



# Comprehensive Board of Commissioner Diversity and Corporate Social Responsibility Disclosure in Indonesia

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## Abstract

This study examines the effect of comprehensive board of commissioner diversity (BOC\_DIV) and corporate responsibility (CSR) disclosure for listed companies in Indonesia from 2019 – 2020. The implementation of CSR is growing in emerging markets, including Indonesia. In the context of the dual board system in Indonesia, the role of the board of commissioner is vital to address the growing CSR issue through their monitoring and supervising functions. We based our study on Indonesian-listed firms across industries. However, we exclude the financial sector due to different policies. Multiple Regression is employed to investigate the relationship, and the Generalized Method of Moment (GMM) model is executed to identify whether our model falls into the endogeneity problem. The results showed that several Board of Commissioner characteristics (such as size, independence, and gender) are positively associated with CSR disclosure. After testing for the endogeneity problem, the findings remain similar. We examine several dimensions of the board of commissioner diversity on non-financial outcomes, especially CSR disclosure, in the context of developing countries where a dual board system is implemented.

**Keywords** *Board of Commissioner Diversity, Dual Board System, Corporate Social Responsibility, Developing Country*

## INTRODUCTION

In the past few decades, Corporate Social Responsibility (CSR) has been an important issue in the corporate governance literature and business practices globally (e.g. Muttakin & Khan, 2014; Katmon et al., 2019; Qa'dan & Suwaidan, 2019; Fajobi & Muoghalu, 2022; Temiz & Acar, 2023). We define CSR in reference to ISO 26000 as the organization's responsibility to society and the environment by contributing to sustainable development, such as public health and welfare and other stakeholder's expectations (Moratis, 2016). Generally, CSR increases a company's reputation and stakeholder's trust (Ruiz & Garcia, 2021). CSR has become an effective vehicle to meet the overall requests of stakeholders, including shareholders, employees, suppliers, distributors, and communities (Crane, 2019; Fajobi & Muoghalu, 2022). In addition, CSR is an informal form of investment to increase profits while simultaneously supporting stakeholders' interests. Changes also follow awareness of CSR practices in regulations. Policymakers in many countries require listing firms to report social and environmental contributions through sustainability reports (Braam, 2016). Specifically, this shows the position and economic activity of the company as well as the dimensions of the company's social environment (Heemskerk, 2002). The main reason for companies to provide sustainability reports is to improve their relations with the public, and this has become a corporate strategy. This strategy is intended to affect the majority of stakeholders, and to sustain and win the market (Amran & Haniffa, 2011).

In corporate governance's view, the monitoring function's effectiveness determines CSR disclosure. Companies with better monitoring functions tend to disclose more CSR activities. Indonesia applies a two-tier board system that separates the functions of the Board of Directors, who are responsible for daily operations, and the Board of Commissioners, who perform

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monitoring responsibilities in particular. Compared to previous studies which focus on a one-tier board system, such as the U.S. corporate governance system (e.g., [Temiz & Acar, 2023](#)), our study focuses on the effectiveness of the board of commissioners in improving CSR disclosure. The Board of Commissioner in Indonesia play an important role not only in monitoring functions but also in providing strategic recommendations and decisions. We rely on the argument of agency theory suggesting that the role of the board of commissioner members in a dual board system is central in monitoring and supervising strategic sustainable disclosure of the director.

Further, from the resource-based view (RBV) perspective, diversity in the board of commissioners is valuable for achieving the organization's competitive advantage ([Katmon et al., 2019](#)). This indicates that firms in every sector with heterogeneous resources, including the BOC members' assets, skills, and intelligence, deliver superior performance and improve the organization's competitiveness ([Katmon et al., 2019](#); [Ortego, 2023](#)). The more diverse the BOC member's perspectives, the higher the ability of the organization in terms of innovation and problem-solving ([Barroso-Castro et al., 2017](#)). Various capabilities of board members allow them to contribute to organizational outcomes and strategic decision-making, such as CSR ([Rao & Tilt, 2016](#)). Since different types of BOC members gain more reputations, networks, and social connections, they have more opportunities to support the organization's strategic decision-making. A more diverse BOC member represents better skills and experiences that enable them to promote CSR as an important decision making in the organization.

