Predicting Board Diversity and Corporate Social Responsibility Disclosure in Indonesia Companies

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ABSTRACT

This research investigated the influence of gender, education, and nationality diversity on the board of directors' disclosure of corporate social responsibility on the Indonesia Stock Exchange (IDX). We used data from annual reports totaling 240 companies during 2013–2020. The data panel created using quantitative methods in the form of a regression test data panel was used in this study. The results confirm that nationality diversity affects the disclosure of CSR, but gender and education are not significant. This result is robust to using alternative measures of CSR—the number of disclosure items in the sustainability report as the alternative CSR measurement. This study contributes that the presence of the board of directors of foreign nationals can increase CSR disclosure. Furthermore, this study extends the topic of prior studies and moves beyond traditional board composition to include other board diversity attributes, especially nationality diversity in Indonesian companies. This paper enriches the literature on diversity attribute disclosure and provides important insights for Indonesian regulators into effective ways of fostering disclosures of corporate social responsibility awareness of the social, environmental, and economic impacts of organizational activities as well as strategic and operational decision making.

Keywords: Gender; Education; Nationality Diversity; Accounting Disclosure and Sustainability.

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1. INTRODUCTION

Disclosure of Corporate Social Responsibility (CSR) in the annual report is the best means of communication to external parties and is the company's way of building,contributing to, and maintaining the company both from a political and economic perspective. Disclosure of CSR or sustainability reports in Indonesia is still voluntary, and there are no guidelines that focus on regulating CSR disclosures made by companies. Social and environmental responsibility by limited liability companies is regulated in Indonesian Law No. 40 of 2007 (Article 74). This regulation is limited to companies conducting business related to natural resources, and there are no specific procedures for how companies should disclose a sustainability report.

The Research Center for Governance, Institutions, and Organizations at the National University of Singapore (NUS) Business School conducted a study of 100 companies in four Asian countries in 2016, and one of them is Indonesia. Research results show that the quality of implementing CSR is low. Meanwhile, CSR disclosure shows a high level of

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disclosure in Indonesia (Suastha, 2016). Various types of companies are increasingly pushing for the development of CSR, one of which is carried out by manufacturing companies. Manufacturing companies in Indonesia rank first among ASEAN countries in terms of manufacturing value added (MVA) growth; currently, Indonesia's MVA has reached 4.84 percent, while ASEAN's MVA is around 4.5 percent, and Indonesia ranks ninth globally (Baihaqi, 2018). In addition, the manufacturing industry experienced growth of 4.50 percent in the first quarter of 2018, compared to the previous year's period of 4.28 percent (Baihaqi, 2018; Warta ekonomi, 2018). The growing manufacturing industry in Indonesia is causing environmental damage and waste. Companies must take action to repair the damage and disclose their corporate social responsibility (CSR) in a proper manner. A study by the Indonesia Business Coalition for Women Empowerment (IBCWE), the Indonesia Global Compact Network (IGCN), and UN Women reveals that 50 leading Indonesian companies are taking initiatives to increase women's empowerment, including leadership that supports gender equality, education, transparency, and reporting. The program motivates companies to take concrete actions and promote gender equality in the workplace, market, and community. The study found that 84% of companies must have at least one woman on the board of directors and 68% have policies to retain female employees, as empowered women can contribute more to business.

Currently, large companies in Indonesia provide equal opportunities for every individual to occupy various important positions, and this is starting to be seen by the participation of women on the board of directors and the board of commissioners in the company. This phenomenon underlies the reasons for selecting variables in research studies, therefore the gender of the board of directors and board of commissioners is expected to influence CSR disclosure. Research in Indonesia states that women's boards of directors have a positive effect on CSR disclosure (Aminu Isa & Muhammad, 2014; García-Meca *et al*., 2018; Hadya & Susanto, 2018).

