



The Effect of Corporate Governance on ESG Investment Moderated by Gender Diversity on the Board of Directors

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ABSTRACT

The aim of this research is to investigate the impact of corporate governance on ESG investment, taking into account the possible moderating role of gender diversity in the board of directors of Indonesian manufacturing enterprises. In order to fill an empirical gap in earlier research, this study refocuses on corporate governance (CG), which is linked to ESG investing through the application of stewardship theory. The use of gender diversity on the board of directors as a moderator of CG on ESG investment is a novel approach in this research. Using the Eviews program, multiple linear regression with moderating variables (MRA) is the data analysis method used in this study. This research makes use of secondary data and a quantitative methodology. Manufacturing companies that were listed between 2018 and 2022 on the Indonesia Stock Exchange (IDX) comprise the study's population. Thirty companies with a total of 150 observations that satisfied the sample criteria made up the study's sample. The study's findings show that gender diversity on the board of directors cannot mitigate the impact of corporate governance (CG) on ESG investment in businesses, and that CG has a considerable impact on ESG investment.

INTRODUCTION

An investment that adheres to environmental, social, and governance (ESG) principles is one that is based on business or company management standards and practices (Hill, 2020). Companies that are thought to adhere to ESG principles, have sustainable business practices, exhibit social responsibility, and possess sound corporate governance are included in the category of ESG investments (Kim & Li, 2021). The capitalization of ESG portfolios reaching over US\$30 trillion in major markets in 2019 (Broadstock et al., 2021) indicates that investors are becoming more and more concerned with the effects of their investments on society and the environment (Pedersen et al., 2021). This indicates that investors are becoming more and more

aware of the importance of ESG investing. Although not all Indonesian companies use such ESG investment practices, the country has been implementing ESG investment since 2009 when ESG criteria were added to financial reporting (Aziz, 2021). The ESG Score, which is derived from the Global Reporting Initiative (GRI) standard criteria, is used to evaluate ESG investments. Environmental, social, and governance (ESG) reporting standards are covered by GRI, which is the most popular sustainability reporting standard in the world (Prashar, 2023). Investors can use this ESG score to assess a company's performance according to ESG considerations (Leite & Uysal, 2023).

Corporate governance has a close relationship with ESG investing. The framework that controls an organization's structure and operations is known as corporate governance, and it contains procedures designed to guarantee that the business operates morally, openly, and in the best interests of its investors (Zaman, 2023). Because it can enhance a company's overall performance, corporate governance is a crucial component of ESG investing (Thams et al., 2018). Companies can adopt and sustain improved ESG practices with the support of good governance practices, which include accountability, transparency, and efficient oversight (Zhao et al., 2023). Furthermore, the maintenance of a company's reputation in the eyes of investors is a crucial aspect of ESG investment and is influenced by corporate governance (Cucinelli & Soana, 2023). Good corporate governance lays the groundwork for long-term sustainability in environmental, social, and governance practices and is therefore valued more highly by investors and shareholders (Omura et al., 2021). In order to promote ESG investments and promote more ethical and sustainable investment decision-making, corporate governance plays a part in developing corporate policies and practices (Wahyuningtyas & Susesti, 2023). Environmental, social, and governance (ESG) concerns, which affect both internal and external businesses, are the focus of good corporate governance (Yu et al., 2020). Stewardship theory elucidates the significance of corporate governance in empowering investors or shareholders to function as "stewards" by exerting influence over companies to adopt more sustainable business practices. Put differently, sound corporate governance establishes a basis of confidence that empowers stakeholders to push businesses to implement more ethical and sustainable environmental, social, and governance practices, thus preserving the company's positive reputation (Adams et al., 2016; Fitranita & Coryanata, 2019). The five principles of Good Corporate Governance (GCG)—transparency, accountability, responsibility, independence, and fairness / equality—can be used to gauge the effectiveness of corporate governance (KNKG, 2006).

