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Gender Diversity and Sustainability Performance of Companies Listed on the IDX

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ABSTRACT

This study investigates the impact of female directors and commissioners on the sustainability performance of companies listed on the Indonesia Stock Exchange (IDX). Drawing on previous research, it explores how gender diversity on corporate boards influences sustainability performance across three dimensions: financial, environmental, and social performance. The sample includes 56 non-financial companies listed on the IDX over the period 2019-2021. To analyze the data, the study employs Ordinary Least Squares (OLS) and regression analysis on panel data samples. The results suggest that increasing the proportion of women on boards leads to improvements in both economic and social performance. Specifically, female board members demonstrate a stronger focus on social and economic issues related to stakeholders than their counterparts on boards of commissioners. This finding highlights the importance of gender diversity in driving better engagement and decision-making within companies. This study contributes to the growing body of literature on gender diversity in non-financial companies and underscores the need for a strategic approach to board composition. It suggests that companies should prioritize the right balance of female members on both boards of directors and commissioners to enhance overall sustainability performance. The practical implication of these findings is that policymakers and regulators should actively encourage gender diversity, as it can lead to more sustainable and responsible corporate practices.

1. INTRODUCTION

Performance measurement that only uses financial indicators and only focuses on short-term performance can lead to taking a narrow perspective regarding the company's actual activities (Sara et al., 2021). Thus, performance measurements that only focus on financial performance will not help managers recognize important non-financial elements, such as product quality, customer satisfaction, market share, efficiency and productivity, and employee job satisfaction (El-Hafez et al., 2017). The benefits arising from combining non-financial aspects into management performance are for managers to be able to determine and assess the progress achieved by the company in achieving its business goals, recognize various changes in the business environment, and make it easier to achieve performance goals (Saputra, 2021). Thus, there is a better opportunity for the company to become a sustainable business to support sustainable programs (Narindra et al., 2023). Corporate sustainability is the company's ability to operate in the long term, which depends on sustainable development. Referring to this definition, this research conceptualizes corporate sustainability performance as the ability and capacity of a company to be able to carry out its operational processes over a long period of time (Manurung et al., 2022). Sustainability performance assessment is an approach used by companies to assess sustainable company strategies by paying more attention to environmental and social aspects, in addition to economic aspects in every business consideration (Saputra et al., 2023). Companies make more efficient use of relatively scarce resources, pay attention to environmental sustainability, increase company benefits for society and employees (Hidayah et al., 2023).

Sustainability performance is widely considered in companies listed on the Indonesian stock exchange because when independent searches are carried out by various institutions including educational institutions and universities, many companies experience problems in three aspects of sustainability, namely profit, people and planet (Saputra, 2023; Saputra et al., 2022). Mining companies experience problems in the social context when dealing with local communities and workers (Hana et al., 2022). Manufacturing companies in Jakarta experience environmental problems related to pollution and waste

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(Saputra et al., 2021). And many companies in the nation's capital have social and environmental problems, especially during the Covid-19 pandemic, many companies carried out layoffs resulting in conflict with the community and employees, where this condition caused companies to be brought into trouble with workers' rights violations (Caiyun et al., 2019; Silva et al., 2019).

The issue of sustainability is now in the spotlight of all companies and governments, so companies listed on the IDX are directed to concentrate on sustainability performance, which is not only focused on profits (Hana et al., 2022; Suzan & Putri, 2022). In the financial services authority regulations, it is stated that sustainability performance has a strong environmental and social protection concept so it needs to be implemented in all lines of the company (Farhana, 2020; Lestari, 2021). In the case of pollution in Jakarta, based on data from the Ministry of the Environment (2023) that 75 percent of people are affected by pollution fumes (Pareek et al., 2023; Zaid et al., 2020). Around 35 percent of people experience problems with the respiratory tract, and around 30 percent are hospitalized because of respiratory problems. The rest, the public complained and demanded that the government carry out an investigation into the effects of air pollution (Hana et al., 2022; Sihaloho et al., 2022).