The company does not only focus on issues related to gender, it also seeks to increase its existence by encouraging management to look for human resources with adequate education. Education is important for the board of directors because, through education, it influences individuals' thinking and actions in decision making, especially in CSR disclosure. The educational background of the board of directors and commissioners has a positive influence on the performance of an organization (Rahindayati *et al*., 2015). Members of the board of directors who graduated from economics and business education have more knowledge about business, and this can encourage an increase in the company's image and credibility, which has a positive impact on the company's ability to survive in the long term (Hadya & Susanto, 2018). Therefore, the research will include education as an independent variable that influences CSR disclosure. Another variable that will be used in research is nationality diversity. The board of directors, with its nationality diversity, is very influential on the development of the company, including in CSR disclosure. Nationality diversity is expected to provide a new color in the composition of the board of directors and commissioners from a different point of view, culture of life, opinions, skills, and levels of professionalism so that it can add to business knowledge and alternatives in solving problems (Rasmini, Wirakusuma, and, Yuniarsih, 2014). Directors who are foreign nationals on the board of commissioners are more open to disclosing information, so that this can increase the credibility of the company, and one of them is CSR disclosure (Oxelheim,2001). The presence of foreign nationals can increase CSR disclosure. In line with CSR disclosure, board members are generally foreign nationals, generally coming from developed countries, so they have high awareness of and concern for environmental conditions (Khan, 2010).

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The contribution of this research can become a reference for the business world regarding meeting the demands of stakeholders to increase CSR disclosure. This research also supports written efforts to build and realize gender equality. Also, the results of this study have contributed to encouraging the direction of financial accounting research and good corporate governance to further analyze the other variables that influence CSR disclosure in Indonesia. Therefore, this study extends thetopic of prior studies and moves beyond traditional board composition to include otherboard diversity attributes (gender, educational, and nationality diversity) in Indonesian companies. This paper enriches research on diversity attributes disclosure and provides important insights for Indonesian regulators into effective ways of encouraging corporate social responsibility to reveal understanding of the economic, social, and environmental implications of organizational actions as well as strategic and operational decision-making.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

In the perspective of stakeholder theory, CSR is the process of communicating the social and environmental impacts of the company's economic activities on shareholders, creditors, employees, and society as a whole (Majeed *et al*., 2015). In addition, CSR is a form of corporate concern for the economy, society, and environment according to the triple bottom line principle, which includes profit, people, and planet (Elkington, 1997). CSR disclosure is carried out as a form of accountability, as well as a communication tool to stakeholders that CSR has been carried out in a real way (Golob & Bartlett, 2007). Corporate CSR disclosure encourages ethical business practices, minimizing negative impacts on society and the environment. The Global Reporting Initiative (GRI) is a widely recognized sustainability disclosure framework for companies, measuring, disclosing, and accounting for organizational performance in achieving sustainable development goals. This framework helps stakeholders understand and account for organizational performance in achieving sustainable development goals.

Many studies in various countries discuss CSR, for example from Hendratama and Huang (2021), CSR becomes a growing global trend in Taiwan, and Taiwan has strived to stay in line with international practices and has taken measures to respond to the challenge. Taiwan and its regulators continue to promote CSR and have been taking proactive actions to improve its reporting standards as CSR is increasingly becoming a crucial component of a business. In Indonesia, CSR implementation is more focused on the concept of sustainable development. However, there are no rules or standards requiring companies or manufacturers to disclose CSR, and in practice, fewer than half of companies use an environmentally focused CSR program (Natalina, 2022)**.** The absence of firm regulations relating to sustainable reporting has caused only a few public companiesin Indonesia to be committed to supporting massive sustainable reporting globally. This can also be seen from the absence of Indonesia in the survey conducted by KPMG regarding the 2020 sustainability report (Sebrina *et al*., 2023). Therefore, more studies are needed to clarify this relationship, specifically research on disclosure related to diversity attributes to encourage corporate social responsibility disclosure.