Then, empirical results on the relationship between board diversity and CSR disclosure are mixed and inconclusive. [Katmon et al. \(2019\)](#) examine the effect of several dimensions of board diversity (such as gender, age, educational background, tenure, education level, nationality and ethnicity) based on 200 Malaysia-listed companies. They find a positive association between several aspects of board characteristics (board education level, gender, and tenure) and CSR disclosures. On the contrary, board age and nationality diversity influence CSR negatively significantly. [Qa'dan & Suwaidan \(2019\)](#) find that board size is positively significantly related to CSR using Jordan-listed firms, but the association between other dimensions of the board (age, independence, dual CEO, and chairman position) and CSR is negative and significant. [Temiz and Acar \(2023\)](#) recently examined the effect of board diversity on CSR disclosure using 43 countries from 2010-2019 as their sample. They find that several board characteristics, such as gender diversity, are positively associated with CSR disclosure.

Motivated by limited studies on the Association Board of Commissioner diversity and CSR disclosures and their inconclusive results, we investigate this relationship in the context of Indonesia. Specifically, this research aims to investigate the effect of the comprehensive board of commissioner diversity (BOC\_DIV) and Corporate Social Responsibility disclosure for Indonesian listed firms from 2019-2020. Our paper is different and interesting compared to other studies for several reasons. First, we use the Indonesian context, which applies a two-tier board system. According to Indonesian company law, a dual board system in Indonesia includes a board of directors (BOD) responsible for daily operations and a board of commissioners (BOC) with monitoring and supervision responsibilities. In this context, the role of BOC is central to promoting strategic sustainable disclosures. We differentiate our study by providing empirical evidence on how BOC diversity affects CSR disclosure in the context of a dual-board system. Second, we include more comprehensive dimensions of BOC compared to other related studies, including size, independence, gender, and financial background.

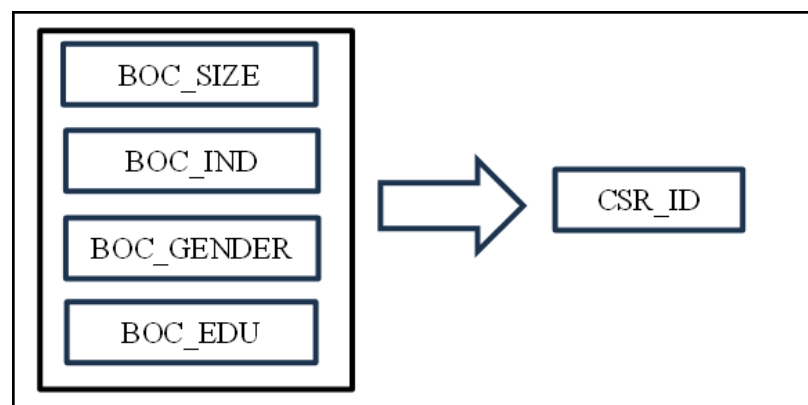
We organize the remainder of the paper as follows. In the next section, we explain the literature review and the development of hypotheses. Then, the research design is reported, followed by a finding and discussion section. Lastly, the conclusion, limitations, and future research sections are presented in the paper.

## LITERATURE REVIEW

Board diversity is defined as mixed compositions of the board of commissioners, which can be grouped into visible characteristics (e.g., size, gender) and less visible characteristics (e.g. education, experience, skills) (Galia & Zenou, 2013). The attention to diverse boards has been increasing in the past few decades, especially in competitive and global economies (Katmon et al., 2019). The effect of the characteristics of the comprehensive board of commissioners on CSR disclosure can be explained by several related theories, including agency, resource-based views, and stakeholder theories. Conflict happens in all aspects of individuals and organizations, especially when market trade is in place (Pembi et al., 2023). Agency Theory (AGT) describes agency conflict between management (agent) and shareholders (principal) in the capital market due to the separation of their roles (type 1 agency conflict). In the context of emerging markets, agency conflict happens between minority shareholders (principal) and majority shareholders (agent), who are considered management as well due to concentrated ownership. It is called agency conflict type 2. From the perspective of AGT, the presence of a board of commissioners in a dual board system in Indonesia can reduce agency conflict type 2 and improve corporate ethical behaviour, which is reflected in increasing CSR disclosure (Joni et al., 2020). We rely our study on AGT type 2 and use other theories (such as RBVT and STT) as additional explanations.

