level which is still rarely researched.

Literature Review

Stakeholder Theory

Stakeholder theory explains that companies do not only focus on profits or the interests of the company itself (Masdupi & Yulius, 2017), but sustainability (Lindawati & Puspita, 2015). Stakeholder theory explains that CSR can meet stakeholder demands so that it can create a good reputation for the company (Alipour et al., 2019; Fiandrino et al., 2019; Radhouane et al., 2018; Xiao et al., 2018). Investors who are part of the stakeholder view that companies with good CSR implementation also have good governance (Park, 2017). The implications of this relationship lead to the impact of good company performance (Buallay, 2019; Nirino et al., 2020).

Resource Dependence Theory

Resource dependence theory (RDT) explains that the functions that exist in the company's organizational structure are providers of resources to form human capital where Human capital consists of skills, experience, and reputation (Hillman et al., 2009; Hillman & Dalziel, 2003). Capital of board provides four benefits, namely supervision, access to external preferences, good communication channels to external, and gaining legitimacy (Hillman et al., 2009; Hillman & Dalziel, 2003). The implications of the four benefits of board capital will affect company performance (Hillman et al., 2009; Hillman & Dalziel, 2003). Technically, the BOC becomes a tool in obtaining information for shareholders (Pfeffer, 1973) The BOC must have competitive expertise or resources so that any formulated strategy or policy is not easily imitated by other companies (Barney, 1991).

Relationship of CSR to Performance

Firm performance is the result obtained by management in providing competitiveness, efficiency, and effectiveness to the company (Taouab & Issor, 2019). Meanwhile, CSR is an action taken by the company in meeting the demands of stakeholders (Walker et al., 2016) in its involvement in the social system of society (Deegan & Rankin, 1997). CSR is carried out so that the company's reputation becomes good and operations run smoothly (Fiandrino et al., 2019) so that it can improve company performance due to public support (Lindawati & Puspita, 2015; Melinda & Wardhani, 2020).

CSR is also used to create added value and build investor confidence since investors tend to avoid risky companies (Devie et al., 2020). The more transparent the company's CSR disclosures will get a good assessment from investors so that investors will invest in companies that have good CSR disclosures (Aboud & Diab, 2018). Increased support and trust from investors, will make the firm performance will increase then the firm will achieve the targeted profit (Lindawati & Puspita, 2015). CSR carried out by the company has a positive significant relationship to company performance, this is in line with the results of research from Melinda & Wardhani (2020), Bajic & Yurtoglu (2018), Alareeni & Hamdan (2020).
BOC Size Moderate the Relationship CSR and Performance

BOC has a supervisory function on every policy taken by the board of directors (Hidayat & Utama, 2015). Companies with high members of BOC can monitor board of directors closely (Agustia, 2018; Sembiring, 2005). The supervision carried out by the BOC can put pressure on the board of directors to disclose CSR transparently (A. Hermawan & Gunardi, 2019; Oktavianawati & Wahyuningrum, 2019).

Directions given by BOC can influence the policies taken by the board of directors (Hidayat & Utama, 2015). A large member of BOC can create effective oversight of every policy taken by the BOD (Setiawan et al., 2020) so that the board of directors will be more careful in making decisions, this will have an impact on the firm performance (Detthamrong et al., 2017). The BOC size has a significant positive effect on company performance, this is in line with research researched by Suhardjanto et al., 2019; dan Afriani Utama & Utama (2019), and Darmadi (2011).

H2: BOC size moderate the relationship between CSR and performance of mining companies in Indonesia

BOC Education Level Moderate the Relationship CSR and Performance

The BOC has the function of monitoring and supervising every policy taken by each board of directors in implement their duties (Darwis, 2009). The BOC is a representative of the shareholders, so the BOC becomes the main source of information for shareholders (Khoosyi et al., 2019; Sukanasar, 2014). The BOC can emphasize the BOD in implementing social responsibility more effectively (Sembiring, 2005). Furthermore, the background of a BOC can affect the firm performance (Mahadeo et al., 2012). The BOC with a higher education background has a good capacity in processing information and analysis in dealing with company situations and risks (Suhardjanto et al., 2017). The BOC must have a better ability to manage the business and make business decisions than do not have a business and economic knowledge (Pujakusum & Sinarti, 2019). The BOC has a significant positive effect on company performance in line with research researched by Suhardjanto et al., 2017). While the research examined by Darmadi, (2013) found that the education of the BOC had a significant positive effect on performance.

H2: BOC education level moderate the relationship between CSR and performance of mining companies in Indonesia

Research Methodology

This study was designed with quantitative data which are mining companies listed on the Indonesia Stock Exchange from 2015 to 2019. Companies were also selected provided that the equity value was positive (Melinda & Wardhani, 2020). Finally, we found forty-two companies. Variable measurements can be observed in table 1.