The Effect of Gender on Disclosure of Corporate Social Responsibility

Gender is the difference in sex that humans have, or the self-identity that distinguishes an individual's social status (Kahreh *et al*., 2014). The relationship between gender and business ethics has received great attention and has been extensively researched. Many

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empirical studies show that women are more ethical than men (Meliantha & Jin, 2022). Also conducted was a meta-analysis of the relationship between gender and ethical perceptions, the results of which show that most women have an advantage over men when assessing ethical violations (Borkowski & Yusuf, 1992).

Several studies have discussed gender relations in CSR. (Panwar *et al*., 2010) states that men and women differ in their perceptions of social responsibility. Some research found that women show more concern for corporate ethical responsibility than men, and that women have a much higher social orientation than men (Marz, *et al*., 2003; Smith *et al*., 2001). Also stated, regarding the ethical attitudes of women, is that women have advantages over men in assessing ethical violations (Borkowski & Yusuf, 1992).Women's boards of directors have stronger corporate governance and have greater concern for the needs of a wider range of stakeholders than male board members, women's boards of directors also encourage the implementation of the company'scode of ethics to reduce conflicts of interest. Besides that, women's boards of directorsalso pay more attention to the use of non-financial performance measures, such as innovation and social responsibility, in evaluating company performance (Bernardi, 2010). A woman is considered to be more careful and to have high concern, causing women to consider all company obligations that must be carried out, including CSR disclosure, because CSR disclosure can provide information about the social and environmental impacts caused by company activities (Anuar *et al*., 2009). Women's boards have an influence on the disclosure of Corporate Social Responsibility in public companies in Nigeria (Aminu Isa & Muhammad, 2014). In the analysis model, it can be seen that the existence of women as directors makes a real contribution in increasing the amount of Corporate Social Responsibility disclosure in public companies in Nigeria. Gender has an effect on increasing the disclosure of Corporate Social Responsibility. The results of this study show that both men and women who occupy positions on the board of directors are equally oriented towards developing Corporate Social Responsibility (Handajani *et al*., 2014; Vilkė *et al*., 2014). The boards that have female members have more influence on CSR disclosure, especially those related to employees, social activities, and involvement in the community (Bernardi, 2010). Based on the arguments and results of previous research, the first hypothesis is as follows.

H1: *The gender of the female board of directors has a positive effect on the disclosureof Corporate Social Responsibility in Manufacturing companies on the Indonesia Stock Exchange.*

The Effect of Education on Disclosure of Corporate Social Responsibility

Education is a dimension that distinguishes the level of formal competence possessed by each individual (Gibson, J. L., Ivancevich, J. M., Donnelly, J. H., & Konopa, 2014). The level of competency possessed by individuals in doing their workis indicated by their education, because a person's education influences individual patterns and ways of thinking. It would be preferable if the board of directors had a business and economics educational background, because a board of directors must beable to manage business and make decisions (Kusumastuti *et al*., 2007). Demographic characteristics are individual characters or traits based on population values, one of which is education (Gibson, J. L., Ivancevich, J. M., Donnelly, J. H., & Konopa, 2014). The educational position held by an individual also determines the type of work he or she performs. Directors with a higher level of education are more likely touse their intellectual competence to absorb new ideas and adopt new challenging tendencies, as well as understand the knowledge and conceptions

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behind financial and nonfinancial issues, including CSR (Beji *et al*., 2021).

Education diversity has a positive and significant effect on the number of Corporate Social Responsibility disclosures (Rahindayati *et al*., 2015). The findings show that an individual's educational background has an impact when they are in an organization, such as a board of directors who have economic and business education backgrounds and can encourage a greater number of disclosures on corporate social responsibility disclosure items. This is an indicator of the emergence of changes in thinking patterns after receiving additional education, and as a result, when companiesare led by individuals who have education, it will encourage an increase in the numberof disclosures of Corporate Social Responsibility. We expect that the firms that have well-diversified directors in terms of education level are the ones that are more likely to be involved in CSR activities.