Resource-Based View theory (RBVT) explains that organizations propose strategies by managing their internal resources to achieve competitive advantage (Barney, 1991). The heterogeneities of internal resources, including the mixed capabilities of the board of commissioners, offer various perspectives in making strategic decisions, such as CSR. The board of commissioners' members, with various skills and experiences, can deliver benefits in reference to CSR, such as strategic decision-making through their external networks, reputations, and social connections. Based on RBVT, the diversity of the Board of Commissioners is expected to improve the practice of CSR disclosure. Next, Stakeholder Theory (STT) argues that organizations will benefit more when they pay more attention to stakeholders' interests. Empirical research studies indicate that diverse boards of commissioners focus more on stakeholders and ethical decision-making. Socially responsible practices might reduce the perceived risks of the organization. Based on STT, companies with better corporate governance can improve the implementation of their CSR as a part of their attention to their stakeholders.

Theories have clearly described that the board of commissioners can increase CSR disclosure. The framework of our study is presented in Figure 1. Our paper considers several dimensions of the board commissioner's characteristics that can improve CSR disclosure in Indonesia.



**Figure 1.** The Research Framework

### **The size of Board of Commissioner (BOC) and Corporate Social Responsibility**

Since the BOC plays a central role in monitoring and supervising the work of the board of directors (BOD) in Indonesia's two-tier board system, the BOC's size may improve the level of CSR disclosure. Firms with larger size of commissioner board members can reduce agency conflict through the effectiveness of their monitoring function. Then, companies with more BOC members obtain better networks with external stakeholders and access to more external resources. This can increase corporate ethical behaviour and corporate strategic decision-making, such as CSR. As a result, a larger BOC size could help companies enhance their CSR practices. Also, prior studies support the arguments for a positive association between BOC size and CSR disclosure (e.g., [Qa'dan & Suwaidan, 2019](#)). [Said et al. \(2009\)](#) reported empirical evidence on the relationship between board size and CSR disclosure using Malaysian Public Listed Companies in 2016. The result shows a positive association between board size and CSR disclosure. In the case of Jordan, [Qa'dan and Suwaidan \(2019\)](#), also found that larger boards enhance the level of CSR disclosure. [Asaolu et al. \(2023\)](#) recently reported a positive relationship between board size and sustainability growth based on listed firms in the Nigerian Exchange Group from 2011 to 2010. Based on previous empirical studies, we propose the hypothesis as follows:

H1: Firms with larger BOC members are positively associated with corporate social responsibility disclosure, *ceteris paribus*.

### **The Independent BOC and Corporate Social Responsibility**

The presence of independent board members can increase external perspectives in representing stakeholder voices to improve the company's strategic decision-making. They also improve the monitoring process of the company and reduce information asymmetry ([Lim et al., 2007](#)). Therefore, independent board members are likely to encourage the company to disclose better CSR initiatives. [Qa'dan and Suwaidan \(2019\)](#) show that independent board members result poor CSR disclosure in Jordan. However, most prior studies show that independent board members increase CSR disclosure. For instance, [Deschênes et al. \(2015\)](#) find a positive association between independent board and CSR disclosure in Canada. [Kiliç et al. \(2015\)](#) also found similar results using Turkey's listed firms. Recently, [Umar et al. \(2023\)](#) found a positive association between the independent board and CSR disclosure before the COVID-19 pandemic in the context of Nigeria. Based on previous empirical studies, we propose the hypothesis as follows:

H2: A firm with larger independent BOC members is positively associated with corporate social responsibility disclosure, *ceteris paribus*.

### **The gender of BOC and Corporate Social Responsibility**

The literature reports that board diversity stimulates companies to pay more attention to CSR commitment (e.g., [Katmon et al. 2019](#)). Specifically, the presence of a female board of commissioners affects CSR initiatives. The interaction of ethical behaviour between female and male boards can be a competitive advantage for the organization. Having female board members can initiate better CSR practices (e.g., [Harjoto & Rossi 2019](#)). While [Umar et al. \(2023\)](#) find that female board is not associated with CSR expenditure before and during COVID-19 pandemic in Nigeria, many previous empirical studies demonstrate that female board is positively associated with CSR disclosure ([Rao & Tilt, 2016](#); [Katmon et al., 2019](#); [Harjoto & Rossi, 2019](#)). For example, [Katmon et al. \(2019\)](#) show a positive association between female boards and CSR disclosure. [Awwad et al. \(2023\)](#) also document that female boards increased firm performance and corporate social responsibility using listed companies in the Palestine Stock Exchange from 2010 to 2020.