Corporate sustainability has become a strategic focus for most large companies in highlighting their contribution to environmental protection and social development (Galletta et al., 2022; Provasi & Harasheh, 2021). Corporate sustainability is synonymous with ESG, Environment, Social, and Governance (Lestari et al., 2023). ESG reports have three main dimensions, namely environmental, social, and governance which reflect the performance of non-financial information (Sofianty et al., 2022; Ummah & Yuliana, 2023). ESG data disclosure is obtained by stakeholders to monitor company performance and is important for investors to evaluate the company's future financial performance (Ariska et al., 2021; Wahyuningrum et al., 2022). In today's world, investors are increasingly engaging companies on environmental, social, and governance issues (Farhana, 2020). The importance of ESG reporting is supported by several theories, such as; stakeholder theory, signaling theory, and agency theory, which encourage ESG reporting among market participants (Hana et al., 2022; Kristianti, 2023; Sihaloho et al., 2022).

Globally, the Americas has become the most significant region to publish sustainability reports, followed by Asia Pacific, Europe, the Middle East, and Africa (KPMG Survey Sustainability Reporting, 2020). Among ASEAN countries, Malaysia has the highest level of sustainability disclosure (64.5%), followed by Singapore (61.7%), Thailand (60%), Philippines (56.3%) and Indonesia (53.6%). Malaysia regulates sustainability as a mandatory report for all public companies as of December 2018 (Sustainability Reporting Guide, 2018). In Indonesia, ESG disclosure remains voluntary for public companies, except for the banking industry, as of January 2019. Voluntary reporting in Indonesia is based on the Financial Services Authority Regulation, Number 51/POJK.03/2017 (Solikin et al., 2022; Suzan & Putri, 2022).

In dealing with social and environmental problems, the government and society need to consider the use of renewable energy in order to reduce the impact of increasing carbon waste and other pollution in Indonesia (Herli et al., 2021). The role of society is also important in this matter, especially in increasing environmental awareness (Molla, 2021). Men and women in society have the same role in campaigning for environmental preservation and social equality (Wang, 2020). A woman has the same rights and obligations as a man when they are jointly responsible for improving social equality and environmental sustainability (Suciu et al., 2021). In the context of sustainability performance, Shakil et al., (2022) state that the gender perspective has a positive influence on improving sustainability performance in the hotel industry. Khunkaew et al. (2023) also stated that gender is the main thing in achieving sustainable performance in government organizations or the public sector. However, Naveed et al. (2021) stated that there is no relationship between gender and sustainability performance. Just as stated by Gerged et al. (2023), the gender perspective cannot be linked to achieving sustainable performance in companies. Based on the differences in research results, the researchers tried to search and analyze existing data based on data related to the role of gender in achieving sustainability performance (Gallego-Sosa et al., 2020; Muhammad & Migliori, 2022). This research opportunity will be refined by extracting information related to gender and sustainability performance related to current conditions (Mouakhar et al., 2020).

In the management literature, gender diversity is studied extensively in relation to the gender diversity of boards of directors, which in this study we refer to increasing the proportion of women on corporate boards (Romano et al., 2020). The study of gender diversity on boards has attracted the attention of academics and policymakers over the past two decades (Ruel et al., 2020). Previous literature generally shows a relationship between board gender diversity and sustainability performance in other research contexts (Orazalin & Baydauletov, 2020). However, research using company-level data on the Indonesian stock exchange to assess the possible relationship between board gender diversity and sustainability performance is almost invisible (Bananuka et al., 2022). Therefore, we do not have much evidence to suggest that gender diversity on boards is related to sustainability performance, regardless of the research context (Karim et al., 2023). Consideration of the context of companies listing on the stock exchange is necessary because of their unique characteristics and high stakeholder orientation (Zhu et al., 2022).

One of the five sustainable development goals is gender equality. According to the United Nations (2020), the pandemic has exacerbated economic and social inequalities to the detriment of women. The important role of women in leadership has been demonstrated even in times of crisis (Kamarudin et al., 2022). In recent years, it has been found that women's skills at work are often overlooked and undercompensated in companies (Jarboui et al., 2020). Some researchers have found that gender diversity provides better understanding for complex management in improving decision making and with gender diversity in top management can improve the social performance of the company (Pareek et al., 2023). Women in top management positions will show greater attention to risk awareness, social relations and engagement with stakeholders (Zaid et al., 2020). Women also have a major contribution to improving the company's environmental performance. In addition, the presence of women improves performance and is not discriminatory in the approach to corporate governance (Romano et al., 2020).

