

Dividend, Corporate Social Responsibility, And Non-Renewable Energy: Testing Board Diversity Alignments

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ABSTRACT

This paper scrutinizes the alignments of the diversity the board of directors (BOD) towards dividends for tackling information asymmetry, corporate social responsibility (CSR), and non-renewable energy (NRE) consumption in order to gain communities' legitimacy. BOD diversity includes gender, age, education level, nationality, and accounting expertise. Data for this study were collected from 40 firms listed on the Indonesia Stock Exchange from 2017 to 2020, and panel data was then analyzed. The results show that board diversity does not impact dividends, except for foreign directors, but it represents strong governance and zero agency costs. Additionally, the diversity of the board's gender, nationality, and accounting expertise negatively affects CSR while other variables are insignificant. Board gender and educational level have significant positive effects on NRE consumption (read: exacerbate) while other variables are relatively insignificant. BOD does not serve the community's interests as much as the investor, but they also have agenda to focus on pro-organization. However, sensitivity analysis has documented the board's apathetic attitude toward the environment. In addition to managerial implications, this research also suggests a top-down approach for regulators to remove the potential rhetoric of the renewable energy target.

KEYWORDS

Dividend
Corporate social
responsibility
Non-renewable energy
Board diversity

INTRODUCTION

The disclosure of corporate social responsibility is part of a complementary series of corporate reporting while accounting disclosures deal with traditional economic information (Reverte, 2016). Therefore, investors are more concerned with earnings data and its derivatives, such as dividends (Deegan & Rankin, 1997). The opinions of Reverte (2016) are consistent with those of Arvidsson (2014), which shows that approximately 95% of financial analysts believe that investors pay greater attention to accounting information. It might be because accounting information such as dividends discloses more about company performance than CSR (Arvidsson, 2014). However, investors are

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now concerned about the legitimacy crisis if they overlook the impact of the company's operations. Thus, they alter the practice of benefiting natural resources by incorporating CSR.

Most previous studies examining CSR have utilized a dummy score of CSR disclosure; 1 if a company discloses the topic and 0 if it is otherwise. Although this practice is empirically and statistically correct, such a disclosure does not indicate whether the company is harming or preserving the environment. Despite being driven by ethical behavior, the practice only discloses dummy scores that reflect achieved legitimacy with low credibility (Bhatia & Makkar, 2020). Therefore, in addition to maintaining the "empirical-traditional practice" described previously, a new method that is able to reflect the status of environmental damage (improvement) is necessary (Jadiyappa et al., 2021).

One form of rational improvement towards sustainability is Sustainable Development Goal (SDG) No. 7, namely "Clean Energy", which all countries have agreed upon. By 2030, Indonesia's clean energy mix target is 26.1% of total energy consumption (Kementerian PPN, 2017). Surprisingly, Zhang et al. (2021), who examined the "going green" practice in 47 nations, claimed that firms in Indonesia have reported 31.05% use of renewable energy. This result is different from developed countries (read: the USA) that only consume 28.76% of renewable energy (Atif et al., 2021). This finding is credible since Zhang et al. (2021) only investigated 25 large companies out of 787 firms in 2018. The important point to take into consideration is that a company is responsible for carbon dioxide emissions (Luo et al., 2013). In this regard, to comprehend the alignments of top management, the approach toward cleaner energy must be investigated.

The board of directors plays a crucial role in formulating and implementing strategic plans, such as CSR and energy consumption. Past studies have generally examined the determinants of CSR and energy consumption from the perspective of BOD characteristics. Formigoni et al. (2021) discovered, for example, that a large BOD influences CSR in Spain and Brazil. Nevertheless, it is impossible to determine the optimal number of a board. Board size is more appropriate to be a control variable since the company is firmly embedded within the "going concern assumption". Further, the issue regarding higher (lower) directors is a never-ending topic of debate. However, the diversity of directors is the antithesis of the given problem because companies should be arranged by increasing (decreasing) the number of females, for instance.

In the CSR context, Khan et al. (2019) and Katmon et al. (2019) observed BOD diversity by emphasizing the role of gender, education level, and nationality differences in enhancing the quality of CSR disclosure. The researchers discovered that the older the BOD members, the lower the quality of CSR. Although accounting expertise is vital for boosting the quality of non-financial decision-making, studies have not examined its correlation to CSR yet. The accounting curriculum has accommodated environmental performance since the 2000s (Holland, 2004). Therefore, this study implements BOD with accounting expertise as one of its variables, leading to the first contribution.

Although Khan et al. (2019) and Katmon et al. (2019) have investigated the relationship between BOD diversity and CSR, neither study has discussed corporate actions in preventing environmental damage nor repairing the environment comprehensively. Besides, their research was conducted in Malaysia and Pakistan, two developing countries. According to Yale University's Environmental Performance Index (Wolf et al., 2022), developing countries have the lowest score for environmental preservation. This index recorded that Indonesia is at 164 of 180 ranks in 2022, which is far from "going green". Thus, this paper dissects how BOD diversity affects the use of cleaner energy. Previous research conducted by Atif et al. (2021) and Zhang et al. (2021) has examined the effect of diversity, including gender and age, on renewable energy. Hence, our paper is the first to add a broader board diversity that covers education level, nationality, and accounting expertise. This leads to the second contribution.

This study investigates the use of “non-renewable energy” (NRE), which is the most considerable distinction from previous studies (Atif et al., 2021; Zhang et al., 2021) that examined “renewable energy”. From 2017-2020, only 40 of the 787 companies listed on the Indonesian stock exchange reported their energy consumption. This study maintains how firms tend to produce CO₂. Even if renewable energy is divided by energy consumption, many samples are zero, making them not able to proceed to the regression test. Compared to Zhang et al. (2021), which only included 25 firms, this study is expected to have broader social contributions.

In alignments context, Atif et al. (2020) and Zhang et al. (2021) conducted research in the context of renewable energy consumption while Khan et al. (2019) and Katmon et al. (2019) investigated CSR. These studies resulted in BOD's role in the sustainability of the CSR sector. However, they did not consider the BOD's primary function as the individual in charge of operations, particularly concerning investors. Driven by this gap, this paper examines the BOD's alignment in addressing legitimacy issues such as CSR and NRE and asymmetry issues such as dividends, which leads to the third contribution.

Following the introduction, section 2 reviews the relevant literature and develops the hypotheses. The research design is discussed in section 3. The empirical results and further analysis are presented in section 4. Lastly, section 5 presents conclusions and implications.

LITERATURE REVIEW

Legitimacy and Agency Theory to CSR and Dividend

Legitimacy theory asserts that a company discloses CSR to gain external recognition and reputation (Suchman, 1995) which can be its valuable resource (Deegan, 2019). The company must then seek to maintain its legitimacy by considering the perceptions of external stakeholders through sustainability reports. This report is a communication tool that highlights the importance of non-financial contexts (Deegan & Rankin, 1997). BOD, which represents investors, functions to compile the reports and communicate with shareholders (Porta et al., 2000). Therefore, the more diverse directors, the more perspectives can support the disclosure in CSR reports (Imran Khan et al., 2019; Rao & Tilt, 2016). Vitolla et al. (2020) maintained that BOD diversity promotes more transparent reports and reduces asymmetry issues. However, when managers pay less attention to the interests of investors, agency costs arise (Thompson & Manu, 2020). Dividend distribution indicates that investors have a control mechanism within the company (Tijjani & Bello, 2019). Thus, a dividend payment can solve the agency cost issue.

