

## Women on Board: The Blank Space of ESG Impact in Indonesia

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### ABSTRACT

*This research analyzes the impact of board gender diversity and industry classification on ESG performance in Indonesia. It also seeks to gather evidence on the extent to which ESG risk affects financial and market performance. Considering the unique context of gender equality in Indonesia and the expectation that gender differences influence decision-making processes in financial reporting, this study examines the impact of women on boards on financial and stock market performance, with ESG Risk as a mediator. This study employs a quantitative approach and applies purposive sampling method to select a sample of population, consisting of companies listed on the Indonesia Stock Exchange (IDX). This research uses Smart PLS to analyze the data, including tests of the measurement model and structural model. The results indicate that board gender diversity and industry classification have a significant negative impact on ESG Risk Rating, and ESG Risk Rating impact positively to stock performance. This research provides valuable and original contributions to the understanding of ESG practices, board gender diversity, and their impact on financial and market performance in Indonesia, which addresses gaps in the literature and offers practical implications for companies, investors, and policymakers in emerging markets.*

**Keywords:** board gender diversities; ESG risk rating; financial performance; stock performance; women on board

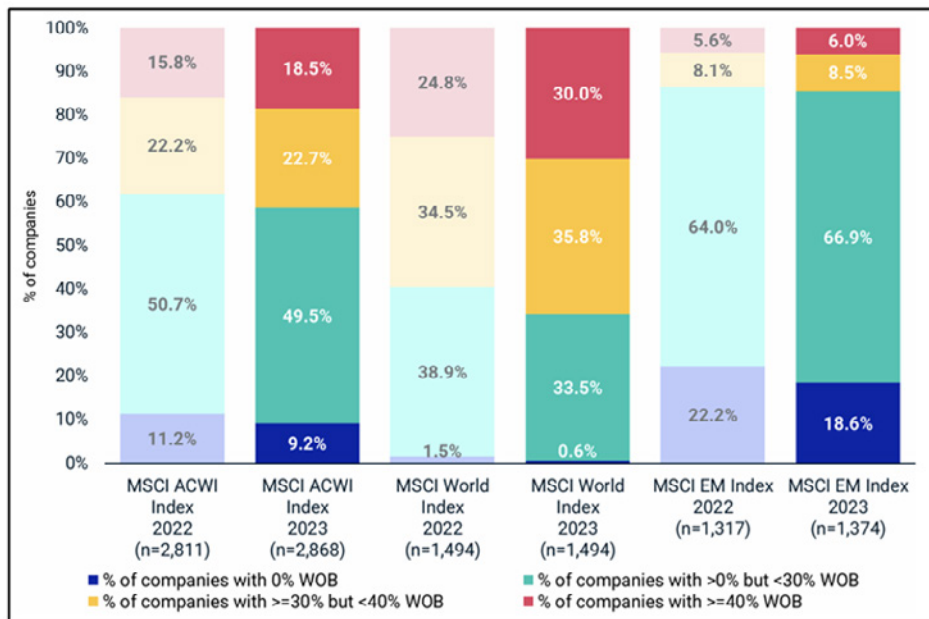
### INTRODUCTION

Gender diversity in corporate boardrooms is increasingly recognized for its potential to enhance decision-making, foster innovation, and improve overall performance. Apart from regulatory compliance, diversity, equity and inclusion (DEI) initiatives may often be driven by moral arguments that promote corporate diversity as the right thing to do and business case that a wealth of perspectives brought by diverse teams leads to better decision making and ultimately better business outcomes. However, empirical evidence remains inconclusive, with some studies suggesting a positive impact and others finding no significant improvement in financial metrics.

The MSCI ACWI 2024 report shows a positive trend in gender diversity, with women holding 24.5% of director seats and 38% of companies having at least 30% female directors. ESG risk ratings have also become important, assessing a company's commitment to sustainability and governance (PWC, 2021). Researchers are exploring how ESG scores mediate the relationship between board diversity and performance.