H2: The *education of the board of directors has a positive effect on the disclosure of Corporate Social Responsibility in Manufacturing companies on the Indonesia Stock Exchange.*

The Effect of Nationality Diversity on Disclosure of Corporate Social Responsibility

Nationality diversity reflects the "existence of foreign directors of different nationalities in the boardroom" (A. A. Zaid *et al*., 2020). The presence of foreign nationals on the board of commissioners and directors can trigger expected informationdisclosure and increase the company's credibility. The valuable contributions offered by foreign directors may include information about the importance of technologies that minimize waste and pollution (Beji *et al*., 2021). The company has carried out a process of globalization and exchange of information internationally with the presenceof directors and boards of commissioners of foreign nationality (Oxelheim *et al*., 2013).The presence of foreign nationals on the board can raise the issue of the causality of disclosure (Khan, 2010).

Foreign directors on boards have a positive relationship with CSR; they argue that foreign nationality provides a positive energy for directors to pursue socially responsible activities (Lau *et al*., 2016). The background of board members who are from abroad has become an important aspect in the composition of the board (Farida, 2020). Research shows positive results between the influence of nationality diversity and CSR disclosure (Majeed *et al*., 2015). Nationality diversity has a positive and significant effect on the disclosure of Corporate Social Responsibility. Nationality diversity is one of the factors that influence the increase in the number of Corporate Social Responsibility disclosures in companies (Majeed *et al*., 2015; Ningrum & Prihatiningtias, 2015; Rahindayati *et al*., 2015). In line with theoretical arguments discussed above, and previous empirical results, the following hypothesis is proposed:

H3: *The nationality of the board of directors has a positive effect on the disclosure of Corporate Social Responsibility in Manufacturing companies on the Indonesia Stock Exchange.*

3. METHODS

The population in this study are all manufacturing companies listed on theIndonesia Stock Exchange from 2013 to 2020. The manufacturing sector was chosen because, considering the impact of the activities carried out by the company, they can pollute the environment

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and disturb the surrounding community. These activities are closely related to economic, social, and environmental issues and corporate governancefor both internal and external stakeholders, so it is very important for companies to develop CSR processes and carry out CSR disclosures. The data is obtained from the annual reports of manufacturing companies listed on the Indonesia Stock Exchange (IDX), from the website of the Indonesia Stock Exchange (IDX), and from sustainability reports published by the company. The CSR measurement intended in this study is to measure the amount of CSR disclosure using the GRI index as a reference. The GRI Index is the latest version released in 2018, which consists of the economic (9 items), environment (34 items), labor practices and decent work (16 items), human rights (12 items), society (11 items), and product responsibility (9 items). There are 91 total disclosure items.

Referring to research before (Aminu Isa & Muhammad, 2014; Branco & Rodrigues, 2008; Handajani *et al.*, 2014; Haniffa & Cooke, 2005; Sayekti, Y., & Wondabio, 2007), the calculation of the Corporate Social Disclosure Index (CSDI) uses a dichotomous approach, that is, each CSR item in the research instrument is given a code of 1 if it is disclosed information. In contrast, companies that do not publish any information are coded as 0. Then, the score of each item is added up to get the overall score for each company. The maximum point is 91 when firms present all 91 categories in the checklist. The level of disclosure in the CSR reporting of each company is measured as the ratio of its disclosure score to the maximum points possible. The CSDI calculation formula is as follows:

$$\text{CSRDIj} = \frac{\Sigma \text{Xij}}{\text{nj}}$$

Remarks:

CSRDIj : CSR Disclosure Index Company j

Xij : Number of items disclosed, if disclosed, given value 1. If it is not disclosed,
it is given a value of 0.

nj : Number of items disclosed, n ≤ 91

Gender is the difference in sex that humans have or self-identity that distinguishes individual status in society (Kahreh *et al*., 2014). This study refers to research conducted by Rahindayati *et al*. (2015) and Hadya & Susanto (2018), so that gender measurements are measured using the following formula:

$$\text{Gender} = \frac{Number\ of\ female\ board\ members}{Total\ number\ of\ board\ members} \text{ x } 100$$