Nexus between Board Gender, CSR Disclosure, Non-renewable Energy, and Dividends

BOD gender diversity influences decision-making, but it depends on the proportion of women on the board (Rao & Tilt, 2016). Previous literature has documented that women's presence is a token (Jahid, 2020). However, women on the board foster innovation and can aid in strategic decision-making such as CSR. Previous studies (Ibrahim & Hanefah, 2016; Jahid et al., 2020; Katmon et al., 2019; Rao & Tilt, 2016) have also confirmed women's positive effects on CSR. It may be because women are typically more sensitive than men to the triple-bottom-line approach (Khan et al., 2019). Additionally, their presence encourages the use of renewable energy (Zhang et al., 2021). A previous study reported that female directors influence the proportion of renewable energy produced by

31.18%, compared to 20% when it is without them (Atif et al., 2021). Referring to the legitimacy theory, the hypotheses proposed are:

H_{1a, 1b}: Board gender positively (negatively) affects CSR disclosure (non-renewable energy)

Female BODs do not typically support dividend payments (Sanan, 2019). They tend to be risk-averse; thus, more development and investment decisions are likely to be made, leading to significant negative dividend payments (Sanan, 2019; Tahir et al., 2020). Additionally, female BODs tend to have a challenging relationship with investors (Khan et al., 2022). However, some previous studies (Ain et al., 2021; Sarwar & Hassan, 2021; Thompson & Adasi Manu, 2020; Ye et al., 2019) argued that female directors can improve the quality of supervision and decision-making, leading to higher dividend payments. The presence of women is needed to encourage the distribution of dividends during periods of economic uncertainty (Sarwar & Hassan, 2021). When women are not treated as tokens (read: continuous increase), they may strengthen dividend distribution. Referring to the agency theory, the hypothesis proposed is:

H_{1c}: Board gender positively affects dividends

Nexuses Between Board Age, CSR Disclosure, Non-renewable Energy, and Dividends

Younger directors are typically more inventive and far-sighted (Sarwar & Hassan, 2021). In addition, they offer novel perspectives on their alignment with environmental performance standards (Ibrahim & Hanefah, 2016). As a result, they frequently engage in CSR (Ibrahim & Hanefah, 2016) and utilize renewable energy sources (Zhang et al., 2021). However, older members of BOD are less able to accept these younger ones, resulting in lost opportunities to discuss innovative concepts (Imran Khan et al., 2019). The discussion between the older and younger BODs tends to complicate and divide the distribution of information (Katmon et al., 2019). Thus, the hypotheses proposed are:

H_{2a, 2b}: Board age positively (negatively) affects CSR disclosure (non-renewable energy)

Tahir et al. (2020) and Khan et al. (2022) discovered that, due to their extensive experience, older directors tend to refrain from promoting dividends. They also maintained that younger directors are more competent than older ones (Tahir et al., 2020). Younger BODs are more likely to support dividend distribution because they tend to be more open-minded, tech-savvy, and risk-taking (Khan et al., 2022). Despite this, Thompson & Adasi Manu (2020) asserted that older BOD members play a crucial role in the decision-making process. They are typically less aggressive and prone to conflict with investors, so they favor dividends (Thompson & Adasi Manu, 2020). Thus, the hypothesis proposed is:

H_{2c}: Board age positively affects dividends

Nexuses between Board Education Level, CSR Disclosure, Non-renewable Energy, and Dividends

The board's educational level diversity impacts the processing of information and solving problems (Khan et al., 2019). In addition, diverse educational backgrounds, particularly from regions that emphasize community and social good, positively influence CSR (Harjoto et al., 2019). The education level also promotes openness to novel concepts, such as CSR and environmental concerns (Beji et al., 2020), which leads to enhancing the disclosure quality (Katmon et al., 2019). When CSR

continuously grows, companies offer incentives to promote renewable energy even if it is pricey (Zhang et al., 2021). Therefore, the proposed hypotheses are:

H_{3a, 3b}: Board education level positively (negatively) affects CSR disclosure (non-renewable energy)

Khan et al. (2022) asserted that the educational level of board members improves information flow, which leads to multidimensional solutions. Meanwhile, Custódio & Metzger (2014) argued that mature solutions are specified to company operations and do not weigh dividend payments' advantages or disadvantages. Khan et al. (2022) affirmed that by increasing the number of higher-educated BOD members, the company's performance will improve and potentially allows a dividend increase. Therefore, the proposed hypothesis is:

H_{3c}: Board education level negatively affects dividends

Nexuses between Foreign Directors, CSR Disclosure, Non-renewable Energy, and Dividends

The applicable laws and regulations in a country may be complex for foreign directors to understand (Khan et al., 2019; Khan et al., 2019). Moreover, the extraordinarily high costs associated with appointing foreign directors can impede CSR disclosure (Katmon et al., 2019). However, these foreign directors can increase the attention to CSR disclosure since they are more engaged and active in CSR (Olanrewaju et al., 2020). Setiawan et al. (2021) stated that foreign directors are generally more knowledgeable and highly involved in CSR. In addition, they are most exposed to and concerned with environmental issues; thus, they tend to seek operational methods for reducing waste and pollution (Beji et al., 2021). Therefore, the proposed hypotheses are:

H_{4a, 4b}: Foreign directors positively (negatively) affect CSR disclosure (non-renewable energy)

Foreign directors may encounter conflicts with local ones, and language barriers may impede board effectiveness. Despite these national differences causing a rift, it becomes a forum for various perspectives. Foreign directors may inspire members to make better decisions and develop greater independence (Khan et al., 2022). They are more likely to practice good governance and have the experience and resources necessary for effective oversight (Pucheta-Martínez & López-Zamora, 2017). Therefore, they will prioritize shareholder interests and positively promote dividend distributions (Khan et al., 2022; Pucheta-Martínez & López-Zamora, 2017; Shehata, 2022). Thus, the proposed hypothesis is:

H_{4c}: Board nationality negatively affects dividends

Nexuses between BOD Expertise, CSR Disclosure, Non-renewable Energy, and Dividends

Accounting expertise on the board tends to produce passive decision-making, which inhibits the board from contributing significantly to CSR (Jahid et al., 2020). The directors who are most involved in CSR are chief financial officers (CFOs) with high experience (tenure) while those who hold certification in public accounting have no relationship with CSR (Sun & Rakhman, 2013). Stakeholders deem the BOD's accounting expertise essential to improve the quality of CSR reporting. It is because those accounting experts enhance information dissemination while simultaneously engaging in more CSR disclosure activity (Naheed et al., 2021). Thus, the proposed hypotheses are:

H_{5a, 5b}: Board expertise positively (negatively) affects CSR disclosure (non-renewable energy)

Custódio & Metzger (2014) claimed that board expertise tends to be better able to manage a firm's finances, by reducing cash-related risks, which leads to investment rather than promoting dividends. However, another research argued that board expertise is vital in the business environment to solve problems that ultimately reduce agency costs and increase dividend payments (Khan et al. (2022). It is more significant to promote dividends when there is economic uncertainty (Sarwar & Hassan, 2021). Additionally, board expertise is the primary influence of dividend policy (Thompson & Adasi Manu, 2020). The proposed hypothesis is:

H_{5c}: Board expertise negatively affects dividends

RESEARCH METHOD

The population of this study is all companies listed on IDX from 2017 to 2020. The companies need to fully publish their sustainability and annual reports. Forty companies met the criteria for this study, resulting in a total of 160 data. The first dependent variable in this study is the level of CSR disclosure (CSR_D), measured by the Global Reporting Initiative (GRI) index. We employed a dummy 1 if the company discloses CSR and 0 for an undisclosed from 94 items. These indexes can be thoroughly reviewed in Appendix 1. Nonetheless, as previously discussed, CSR disclosure cannot be used to evaluate the damage (repairs) a company has caused to the environment; CSR may be misappropriating to gain legitimacy (Jadiyappa et al., 2021). Therefore, the authors investigated companies' non-renewable energy (NRE) consumption. It was motivated by Zhang et al. (2021) who stated that in companies that are intensely engaged with CSR, the incentive for going green practices also increases. To maintain reliable measurement, any renewable and non-renewable energy was converted to Gigajoule (Gj), using standards from IPCC, GHG Protocol, ISO 14064, and the USA's Environmental Protection Agency (EPA). Finally, dividend payments were set as the third dependent variable in this study.

BOD diversities, as the independent variables, constitute gender, age, nationality, education level, and expertise. The control variables are BOD Size and board independence. Variable measurement is fully illustrated in Table 1. The regression analysis of this research panel is represented as follows:

$$DPS_{it}/CSR_{Dit}/NRE_{it} = \beta_0 + \beta_1 GEN_1 + \beta_2 AGE_2 + \beta_3 EDUL_3 + \beta_4 NATI_4 + \beta_5 EXPE_5 + \beta_6 BODSI_6 + \beta_7 BODIN_7 + \varepsilon \dots \dots (1)(2)(3)$$

Table 1. Variable measurement

Variable	Abbreviation	Measurement
Dividend per Share	DPS	Dividends divided by shares
CSR disclosure	CSR _D	If CSR is disclosed, 1; otherwise, 0 (94 items)
Non-renewable Energy	NRE	The consumption of non-renewable energy divided by the total energy consumption
BOD gender	GEN	The percentage of female directors on the BOD

Table 1. Variable measurement (continued)

Variable	Abbreviation	Measurement
BOD age	AGE	The average age of directors
BOD education level	EDUL	The percentage of BOD who hold master's degree
BOD nationality	NATI	The percentage of foreign directors on the BOD
BOD expertise	EXPE	The percentage of BOD who hold an accounting background and certification
BOD size	BODSI	Total BOD members
BOD independence	BODIN	The percentage of independent directors on the BOD

RESULTS

Descriptive Statistic

The descriptive statistics are shown in Table 2. The average dividend distribution per share is only 97 IDR compared to the initial public offering of stock that is regulated by stock regulatory bodies at 100 IDR. On average, Indonesian company discloses CSR at 28.37% of the 94 items in the GRI Index. It seems to be relatively low compared to CSR disclosures in other countries. Developed countries, such as the United States and the United Kingdom, disclose their CSR at 53.5%. Upper-middle-income countries, such as Brazil, Russia, India, China, and South Africa, disclose CSR at 49.4% (Bhatia & Makkar, 2020). Companies in Pakistan disclose CSR at 49.06% (Khan et al., 2019) while those in Malaysia disclose CSR at 27.2% (Katmon et al., 2019). Table 2 also shows that the average NRE consumption in Indonesia is 92.49%, indicating that the company's energy consumption structure was far from renewables.

The average number of board members is six, thus, the 7.77% average female representation indicates no gender heterogeneity. The average age of BODs is 58; it is categorized as old since the benchmark is 50 years old (Khan et al., 2019). The average BOD who holds a master's degree is 24.1% while the rest holds a bachelor's degree, indicating a homogenous composition in terms of education level. 84.65% of the BOD are locals while 15.35% were foreigners. Finally, the average percentage of BOD members with accounting expertise is 17.89%. Based on the findings, it can be concluded that the company has a minimal ability to accommodate diversity.

Table 2. Descriptive statistics

Variable	Max	Min	Mean	Std.Dev
DPS	1202.675	0.000	97.014	193.730
CSRD	0.766	0.053	0.283	0.140
CSREC	0.882	0.000	0.304	0.167
CSREN	0.756	0.000	0.245	0.176
CSRSO	0.825	0.075	0.310	0.155
NRE	1.000	0.017	0.925	0.199
GEN	0.428	0.000	0.077	0.110
AGE	76.166	50.000	58.757	4.452
EDUL	1.000	0.000	0.241	0.247
NATI	0.714	0.000	0.153	0.233

Table 2. Descriptive statistics (continued)

Variable	Max	Min	Mean	Std.Dev
EXPE	0.667	0.000	0.178	0.186
BODSI	14.000	3.000	6.206	2.107
BODIN	0.833	0.200	0.423	0.122

Hypotheses Results

This study investigates the alignments of BOD diversity in dealing with legitimacy and information asymmetry; the results are revealed in Table 3. In short, foreign directors have a significant positive correlation with dividends, proven by the score of 265.3 at $p < 0.05$. It implies that these foreign directors can circumvent the asymmetry issue by paying dividends. Meanwhile, other variables were found to have no impact on dividends. Next, board gender has a significant negative relationship with CSR disclosure, accounting for -0.361 at the 0.01. Foreign directors have a negative and significant relationship with CSR, proven by -0.107 at 0.05. Additionally, BOD members with accounting expertise have a negative and significant relationship with CSR, evidenced by -0.130 at 0.05. These findings indicate that BOD has no bearing on company legitimacy. This notion is then strengthened by the positive relationship between board gender on non-renewable energy (NRE) consumption, constituting 0.448 at 0.001. Also, the BOD's educational level significantly correlates with NRE, with a value of 0.113 at 0.01. It indicates that BOD tends to promote NRE and damage the environment. A critical analysis needs to be accompanied by an understanding of legitimacy and agency theory. This analysis is broken down into the relationship between BOD diversity and dividends in the next section and BOD diversity and CSR and NRE in another section.