Table 1
Definition of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobins Q</td>
<td>Market value + Book value of liabilities / Total book value of asset</td>
</tr>
<tr>
<td>ROA</td>
<td>Net comprehensive income / Total asset</td>
</tr>
<tr>
<td>ROE</td>
<td>Net comprehensive income / Total equity</td>
</tr>
<tr>
<td>BOC size</td>
<td>Total board of commissioners</td>
</tr>
<tr>
<td>BOC education level</td>
<td>Total board of commissioners doctoral/</td>
</tr>
<tr>
<td>Firm size</td>
<td>Ln total asset</td>
</tr>
<tr>
<td>Leverage</td>
<td>Total Liabilities / Total Shareholder Equity</td>
</tr>
</tbody>
</table>

Result and Discussion

Descriptive Statistics

Table 2
Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobins Q</td>
<td>0.2507</td>
<td>4.7552</td>
<td>1.1931</td>
<td>0.8798</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.5757</td>
<td>0.4308</td>
<td>0.0242</td>
<td>0.0267</td>
</tr>
<tr>
<td>ROE</td>
<td>-2.8790</td>
<td>0.7313</td>
<td>0.0011</td>
<td>0.0652</td>
</tr>
<tr>
<td>CSReco</td>
<td>0.2222</td>
<td>1.0000</td>
<td>0.5408</td>
<td>0.5556</td>
</tr>
</tbody>
</table>
Table 2 presents the results of descriptive statistical tests. First, the company's performance is reflected in the average value of Tobins Q, ROA and ROE, namely 1.1931, 2.42% and 0.11%. The ROA and ROE values reflect the positive growth of the company's profits, but the company is quite difficult to create profits. Surprisingly, the market or investors assess that mining companies in Indonesia predict that they will have good performance in the future which is interpreted from the average Tobins Q value of 1.1931. Referring to Tobin Q's interpretation of Mollah and Zaman (2015); Pathan and Paff (2013); Mak and Kusnadi (2005), maybe investors estimate the potential of intangible capital where intangible capital is also the same as CSR such as human rights, community, and the environment. This assumption will be confirmed from the results of the regression test in table 3.

Unfortunately, CSR which is assumed to have the potential to affect Tobins Q has an average value that is not convincing enough. CSR only has an average disclosure of 27.42%, meaning that on average mining companies only disclose 25 topic-specific indicators out of a total of 91 CSR indicators. If detailed, economic CSR has an average disclosure of 54.08% or only reveals 5 indicators of specific economic topics out of a total of 9 indicators. Furthermore, social CSR has an average disclosure of 31.18% or only discloses 15 indicators of specific social topics from a total of 48 indicators. Finally, environmental CSR has an average disclosure of 15.07% or only discloses 5 environmental-specific topic indicators out of a total of 34 indicators, which is quite poor considering that mining companies are companies that damage the environment but do not pay attention to it. Comparison of the Tobins Q value and CSR value is interesting to test, whether the company's under-rated CSR can be appreciated by the market.

Perhaps the power of CSR will not be able to answer the question above, then other capital may emerge, one of which is management (Mak & Kusnadi, 2005; Mollah & Zaman, 2015; Pathan & Paff, 2013) where we reflect with two proxies, namely the BOC size and BOC education level. The BOC size in mining companies has an average of 4.1773 or each mining company has an average of 4 BOC. The BOC education level has an average of 12, 6580% or not many commissioners have education levels up to doctoral level. If interpreted, the BOC size has an average of 4 people and the average education of the BOC is 13.04% meaning that the BOC who have a doctoral education level is only 0.50 or less than 1. We can assume that mining companies are not enthusiastic about trusting the cont function the role and supervision of human capital with the highest education, namely doctoral. Of course, this is quite the opposite of resource dependence theory, which considers that the BOC has human capital that is useful for company performance. These descriptive findings are increasingly interesting to test. All estimates are answered in the regression results in table 3.

**Result**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOC Size</td>
<td>0.0000</td>
<td>0.8333</td>
</tr>
<tr>
<td>BOC Edu</td>
<td>0.0000</td>
<td>0.1304</td>
</tr>
<tr>
<td>Size</td>
<td>31.6572</td>
<td>28.0989</td>
</tr>
<tr>
<td>Leve</td>
<td>34.0556</td>
<td>0.8345</td>
</tr>
</tbody>
</table>

Note: CSR Eco is CSR economic, CSR Env is CSR environment, CSR Soc is CSR social.

Source: stata output v.16

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR Env</td>
<td>0.0000</td>
<td>0.9412</td>
</tr>
<tr>
<td>CSR Soc</td>
<td>0.0208</td>
<td>0.9375</td>
</tr>
<tr>
<td>BOC Size</td>
<td>2.0000</td>
<td>10.0000</td>
</tr>
<tr>
<td>BOC Edu</td>
<td>0.0000</td>
<td>0.8333</td>
</tr>
<tr>
<td>Size</td>
<td>31.6572</td>
<td>27.6533</td>
</tr>
<tr>
<td>Leve</td>
<td>34.0556</td>
<td>1.4150</td>
</tr>
</tbody>
</table>

**Discussion**

Based on the results of hypothesis testing, CSR does not affect company performance as measured by Tobins q and ROA. This is due to CSR carried out by the company only follows regulations from the government and is less associated with stakeholders. In addition to following government regulations, CSR carried out by companies is only to maintain the company's reputation. So that CSR carried out by
companies is only a formality, not morality (Aditya & Juniarti, 2016). Furthermore, investors who are part of stakeholders do not see CSR as an indicator in investment decisions, this makes CSR not have an impact on company performance. The results of this study are in line with the research proposed by Khelif et al. (2015) who found that CSR carried out was not associated with stakeholders so that it did not have an impact on company performance as measured by Tobins Q. In addition, this research is also in line with M. S. Hermawan & Mulyawan, (2014) also stating that companies carry out CSR only to follow government regulations and maintain company reputation so that it does not affect company performance as measured by ROA.