Education is a dimension that distinguishes the level of formal competency possessed by each individual (Gibson, J. L., Ivancevich, J. M., Donnelly, J. H., & Konopa, 2014). Boards of directors who have an educational background in economics and business are more knowledgeable about business, and can encourage ahigher number of disclosures on Corporate Social Responsibility disclosure items (Rahindayati *et al*., 2015). In this study, the education of the board of commissioners and directors was measured using the formula (Hadya & Susanto, 2018):

$$Education = \frac{Number\ of\ management\ boards\ with\ economic\ and\ business\ education}{Total\ number\ of\ board\ members} \text{x100}$$

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The nationality diversity the members of the board of commissioners and directors is assessed with a dummy, where if there are foreign nationals on the board of commissioners and directors it will be given a value of 1, otherwise it will be given a value of 0.

This study also accounts for the variable control that affects CSR in an Indonesian context. These variables, as suggested by prior studies, are total asset, firm size, which is computed by the logarithm of total equity, total sales, total liability, and total cash flow (Andrian, 2020; Meliantha & Jin, 2022; Rahindayati *et al*., 2015; Rasmini, Ni Ketut, Wirakusuma, M.G, Yuniarsih, 2014; Sari Kusumastuti *et al*., 2007).The analysis in this study uses the panel regression model using three panel regression models. In the panel regression model, there are three regression models that can be used, including the Common Effect Model, Fixed Effect Model and Random Effect Model (Winarno, 2009). Each model has differences in the analysis and results achieved. Researchers can only choose one of the three panel regression models to be used, which are used in multiple forms and can be formulated into the equation below:

$$CSR_{it} = \beta 0 + \beta 1GEND_{it} + \beta 2EDUC_{it} + \beta 3NAT_{it} + \beta 4TOTASSET_{it} + \beta 5SIZE_{it} + \beta 6SALES_{it} + \beta 7LIAB_{it} + \beta 8CF_{it} + \varepsilon_{it}$$

Remarks:

CSR_{it}	: Number of CSR Disclosures of the company i in the period t
$GEND_{it}$	: Gender of the company i in the period t
$EDUC_{it}$	: Education of the company i in the period t
NAT_{it}	: Nationality Diversity of the company i in the period t
$TOTASSET_{it}$	: Total Asset of the company i in the period t
$SIZE_{it}$	: Total Equity of the company i in the period t
$SALES_{it}$	: Total Sales of the company i in the period t
$LIAB_{it}$	: Total Liability of the company i in the period t
CF_{it}	: Total cash flow of the company i in the period t
ε_{it}	: Error term of the company i in the period t

4. RESULTS

Descriptive Statistics

This study's population consists of manufacturing companies listed on the Indonesia Stock Exchange (IDX) between 2013 and 2020. We use the panel data, and the sample after dropping missing observations consists of 240 listed firms, and the total number of observations is 1,920 from manufacturing sectors based on IDX. The descriptive statistics analysis is presented in Table 1 for variables utilized in the empirical analysis. As the main explanatory variable, gender is found to have an average of 15.37, which means that there are still many companies that have a small number of women's boards in the composition of the board of directors and commissioners. Then, educational background on average, is 53.19, meaning the educational background of economics and business is taken up by most of the board of directors of the company. Furthermore, nationality is found to have an average value of 82.9%, indicating that board members with the highest nationality diversity in the firms being studied. It is also evident that while the average value of CSR disclosure

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is 57.1%, this value on average is still quite good but not optimal compared to the 91 total GRI indexes, which means that there are still many manufacturing companies that disclose only half of the GRI index in their annual reports. Moreover, and regarding control variables, it is found that the average values of total asset, size, sales, liability, and cash flow are 28.415, 23.423, 28.138, 27.293, and 25.908, respectively.