[Temiz and Acar \(2023\)](#) use cross-country samples (43 countries) from 2010-2019 and report that firms with higher female board representatives experience higher CSR initiatives. Based on previous empirical studies, we propose the hypothesis as follows:

H3: A firm with more female BOC members is positively associated with corporate social responsibility disclosure, *ceteris paribus*.

### **Accounting and Finance as the educational background of BOC, and Corporate Social Responsibility**

The RBVT explains that the diverse knowledge of the board of commissioners in the organization is an internal resource which allows the board of Commissioner members to deliver better strategic decisions and add more value to their stakeholders, including promoting more CSR disclosure ([Barroso-Castro et al., 2017](#)). Also, board members with mixed knowledge and skills will speed up the ability to evaluate the effectiveness of strategic decision-making. This enables them to make evaluations from different perspectives. From AGT's perspective, firms with accounting and finance backgrounds can improve their monitoring function and reduce agency conflict. It can increase the company's CSR disclosure. Therefore, board members should have different educational backgrounds, such as accounting and finance, law, engineering, information technology, and other disciplines, to improve the quality of CSR disclosures. [Katmon et al. \(2019\)](#) document that the diverse educational backgrounds of board members influence CSR disclosure positively and significantly. Based on previous empirical studies, we propose the hypothesis as follows:

H4: A firm with more BOC members who have educational backgrounds in finance and accounting is positively related to corporate social responsibility disclosure, *ceteris paribus*.

## **RESEARCH METHOD**

### **Sample selection and descriptive statistics**

Our study investigates the effect of comprehensive board characteristics on CSR using Indonesian publicly listed companies from 2019-2020. Our data consists of two types of information, including quantitative and qualitative data. We extract financial data (e.g., firm size, leverage) from the Datastream database for quantitative information. Next, qualitative data, such as CSR and board characteristics, is manually collected from each company's annual reports. After eliminating missing and incomplete data, our final sample to estimate the models is 1,069 firm-year observations. We also provide descriptive statistics of all key variables in the models to report mean, maximum, minimum, and deviation standards to obtain a clear understanding of our data before we estimate the main models.

### **Measurement of the variables**

#### *Dependent Variables*

We use corporate social responsibility disclosure as our dependent variable. It is proxied by the CSR index, which consists of 20 items derived from five main dimensions: community, environment, employee information, product and service information, and value-added information ([Muttakin, 2014](#)). The CSR index (CSR\_ID) proposed by [Muttakin \(2014\)](#) is applied in our study because it has been developed and estimated in the context of an emerging market. Therefore, the index is appropriate for the Indonesian context compared to other CSR indexes developed in the context of developed countries.

### Independent Variables

We focus on the effect of comprehensive board characteristics on CSR disclosure in Indonesia. Indonesian corporate governance landscape applies a two-tier board system that separates the board of directors and commissioners. The board of directors focuses on the company's operation and the board of commissioners can conduct monitoring. Our experimental variables are several dimensions of Board of Commissioner (BOC) diversity and composition, including BOC size (BOC\_SIZE), independent BOC members (BOC\_IND), gender (BOC\_GENDER), and educational background (BOC\_EDU).

### Control Variables

In line with prior studies (e.g., [Qa'dan & Suwaidan, 2019](#); [Katmon et al., 2019](#)), several control variables are included to examine the association between the comprehensive board of commissioner and CSR disclosure in Indonesia. The control variables consist of BOD size ([Said et al., 2009](#); [Qa'dan & Suwaidan, 2019](#)), firm size ([Bonsón & Bednárová, 2015](#); [Katmon et al., 2019](#)), leverage ([Lan et al., 2013](#); [Katmon et al., 2019](#)), fixed year and industry effects ([Amran & Haniffa, 2011](#); [Katmon et al., 2019](#)).

### Research Model

We investigate the following model to examine the relation between Board of Commissioner characteristics and corporate social responsibility disclosure in hypotheses 1-4:

$$CSR\_ID = \beta_0 + \beta_1 BOC\_SIZE + \beta_2 BOC\_IND + \beta_3 BOC\_GENDER + \beta_4 BOC\_EDU + \beta_5 BOD\_SIZE + \beta_6 FSIZE + \beta_7 LEV + \beta_8 IND + \beta_9 YEAR + e$$

See Table 1 for the definition of each variable.