Table 3. Regression results

Variables	DPS		CSR D		NRE	
	Expected Sign	DPS	Expected Sign	CSR D	Expected Sign	NRE
GEN	(+)	-68.050	(+)	-0.361***	(-)	0.448***
		-102.300		-0.098		-0.131
AGE	(+)	2.222	(+)	-0.001	(-)	0.004
		-2.155		-0.002		-0.004
EDUL	(+)	3.515	(+)	-0.035	(-)	0.113*
		-54.990		-0.054		-0.058
NATI	(+)	265.3**	(+)	-0.107**	(-)	-0.010
		-106.500		-0.044		-0.088
EXPE	(-)	-119.500	(+)	-0.130**	(-)	-0.053
		-92.150		-0.053		-0.086
BODSI	(+)	-5.945	(+)	-0.002	(-)	-0.003
		-7.261		-0.005		-0.005
BODIN	(+)	643.5***	(+)	-0.076	(-)	0.095
		-235.600		-0.089		-0.106
Constant		-303.8**		0.475***		0.552*
		-137.500		-0.145		-0.284
N		160		160		160
R ²		0.719		0.769		0.866

Notes: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

DISCUSSION

Nexus Between BOD Diversity and Dividends

Table 3 shows that BOD gender has no significant effect on dividend distribution, accounting for -68.05. Returning to descriptive statistics, female directors, who hold a minor proportion at 7.77%, are underrepresented (Table 2), so they cannot influence the discussion within the board (Sanan, 2019). Consequently, dividend distribution tends to decline. Interestingly, the proportions and the regression results of this study are almost identical to those in Khan's (2022), which show that 11.4% of Turkish BOD are far from heterogeneous, making the results insignificant. The findings of this study are totally different from previous studies (Ain et al., 2021; Thompson & Adasi Manu, 2020). They also differ from Khan et al. (2022) who stated that female directors lose independence in carrying out their responsibilities as representatives of shareholders. The results of this present study are highly focused on the characteristics of risk-averse women who prepare extensively for long-term investments (Sanan, 2019; Tahir et al., 2020). Female directors are able to calculate costs and projects more accurately than male directors, so they can influence the board to create a reserve fund (read: retained earnings) to prepare for future challenges. It could be plausible because the distribution of dividends is also not mandatory. Hence, it is reasonable when female directors do not promote dividends, which, at the same time, indicates a strong governance practice (Sanan, 2019).

BOD age has no significant impact on dividends, with a value of 2.222. According to descriptive statistics, the average board age is 58 years, classifying them as old directors. It indicates that an older board does not promote dividend payments. It contradicts the findings of Thompson & Adasi Manu (2020), who discovered that older directors tend to favor dividend payments. They have long experience, skills, and practical knowledge, so they are well-equipped to manage the various problems faced by the company (Tahir et al., 2020). Old directors are more concerned with the company's sustainability in the future, and therefore they may advocate retained earnings over dividends. Despite their age, it is believed that investors will listen to these old directors due to their business experience, including their suggestions regarding delaying or eliminating dividends.

Approximately, 24% of the BODs' members hold a master's degree (Table 2). It indicates that the BODs' educational level was insignificant at 3.515, which is similar to Custódio & Metzger's (2014) findings. The board offers a diversity of education from various backgrounds. Higher education leads to more rational directors, which makes solving complex problems easier (Khan et al., 2022). Nonetheless, this present analysis underlines that the BODs' educational level in this respect is more directed at solving the company's internal operational problems (Custódio & Metzger, 2014). For instance, the exposure to educational implications is concentrated on policies that address the management's ability to hold more cash and prepare for liquidity risk and indebtedness (Custódio & Metzger, 2014). In short, the nature of rationality and maturity is combined with the experience (tenure) of directors for financial matters in facing economic uncertainty rather than agency conflict (read: dividend).

The results also show that foreign BOD positively correlates to dividends by 265.3 ($p < 0.05$). It indicates that those foreign directors are in favor of dividend payments, strengthening the previous results (Khan et al., 2022; Pucheta-Martínez & López-Zamora, 2017; Shehata, 2022). Foreign directors are resourceful (Pucheta-Martínez & López-Zamora, 2017) and independent (Khan et al., 2022). By being resourceful, they facilitate the exchange of diverse viewpoints. Their work focuses more on cultivating international business relationships and opening up the market (Giannetti et al., 2015). In this way, profitability soars and leads to the formulation of dividends. Generally, if earnings after tax are high, dividend distribution is unavoidable. Furthermore, by being independent, these

foreign directors position themselves as investors' right hand. Dividends must, therefore, be accommodated as a form of cash flow for investors.

Finally, the results show that the existence of board expertise reaches 17.89%, but it has no significant impact on dividends, proven by the score of -119.5. This finding contradicts previous studies (Khan et al., 2022; Sarwar & Hassan, 2021; Thompson & Adasi Manu, 2020) but bolsters Custódio & Metzger (2014). Directors with accounting expertise are considered more professional than those without such expertise. Their ability to comprehend the financial situation, including the effects of incremental risks, is outstanding. They emphasize the importance of prudence and the company's ability to deal with liquidity and competition in order to allocate earnings to retained earnings, not to dividends.

Nexus between BOD Diversity, CSR, and NRE

Table 3 shows that board gender has a significant negative impact on CSR disclosure, evidenced by the score of -0.361 at $p < 0.01$. It is possibly due to the lack of women on the board, for only 7.77%. Compared to previous studies (Beji et al., 2021; Ibrahim & Hanefah, 2016; Jahid et al., 2020; Katmon et al., 2019; Imran Khan et al., 2019; Ismail Khan et al., 2019; Olanrewaju et al., 2020; Rao & Tilt, 2016) who found a significant positive relationship between female and CSR, the inverse correlation found in this study is astonishing. Our result cannot be described as tokenism (i.e. female presence in the minority). The tokens founded by Jahid et al. (2020), Ibrahim & Hanefah (2016), Katmon et al. (2019), and Rao & Tilt, (2016), that account for respectively 1, 39%, 2.77%, 8.30%, and 9.31%, positively and significantly influence CSR. Before drawing conclusions, the NRE result assists in determining the board's behavior.

Board gender significantly impacts NRE consumption, accounting for 0.448% at $p < 0.01$ (Table 3). Zhang et al. (2021) concluded that companies demonstrate their commitment to CSR by providing more incentives for renewable energy. This study strongly reinforces Wolf et al.'s (2022) findings that Indonesia ranked 164 out of 180 in the Environmental Performance Index report in 2022. In other words, developing countries such as Indonesia have not yet considered environmental sustainability, including the consumption of clean energy. More significantly, the "going green" practice in 2022 has plummeted and has been getting worse; the Environmental Performance Index in 2016 reported that Indonesia ranked 107 out of 180 (Hsu & Samuel, 2016).

CSR is not significantly affected by the BOD's age, proven by the score of -0.00121. Based on descriptive statistics, the average age of the BOD in Indonesia is 58, which is actually considered the retirement age. This study differs from that reported by Beji et al. (2021) but is similar to that reported by Khan et al. (2019). Furthermore, this result is backed up by the relationship between BOD age and NRE, showing an insignificant correlation of 0.005, which advocated the results of Zhang et al. (2021). It means that older directors are more likely to rely on the firm's values but are a burden to the environment. Also, it indicates a weak government. Older directors tend to discredit younger ones who have been exposed to a more sustainable environment (Khan, 2019; Katmon et al. (2019); thus, less renewable energy is consumed (Zhang et al., 2021).

Next, the board's educational level has an insignificant impact on CSR, constituting -0.0349. There is no evidence that higher education increases awareness of the environment. This result is totally different from the previous findings (Beji et al., 2021; Harjoto et al., 2019; Katmon et al., 2019; Khan et al., 2021). Mirroring the result of NRE, which positively influences NRE consumption by 0.113 at $p < 0.01$, directors who hold higher education behave unethically and pay less attention to CSR and environmental damage, further exacerbating and marginalizing educational contributions. It is tough homework (read: environmental rank 68 of 180) both at the corporate and regulatory levels, embedding the idea that going green delays natural damage.