Table 1. Descriptive Statistic

Variable	Obs	Mean	Std. dev.	Min	Max
CSR	240	0.571	0.273	0.416	0.733
GEND	240	15.370	12.637	0	50
EDUC	240	53.197	17.845	12.5	100
NAT	240	0.829	0.377	0	1
TOTASSET	240	28.415	1.725	25.167	33.494
SIZE	240	23.423	3.328	13.676	29.594
SALES	240	28.138	1.886	22.911	33.108
LIAB	240	27.293	1.960	23.091	32.768
CF	240	25.908	2.456	19.754	33.893

Source: Authors' calculation.

The data for the major information categories in CSR reporting are shown in Tables 2. Human rights information has the highest rate of reported information (69%), followed by society information (64%), and the lowest is product responsibility information (42%). The outcome shows that listed corporations have not given product responsibility issues enough consideration. For single indicator information, environmental is provided most frequently (85%). The results indicate that the total number and volume of significant spills for emissions, effluents, and waste (EN23) is important information. In terms of human rights information, the results show that 77.9% of human rights grievances were filed, addressed, and resolved through formal grievance mechanisms. Finally, manufacturing companies disclose the lowest rate of product responsibility (PR7) with 30.4% for the total number of incidents of noncompliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcome. It describes how manufacturing companies in Indonesia seem to have put little weight on product responsibility issues.

Table 2. Summary for components of information disclosure on CSR report

Component	Obs	Average	Average per Year	Min	Max
Economic (EC)	9	0.56	16.83	0.433	0.708
Environment (EN)	34	0.57	17.08	0.321	0.850
Labor Practices (LA)	16	0.55	16.48	0.396	0.733
Human rights (HR)	12	0.69	20.67	0.600	0.779
Society (SO)	11	0.64	19.09	0.442	0.763
Product Responsibility (PR)	9	0.42	12.64	0.304	0.563

Source: Authors' calculations based on data from GRI Index

Hypothesis Testing

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In this study, we used panel data analysis to determine the effect of each variable.First, we use the pooled ordinary least squares (POLs) regression model. The POLs assume that the number of observation companies is the same. In this model is not considered time and individual dimensions, so it is assumed that the behavior of corporate data is the same in various periods. Second, the Fixed Effects Model (FEM)allows the researchers to analyze the effects of variables from time to time. Fixed effects assume that differences between individuals (cross section) can be accommodated by different intercepts. Third, Random Effect Model (REM) is differentfrom the FEM, where various considerations in different companies will affect the dependent variable. This model will estimate panel data where interference variables may be connected over time and between individuals. In the Random Effect model, the difference between intercepts is accommodated by the error terms of each company.

The Hausman test is used to identify whether the fixed-effects or random-effects model is appropriate for research variables and data sets. The results of the Hausman test indicated that the random-effect model was the better approach because the p-valueof (chi2 = 0.1972), is higher than the usual threshold of 0.05 (95% significance). Then We use the LM test to identify whether the random-effects or POLS model is appropriate for research variables. The value of chibar is 0.000, which is lower than the threshold of 0.05 (95% significance), indicating that the random-effects model is the best model for this variable. In the random effects estimation model, the estimation model is considered to have fulfilled the classical assumption test. That matters because the data generated by the random effects model produces a residual that has been normally distributed so that it has passed the normality test. In REM, there is also no linear relationship or autocorrelation between independent variables so that it can meet the multicollinearity and autocorrelation test requirements (Gujarati, D danPorter, 2012; Kosmaryati *et al*., 2019). Table 3 presents the results of the static panel data model among POLs, FEM, and REM.