While intuitive arguments support the positive influence of gender diversity, research results are nuanced. Some studies suggest that the presence of more female board members does not significantly improve or worsen a ESG performance (Chebbi & Ammer, 2022), while other research provides evidence for a positive influence of women on corporate boards, particularly regarding market-based performance and price-to-earnings ratios (Ben-Amar et al., 2017; Cucari et al., 2018; Liao et al., 2015; Wasiuzzaman &

Wan Mohammad, 2020). Considering these findings, we delve deeper into the mediating role of ESG risk ratings, aiming to understand how gender diversity interacts with these ratings to shape company performance. By examining both empirical data and theoretical frameworks, we contribute to the continuing dialogue on this critical issue. This paper aims to contribute to the ongoing dialogue by investigating the interplay between board gender diversity, ESG risk ratings, and company performance. By analyzing rigorous, peer-reviewed studies, we seek to shed light on whether gender diversity truly drives financial success and how ESG risk ratings act as a potential mediator in this relationship.



**Graph 1:** Percentage of Women on Boards by Index Constituents 2022 vs 2023  
Source: MSCI ACWI Progress Report, 2024

Despite growing interest in board gender diversity, there remains a lack of consensus regarding its impact on company performance. Researchers have produced conflicting findings, with some studies suggesting a positive association between gender-diverse boards and financial outcomes (Alodat et al., 2023; Flabbi et al., 2019; Zeng & Jiang, 2023), while others find no significant improvement in performance when more women serve on boards, while some others suggest only a weak relationship. The debate centers on whether gender diversity directly influences financial metrics such as profitability, stock returns, and market performance (Jin, 2023; Wahyudyatmika & Astuti, 2024).

Numerous academic investigations have explored the various impact of ESG initiatives on company performance. Almeyda & Darmansya (2019), Cho et al. (2019), and Rasyad et al. (2024) found a ESG index of performance positively influence on financial performance while in contrast, Liang et al. (2023) found a negative correlation between ESG performance and financial performance. On the other side, Yuniharto et al. (2024) found strong evidence regarding positive influence of profitability on carbon emissions disclosure. However, the extension of this research also conduct based on countries, for example Arayssi et al., (2020) found that a stronger impact of good governance on firm performances in Middle East and North Africa (MENA) region, which align with Zhao et al., (2018) who found good ESG performance could improve the financial performance indicator based on his study of China’s power generator group.

This research addresses the knowledge gap in understanding the relationship between gender diversity, ESG risk ratings, and company performance, particularly in the accounting context. It aims to explore how ESG risk ratings mediate the relationship between board gender diversity and company performance using multi-theoretical frameworks. The study highlights the importance of gender diversity in corporate governance, stakeholder expectations, and sustainable business practices. It emphasizes the need for evidence on the impact of women on boards, driven by investor demand and global trends towards diversity and sustainability. The research underscores the positive correlation between board gender diversity and ESG disclosure, and its implications for transparency, accountability, and company performance in Indonesia. It also stresses the importance of gender diversity in achieving sustainable financial reporting.

This study examines the impact of gender diversity among corporate executives on ESG performance reporting in Indonesia. It highlights the influence of board gender diversity and industry classification on ESG ratings, addressing a gap in research focused on emerging markets. The previous findings reveal that board gender diversity and industry classification negatively affect ESG Risk Rating, while ESG Risk Rating positively impacts stock performance. However, there is no strong evidence that ESG Risk Rating significantly impacts financial performance. The study offers valuable insights for investors and policymakers, contributing to the understanding of ESG practices and corporate governance in Indonesia.

Numerous theories are employed to analyze the impact of board diversity on ESG performance, notably the Upper Echelon Theory and the Resource-Based View Theory (RBV). The Upper Echelon Theory, developed by Hambrick and Mason in 1984, posits that the characteristics, values, and experiences of top executives and decision-makers significantly influence organizational outcomes (Derda, 2017). According to this theory, the demographic composition, backgrounds, skills, and personality traits of top management teams play a crucial role in shaping strategic decisions and performance results. By examining the cognitive and demographic attributes of senior leaders, including gender diversity, the Upper Echelon Theory offers valuable insights into how the makeup of the executive team impacts decision-making processes, strategic choices, and overall organizational effectiveness. In this context, having women represented on boards of directors may influence companies' approaches to sustainability issues, as research shows that women tend to be more attuned to social and environmental concerns. A greater presence of women in executive positions can introduce a new, inclusive perspective and strengthen the organization's commitment to ESG initiatives.