In contrast to the results of the research above, CSR affects company performance as measured by ROE where the results have a significant positive effect. This could be due to the CSR carried out by the company to get closer to the financiers to provide evidence of the company's commitment to the issue of social responsibility to minimize disputes between stakeholders and the company. Companies use CSR as a strategy to create a competitive advantage for the company. The results of this study are in line with research conducted by Dkhili & Ansi (2012) and Oware & Mallikarjunappa (2019).

Furthermore, the BOC size has no effect in moderating CSR on company performance as measured by Tobins Q, ROA and ROE. This is due to large members of BOC have poor communication and coordination. As a result, the BOC size cannot affect the supervisory function. If this is related to the implementation of CSR, the BOC cannot ensure and supervise the implementation of CSR that is carried out properly. The implementation of CSR is not carried out properly due to poor communication and coordination between the BOC which results in no effect on the company's performance. The results of this study are in line with the research of Darwis (2009).

Furthermore, the results of the hypothesis test show that the BOC education level has a significant negative effect in moderating CSR on company performance as measured by Tobins Q which the value of -5.481 at the error rate of 5%. BOC with high education level can analyze and consider ways to improve company performance. The BOC will not take advantage of the implementation of CSR to improve company performance. This is due to CSR does not have a direct impact on improving company performance, so BOC will consider other ways to improve company performance. This makes the BOC will shift the allocation of costs for the use of CSR for other uses to improve company performance.

On the other hand, the BOC education level does not influence moderating CSR on company performance as measured by ROA and ROE. When referring to descriptive statistics, the average ROA and ROE of mining companies are 2.42% and 0.11%, respectively. The low average ROA and ROE indicate that mining companies are difficult to generate a maximum profit using the company's assets or equity. The high educational background of the BOC is also unable to overcome the difficulties faced by mining companies. Companies that implement CSR also cannot influence the company's performance. Furthermore, the implementation of CSR can burden the financial condition of mining companies if referring to the results of descriptive statistics in addition to ROA and ROE, mining companies also have a high average debt compared to equity as seen in the average leverage. This makes investors not interested in the mining sector because it is considered not extractive. Investors also do not pay attention to the educational background of the BOC as an indicator in investment appraisal. Investors are more likely to choose companies based on good performance regardless of the educational background of a BOC. If we refer to Pujakusum & Sinarti (2019) which states that the education of the BOC does not affect the company's performance, our findings can be concluded that the BOC with a higher education background does not guarantee a good impact on the company's performance.

Conclusions

We can conclude that CSR does not affect company performance as measured by Tobins Q and ROA. This is due to companies only use CSR as an action to maintain reputation and comply with regulations, not as an act of morality. In contrast to Tobins Q and ROA, the effect of CSR on company performance as measured by ROE, which has a significant positive effect. This is due to the company uses CSR as a strategy to get closer to the stakeholders to achieve the company's competitive advantage. BOC education level has a significant negative effect in moderating corporate social responsibility on company performance as measured by Tobins Q. This is due to the BOC who have a high background will divert the allocation of the costs of using CSR to other uses to improve the company's performance, because the BOC who have a high background can analyze ways...
to improve company performance. In contrast to Tobin's Q, BOD education level cannot moderate CSR on company performance as measured by ROA and ROE. The educational background of the BOC is not able to improve the company's performance. Mining companies have problems, namely having low average ROA and ROE, and high debt. So that the company is not able to maximize the use of assets and equity to generate profits, besides that the company’s funding comes more from debt. A BOC with a high level of education is also unable to cope with this. The BOC size cannot moderate corporate social responsibility on company performance as measured by Tobin's q, ROA and ROE. A large member of BOC has poor communication and coordination so that the BOC size is large or small does not affect the supervisory function of the board of directors in the implementation of CSR. Poor communication and coordination of the BOC cannot affect the company's performance.

This research focuses only on mining companies, so it is not feasible to describe companies in Indonesia in general. Therefore, future research may use a more general sample which we did not undertake due to the focus on government regulation of CSR implementation. In the future, the expertise of the BOC which consists of accounting, business, legal, and economic aspects also needs to be considered as a moderating variable because of the uniqueness of the expertise in understanding the phenomenon of regulatory compliance and the usefulness of board resources.

References


Darmadi, S. (2013). Board members’ education and firm