Previous research results show that corporate governance can improve corporate performance and tends to reveal the benefits of sustainable investment that considers ESG aspects in investment decision making (Hua Fan & Michalski, 2020). Corporate governance can affect the investment in corporate innovation resources, which effectively integrates ESG performance (Jin & Lei, 2023). Companies with good governance are better able to efficiently increase sustainable investment in their strategies by considering long-term benefits (Omura et al., 2021). Corporate governance can increase ESG investment, as it promotes accountability and responsible decision making (Stiadi, 2023). However, the results of this study differ from research conducted by (Kuzey et al., 2023) which states that corporate governance cannot affect company involvement in ESG activities. According to research conducted by (Semenova & Hassel, 2008), companies that invest in ESG activities will add additional costs that affect the quality of corporate governance regarding how ESG investment decisions are made and managed. (Duque-Grisales & Aguilera-Caracuel, 2021) highlighted that in corporate governance (CG) practices related to ESG investment, ESG scores cannot improve the company's financial performance which affects investor decisions. The results of this study are in line with research conducted by (Aziz, 2021) that corporate governance practices that implement investments by paying attention to the performance of Social (SOC), Governance (GOV), and ESG score values have no impact on the value of shares in the capital market.

This study refocuses on corporate governance (CG) in relation to ESG investment because previous research on CG had gaps in research findings or empirical gaps. Previous research has yielded inconsistent results in explaining the relationship between variables, indicating that more research is necessary. However, the results of previous research do not yet have conclusive results. Manufacturing companies listed on the Indonesia Stock Exchange between 2018 and 2022 comprise the study's sample. Manufacturing companies are a type of company that focuses on the production of physical goods that are closely related to environmental, social, and governance-related disclosures because they use a variety of raw material sources, production techniques, and product distribution to transform raw materials into finished goods, they frequently take environmental, social, and governance (ESG) factors into account throughout the supply chain, including waste management, energy use, and social impacts (Wahyuningtyas & Susesti, 2023).

The inclusion of the board of directors gender diversity variable as a moderating variable linked to the impact of corporate governance (CG) on ESG investment is what makes this study novel. Understanding the extent to which gender diversity on the board of directors influences corporate governance and ESG investment decisions in companies can be aided by including gender diversity on the board as a moderating variable. The presence of both male and female board members within the organization is referred to as gender diversity on the board of directors (Alkhawaja et al., 2023). One way to gauge the amount of gender diversity on the board of directors is to look at the percentage of women on the board; the greater the percentage of women on the board, the more diverse the board is in terms of gender (Cardillo et al., 2021). In Hofstede's Cultural Dimensions, there are dimensions of Masculinity and Femininity owned by men and women. Women who have feminine traits, such as empathy for others, concern for the environment, gender equality, improving the quality of life, and good social interaction, have more emphasized values compared to values such as ambition, competitiveness, or material achievement that are more often associated with masculine cultures that tend to be owned by men (Minkov, 2010). The presence of feminine traits on boards can play a role in enriching the cognitive diversity, knowledge and skills that contribute to decision-making (Bruna et al., 2022).

According to the gender diversity of women's empowerment in businesses, organizations with more gender diverse executive teams and boards of directors will likely have higher levels of ESG disclosure and better corporate transparency and accountability, which will enhance good governance (Dempere & Abdalla, 2023). Due to the fact that female boards of directors are more concerned with environmental issues, having a more diverse representation of gender on the board of directors can increase investment in ESG (Romano et al., 2020). The findings of this study are consistent with research by (Trinh et al., 2023) that demonstrates that female directors are more capable of managing relationships with stakeholders and are more concerned with social and environmental issues. Increased reporting on environmental, social, and governance (ESG) aspects can positively correlate with the presence of a more diverse gender representation on a company's board of directors and best corporate governance practices (Lopez et al., 2022; Septiana & Puspawati, 2022). This justification led to the formulation of the research question, which is: Does corporate governance have an impact on ESG investments? Does the gender diversity on the board of directors amplify the impact of corporate governance on ESG investments?