The Resource-Based View (RBV) is another prominent theory in strategic management that emphasizes the importance of a firm's internal resources and capabilities as the primary drivers of competitive advantage and superior performance. This perspective argues that not all resources are created equal; certain resources can provide firms with a sustainable competitive edge when they meet the VRIN criteria, which consist of valuable, rare, inimitable, and non-substitutable. This theory is especially relevant when examining the relationship between ESG performance and overall company performance, including financial results and stock market performance. Companies that effectively integrate ESG considerations into their operations can gain a competitive edge in the marketplace. This often leads to an enhanced reputation, increased customer loyalty, and improved financial performance. Firms with strong ESG performance are generally perceived as less risky by investors, which can positively influence their stock prices (Mwangi et al., 2018). Moreover, empirical studies have shown that positive ESG performance often results in favourable market reactions. Companies that prioritize ESG initiatives may experience higher stock valuations due to growing investor interest in sustainable practices. Research supports the connection between strong ESG performance and improved financial metrics, as well as

stock market performance (Lestari & Soewarno, 2024). Additionally, incorporating ESG factors into corporate strategy is increasingly seen as essential for long-term value creation. Companies that invest in sustainable practices are likely to enjoy reduced regulatory risks, increased operational efficiencies, and stronger stakeholder relationships – factors that all contribute to better financial outcomes (Ernawan & Daniel, 2019). Furthermore, the RBV suggests that firms that invest in sustainable practices are in a better position to navigate market changes and regulatory environments. By proactively addressing ESG issues, these firms can also reduce regulatory risks and enhance their operational efficiencies. Finally, human capital is a crucial resource in this context. Companies that promote a culture of sustainability and social responsibility can attract and retain top talent, leading to enhanced innovation and operational performance. This is especially relevant in the realm of ESG, where employee engagement in sustainability initiatives can result in improved organizational outcomes.

In summary, the Upper Echelon Theory provides a robust framework for understanding the relationship between women on boards and ESG performance, which highlights how the collective attributes of board members, particularly in terms of gender diversity, can shape corporate strategies and enhance governance practices related to ESG initiatives. Additionally, the Resource-Based View provides a valuable perspective on the relationship between ESG and company performance. It highlights the importance of unique resources and capabilities and demonstrates how effective ESG practices can lead to competitive advantage, enhanced financial performance, and improved stock market valuations, which are essential for long-term success.

## Hypotheses Development

According to the Upper Echelon Theory, the characteristics, values, and experiences of top executives and decision-makers can significantly influence organizational outcomes. Greater diversity among board members, encompassing gender, ethnicity, nationality, education, and abilities – can lead to more positive results for the organization. Female directors often advocate for ESG initiatives. They bring unique perspectives to the boardroom, shaped by their distinct leadership roles, educational backgrounds, experiences, communication styles, and risk preferences. Research indicates that women tend to be more risk-averse and less comfortable with ambiguity during decision-making compared to their male counterparts.

Having women on boards promotes diversity and helps reduce ESG risks. Their presence encourages a holistic approach to responsible business practices, benefiting both the organization and its stakeholders. Specifically, board gender diversity refers to the representation of different genders within an organization's board. Recent studies have explored the impact of gender diversity on organizational ESG disclosure. Notably, these findings highlight the importance of gender diversity in enhancing organizational performance in ESG areas. Specifically, board gender diversity pertains to the representation of different genders within an organization's board. Recent studies by Arayssi et al., (2020), Orazalin (2020), Suttipun (2021) have explored the impact of gender diversity on organizational ESG disclosure.

H<sub>1</sub>: The presence of gender diversity on the board of directors will lower the level of ESG risk

The Resource-Based Theory (RBT) emphasizes that a firm's competitive advantage and performance are derived from its unique resources and capabilities. This theoretical lens is relevant when examining the relationship between industry classification and ESG risk ratings, as it highlights how resource endowments and industry-specific conditions influence ESG outcomes. The Indonesia

Stock Exchange (IDX) categorizes companies into similar industry sectors in the capital market. Due to their specific characteristics, regulations, and business practices, different industries exhibit varying levels of environmental, social, and governance risks. Companies in certain industries, such as extractive industries, heavy manufacturing, or energy, are generally more exposed to ESG risks compared to those in sectors like technology, healthcare, or services. This is because industry-specific factors—such as resource usage, emissions, labor practices, and supply chain complexities—contribute to diverse ESG risk profiles. Moreover, industry norms and practices also influence a company's ESG performance and risk exposure. For instance, industries with established sustainability practices may showcase lower ESG risks, while those that lag behind may face higher risks.