Further, foreign directors give a significant negative impact on CSR, proven by the value of -0.107 at $p < 0.05$. They prioritize the traditional approach, tackling agency costs with investors (read: they positively affect dividends) while marginalizing the legitimacy costs within the social community. This result contradicts the previous studies (Beji et al., 2021; Harjoto et al., 2019; Ibrahim & Hanefah, 2016; Jahid et al., 2020; Khan et al., 2019; Khan et al., 2019; Olanrewaju et al., 2020; Setiawan et al., 2021) but boosts the findings of Katmon et al. (2019). Since foreign directors are aligned with shareholders, they tend to downplay the importance of social disclosure. It can be credible since they also have no significance to NRE at -0.010. Foreign directors realize that they are appointed to share their experiences by gaining access to international markets and enhancing financial performance, thereby they become the right-hand men of investors (Giannetti et al., 2015). Nonetheless, they have difficulty understanding environmental problems in a country, so it is impossible to advocate going green programs. Saving the environment is a highly regulated area, such as renewable energy policy, protected areas, and penalties for environmental damage, in which regulation is their blind spot and language hampers them in reading and discussing (Katmon et al., 2019).

Next, board expertise shows a significant negative relationship towards CSR, proven by -0.130 at $p < 0.05$. This result is contrary to Naheed et al. (2021) and Sun & Rakhman (2013) but strengthens the study of Beji et al. (2021) and Jahid et al. (2020). Board experts with accounting degrees and certifications often focus on financial performance instead of CSR. In their opinion, business ethics and environmental projects are less profitable than conventional (sales) activities. The lack of going green practices is reinforced when the experts have no significant influence on NRE at -0.053. It is less important to have a board with certified public accountants than a board with long tenure (Sun & Rakhman, 2013). Therefore, the effectiveness of the accounting curriculum that has included CSR issues since the early 2000s is questioned. However, the authors emphasize that going green practices is about increasing each individual's awareness. Since the directors are exposed to more financial figures and are headquartered, they rarely visit factories. They do not apprehend that NRE is derived from damaged nature, and its environmental impact is negative.

Board Diversity and CSR Proxies: Sensitivity Analysis

Several differences between the results of this study and those of previous studies were discovered. Frankly, none of the hypotheses results shows that the board aligns with the practice of going green. Consequently, we followed Katmon et al. (2019), Khan et al. (2019), and Khan et al. (2019) in employing a sensitivity analysis. We investigated the impact of board diversity on all proxies' CSR. Table 4 demonstrates BOD's involvement in the triple-bottom-line approach: CSR-economy, CSR-environment, and CSR-social. In order to perform these analyses, we used the following formula:

$$\begin{aligned}
 CSREC_{it}/CSREN_{it}/CSRSO_{it} \\
 = \beta_0 + \beta_1 GEN_1 + \beta_2 AGE_2 + \beta_3 EDUL_3 + \beta_4 NATI_4 + \beta_5 EXPE_5 + \beta_6 BODSI_6 \\
 + \beta_7 BODIN_7 + \varepsilon \dots \dots (1)(2)(3)
 \end{aligned}$$

Table 4 shows that board gender negatively affects CSR-environment and CSR-social, as indicated by values of -0.392 and -0.453 at $p < 0.01$, respectively. From this finding, it is clear that the tokenism of females is not appropriate (Table 3). Gender is not exposed to environmental issues, so it is less likely to be concerned. Next, old directors cannot demonstrate significant changes in any CSR proxy, constituting 0.001 for CSR-economy, -0.001 for CSR-environment, and -0.002 for CSR-social. It implies that they cannot adapt to new forms of legitimacy, such as CSR and NRE. Older BOD members tend to dominate the discussion, undermining the opinions of younger members (Katmon et al., 2019). Further, board educational level has no impact on CSR-economy, CSR-

environment, and CSR-social at 0.089, -0.034, and -0.056, respectively. The higher education members' behavior is unethical, and they pay less attention to CSR and environmental concerns. Next, there is a negative correlation between foreign directors and CSR-economy and CSR-social, accounting for -0.108 at $p < 0.1$ and -0.149 at $p < 0.01$, consecutively. Their efforts to go green have been hindered by their tendency to accommodate investors' primary goal of increasing earnings and dividends (read: the result of foreign directors and dividends). Their disregard for the language barrier and the inability to understand regulations contributes to a low environmental score for developing countries (read: Indonesia at 164 out of 180). Finally, board expertise negatively impacts CSR-environment, amounting to -0.210 at the $p < 0.01$ significance level. The experts' focus is primarily on financial analysis. They are not concerned that coal as a non-renewable energy is exploited and disposed of in a manner that damages the environment. In this respect, they should implement sustainable energy practices that align with their background: accounting graduates who incorporate CSR into curricula (Holland, 2004).

Table 4. Regression result for CSR proxies

Variables	CSREC	CSREN	CSRSO
GEN	-0.078	-0.392***	-0.453***
	-0.108	-0.132	-0.105
AGE	0.001	-0.001	-0.002
	-0.002	-0.004	-0.002
EDUL	0.089	-0.034	-0.056
	-0.080	-0.058	-0.059
NATI	-0.108*	-0.060	-0.149***
	-0.065	-0.047	-0.054
EXPE	-0.118	-0.210***	-0.062
	-0.075	-0.063	-0.062
BODSI	-0.004	-0.000	-0.002
	-0.007	-0.006	-0.006
BODIN	0.088	-0.208**	-0.039
	-0.12	-0.104	-0.103
Constant	0.191***	0.483**	0.553***
	-0.170	-0.218	-0.161
N	160	160	160
R ²	0.681	0.638	0.664

Notes: CSREC is CSR-economy, CSREN is CSR-environment, and CSRSO is CSR-social, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

CONCLUSION

This study examines the effects of BOD diversity on corporate social responsibility (CSR), non-renewable energy (NRE) consumption, and dividends. There has yet to be any prior research regarding BOD alignment within these issues, as they need to tackle agency costs by promoting dividends and maintain legitimacy by promoting CSR and going green. First, board gender diversity

is less likely to support dividends since the board perhaps shifts its attention to retained earnings. The board is more likely to destroy the environment since negative (positive) impacts have been found on CSR (NRE). Second, old directors tend to focus on liquidity rather than dividend promotion, and they are ignorant of the negative environmental impact of NRE. Third, directors with higher educational degrees are more likely to consider liquidity rather than promote dividends, while at the same time, they consume NRE positively and do not advocate going green. Fourth, foreign directors understand that they are in the hands of the directors, so they promote dividends but damage the environment. Fifth, boards with accounting expertise tend to promote prudential practices and adequate liquidity rather than dividends and believe that environmental and business ethics are not economically beneficial. To reiterate, BOD, except for foreign directors, tends to maintain liquidity and promote retained earnings in the "left-tail"; nevertheless, they are not entirely pro-investors. In the "right-tail", there is no evidence indicating that BOD cares about the implications of not-going green practices. BOD does not serve the community's interests as much as the investor, but they also have agenda to focus on pro-organization (refer to stewardship theory).

MANAGERIAL IMPLICATIONS

As previously mentioned, board directors, except for foreigners, tend to avoid dividends. It is possible since dividend payments are not mandatory. It means that a rational (not traditional) BOD intends to provide economic benefits to the firms. Since the advent of agency theory, a shift in view suggests that firms with strong corporate governance tend to pay lower dividends (Sanan, 2019) since dividend payments are a sign of weak governance (Porta et al., 2000). Thus, it might be beneficial to revert to the origins of the agency theory, which leads to minimal conflict between agents and principals. Since dividends are not cash inflows and have costs (dividend tax), investors substitute how agents provide earnings by shifting to rational behavior (Jain, 2007). It should be noted, however, that the BODs in this study tend to act in the company's interests rather than against investors' interests. This study reveals that the boards in Indonesian firms have shifted from paying dividends to retained earnings.