### Sensitivity Analysis

One possible problem in exploring the association between the comprehensive board of commissioners and corporate social responsibility is endogeneity. Firms with more CSR commitments may tend to have better board characteristics. There is a possibility that the board characteristics can be endogenously determined. We use the Generalized Method of Moments (GMM) to address the possibility of an endogeneity problem. Also, GMM is a powerful model for addressing the heteroscedasticity problem ([Baum et al., 2003](#)).

**Table 1.** Definition of variables

| Variable                                      | Definition   |
|---|--|
| CSR_ID <sub>it</sub>                          | CSR index consists of 5 dimensions, including community, environment, employee information, product and service information, and value-added information for firm <i>i</i> in year <i>t</i> . It has 20 components in total ( <a href="#">Muttakin &amp; Khan, 2014</a> ; <a href="#">Khan et al., 2013</a> ). |
| BOC_SIZE <sub>it</sub>                        | the number of BOC members for the company <i>i</i> in year <i>t</i> ( <a href="#">Said et al., 2009</a> ; <a href="#">Qa'dan &amp; Suwaidan, 2019</a> ).   |
| BOC_IND <sub>it</sub>                         | the number of independent BOC members for company <i>i</i> in year <i>t</i> ( <a href="#">Deschênes et al., 2015</a> ; <a href="#">Kiliç et al., 2015</a> ).   |
| BOC_GENDER <sub>it</sub>                      | The number of female BODs for company <i>i</i> in year <i>t</i> ( <a href="#">Katmon et al., 2019</a> ).   |
| BOC_EDU <sub>it</sub>                         | The number of female BODs for company <i>i</i> in year <i>t</i> ( <a href="#">Katmon et al., 2019</a> ).   |
| <b>Control variables—firm characteristics</b> |  |
| BOD_SIZE <sub>it</sub>                        | the number of BOD members for company <i>i</i> in year <i>t</i> ( <a href="#">Said et al., 2009</a> ;  |



| Variable                               | Definition  |
|--|---|
|  | <a href="#">Qa'dan &amp; Suwaidan, 2019</a> ).  |
| FSIZE <sub>it</sub>                    | the natural log of the total assets for company i in year t ( <a href="#">Bonsón &amp; Bednárová, 2015</a> ; <a href="#">Katmon et al., 2019</a> ).         |
| LEV <sub>it</sub>                      | the total long-term debt is divided by the total assets for company i in year t ( <a href="#">Lan et al., 2013</a> ; <a href="#">Katmon et al., 2019</a> ). |
| <b>Control variables—fixed effects</b> |   |
| IND <sub>it</sub>                      | a vector of industry indicator variables classified using two-digit GICS ( <a href="#">Amran &amp; Haniffa, 2011</a> ).                                     |
| YEAR <sub>it</sub>                     | a vector of year indicator variables: 2017; 2018; 2019 ( <a href="#">Amran &amp; Haniffa 2011</a> ).  |

## FINDINGS AND DISCUSSION

### Descriptive Statistics

Table 2 reports the descriptive statistics of each key variable investigated from the 1,069 samples in this empirical research. We include the mean, minimum and maximum values, as well as the standard deviation of each variable, as descriptive statistics. All variables applied in this paper were winsorized at the 2nd and 98th percentiles. In the CSR\_ID variable, the minimum (maximum) CSR\_ID value was 0.000 (0.900) and the standard deviation value was 0.205. The results from the descriptive statistics of this CSR\_ID variable is consistent with previous studies conducted by other studies, such as [Said et al. \(2009\)](#). In the descriptive statistics of the variables BOC\_SIZE, BOD\_SIZE, BOC\_IND, BOC\_GENDER, and BOC\_EDU the average values are 2.231; 4.126; 0.427; 0.320 and 1.186.

**Table 2.** Summary statistics of main variables

| Variable   | N     | Mean   | St. Dev | Min    | Max     |
|------------|-------|--------|---------|--------|---------|
| CSR_ID     | 1,069 | 0.376  | 0.205   | 0.000  | 0.900   |
| BOC_SIZE   | 1,069 | 2.231  | 1.128   | 1.000  | 12.000  |
| BOC_IND    | 1,069 | 0.426  | 0.125   | 0.000  | 0.830   |
| BOC_GENDER | 1,069 | 0.320  | 0.549   | 0.000  | 4.000   |
| BOC_EDU    | 1,069 | 1.186  | 1.094   | 0.000  | 6.000   |
| BOD_SIZE   | 1,069 | 4.126  | 1.990   | 1.000  | 12.000  |
| FSIZE      | 1,069 | 21.643 | 1.889   | 17.920 | 25.920  |
| LEV        | 1,069 | 38.799 | 46.398  | 0.000  | 256.800 |

*Notes:* Table 2 reports the summary statistics of the key variables based on 1,069 firm-year observations from 2019-2020

Table 3 shows the correlation of several variables except year and industry using the Pearson correlation matrix. It can be observed that the highest correlation value is 0.453, with a significance level of 1% between BOC\_SIZE and BOD\_SIZE. However, it is free from multicollinearity issues after checking VIF (Variance Inflation Factor). It is shown in Table 4 the value of VIF is less than 10 in the model.