To further explore the impact of industry classification on ESG performance, several research studies have been conducted. For example, Zhao et al., (2023) explored peer effects on ESG performance within heavy-pollution industry firms, indicating a positive influence on corporate ESG performance within the same industry and region. Jin (2023) in her study found a positive correlation between the ESG performance in major mining companies. In summary, these studies collectively imply that the classification of the industry significantly shapes corporate ESG performance. The characteristics of industries, such as manufacturing, producer services, and medical devices, along with elements like digital transformation and peer influences, all contribute to the varying levels of ESG performance observed across different sectors.

H<sub>2</sub>: The industry classification negatively affects the level of ESG risk

Based on the Resource-Based View which highlights the connection between ESG factors and company performance, companies that successfully incorporate ESG considerations into their operations are more likely to gain a competitive advantage in the marketplace. This often translates into an enhanced reputation, increased customer loyalty, and improved financial performance. On one hand, companies with lower ESG risk ratings tend to exhibit stronger financial performance due to improved operational efficiency, reduced risks, and greater stakeholder trust. A better ESG risk rating is indicated by a lower ESG risk score, which can lead to enhanced operational efficiency and, consequently, higher profitability (Cho et al., 2019). From an investor's perspective, companies with better ESG risk ratings typically experience a lower cost of capital and financial risk, resulting in more favourable financing terms and addressing ESG issues effectively. Furthermore, lower ESG risk ratings contribute positively to long-term value creation, positioning companies for sustained success and increased stakeholder trust. On the other hand, a higher ESG risk rating can negatively impact profitability, as companies with elevated ESG risks may face additional costs that reduce their earnings. For instance, they may incur extra expenses related to environmental compliance or managing damage to their reputation.

Numerous research studies have investigated the relationship between Environmental, Social, and Governance (ESG) performance and companies' financial performance. Almeyda & Darmansya (2019) highlighted a significant positive relationship between ESG and firms' valuations within listed real estate companies in G7 countries from 2014 to 2018, indicating better financial performance for companies with higher ESG scores. Rasyad et al. (2024) also found that ESG has a significant positive effect on financial performance in Indonesian and Malaysian listed companies. On the contrary, Liang et al. (2023) who analysed 1.468 listed companies from Shanghai & Shenzhen from 2012-2021, found a significant negative correlation between ESG performance and financial performance for environmentally sensitive enterprises, which indicates that companies with better ESG performance might have lower financial performance.

H<sub>3</sub>: ESG risk negatively impacts a company's financial performance

According to the Resource-Based View (RBV), a firm can achieve a sustainable competitive advantage by effectively integrating Environmental, Social, and Governance (ESG) considerations into its operations. This integration often enhances the company's reputation, increases customer loyalty, and improves financial performance. Firms with strong ESG performance are generally perceived as less risky by investors.

Previous studies have shown that positive ESG performance can lead to favourable market reactions, positively influencing stock prices and resulting in higher stock valuations due to the growing interest among investors in sustainable practices (Mwangi et al., 2018). Conversely, companies with higher ESG risks may experience lower stock prices, reduced investor confidence, and weaker market performance, as high ESG risk companies are perceived as riskier investments. Investors may discount stock prices for companies with poor ESG practices due to concerns about long-term sustainability and potential legal or reputational risks. Higher ESG risks negatively impact a company's reputation and stakeholder trust, as negative ESG events can erode investor confidence and lead to stock price declines. Additionally, inefficient resource use and poor supply chain management can also represent higher ESG risks, adversely affecting operational efficiency and stock performance. Therefore, ESG-conscious investors may actively choose companies with strong ESG practices, leading to better stock performance overall.

The reviewed studies collectively suggest that companies with strong ESG performance tend to have positive effects on their stock performance. Previous research also indicates that good ESG performance can help reduce stock price volatility, particularly in 283 listed company from various industry during 2018-2022 (Wahyudyatmika & Astuti, 2024). Moreover, Jin (2023) found a positive correlation between ESG performance and their stock returns, particularly in listed mining companies in US stock market from 2013 to 2022. Kulal et al. (2023) also found a significant positive relationship between ESG factor and both stock price, where stronger ESG performance have been found to have better investment returns compared to those with weaker ESG performance. Overall, the evidence supports the idea that integrating ESG factors into business operations can positively influence companies' stock performance.