Table 3. The Result of Static Panel Data Model

	Pooled OLS	**Fixed Effect**	**Random Effect**
Constant	-0.248 (0.163)	0.325 (0.1558)	0.2741 (0.1455)
GEND	-0.001*** (0.0006)	0.000 (0.000)	-0.000 (0.0001)
EDUC	0.0020*** (0.0004)	0.000 (0.000)	0.0000 (0.0001)
NAT	0.0001 (0.0035)	0.0035*** (0.001)	0.0036*** (0.0014)
TOTASSET	0.0162*** (0.0068)	-0.0024 (0.0023)	-0.0020 (0.0023)
SIZE	-0.0051 (0.00324)	-0.0010 (0.0009)	-0.0010 (0.0009)

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SALES	0.0055 (0.011)	-0.0003 (0.0047)	0.00037 (0.0046)
LIAB	0.0077 (0.0101)	-0.0005 (0.004)	0.0002 (0.0043)
CF	-0.0081* (0.0046)	0.0038*** (0.001)	0.0036*** (0.0015)
Adj R Square	0.166	0.101	0.251
Chow Test	Prob > F = 0.0000		
Hausman Test		Prob > chi^2 = 0.1972	
Lagrangian Multiplier Test			Prob > chi^2 = 0.0000

Note: *, ** and *** indicate significant at 10%, 5% and 1% levels respectively. Source: Authors' calculations based on data from GRI Index

5. ROBUSTNESS TESTS

To make our results more stable, we carry out the following robustness tests: Wechange the measurement of our dependent variable, CSR. In this part, the CSRmeasurement intended in this study is to measure the amount of CSR disclosure using the GRI index as a reference. Following reference to POJK No. 51/POJK.03/2017 regarding the Implementation of Sustainable Finance for Financial Services Institutions, Listed Companies, and Public Companies in accordance with the criteria in the Circular Letter of the Financial Services Authority (SEOJK) No. 16/SEOJK.04/2021 concerning the Form and Contents of the Annual Report of Listed
Companies or Public Companies, we use the number of disclosure items in the CSR report as the alternative CSR measurement. There are seven indicators that the Sustainability Report contains information about: Description of sustainability strategy, sustainability performance highlights, Brief Profile, Explanation of the board of directors contains, sustainability Governance, Sustainability Performance, Written verification from an independent party.

The regression results are shown in column (1) of Table 4 for the random effect model using the GRI index as a reference. In addition, we use the number of CSR reporting disclosure items by using the company's sustainability report as an alternative to measuring CSR performance, and the regression results are listed in column (2) of Table 4.

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Table 4. The Result of Alternative CSR measurements (with robustness test).

	(1)	(2)
Constant	0.2741 (0.1455)	0.4728 (0.4471)
GEND	-0.000 (0.0001)	0.001 (0.0014)
EDUC	0.0000 (0.0001)	0.0009 (0.0010)
NAT	0.0036*** (0.0014)	0.1218*** (0.5359)
TOTASSET	-0.0020 (0.0023)	-0.0150 (0.0152)
SIZE	-0.0010 (0.0009)	0.0081 (0.0076)
SALES	0.00037 (0.0046)	-0.0283 (0.0296)
LIAB	0.0002 (0.0043)	0.0020 (0.0268)
CF	0.0036*** (0.0015)	-0.0037 (0.0115)
Adj R Square	0.251	0.404

Note: *, ** and *** indicate significant at 10%, 5% and 1% levels respectively. Source: Authors' calculations based on data from GRI Index and sustainability report

As seen in Table 4, nationality diversity is still positive and significant. We obtain a result in the second stage regression that is consistent with our main results reported in Table 3, even though each coefficient of gender (GEND), education (EDUC), and nationality (NAT) is larger than the random effect coefficients in column (1) of Table 4, and the results of NAT ($\beta = 0.1218$, $p < 0.01$) is consistent with the empirical results. Therefore, hypothesis H3 passed the robustness test.