LITERATURE REVIEW

Stewardship Theory

Stewardship theory is the theory that clarifies the connection between ESG investment and corporate governance. According to (Davis et al., 1977), stewardship theory places a strong emphasis on the value of trust in the relationship between stakeholders and management of the company, where management is trusted to act in the best interests of the organization and

society. The explanation of corporate governance's pivotal role in enabling shareholders or investors to function as "stewards" makes reference to stewardship theory. They have the power to persuade businesses to embrace better ESG procedures. While ESG investing considers a company's environmental, social, and governance practices to determine its sustainability and ethical practices (Battisti et al., 2023), good corporate governance guarantees that management is accountable and transparent in their actions (Septiadi et al., 2017).

ESG Investment

According to (Hill, 2020), ESG (Environmental, Social, and Governance) investing is an approach to investing that considers the environment, social aspects, and governance as the three primary determinants of a company's sustainability. ESG investing is growing more and more promising because it assists investors in allocating capital by choosing businesses that are sustainable and have a positive effect on governance, the environment, and society. By taking non-financial aspects like corporate governance, social responsibility, and the environment into account, ESG investing seeks to generate sustainable investment returns (Uyar et al., 2022). The Global Reporting Initiative (GRI) standard criteria, which covers a variety of ESG aspects like Environmental, Social, and Governance, is used to calculate the ESG Score for ESG investment purposes in this study (Prashar, 2023).

Corporate Governance

The systems, procedures, and connections that manage and run a business are known as corporate governance. A company's organization and management are governed by a system known as corporate governance, which includes procedures that guarantee moral conduct, openness, and long-term viability of operations for the benefit of shareholders (Zaman, 2023). Environmental, social, and governance (ESG) concerns, which affect both internal and external businesses, are the focus of good corporate governance (Yu et al., 2020). The five principles of Good Corporate Governance (GCG)—transparency, accountability, responsibility, independence, and fairness—can be used to gauge the effectiveness of corporate governance (KNKG, 2006).

Gender Diversity on the Board of Directors

The degree of balance between the number of men and women on a company's board of directors is known as board gender diversity. This idea highlights how crucial it is to include both men and women in the company's management and decision-making processes (Alkhawaja et al., 2023). The ratio of women to total board members can be used to gauge the degree of gender diversity on the board of directors. The degree of gender diversity increases with the percentage of women on the board. The goal of this initiative is to increase the proportion of men and women in the company's top decision-making roles (Cardillo et al., 2021).

Hypothesis development

According to (Herawansyah et al., 2021; Hua Fan & Michalski, 2020), corporate governance is essentially the regulatory and supervisory framework within a business that attempts to guarantee that the business operates morally, openly, and in the best interests of its shareholders. Meanwhile, ESG investing involves investing practices that consider environmental impacts, social aspects, and corporate governance in making investment decisions (Yu et al., 2020). (Yu et al., 2020). The application of good corporate governance, which is predicated on stewardship theory, reflects procedures that guarantee that management behaves in the company's and shareholders' best interests. Building trust between management and shareholders requires adhering to good corporate governance principles, such as accountability, transparency, and consideration for a variety of stakeholders and ESG issues (Gangi et al., 2020; Setiorini et al., 2021).

In previous research conducted by (Jin & Lei, 2023; Omura et al., 2021; Stiadi et al., 2023) said that the level of quality of Corporate Governance (CG) in the company affects the level of investment in Environmental, Social, and Governance (ESG). In other words, the better the corporate governance, the higher the level of ESG investment that will be adopted by the company. The implementation of Good Corporate Governance contributes to improving the financial performance of the company which has a positive impact on ESG investment (Affes & Jarboui, 2023; Kim & Li, 2021; Marietza et al., 2020; Trinh et al., 2023). ESG investors tend to look for companies with good financial performance, in line with their goal of achieving good financial results while considering ESG factors (Septiana & Puspawati, 2022). Therefore, the hypothesis of this study is:

H1 : Corporate Governance has a positive effect on ESG investment

The relationship between corporate governance (CG) and ESG investment will be moderated by gender diversity. According to (Areneke et al., 2023), companies that have female directors reveal more ethical corporate governance practices than those that do not. Increased corporate investment in successful social engagement and more open reporting of their activities are two ways that gender diversity on boards of directors, especially with the presence of women, improves firm performance (Arayssi et al., 2016). By promoting more ESG-related disclosures, gender diversity on corporate boards can directly strengthen the relationship between ESG investments and good corporate governance (Dempere & Abdalla, 2023; Wahyuningtyas & Susesti, 2023).