**Table 3.** Correlation matrix

|              | (1)   | (2)   | (3) | (4) | (5) | (6) | (7) | (8) |
|--------------|-------|-------|-----|-----|-----|-----|-----|-----|
| (1) CSR_ID   | 1.000 |       |     |     |     |     |     |     |
| (2) BOC_SIZE |       | 1.000 |     |     |     |     |     |     |

|                |                    |                     |                     |                    |                    |                    |                    |       |
|----------------|--------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|-------|
|                | 0.200 <sup>a</sup> |                     |                     |                    |                    |                    |                    |       |
|                |                    | -0.335 <sup>a</sup> | 1.000               |                    |                    |                    |                    |       |
| (3) BOC_IND    | 0.090 <sup>a</sup> |                     |                     |                    |                    |                    |                    |       |
|                |                    | 0.099 <sup>a</sup>  | -0.064 <sup>b</sup> | 1.000              |                    |                    |                    |       |
| (4) BOC_GENDER | 0.063 <sup>b</sup> |                     |                     |                    |                    |                    |                    |       |
|                |                    | 0.297 <sup>a</sup>  | 0.088 <sup>a</sup>  | 0.037              | 1.000              |                    |                    |       |
| (5) BOC_EDU    | 0.170 <sup>a</sup> |                     |                     |                    |                    |                    |                    |       |
|                |                    | 0.453 <sup>a</sup>  | 0.039               | 0.006              | 0.281 <sup>a</sup> | 1.000              |                    |       |
| (6) BOD_SIZE   | 0.268 <sup>a</sup> |                     |                     |                    |                    |                    |                    |       |
|                |                    | 0.241 <sup>a</sup>  | 0.350 <sup>a</sup>  | 0.126 <sup>a</sup> | -0.046             | 0.211 <sup>a</sup> | 1.000              |       |
| (7) FSIZE      | 0.224 <sup>a</sup> |                     |                     |                    |                    |                    |                    |       |
| (8) LEV        | -0.031             | -0.009              | 0.037               | -0.004             | 0.013              | 0.007              | 0.055 <sup>c</sup> | 1.000 |

Table 3 reports the pairwise Pearson correlation matrix based on 1,069 firm-year observations. The superscripts a-c reflects two-sided significance at the 1%, 5%, and 10% levels, respectively.

### Comprehensive Board of Commissioner Characteristics and CSR

Table 4 reported the regression result of the relationship between several characteristics of the board of commissioners and CSR disclosure. We find that BOC size, independence, and gender affect CSR disclosure positively and significantly at the 1 per cent level. Our results are consistent with hypotheses 1,2,3, suggesting that the size, independence, and gender of BOC enhance CSR disclosure of the company (Kiliç et al., 2015; Harjoto & Rossi, 2019; Qa'dan & Suwaidan, 2019; Temiz & Acar, 2023; Asaolu et al., 2023). However, we find that the financial background of BOC is not associated with CSR disclosure. It is shown that one subject's educational background is not relevant to improving CSR disclosure. It is not consistent with hypothesis 4. The main result confirms the RBV theory, which states that companies should empower the diversity of their internal resources as a strategy to be more competitive in the market. The heterogeneity of board members as internal resources can improve their strategic decisions, such as CSR. Also, agency theory explains that the role of BOC is very important in monitoring the performance of management in terms of CSR activities.