According to agency theory, the presence of a female board can encourage participative communication and provide diverse perspectives (Khunkaew et al., 2023). The presence of a more diverse board of directors can increase interconnection with competitors and markets, which means higher quality information and resources (Cordeiro et al., 2020). The gender diversity of the board of directors will effectively meet all the needs of diverse stakeholders, no prioritized profits but also being responsible for the company's sustainability performance (Lestari, 2021).

Although previous studies have examined gender diversity, this study has differences with previous studies, including, this study focuses on the role of women on the board of commissioners and the role of women in top management and is related to the three dimensions of performance (Bananuka et al., 2022; Orazalin & Baydauletov, 2020). This study will examine the influence of women on the board of commissioners and top management on corporate sustainability performance with social, economic and environmental dimensions (Gerged et al., 2023; Naveed et al., 2021). Thus the purpose of this study investigates the effect of the presence of women on the board of commissioners and women in top management on economic, environmental and social performance, so that the results of this study can encourage gender diversity among regulators and policy makers.

Hypothesis Development

The Effect of Gender Diversity in the Board of Directors (BOD) on Three Dimensions of Corporate Sustainability Performance

The board of directors (BOD) in the implementation of the two-tier system in Indonesia is the party that manages and runs the company's operations, namely the board of directors (Farhana, 2020; Lestari, 2021; Sihaloho et al., 2022). The gender proportion on the board of directors will affect company management and decision making due to differences in leadership characteristics between men and women. Where directors with female gender have (Herli et al., 2021; Molla, 2021; Wang, 2020). Ethics and higher empathy traits and these traits result in female directors being more concerned about environmental protection and social welfare (Suciu et al., 2021). Agency theory explains that the presence of female directors will provide a diverse perspective and make it possible to encourage participatory communication (Khunkaew et al., 2023; Shakil et al., 2022). The board of directors will effectively address all the diverse needs of stakeholders by not only prioritizing profits but also being responsible for the company's sustainability performance (Lestari, 2021). Naveed et al. (2021) examined the impact of the presence of women on the board on economic sustainability performance and found a significant effect on economic performance. In addition, it was found that women tend to have a wider network of relationships that can assist companies in carrying out social obligations in building interactions with various stakeholder groups (Herli et al., 2021; Khunkaew et al., 2023; Naveed et al., 2021). With the presence of female directors, there is better environmental disclosure (Suciu et al., 2021; Wang, 2020). But the results of research by Khunkaew et al. (2023); Naveed et al. (2021); and Shakil et al. (2022) did not find positive results between gender diversity and environmental performance.

The women directors are considered to have a favourable take on the environmental (Herli et al., 2021), social (Khunkaew et al., 2023) and overall sustainable (Naveed et al., 2021) concerns of the organization. The traits that these women directors bring on the board with themselves such as emotionality, empathy along with their knowledge and competence bring a feministic transformational approach to the decision-making on the board (Gallego-Sosa et al., 2020; Gerged et al., 2023). The women on board promote investments in socially responsible activities and other various long-term sustainability projects (Mouakhar et al., 2020; Muhammad & Migliori, 2022; Romano et al., 2020). The participation of women in the decision-making process of the board helps in bringing additional benefits such as fresh notions, supplementary knowledge, better problem-solving strategies, etc (Jarboui et al., 2020; Kamarudin et al., 2022; Suciu et al., 2021).

Thus, it can be concluded that the more the presence of women on the board of directors, the higher the company's sustainability performance both in the economic, social and environmental dimensions. With the above arguments, the following hypothesis can be made:

H1a: There is a positive and significant influence between board gender diversity and economic performance.

H1b: There is a positive and significant influence between board gender diversity and environmental performance.

H1c: There is a positive and significant influence between gender diversity on the board of directors and social performance.