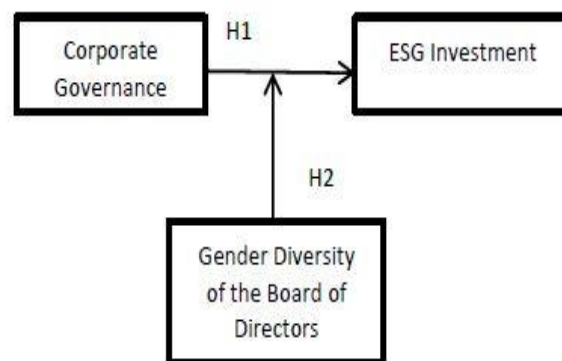
According to earlier studies, having more women on corporate boards enhances board effectiveness and earnings quality, which helps to improve corporate governance (Alves, 2023). Businesses with more gender-diverse boards typically have stronger corporate governance and ESG investment policies in addition to increased ESG activity (Eliwa et al., 2023). The findings of this study are consistent with studies by (Nicolò et al., 2022; Ouni et al., 2022; Sabovchuk, 2023)) that found that having a female board of directors improves sustainability reports and corporate resources and increases commitment to environmental, social, and governance issues, strengthening corporate governance and having a positive effect on ESG (Environmental, Social, and Governance) investments (Baghdadi et al., 2023). Therefore, the hypothesis of this study is:

H2 : Gender diversity on the board of directors is able to strengthen the influence of Corporate Governance on ESG Investment

Theoretical Framework

The theoretical framework is shown in the following Figure 1.

Figure 1. Theoretical framework



METHODS

Research Type

This research uses a quantitative approach. Research using this quantitative approach collects data and analyzes it using numerical data (numbers), which are processed using statistical methods. Quantitative / statistical data analysis aims to test the hypothesis that has been determined (Sugiyono, 2015). This study analyzes the effect of corporate governance on ESG investment moderated by the gender diversity of the board of directors.

Population and Research Sample

1. Manufacturing companies listed on the Indonesia Stock Exchange for the period of 2018–2022 comprised the population and samples used in this study. Purposive sampling was the method of sample selection employed in this study, and the following criteria were used:
2. Manufacturers with listings from 2018 to 2022 on the Indonesia Stock Exchange.
3. Businesses that actively release sustainability reports and annual reports between 2018 and 2022.
4. The company's official website, which is listed on the Indonesia Stock Exchange (IDX), has the necessary information available.

Data Collection Method

Secondary data from manufacturing companies listed between 2018 and 2022 on the Indonesia Stock Exchange is used in this study. Annual reports and company sustainability reports from 2018 to 2022 were gathered via the official website of the company under investigation and the Indonesia Stock Exchange website, www.idx.co.id, for use in this research.

ESG Investment

The dependent variable in this study is ESG Investment. ESG investment is measured through ESG score. ESG scores are used to assess the extent to which a company or investment pays attention to environmental, social, and corporate governance issues in its operations (Leite & Uysal, 2023). ESG score measurement can be traced using the GRI standards. GRI standards are best practice efforts developed by the Global Reporting Initiative (GRI) to create a framework for reporting economic, environmental, and social impacts to the public using globally recognized standards (GRI, 2016). On the ESG score, disclosure of ESG information is required using GRI 300 for environmental topics, GRI 400 for social topics, and GRI 102 for governance information.