Unexpectedly, there is no indication that BOD is aware of legitimate crises and supports their resolution. This modus operandi may harm the company since the problems have the potential to defy the values of society due to environmental damage. Public opinion may conclude that the company has contributed heavily to the plummeting environmental performance index (Wolf et al., 2022). When the community understands this signal, it is not coincidental or seasonal if it disrupts the value chain cycle and the customer becomes unempathetic, resulting in disloyalty. Thus, the findings of this study remind BOD that damage to nature is the responsibility of all human beings.

One of the management's actual actions toward these problems can be done by responding to bad practices related to CSR-economy, CSR-environment, CSR-social, and NRE consumption. Rather than being tokenistic, women should be aware of and change the perspective in which decisions are made within the board, given their increased concern for the environment and the need for a sustainable future (Beji et al., 2021). Young directors should be accommodated since they are more familiar with going green than their older counterparts (Zhang et al., 2021). Board educational level and accounting expertise need to refer to the education curricula that every individual and entity needs to strive for improvements. Finally, board directors must convey to

all stakeholders that environmental issues are a global concern (i.e. targeting renewable energy in the United Nations forum) so language barriers are no longer a problem.

Only 40 out of 787 companies have reported their energy consumption on the IDX, and only six of them have consistently used renewable energy². The question arises as to how clean energy will be reached in 2030, which is estimated to constitute 26.1% (Kementerian PPN, 2017). It might be beneficial if the Indonesian regulator requires companies to report renewable energy. Thus, as an emerging market and a member of the G-20 country, Indonesia will serve as an example of saving the earth.

LIMITATIONS AND FUTURE RESEARCH

This study cannot avoid some limitations. In this study, the board of directors (BOD) is emphasized as a determinant of dividends, CSR, and NRE. It means it does not cover the BOD's costs due to their decision, so we suggest employing BOD turnover for future research. It was noted by Gallemore et al. (2014) that tax avoidance is a non-ethical act with a level below that of corporate fraud, such as eco-harmful. Previous research has focused on the relationship between tax avoidance and BOD turnover (Chyz & Gaertner, 2018), but it has yet to examine the link between eco-harmful and BOD turnover. BOD turnover is highly sensitive to assessing the impact of conflict between agents and the principle of whether investors are satisfied (disappointed) with the directors' decisions to promote dividends and retained earnings. BOD turnover is also helpful to determine whether there is a new director appointment since the director may continue to destroy nature through the practice of not-going green. Our research is limited to determinants of dividend, CSR, and NRE, and has yet to investigate their consequences, which is necessary for a comprehensive analysis of the study since the model of this study is the first generation that has been developed.

NOTES

1. Referring to IPCC, GHG Protocol, ISO 14064, and the USA's Environmental Protection Agency (EPA), 1 Kwh=0.0036 GJ, 1 liter of industrial diesel oil = 0.0038GJ, 1 liter of gasoline = 0.0342 GJ, 1Kg of palm shell= 0.0236GJ, and 1 liter of biodiesel = 0.0360GJ.
2. The stock codes consistently consumed renewable energy from 2017-2020 were AALI, BUMI, INCO, INKP, SIMP, and SMGR.

REFERENCES

- Ain, Q. U., Yuan, X., Javaid, H. M., Zhao, J., & Xiang, L. (2021). Board gender diversity and dividend policy in Chinese listed firms. *SAGE Open*, 11(1), 1-19. doi: 10.1177/2158244021997807
- Arvidsson, S. (2014). Corporate social responsibility and stock market actors: A comprehensive study. *Social Responsibility Journal*, 10(2), 210-225. doi: 10.1108/SRJ-08-2012-0099
- Atif, M., Hossain, M., Alam, M. S., & Goergen, M. (2021). Does board gender diversity affect renewable energy consumption?. *Journal of Corporate Finance*, 66, 101665. doi: 10.1016/j.jcorpfin.2020.101665
- Beji, R., Yousfi, O., Loukil, N., & Omri, A. (2021). Board diversity and corporate social responsibility: Empirical evidence from France. *Journal of Business Ethics*, 173(1), 133-155. doi: 10.1007/s10551-020-04522-4
- Bhatia, A., & Makkar, B. (2020). CSR disclosure in developing and developed countries: a comparative

- study. *Journal of Global Responsibility*, 11(1), 1–26. doi: 10.1108/JGR-04-2019-0043
- Chyz, J. A., & Gaertner, F. B. (2018). Can paying “too much” or “too little” tax contribute to forced CEO turnover? *Accounting Review*, 93(1), 103–130. doi: 10.2308/accr-51767
- Custódio, C., & Metzger, D. (2014). Financial expert CEOs: CEO’s work experience and firm’s financial policies. *Journal of Financial Economics*, 114(1), 125–154. doi: 10.1016/j.jfineco.2014.06.002
- Deegan, C. M. (2019). Legitimacy theory: Despite its enduring popularity and contribution, time is right for a necessary makeover. *Accounting, Auditing and Accountability Journal*, 32(8), 2307–2329. doi: 10.1108/AAAJ-08-2018-3638
- Deegan, C., & Rankin, M. (1997). The materiality of environmental information to users of annual reports. *Accounting, Auditing & Accountability Journal*, 10(4), 562–583. doi: 10.1108/09513579710367485
- Formigoni, H., Segura, L., & Gallego-Álvarez, I. (2021). Board of directors characteristics and disclosure practices of corporate social responsibility: a comparative study between Brazilian and Spanish companies. *Social Responsibility Journal*, 17(2), 282–298. doi: 10.1108/SRJ-01-2019-0043
- Gallemore, J., Maydew, E. L., & Thornock, J. R. (2014). The reputational costs of tax avoidance. *Contemporary Accounting Research*, 31(4), 1103–1133. doi: 10.1111/1911-3846.12055
- Giannetti, M., Liao, G., & Yu, X. (2015). The Brain Gain of Corporate Boards: Evidence from China. *Journal of Finance*, 70(4), 1629–1682. doi: 10.1111/jofi.12198
- Harjoto, M. A., Laksmana, I., & Yang, Y. wen. (2019). Board nationality and educational background diversity and corporate social performance. *Corporate Governance (Bingley)*, 19(2), 217–239. doi: 10.1108/CG-04-2018-0138
- Holland, L. (2004). Experiences from a student programme designed to examine the role of the accountant in corporate social responsibility (CSR). *International Journal of Sustainability in Higher Education*, 5(4), 404–416. doi: 10.1108/14676370410561108
- Hsu, A., & Samuel, K. (2016). 2016 Environmental Performance Index. *Yale Center for Environmental Law & Policy*. Retrieved from www.epi.yale.edu.
- Ibrahim, A. H., & Hanefah, M. M. (2016). Board diversity and corporate social responsibility in Jordan. *Journal of Financial Reporting and Accounting*, 14(2), 279–298. doi: 10.1108/jfra-06-2015-0065
- Jadiyappa, N., Parikh, B., Saikia, N., & Usman, A. (2021). Social responsibility or smoke screening: evidence from India. *Sustainability Accounting, Management and Policy Journal*, 12(4), 767–787. doi: 10.1108/SAMPJ-03-2019-0086
- Jahid, M. A., Rashid, M. H. U., Hossain, S. Z., Haryono, S., & Jatmiko, B. (2020). Impact of corporate governance mechanisms on corporate social responsibility disclosure of publicly-listed banks in Bangladesh. *Journal of Asian Finance, Economics and Business*, 7(6), 61–71. doi: 10.13106/jafeb.2020.vol7.no6.061
- Jain, R. (2007). Institutional and individual investor preferences for dividends and share repurchases. *Journal of Economics and Business*, 59(5), 406–429. doi: 10.1016/j.jeconbus.2007.04.004
- Katmon, N., Mohamad, Z. Z., Norwani, N. M., & Farooque, O. Al. (2019). Comprehensive board diversity and quality of corporate social responsibility disclosure: Evidence from an emerging market. *Journal of Business Ethics*, 157(2), 447–481. doi: 10.1007/s10551-017-3672-6
- Kementerian PPN. (2017). Peta jalan sustainable development goals (SDGs) di Indonesia. In *Kementerian PPN/Bappenas*.
- Khan, A., Yilmaz, M. K., & Aksoy, M. (2022). Does board demographic diversity affect the dividend payout policy in Turkey? *EuroMed Journal of Business*. doi: 10.1108/EMJB-01-2022-0019
- Khan, Imran, Khan, I., & Senturk, I. (2019). Board diversity and quality of CSR disclosure: evidence from Pakistan. *Corporate Governance (Bingley)*, 19(6), 1187–1203. doi: 10.1108/CG-12-2018-0371
- Khan, Ismail, Khan, I., & Afridi, M. A. (2021). Does board diversity matter for the quality of CSR disclosure? Evidence from the financial sector of Pakistan. *Revista Brasileira de Gestao de Negocios*, 23(1), 104–126. doi: 10.7819/RBGN.V23I1.4091
- Khan, Ismail, Khan, I., & Saeed, B. bin. (2019). Does board diversity affect quality of corporate social