The Effect of Gender Diversity in the Board of Commissioners on Three Dimensions of Corporate Sustainability Performance

The board of commissioners according to Law No. 20 of 2007 concerning Limited Liability Companies is an organ in charge of supervising the company either in general or specifically and can provide input to management. With gender diversity on the board of commissioners, it can improve more effective corporate governance because female boards tend to have better social, responsive, caring and empathetic traits than male boards so that they can improve the company's sustainability performance (Gallego-Sosa et al., 2020; Gerged et al., 2023; Muhammad & Migliori, 2022). With the perception of agency theory, the presence of a female board of commissioners can increase responsibility in meeting stakeholder needs so as to reduce the asymmetry of information received by users (Mouakhar et al., 2020; Romano et al., 2020). The existence of a female board is also positively related to sustainability performance, this is evidenced by research from Ruel et al. (2020) their findings with gender diversity on the board of commissioners have a positive and significant effect on the company's sustainability performance, or in other words, increasing the presence of women on the board of commissioners can improve the company's sustainability performance. From the discussion above, the following hypothesis can be made:

H2a: There is a positive and significant influence between gender diversity of the board of commissioners and economic performance.

H2b: There is a positive and significant influence between gender diversity of the board of commissioners and environmental performance.

H2c: There is a positive and significant influence between the gender diversity of the board of commissioners and social performance.

2. METHODS

This research is quantitative research that uses secondary data. The population of this study consists of non-financial companies listed on the Indonesian Stock Exchange (IDX) that report sustainability reports. After carrying out verification, the research sample was obtained totaling 168 observations on 56 companies over 3 years for the period 2019 - 2021. The sample size was reduced because there were still very few companies reporting sustainability reports. The gender variable data comes from the company's annual report, while the economic, environmental and social sustainability data comes from the company's sustainability report published by the companies. To analyze the data for this study, researchers used multiple regression with panel data using STATA 14. And the models to be tested are three models where models 1, 2 and 3 test the effect of the presence of women on the board of directors (BODGEND) and the board of commissioners (BOCGEND) on the three dimensions of sustainability performance, namely economic performance (ECSP), environmental performance (ECSP) and social performance (SSP).

To avoid model specification errors, this research adds control variables that have an effect on the dependent variable. (Galletta et al. 2022). Thus, this research model includes several control variables including: Board Authenticity ($BExp$), Company Size (SIZE), Leverage (LEV), and Company Age (AGE) variables (Erin et al. 2022; Aluoch et al. 2020; Zaid et al., 2020; Naciti et al., 2019) This research model is as follows:

$$ECSP_{it} = \alpha + \beta_1 BODGENDC_{it} + \beta_2 BOCGEND_{it} + \beta_3 BExp_{it} + \beta_4 SIZE_{it} + \beta_5 LEV + \beta_6 AGE_{it} + eit \quad \text{..........................} \quad (1)$$

$$ENSP_{it} = \alpha + \beta_1 BODGENDC_{it} + \beta_2 BOCGEND_{it} + \beta_3 BExp_{it} + \beta_4 SIZE_{it} + \beta_5 LEV + \beta_6 AGE_{it} + eit \quad \text{..} \quad (2)$$

$$SSP_{it} = \alpha + \beta_1 BODGENDC_{it} + \beta_2 BOCGEND_{it} + \beta_3 BExp_{it} + \beta_4 SIZE_{it} + \beta_5 LEV + \beta_6 AGE_{it} + eit \quad \text{...} \quad (3)$$

Table 1. Operational definition

Variables	Acronym	Description
Dependent Variable (Company Sustainability Performance)		
Economic Performance	*ECSP*	Total Economic Performance Disclosure Score / Total Economic Performance Disclosure Points (Zaid et al., 2020; Tjahjadi et al., 2021)
Environmental Performance	*ENSP*	Total Environment Performance Disclosure Score / Total Environment Performance Disclosure Points (Zaid et al., 2020; Tjahjadi et al., 2021)
Social Performance	*SSP*	Total Social Performance Disclosure Score/(Total Social Performance Disclosure Points (Zaid et al., 2020; Tjahjadi et al., 2021)
Independent Variable (Gender Diversity)		
Female directors	*BODGEND*	Number of Women Directors / Total Board of Directors (Galletta et al. 2022; Naciti et al. 2019)
Female commissioner	BOC*GEND*	Number of Women Commissioners / Total Board of Commissioners (Zaid et al. 2020; Ayman Issa et al., 2019)
Control Variable		
Board Authenticity	*BExp*	Total Board with Financial Experience (Erin et al. 2022; Aluoch et al. 2020)
Company Size	SIZE	Total asset base case (Zaid et al., 2020; Naciti et al., 2019).
Leverage	LEV	Total liabilities with total company assets (Ayman Issa, 2019; Zaid et al., 2020).
Company Age	AGE	Number of years of establishment of a company (Zahid et al., 2019; Zaid et al., 2020).