Table 1. ESG Score Indicator

No	ESG Components	Definition	Formula	Scale
1	Environmental	Environmental score is how much the company can disclose environmental aspects in the sustainability report with a total disclosure indicator of 32 items.	Score = n/k n= number of items disclosed k= total disclosure indicators	0-1
2	Social	Social score is how much the company can disclose social aspects in the sustainability report with a total disclosure indicator of 40 items.	Score = n/k n= number of items disclosed k= total disclosure indicators	0-1

3	Governance	Governance score is how much the company can disclose governance aspects in the sustainability report with a total disclosure indicator of 22 items.	Score = n/k n= number of items disclosed k= total disclosure indicators	0-1
4.	ESG Score	Average ESG score	Average ESG score= (E score+S score+G score)/3	

Source: (Aditama, 2022)

Corporate Governance

Corporate Governance is the study's independent variable. The Good Corporate Governance Score, which is based on the General Guidelines for Good Corporate Governance published by the National Committee on Governance Policy in 2006, is calculated using the Good Corporate Governance (GCG) indicators that are used in corporate governance measurement. The indicator is derived from a dummy variable, where a value of 1 denotes that the business satisfies the requirements of good corporate governance and a value of 0 denotes the opposite. The better a company implements corporate governance, the more Good Corporate Governance criteria it meets.

Table 2. List of Good Corporate Governance Indicators

No	GCG Principles	Criteria
1	Transparency	<ul style="list-style-type: none"> a. Timeliness of financial report issuance b. Disclosure of the company's vision c. Disclosure of the company's mission d. Disclosure of business objectives e. Disclosure of company strategy f. Disclosure of company condition g. Disclosure of board composition h. Disclosure of board compensation i. Disclosure of controlling shareholders j. Disclosure of risk management k. Disclosure of internal supervision and control system l. Implementation of the Good Corporate Governance system m. Disclosure of Company policy n. Disclosure of share ownership by the board of commissioners
2	Accountability	<ul style="list-style-type: none"> a. The number of audit committee members is at least 3 people and at most equal to the number of members of the board of directors. b. Have a reward and punishment system.
3	Responsibility	<ul style="list-style-type: none"> a. Fulfilling community environmental and social responsibilities b. Taking into account the principles of prudence and compliance with laws and regulations
4.	Independency	<ul style="list-style-type: none"> a. The existence of an independent board of commissioners

		b. The existence of an independent audit committee
5.	Fairness	General Meeting of Shareholders (RUPS) at least 1 (one) time in the period.

Source: Pedoman Umum Good Corporate Governance (KNKG, 2006)

Gender Diversity on The board of Directors

The moderating variable in this study is the gender diversity of the board of directors. By calculating the percentage of women on the board, one can determine the level of gender diversity on the board of directors; the greater the percentage of women on the board, the more gender diversity there is (Cardillo et al., 2021). The following formula is used to calculate the percentage of female directors on the board of directors:

$$\text{BGD} = \frac{\text{Number of Women on the Board of Directors}}{\text{Total Members of the Board of Directors}}$$

Data Analysis Method

Using eviews software, multiple linear regression with moderated variables (also known as moderated multiple regression analysis, or MRA) was used to test this study. The multiple linear regression analysis model utilized in this investigation is as follows:

$$\text{IESG} = \alpha + \beta_1 \text{CG} + \varepsilon$$

$$\text{IESG} = \alpha + \beta_2 \text{CG} + \beta_3 \text{BGD} + \beta_4 [\text{CG}] \wedge \text{BGD} + \varepsilon$$

Description:

IESG = ESG Investment

CG = Corporate governance

BGD = Gender diversity of the board of directors

α = Constant

β = Regression coefficient

ε = Error element

Hypothesis testing will be conducted in several stages:

Model Test:

a. Chow Test

The best option between the Fixed Effect Model (FEM) and the Common Effect Model (CEM) is chosen using the Chow test. The probability of the cross-sectional F value is used to make the following decisions in the Chow test:

1. The Common Effect Model (CEM) is the model selected if the cross-section probability value $F > 0.05$.
2. The Fixed Effect Model (FEM) is selected if the cross-section probability value $F < 0.05$.

b. Hausman Test

The best option between the Fixed Effect Model (FEM) and the Random Effect Model (REM) can be ascertained using the Hausman test. The cross-section probability value is used in the Hausman test to make decisions, and it must meet the following standards:

1. The Random Effect Model (REM) is the chosen model if the random cross-section probability value is greater than 0.05.
2. In the event that the random cross-section probability value is less than 0.05, the Fixed Effect Model (FEM) is the chosen model.

c. Lagrange Multiplier (LM) Test

To choose between the Random Effect Model (REM) and the Common Effect Model (CEM), an analysis known as the Lagrange Multiplier (LM) test is used. Under the following circumstances, decision-making in the Lagrange Multiplier (LM) test can be observed from the Chi-Square distribution:

1. The Common Effect Model is the model selected if the LM statistical value is greater than Chi-Square (CEM).
2. The Random Effect Model is the chosen model if the LM statistical value is less than Chi-Square (REM).

Classical Assumption Test:**a. Normality Test**

In a regression model, the purpose of a normality test is to ascertain whether or not the independent and dependent variables have a normal distribution. Jarque Bera can be used for reviews testing, and decisions regarding the Jarque Bera test are made in the following situations:

1. The model is believed to be normally distributed if the probability value is greater than 0.05.
2. The model is not normally distributed if the probability value is less than 0.05.

b. Autocorrelation Test

The purpose of an autocorrelation test is to determine whether variables in one period and those in a prior period are correlated. The Durbin-Watson test is used to determine whether or not there is autocorrelation. The following decisions are made with a significance level of 5% and the Durbin-Watson criteria:

1. Durbin-Watson value of less than -2 indicates positive autocorrelation.
2. There is no autocorrelation if the Durbin-Watson value is between -2 and +2.
3. There is negative autocorrelation if the Durbin-Watson value is greater than +2.

c. Multicollinearity Test

This information is obtained by examining if the dependent variables in the regression model exhibit multicollinearity. If the correlation coefficient is less than 0.98, the model is deemed multicollinear.

d. Heteroscedasticity Test

To ascertain whether there is an inequality of variance from residuals on an observation compared to other observations, the heteroscedasticity test is run in the regression model. The Breusch-Pagan test is used to test heteroscedasticity using the following criteria:

1. Heteroscedasticity is absent if the significance value is greater than 0.05.
2. In the event that the significance value is less than 0.05, heteroscedasticity is present.

MRA (Moderated Regression Analysis) Test**a. F test**

Finding out if the independent variables have the same impact on the dependent variable is the goal of the F test.

1. The independent variable has no discernible impact on the dependent variable if the significance value of F is greater than 0.05.
2. The independent variable significantly affects the dependent variable if the significance value of $F < 0.05$.

b. Test Coefficient of Determination (R^2)

The model's capacity to determine the degree to which the independent variable influences the dependent variable is evaluated using the R^2 test. A low R^2 value indicates that the independent variable's capacity to explain the dependent variable is severely constrained. Nearly all of the information required to predict the dependent variable can be obtained from the independent variables if the R^2 value is near to 1 and far from 0. The suggested research model is better the higher the R^2 value.

c. t Test

The study hypothesis regarding the partial effects of each independent variable on the dependent variable was tested using the t test. Guidelines for using the t test in decision-making

1. The independent variable has no effect on the dependent variable if the t test's significance value is greater than 0.05.
2. There is an influence between the independent and dependent variables if the t test's significance value is less than 0.05.

RESULTS

Descriptive statistics

Table 1 Descriptive Statistics Test Results

	IESG	CG	BGD
Mean	0.341977	0.368182	0.157877
Maximum	0.780303	0.818182	0.692308
Minimum	0.094318	0.136364	0.000000
Std. Dev.	0.144450	0.140496	0.140509

The mean, maximum, minimum, and standard deviation values for each variable in the study are used in the descriptive statistics. In this study, the population and samples serve as the research object, which is described using the data analysis method.