- responsibility disclosure? Evidence from Pakistan. *Corporate Social Responsibility and Environmental Management*, 26(6), 1–11. doi: 10.1002/csr.1753
- Luo, le, Tang, Q., & Lan, Y. C. (2013). Comparison of propensity for carbon disclosure between developing and developed countries: A resource constraint perspective. *Accounting Research Journal*, 26(1), 6–34. doi: 10.1108/ARJ-04-2012-0024
- Naheed, R., AlHares, A., Shahab, Y., & Naheed, R. (2021). Board's financial expertise and corporate social responsibility disclosure in China. *Corporate Governance (Bingley)*, 21(4), 716–736. doi: 10.1108/CG-08-2020-0329
- Olanrewaju, I. S., Ishola, A. K., Nurudeen, S. O., & Ayuba, I. A. (2020). Impact of board diversity on corporate social responsibility of listed oil and gas firms in nigeria. *International Journal of Management and Sustainability*, 9(4), 194–206. doi: 10.18488/journal.11.2020.94.194.206
- Porta, R. La, Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. W. (2000). Agency problem and dividend policies around the world. *The Journal of Finance*, 55(1), 1–33. doi: 10.1016/j.fluid.2008.04.004
- Pucheta-Martínez, M. C., & López-Zamora, B. (2017). How foreign and institutional directorship affects corporate dividend policy. *Investment Analysts Journal*, 46(1), 44–60. doi: 10.1080/10293523.2016.1253136
- Rao, K., & Tilt, C. (2016). Board diversity and CSR reporting: An Australian study. *Meditari Accountancy Research*, 24(2), 182–210. doi: 10.1108/MEDAR-08-2015-0052
- Reverte, C. (2016). Corporate social responsibility disclosure and market valuation: evidence from Spanish listed firms. *Review of Managerial Science*, 10(2), 411–435. doi: 10.1007/s11846-014-0151-7
- Sanan, N. K. (2019). Impact of board characteristics on firm dividends: evidence from India. *Corporate Governance (Bingley)*, 19(6), 1204–1215. doi: 10.1108/CG-12-2018-0383
- Sarwar, B., & Hassan, M. (2021). Impact of economic policy uncertainty on dividend decision: A moderating role of board financial expertise. *Journal of Public Affairs*, 21(3). doi: 10.1002/pa.2613
- Setiawan, D., Brahmana, R. K., Asrihapsari, A., & Maisaroh, S. (2021). Does a foreign board improve corporate social responsibility? *Sustainability (Switzerland)*, 13(20), 1–18. doi: 10.3390/su132011473
- Shehata, N. (2022). Board national diversity and dividend policy: Evidence from Egyptian listed companies. *Finance Research Letters*, 45(February), 102132. doi: 10.1016/j.frl.2021.102132
- Suchman, M. C. (1995). Managing Legitimacy: Strategic and Institutional Approaches. *Academy of Management Review*, 20(3), 571–610. doi: 10.2307/258788
- Sun, L., & Rakhman, F. (2013). CFO financial expertise and corporate social responsibility: Evidence from S&P 500 companies. *International Journal of Law and Management*, 55(3), 161–172. doi: 10.1108/17542431311327619
- Tahir, H., Masri, R., & Rahman, M. M. (2020). Impact of board attributes on the firm dividend payout policy: evidence from Malaysia. *Corporate Governance (Bingley)*, 20(5), 919–937. doi: 10.1108/CG-03-2020-0091
- Thompson, E. K., & Adasi Manu, S. (2020). The impact of board composition on the dividend policy of US firms. *Corporate Governance (Bingley)*, 21(5), 737–753. doi: 10.1108/CG-05-2020-0182
- Tijjani, A. A., & Bello, M. S. (2019). Corporate Ownership And Dividend Policy: Agency Theory Perspectives. *International Journal of Innovative Research and Advanced Studies*, 6(7), 90–96.
- Vitolla, F., Raimo, N., & Rubino, M. (2020). Board characteristics and integrated reporting quality: an agency theory perspective. *Corporate Social Responsibility and Environmental Management*, 27(2), 1152–1163. doi: 10.1002/csr.1879
- Wolf, M. J., Emerson, J. W., Esty, D. C., Sherbinin, D., & Wendling, Z. A. (2022). *Environmental performance index 2022: Ranking country performance on sustainability issues*. Retrieved from <https://epi.yale.edu/downloads>
- Ye, D., Deng, J., Liu, Y., Szewczyk, S. H., & Chen, X. (2019). Does board gender diversity increase dividend payouts? Analysis of global evidence. *Journal of Corporate Finance*, 58(January 2018), 1–26. doi: 10.1016/j.jcorpfin.2019.04.002
- Zhang, D., Zhang, Z., Ji, Q., Lucey, B., & Liu, J. (2021). Board characteristics, external governance and the

use of renewable energy: International evidence. *Journal of International Financial Markets, Institutions and Money*, 72, 101317. doi: 10.1016/j.intfin.2021.101317

Appendix 1.