3. RESULTS AND DISCUSSIONS

Results

This study was analyzed with panel regression and analyzed data for 3 consecutive years from 2019 to 2021. This method has been implemented in research by several researchers (Shakil et al., 2022; Suciu et al., 2021; Wang, 2020). This study tests three regression models, where model 1 examines the effect of female directors and commissioners on economic performance, model 2 looks at the environmental dimension and model 3 looks at social performance. In addition, this study included control variables in three models to help the problem of omitted variables (Khunkaew et al., 2023; Naveed et al., 2021).

Table 2 descriptive statistics shows that the average value of environmental sustainability disclosure (ENSP) in non-financial companies is 37.16 percent, which is the highest disclosure when compared with social and economic sustainability disclosures, while the lowest is the average economic distribution of 31.44 percent. The presence of women on the board of directors is 10.60 percent of the total BOD members, which shows that this value is greater than the presence of women on the Board of Commissioners, which is 9.39 percent.

Table 2. Variable Description Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ECSP	168	.3144	.1703	0	.9412
ENSP	168	.3716	.2142	0	.9062
SSP	168	.3458	.1714	.025	.8
BOCGEND	168	.0939	.1507	0	.75
BODGENDC	168	.1060	.1446	0	.6
BExp	168	2.2024	1.0528	1	6
SIZE	168	30.5701	1.2892	27.5268	33.5372
LEV	168	.5492707	.2475875	.1028263	1.849475
AGE	168	40.89286	19.77146	5	103

Table 3 show the regression results of the two independent variables, and the main results show that female directors have a significant effect on economic performance and social performance. These results support Hypotheses H1a and H2b. In other words, the presence of women on the board of directors contributes to increasing economic performance. Increasing the percentage of women on the board of directors and board of commissioners shows a positive impact on the possibility of improving economic strategies.

Table 3 shows that the presence of women on the board of directors and board of commissioners has no effect on the company's environmental performance, so hypotheses H1b and H2b are rejected. In other words, the presence of women on the board cannot improve the company's environmental performance. The presence of fewer women cannot increase significantly to strengthen environmental performance because the presence of women is less than the presence of men in the structure (Glass et al. 2015).

Table 3. Panel Data Analysis

Variabel	ECSP		ENSP		SSP	
	Coef.	P>z	Coef.	P>z	Coef.	P>z
BODGENDC	.17090	0.058*	-.0341	0.835	.1153	0.020**
BOCGEND	-.1470	0.079*	.0079	0.964	-.0169	0.457
BExp	-.0342	0.004**	-.0123	0.584	-.0158	0.163
SIZE	.0326	0.002**	.0662	0.463	.0468	0.000***
LEV	-.0284	-0.53	-.0630	0.585	-.1004	0.007**
AGE	-.0011	-1.69	.0652	0.000***	.0004	0.117
Obs		168		168		168
Adj. R-squared		0.0325		0.2528		0.2079

Note: $^{*}p < 0.10$. $^{**}p < 0.05$. $^{***}p < 0.01$.

The test results of the 3 models from **Table 3** show that the results of this research show that the proportion of female board members has no effect on social performance, thus hypotheses H1c and H2c are rejected. This study also found a positive influence between women on boards and social performance. In other words, increasing the percentage of women on the board of directors has an impact on improving strategies in the social sector which is useful for companies to increase stakeholder awareness in accordance with social values (Herli et al., 2021; Molla, 2021). Non-financial companies are dominated by male board members in integrating gender considerations into public relations or in other words, historically, men and masculinity have dominated organizational structures (Segerstedt & Abrahamsson, 2019).