Chow Test

Table 4. Chow Test Results

Model 1			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.785519	(29,119)	0.0000
Cross-section Chi-square	98.045637	29	0.0000
Model 2			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.752813	(29,117)	0.0000
Cross-section Chi-square	98.642327	29	0.0000

The chow test results for models 1 and 2 yielded a probability value of 0.0000, or $F < 0.05$, as the table above illustrates. Next, the FEM test has been chosen as the test of choice; therefore, move on to the Hausman test.

Hausman Test

Table 5. Hausman Test Results

Model 1			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.553595	1	0.4569

Model 2			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.970356	3	0.8084

The REM test was selected because, as the table above demonstrates, the Hausman test results from models 1 and 2 chi-square > 0.05 . The Lagrange Multiplier test was then performed to determine which test should be used in this study.

Lagrange Multiplier Test

Table 6. Lagrange Multiplier Test Results

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	36.07575 (0.0000)	1.439426 (0.2302)	37.51518 (0.0000)

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	36.03312 (0.0000)	1.420835 (0.2333)	37.45396 (0.0000)

The REM test is selected since the lagrange multiplier test results from models 1 and 2 $<$ chi-square, as the above table illustrates.

Multicollinearity Test

Table 7. Multicollinearity Test Results

	CG	BGD
CG	1.000000	-0.064023
BGD	-0.064023	1.000000

Model 2

	CG	BGD	CG_BGD
CG	1.000000	-0.064023	0.337690
BGD	-0.064023	1.000000	0.882961
CG_BGD	0.337690	0.882961	1.000000

The table above shows that the correlation coefficient value between variables from model 1 and model 2 is <0.98, so according to the criteria of the multicollinearity test, the variable data used in this study does not occur multicollinearity problems.

F Test**Table 8. F Test Result**

Model 1	
F-statistic	313.4250
Prob(F-statistic)	0.000000
Model 2	
F-statistic	104.6061
Prob(F-statistic)	0.000000

Indicating that the regression model in this study is deemed fit and that the independent variables simultaneously affect the dependent variable, the F test results from model 1 show a F value of 313.4250 with a probability value of 0.000000, and the results from model 2 show a F value of 104.6061 with a probability value of 0.000000.

R² Test**Table 9. R² Test Result**

Model 1	
Adjusted R-squared	0.677087
Model 2	
Adjusted R-squared	0.675959

Model 1's results reveal an R-square value of 0.677087 (67%), meaning that while the independent variables can account for 67% of the dependent variable's variance, other factors outside the scope of this study influence the remaining 33%. Model 2's results reveal an R-square value of 0.675959 (67%), meaning that while the independent variables can account for 67% of the dependent variable's variance, other factors outside the scope of this study influence the remaining 33%.

t Test**Table 10. t Test Result**

Model 1				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.042789	0.020121	2.126574	0.0351
CG	0.812609	0.045970	17.67709	0.0000

Model 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.038040	0.035229	1.079776	0.2820
CG	0.854926	0.085900	9.952617	0.0000
BGD	0.040648	0.188162	0.216028	0.8293
CG_BGD	-0.303282	0.492392	-0.615935	0.5389

The CG variable's coefficient value was found to be 0.812609 with a p-value of 0.0000 in the model 1 t test results. When the P-value is less than 0.05, the data indicates that, for manufacturing companies listed on the IDX between 2018 and 2022, corporate governance has an impact on ESG investment. With a p-value of 0.0000, the results of model 2 on the CG variable show a coefficient value of 0.854926. P-value <0.05 indicates a relationship between corporate governance and ESG investment. The coefficient value on the BGD variable is 0.040648, and the p-value is 0.8293. P-value > 0.05 indicates that there is no relationship between gender diversity on the board of directors and ESG investment.