6. DISCUSSION

After investigating 240 samples from Indonesian Companies, the results reveal some interesting findings. First, based on the results of testing the hypotheses in Table 3, we have obtained evidence that the variable coefficient for gender is -0.000, and our first hypothesis on the effect of gender on CSR disclosure (H1) is not supported by our statistical tests. This means that gender has no effect on CSR disclosure. This means that the first hypothesis (H1) is rejected. However, the presence of women on the board of directors of a manufacturing company in Indonesia did not affect the disclosure of corporate social responsibility. The reason is that in Indonesia, the presence of women on the board of directors is still quite low (Farida, 2020). This is proven by research data, which shows that the average female presence in the board of directors is only around 15% of the maximum value of 50%. Research shows that if there are only one or two women on the board of directors, it will not have an impact on corporate social responsibility disclosure (Wei *et*

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al., 2017). In the study, it was also explained that the role of women on the board of directors would have a significant effect when there weremore than 3 women on the board. This can also be seen from the data of this study, which shows the average number of female directors on boards is only between one and two for each sample company. Furthermore, conditions in Indonesia show that a public firm is mainly controlled by the family (Claessens *et al*., 2000), and the presence of more women in board member driven by family-ties to control the shareholder rather than for reason of their expertise or experience (Darmadi, 2011). The results of this study are in line with previous research, which shows the presence of women on the board of directors has a weak relationship with the disclosure of corporate social responsibility (Bear *et al.*, 2010; Byron & Post, 2016; Farida, 2020; Manita *et al*., 2018).

The results further display that board education is positively but not significantly related to CSR disclosure, so the second hypothesis (H2) is not supported. Management-educated directors care more about short-term profitable projects, and most often, environmental and business ethics projects are not as profitable as conventional activities (Beji *et al*., 2021). Furthermore, they do not always generate immediate benefits. Further, the more diverse educational background of the board of commissioners will tend to produce more innovative problem-solving (Ratmono *et al*.,2021). The differences in the educational backgrounds will lead the board of commissioners to see problems from various perspectives based on their knowledge.

Then, our third hypothesis on the effect of nationality diversity on CSR disclosure (H3) is supported by our statistical tests at the 1% level. This influence comes from the ability of foreign directors to mainly enhance environmental performance, corporate governance, and community involvement issues. The background of board members who are from abroad has become an important aspect in the composition of the board.Research has shown positive results between the influence of nationality diversity and CSR disclosure (Majeed *et al*., 2015). Also, foreign directors could endorse environmental management and may prefer using technologies that produce less waste and pollution (Beji *et al*., 2021).

7. CONCLUSIONS

Through empirical research, we find the gender was not significantly related to CSR disclosure, which is because in Indonesia the presence of women on the board of directors is still quite low. This is proven by research data, which shows that the average female presence on the board of directors is only around 15% of the maximum value of 50%. Education is not significantly related to CSR disclosure. The more diverse educational background of the board of commissionaires will tend to produce more innovative problem-solving (Ratmono *et al*., 2021). The differences in the educational backgrounds will lead the board of commissioners to see problems from various perspectives based on their knowledge. We find that there is a significant and positive association between nationality diversity and CSR disclosure. This influence comes from the ability of foreign directors to mainly enhance environmental performance issues.

Overall, this paper contributes to the existing literature on CSR determinants, nationality diversity in the Indonesian context. This study has focused on nationality diversity and its implication for CSR disclosure. The findings also offer practical recommendations to policymakers and manufacturing companies. We recommend that

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policymakers should consider the nationality diversity when developing policies to improve CSR disclosure of companies. Our findings also help companies obtain a better composition of their boards of directors because the results of this study shed a light on the need to boost nationality diversity in the board's composition.

This study has limitations. First, in this study, the analysis of CSR disclosure contains subjectivity, so it is possible that the index obtained does not fully describe an accurate value. Second, measuring nationality diversity as a dummy variable without taking into account the directors' home countries is more likely to produce less accurate and generalizable results. Future research could focus on more accurate CSR disclosure measurement, such as using a global CSR score and several CSR sub-scores dedicated to more specific CSR dimensions such as sustainable manufacturing, corporate performance, and external pressure (Kuo, *et al*.). It is hoped that in future research, it can consider other corporate sectors as research population objects to provide a more in-depth understanding of the impact of nationality diversity on CSR disclosure.

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