The test results between board gender diversity and economic performance have a significant effect, thus H1a and H2a are accepted. In other words, the presence of women on the board can significantly improve economic performance so that it can have a positive impact on the achievement of economic strategies. From the results of this research testing the interaction between board gender diversity and environmental performance (ENSP), where companies with female CEOs will show stronger environmental disclosure if they are supported by a gender diverse board. Thus, hypotheses H2a and H2a are rejected, the findings of this research are that male CEOs are more likely to obtain a strong position than female CEOs in disclosing the environment. In other words, companies led by female boards cannot strengthen environmental disclosures (Glass et al. 2015). Likewise, the results of testing the effect between the presence of women on the board (BOD and BOC) and the social sustainability of hypotheses H3a and H3b were also rejected, this is because the dominance of the presence of men on the board is higher than the presence of women so that the female board is not optimal in improving community relations (Segerstedt & Abrahamsson, 2019).

Stakeholders expect information dissemination as a way to ensure greater transparency and social legitimacy (Shakil et al., 2022; Suciu et al., 2021; Wang, 2020). This study also examines the control variables in this study and the results show that the expertise of the board of directors, the size of the company and the age of the company can improve the company's sustainability performance, and the low level of debt in the company can also improve the company's performance. The potential for more women in leadership positions will have an impact on regulators in policy making, especially encouraging gender diversity in the structure of the board of directors (Mouakhar et al., 2020; Muhammad & Migliori, 2022; Romano et al., 2020). The findings of this study prove to the market that female directors are able to supervise and adapt to a rapidly evolving environment by reducing risk, and the structure of the board of directors and the board of commissioners still needs to implement governance programs and policies to pay attention to the proportion of women (Gallego-Sosa et al., 2020; Gerged et al., 2023; Khunkaew et al., 2023; Molla, 2021).

In this research it was also found that companies listed on the Indonesian stock exchange experienced a decline in Gender Difference scores. The number of women on the board of directors decreased from two people in 2017 to no women on the board in 2022. The decrease in the number of women on the board still affects sustainability disclosures (Shakil et al., 2022; Suciu et al., 2021). The number of Sustainability Report disclosures has increased because companies are strongly committed to delivering sustainable development by synergizing performance achievements covering aspects of profit, planet and people (Gallego-Sosa et al., 2020; Herli et al., 2021). This commitment is outlined in sustainability reports that have been consistently submitted since 2014. This consistency has made the number of Sustainability Report disclosures increase even though the number of women on the board has decreased (Mouakhar et al., 2020; Muhammad & Migliori, 2022). This can happen because the board of commissioners and directors are aware of sustainability issues and play an active role in monitoring and implementing sustainability activities (Suciu et al., 2021). One of them includes reviewing climate change risk opportunities that impact financing activities, because the focus on sustainability is demonstrated by financing environmentally friendly programs or projects (Khunkaew et al., 2023). The awareness of both female and male directors on the board regarding sustainability can increase the number of Sustainability Report disclosures (Muhammad & Migliori, 2022).

When the disclosure value of the Sustainability Report changes, it is marked by an increase in the indicators disclosed in the sustainability report (Gallego-Sosa et al., 2020; Gerged et al., 2023). Company value is considered a reflection of company performance and society's assessment. The company will try to provide the best performance and communicate it through a Sustainability Report (Mouakhar et al., 2020; Muhammad & Migliori, 2022). Consistency and extensive disclosure of the Sustainability Report will enable the company to gain public trust and investors can use the information contained therein as a consideration in making investment decisions (Solikin et al., 2022; Suzan & Putri, 2022). Therefore, company value will increase through investment decisions and stakeholder trust obtained from disclosing company performance in the Sustainability Report.

Extensive attention to sustainability issues will influence the company's commitment to activities that impact profits, planet and people and convey these activities through a Sustainability Report (Suciu et al., 2021). Thus, indirectly the presence of women on the board can increase company value through disclosing information in the Sustainability Report which is used as a positive investment variable by investors (Muhammad & Migliori, 2022; Naveed et al., 2021). Several theories have been put forward regarding how gender diversity on boards can help improve an organization's environmental performance (Shakil et al., 2022; Suciu et al., 2021). However, there are four popular and prominent theories: stakeholder theory, agency theory, resource dependence theory, and upper echelons theory (Khunkaew et al., 2023; Naveed et al., 2021). Stakeholder theory considers the benefits of organizational actions for various stakeholders and goals (Mouakhar et al., 2020; Muhammad & Migliori, 2022). It is generally used as an overarching framework that broadens an organization's stakeholders, suggesting that organizations with more female directors will tend to pay more attention to the interests of the natural environment as well as a range of other stakeholders (e.g., minority groups, community stakeholders). This may be because they themselves represent minority stakeholders on corporate boards (Gerged et al., 2023; Herli et al., 2021; Molla, 2021; Solikin et al., 2022).