The coefficient value of -0.303282 in the CG_BGD variable, with a p-value of 0.5389 and a p-value > 0.05, indicates that there is no significant relationship between gender diversity on the board of directors and corporate governance and ESG investment. This implies that, for manufacturing companies listed on the IDX between 2018 and 2022, gender diversity on the board of directors is not able to enhance the impact of corporate governance on ESG investment.

DISCUSSION**Effect of Corporate Governance and ESG Investments**

The framework that controls an organization's structure and operations is known as corporate governance, and it contains procedures designed to guarantee that the business operates morally, openly, and in the best interests of its investors (Zaman, 2023). Furthermore, companies can adopt and sustain improved ESG practices with the support of good governance practices, which include accountability, transparency, and efficient oversight (Zhao et al., 2023). The aforementioned data analysis's findings indicate that corporate governance (CG), as determined by the good corporate governance (GCG) score, influences ESG investment, as determined by the ESG Score.

The study's findings are consistent with the stewardship theory, which holds that sound corporate governance fosters stakeholder trust, which in turn enables stakeholders to push businesses to adopt more ethical and sustainable environmental, social, and governance practices. Investors and shareholders can act as "stewards" by influencing companies to adopt better ESG practices. The study's findings are consistent with earlier research by (Jin & Lei, 2023; Omura et al., 2021; Stjadi et al., 2023) that found that a company's investment in Environmental, Social, and Governance (ESG) is influenced by the quality of its Corporate Governance (CG). Therefore, the greater the degree of ESG investment that the company will adopt, the better its corporate governance. So, **H1: accepted.**

Gender Diversity on The Board of Directors Moderates Corporate Governance on ESG Investments

The data analysis's findings indicate that corporate governance and ESG investment are not significantly impacted by gender diversity on the board of directors. Although there is a

widespread belief that gender diversity can result in a range of perspectives on sustainability and social responsibility, this research indicates that other elements like social justice, environmental sustainability, and efficient governance may also be significant.

The data analysis results showing a probability value > 0.05 suggest that having a diverse mix of genders on the board of directors does not increase the impact of corporate governance on ESG investment. Therefore, this conclusion confirms that in order to improve corporate governance related to ESG investments, there is a need for a holistic approach that involves all aspects of the company's operations. It is important to emphasize that gender diversity alone is not enough to ensure environmentally friendly or socially responsible corporate policies. A comprehensive ESG strategy commitment and implementation needs to be put in place to ensure optimal contribution to sustainable investment. So, **H2: rejected**.

CONCLUSION

The gender diversity of the board of directors served as a moderating variable in this study, which looked into the relationship between corporate governance and ESG investment. Thirty manufacturing companies that were listed between 2018 and 2022 on the Indonesia Stock Exchange make up the research sample. The first hypothesis's test results demonstrate that corporate governance significantly influences ESG investment, highlighting the significance of corporate governance in upholding the values of environmental, social, and responsible corporate governance. The results of the second hypothesis, which examines whether gender diversity on boards can improve the bond between ESG investment and corporate governance, point to the opposite conclusion.

The impact of gender diversity on the board of directors on the strength of corporate governance's influence over ESG investments was found to be insignificant. This finding sheds light on the fact that, although gender diversity can introduce new viewpoints into the decision-making process, it does not always boost corporate governance's influence on ESG investment strategies. The moderating effect of gender diversity on boards raises the possibility that more elements are required to bolster the beneficial effects of corporate governance on ESG investing.

SUGGESTION

Although the research findings offer insightful information, it is important to recognize some limitations. Firstly, the results of this study may not be directly applicable to other industry sectors because it is restricted to manufacturing companies in Indonesia. Secondly, the research may have limited the understanding of other diversity factors that could affect corporate governance and ESG investments due to its focus on gender diversity in the board of directors. Future studies could take into account using samples that encompass a greater variety of industry sectors and diverse dimensions in order to get around these limitations. Research can also include other variables to enhance the analysis, such as control variables or external factors that could influence the relationship between ESG investment and corporate governance.

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