**Table 4.** Comprehensive Board of Commissioner Characteristics and CSR-pooled OLS

|                     | Model                     |
|---------------------|---------------------------|
| INTERCEPT           | 0.013 (0.17)              |
| BOC_SIZE            | 0.020 <sup>a</sup> (3.08) |
| BOC_IND             | 0.145 <sup>a</sup> (2.68) |
| BOC_GENDER          | 0.022 <sup>b</sup> (2.07) |
| BOC_EDU             | 0.005 (0.85)              |
| BOD_SIZE            | 0.016 <sup>a</sup> (4.56) |
| FSIZE               | 0.011 <sup>a</sup> (3.17) |
| LEV                 | -0.000 (1.55)             |
| IND                 | Included                  |
| YEAR                | Included                  |
| Average VIF         | 1.57                      |
| Adj. R <sup>2</sup> | 0.122                     |
| F                   | 9.20                      |
| Prob > F            | 0.000 <sup>a</sup>        |



|   | <b>Model</b> |
|---|--------------|
| N | 1,063        |

Table 4 shows OLS coefficient estimates and indicator variables included in the regression to control for year and industry-fixed effects. The superscripts a-c reflects two-sided significance at the 1%, 5%, and 10% levels, respectively.

### Additional Test

We use the Generalized Method of Moment model to address the possibility of endogeneity problems in corporate governance research. Firms with more CSR concerns may appoint better board characteristics, including larger size, more independence, and so on. After addressing the possibility of an endogeneity issue, the GMM result shown in Table 5 is consistent with the results in Table 4.

**Table 5.** Comprehensive Board Characteristics and CSR-GMM

|            | <b>Model</b>               |
|------------|----------------------------|
| INTERCEPT  | 42.495 <sup>b</sup> (2.35) |
| BOC_SIZE   | 0.019 <sup>a</sup> (2.69)  |
| BOC_IND    | 0.180 <sup>a</sup> (3.50)  |
| BOC_GENDER | 0.022 <sup>b</sup> (2.24)  |
| BOC_EDU    | 0.010 <sup>c</sup> (1.74)  |
| BOD_SIZE   | 0.016 <sup>a</sup> (4.80)  |
| FSIZE      | 0.012 <sup>a</sup> (3.60)  |
| LEV        | -0.000 (1.61)              |
| N          | 1,063                      |

Table 5 reports OLS coefficient estimates and indicator variables are included in the regression to control for year and industry-fixed effects. The superscripts a-c reflects two-sided significance at the 1%, 5%, and 10% levels, respectively.

### CONCLUSIONS

We examine the effect of the comprehensive Board of Commissioner diversity and Corporate Social Responsibility (CSR) disclosure for Indonesian listed firms. The board of commissioner members play an important role in determining strategic decision-making in the context of the dual board system in Indonesia. The board of commissioners, as central monitoring of the corporate governance landscape in Indonesia, can reduce agency problems and transfer external resources to improve corporate ethical behaviour, including CSR initiatives. It also satisfies their stakeholders. Our study confirmed that larger size and more independence of the board of commissioner members could improve their CSR commitment. In addition, firms with more female BOC members show more initiatives on CSR. Lastly, it is shown that Board of Commissioner members with only accounting and finance educational backgrounds are not associated with CSR initiatives.

Our research provides several important implications for academicians and practitioners. First, we can contribute to the corporate governance literature by providing empirical results on the association between the comprehensive board of commissioner characteristics and CSR disclosures in the context of a dual board system. Second, this study also contributes to the practices by describing a better understanding of the strategic role of the Board of Commissioner members and how a more diverse Board of Commissioner members can enhance CSR commitment. Third,

our paper provides empirical results as a basis for policymakers to improve corporate governance development in Indonesia, especially regarding the role of the board of commissioners and how the board of commissioners' diversity can increase corporate social responsibility initiatives.

### **LIMITATION & FURTHER RESEARCH**

However, the study's results should be interpreted by considering some limitations. We first collected corporate social responsibility and other corporate governance information manually. It might be possible to have incomplete or error data that can reduce the reliability of our analysis. Next, the diversity of BOC's educational background is proxied by only accounting and finance subjects. It is possible that inconsistent results on the association between BOC's education and CSR are due to this limited proxy. Finally, we consider only four characteristics of BOC. This might not represent the complex role of the board of commissioner members in the Indonesian corporate governance landscape.

We suggest that future research can add other related characteristics, such as tenure, age, and other characteristics, to obtain a more holistic understanding of the role of the Board of Commissioners in Indonesia. In terms of educational background, future research can address more diverse educational backgrounds in relation to CSR initiatives. Next, we suggest future studies address another CSR measure to improve estimation robustness. Another future research can consider a unique characteristic of the corporate governance landscape in Indonesia, including family ownership to enhance the association between the board of commissioner diversity and corporate social responsibility.

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