Table 5. CSR measurement using the GRI Index

Item	CSR	Topic	Indicator
1	CSR-economy	Economic performance	Direct economic value generated and distributed
2	CSR-economy	Economic performance	Financial implications and other risks and opportunities due to climate change
3	CSR-economy	Economic performance	Defined benefit plan obligations and other retirement plans
4	CSR-economy	Economic performance	Financial assistance received from government
5	CSR-economy	Market presence	Ratios of standard entry level wage by gender compared to local minimum wage
6	CSR-economy	Market presence	Proportion of senior management hired from the local community
7	CSR-economy	Indirect economic impact	Infrastructure investments and services supported
8	CSR-economy	Indirect economic impact	Significant indirect economic impacts
9	CSR-economy	Procurement practices	Proportion of spending on local suppliers
10	CSR-economy	Anti-corruption	Operations assessed for risks related to corruption
11	CSR-economy	Anti-corruption	Communication and training about anti-corruption policies and procedures
12	CSR-economy	Anti-corruption	Confirmed incidents of corruption and actions taken
13	CSR-economy	Anti-competitive behaviour	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices
14	CSR-economy	Tax	Approach to tax
15	CSR-economy	Tax	Tax governance, control, and risk management
16	CSR-economy	Tax	Stakeholder engagement and management of concerns related to tax
17	CSR-economy	Tax	Country-by-country reporting
18	CSR-environment	Materials	Materials used by weight or volume
19	CSR-environment	Materials	Recycled input materials used
20	CSR-environment	Materials	Reclaimed products and their packaging materials
21	CSR-environment	Energy	Energy consumption within the organization
22	CSR-environment	Energy	Energy consumption outside of the organization
23	CSR-environment	Energy	Energy intensity
24	CSR-environment	Energy	Reduction of energy consumption
25	CSR-environment	Energy	Reductions in energy requirements of products and services
26	CSR-environment	Water and effluents	Interactions with water as a shared resource
27	CSR-environment	Water and effluents	Management of water discharge-related impacts
28	CSR-environment	Water and effluents	Water withdrawal
29	CSR-environment	Water and effluents	Water discharge
30	CSR-environment	Water and effluents	Water consumption

Item	CSR	Topic	Indicator
31	CSR-environment	Biodiversity	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas
32	CSR-environment	Biodiversity	Significant impacts of activities, products and services on biodiversity
33	CSR-environment	Biodiversity	Habitats protected or restored
34	CSR-environment	Biodiversity	IUCN Red List species and national conservation list species with habitats in areas affected by operations
35	CSR-environment	Emissions	Direct (Scope 1) GHG emissions
36	CSR-environment	Emissions	Energy indirect (Scope 2) GHG emissions
37	CSR-environment	Emissions	Other indirect (Scope 3) GHG emissions
38	CSR-environment	Emissions	GHG emissions intensity
39	CSR-environment	Emissions	Reduction of GHG emissions
40	CSR-environment	Emissions	Emissions of ozone-depleting substances (ODS)
41	CSR-environment	Emissions	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions
42	CSR-environment	Effluents and waste	Water discharge by quality and destination
43	CSR-environment	Effluents and waste	Waste by type and disposal method
44	CSR-environment	Effluents and waste	Significant spills
45	CSR-environment	Effluents and waste	Transport of hazardous waste
46	CSR-environment	Effluents and waste	Water bodies affected by water discharges and/or runoff
47	CSR-environment	Waste	Waste generation and significant waste-related impacts
48	CSR-environment	Waste	Management of significant waste-related impacts
49	CSR-environment	Waste	Waste generated
50	CSR-environment	Waste	Waste diverted from disposal
51	CSR-environment	Waste	Waste directed to disposal
52	CSR-environment	Environmental compliance	Non-compliance with environmental laws and regulations
53	CSR-environment	Supplier environmental assessment	New suppliers that were screened using environmental criteria
54	CSR-environment	Supplier environmental assessment	Negative environmental impacts in the supply chain and actions taken
55	CSR-Social	Employment	New employee hires and employee turnover
56	CSR-Social	Employment	Benefits provided to full-time employees that are not provided to temporary or part-time employees
57	CSR-Social	Employment	Parental leave
58	CSR-Social	Labor/management relations	Minimum notice periods regarding operational changes
59	CSR-Social	Occupational health and safety	Occupational health and safety management system

Item	CSR	Topic	Indicator
60	CSR-Social	Occupational health and safety	Hazard identification, risk assessment, and incident investigation
61	CSR-Social	Occupational health and safety	Occupational health services
62	CSR-Social	Occupational health and safety	Worker participation, consultation, and communication on occupational health and safety
63	CSR-Social	Occupational health and safety	Worker training on occupational health and safety
64	CSR-Social	Occupational health and safety	Promotion of worker health
65	CSR-Social	Occupational health and safety	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships
66	CSR-Social	Occupational health and safety	Workers covered by an occupational health and safety management system
67	CSR-Social	Occupational health and safety	Work-related injuries
68	CSR-Social	Occupational health and safety	Work-related ill health
69	CSR-Social	Training and education	Average hours of training per year per employee
70	CSR-Social	Training and education	Programs for upgrading employee skills and transition assistance programs
71	CSR-Social	Training and education	Percentage of employees receiving regular performance and career development reviews
72	CSR-Social	Diversity and equal opportunity	Diversity of governance bodies and employees
73	CSR-Social	Diversity and equal opportunity	Ratio of basic salary and remuneration of women to men
74	CSR-Social	Non-discrimination	Incidents of discrimination and corrective actions taken
75	CSR-Social	Freedom of association and collective bargaining	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk
76	CSR-Social	Child labour	Operations and suppliers at significant risk for incidents of child labor
77	CSR-Social	Forced or compulsory labor	Operations and suppliers at significant risk for incidents of forced or compulsory labor
78	CSR-Social	Security practices	Security personnel trained in human rights policies or procedures
79	CSR-Social	Right of indigenous peoples	Incidents of violations involving rights of indigenous peoples
80	CSR-Social	Human rights assesment	Operations that have passed a human rights review or impact assessment
81	CSR-Social	Human rights assesment	Employee training on human rights policies or procedures
82	CSR-Social	Human rights assesment	Significant investment agreements and contracts that incorporate human rights clauses or that have undergone human rights screening
83	CSR-Social	Local communities	Operations with local community engagement, impact assessments, and development programs
84	CSR-Social	Local communities	Operations with significant actual and potential negative impacts on local communities

Item	CSR	Topic	Indicator
85	CSR-Social	Supplier social assesment	New suppliers that were screened using social criteria
86	CSR-Social	Supplier social assesment	Negative social impacts in the supply chain and actions taken
87	CSR-Social	Public policy	Political contributions
88	CSR-Social	Customer health and safety	Assessment of the health and safety impacts of product and service categories
89	CSR-Social	Customer health and safety	Incidents of non-compliance concerning the health and safety impacts of products and services
90	CSR-Social	Marketing and labelling	Requirements for product and service information and labeling
91	CSR-Social	Marketing and labelling	Incidents of non-compliance concerning product and service information and labeling
92	CSR-Social	Marketing and labelling	Incidents of non-compliance concerning marketing communications
93	CSR-Social	Customer privacy	Substantiated complaints concerning breaches of customer privacy and losses of customer data
94	CSR-Social	Socioeconomic compliance	Non-compliance with laws and regulations in the social and economic field