As a complement to stakeholder theory, other theories investigate possible mechanisms underlying the gender diversity–organizational environmental sustainability relationship (Gallego-Sosa et al., 2020; Molla, 2021). Agency theory states that one of the board's primary responsibilities is to oversee the organization's operations on behalf of shareholders and correct managerial errors. It has been argued that because women are less tolerant of unethical behavior, their leadership on boards can help organizations refrain from engaging in unethical behavior, including behavior related to environmental sustainability (Naveed et al., 2021; Solikin et al., 2022; Suzan & Putri, 2022).

A balanced proportion of board members is a talented board where gender diversity in the board of directors can improve strategic decision making by using a variety of perspectives, so that when the proportion of women in members of the board of directors is not balanced with the proportion of men in members of the board of directors, it is not necessarily the case that gender diversity can improve the quality of strategic decision making which ultimately also becomes a bias in increasing company value (Gallego-Sosa et al., 2020; Gerged et al., 2023; Suciu et al., 2021). This can happen because for the board of directors to increase value, there must be an appointment of governance responsibilities and also the proportion of women on the board of directors must be balanced to be able to influence the company's performance (Galletta et al., 2022; Lestari et al., 2023; Provasi & Harasheh, 2021).

In recent decades, sustainability reporting has become one of the focuses of company management and only a few companies do not have a sustainable development strategy (Ariska et al., 2021; Farhana, 2020; Wahyuningrum et al., 2022). The majority of companies in the world do not produce voluntary sustainability reports that stand alone, meaning they are included in the annual report (Kristianti, 2023; R. A. Lestari, 2021; Sihaloho et al., 2022). The sustainability report reflects the overall level of company activity using the TBL concept (Hana et al., 2022; Suzan & Putri, 2022). In Indonesia, there is an opinion that sustainability reports are still voluntary disclosures, but if you look at Law no. 40 of 2007, article 66 paragraph 2 point c strictly regulates companies to submit reports on the implementation of social and environmental responsibilities in annual reports (Lestari et al., 2023; Ummah & Yuliana, 2023). This means that every year, companies are required to prepare a social responsibility report separately or integrated with the annual report (Ariska et al., 2021; Lestari et al., 2023; Sofianty et al., 2022; Ummah & Yuliana, 2023; Wahyuningrum et al., 2022).

4. CONCLUSION

This study explores the influence of gender diversity, taking into account economic, social and environmental dimensions. Specifically, this study investigates the effects of the proportion of women on the boards of non-financial companies from 2019 to 2021. At present, this research topic is still much debated, and there is a gap in the literature on gender diversity in non-financial companies, thereby clarifying the contribution of women on boards of directors and boards of commissioners to economic, environmental and social performance.

Companies that are managed by a variety of diversity, such as ethnicity, gender, and other cultural factors, show that boards of directors that have a greater percentage of similar cultural factors may prefer or not choose to express social responsibility as a legitimacy strategy to change the perceptions of other stakeholders. Effective board of directors' decisions also have an effect on sustainability performance. An effective board of directors exhibits strong management responsibility in that once the objectives of the initial strategy have been achieved, less effort can be directed towards disclosure practices. Gender diversity in the audit committee offers insight or comparison of thoughts that come from the personal knowledge and experience of audit committee members, where in general accounting and finance professionals tend to be more thorough and strictly adhere to applicable regulations. This is also reinforced by the fact that the characteristics of women are generally risk averse compared to men who are more risk takers, for example women do double checking more often.

Future research can develop the relationship between gender diversity and sustainability reporting and sustainable management. Publication of sustainability reports is a new activity in companies where adequate resources, capacity and skills are not yet available to be able to produce sustainability reports in accordance with applicable standards, one of which is the GRI standard.

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