H<sub>4</sub>: ESG risk negatively impact a company's stock performance

## **METHOD, DATA, AND ANALYSIS**

The objective of this study is to examine the influence of gender diversity within corporate boards on sustainable financial reporting in Indonesia, specifically through the lens of reporting on environmental, social, and governance (ESG) performance. This study adopts a quantitative approach, meticulously measuring various types of variables. Our focus lies in formulating hypotheses grounded in existing theories. The scope of this research is in the accounting domain, specifically financial accounting practices. Within this context, we narrow our discussion to explore how a company's ESG initiatives impact its reporting practices to shed light on the interplay between gender diversity, sustainability, and financial transparency.

This study focuses on companies listed on the Indonesia Stock Exchange (IDX). To form our sample, we employed purposive sampling, specifically targeting companies that have actively embraced ESG practices and have established a positive reputation in ESG performance. The IDX curates and categorizes these companies into the IDX ESG Indices.

Our data collection process draws from multiple sources. First, we accessed relevant information about the sample companies directly from the IDX website, which includes data on financial ratios, stock

performance, board composition, and industry classification. Second, we access to the Sustainalytics website to gather the ESG risk ratings. Sustainalytics provides comprehensive assessments of companies' ESG practices, allowing us to gauge their risk exposure. On the table 3.1 below, concluded the information regarding Rating System from Sustainalytics:

**Table 1.** ESG Rating System from Sustainalytics

Risk Decomposition	Definition	Formula	ESG Rating
Company Exposure	A company's sensitivity or vulnerability to ESG risks	Subindustry X Issue Beta	ESG Risk ratings measures the Unmanaged Risk.
Manageable Risk	Manageable Risk assesses how well a company is managing its risks that are inside the boundaries of a company's management control based on the assumption that the company continue its inherent business.	Company Exposure X Managable Risk Factor	There are 5 categories of ESG Risk Rating: 1) Neglible Risk (overall score of 0-9,99) 2) Low Risk (overall score of 10-19,99) 3) Medium Risk (overall score of 20-29,99) 4) High Risk (overall score of 30-39,99) 5) Severe Risk (overall score of 40 and above)
Managed Risk	Risk that can be addressed by company initiaves through policies and programmes.	Manageable Risk X Management score	
Unmanaged Risk	The evaluation of a unique set of sector-specific material ESG issues as well as a Corporate Governance Baseline, based on both the company's exposure to and management of those issues.	Company Exposure X Managed Risk	

## Variables and Measurements

This research examines two dependent variables: corporate financial performance and stock performance. Corporate financial performance is evaluated using Gross Profit Margin (GPM), Net Profit Margin (NPM), Operating Profit Margin (OPM), and Return on Equity (ROE). Stock performance is assessed using Earnings per Share (EPS), Relative Price Strength (RPS), and Price Book Value per Share (BVPS). The mediating variable used in his research is ESG risk, measured by the ESG Risk Rating from Sustainalytics, which evaluates environmental, social, and governance criteria. This ESG risk rating helps investors understand the financial materiality of ESG risks and their impact on company performance.

The independent variables in this study are boards gender diversity (BGD) and industry classification. BGD is measured by the proportion of female commissioners on corporate boards, using the percentage of women on the board of directors. This proxy is based on Ben-Amar et al., (2017) and is referred to as women on board (WoB), which represents the gender composition of corporate boards which encompasses the presence and representation of both genders, emphasizing diversity within the highest decision-making body of organizations. Industry classification categorizes companies into 12 groups based on the Indonesia Stock Exchange (IDX) classification, using numerical dummy variables from 0 to 11. The 12 classifications consist of: a) energy, b) basic material, c) industrial, d) consumer non cyclical, e) consumer cyclical, f) healthcare, g) financial, h) property & real estate, i) technology, j) infrastructure, k) transportation & logistics, and l) listed investments product. Following Table 3.2 explain the variables and its measurements in details:

**Tabel 2.** Operational Variables and Measurement

Variable Type	Variable	Description	Measurement
Dependent Variable	Financial Performance	Company financial performance provide insight about how effectively company generates profit relative to its revenue. In this study, we use several key profitability ratio to measure company's financial performance.	Gross Profit Margin (GPM), Net Profit Margin (NPM), Operating Profit Margin (OPM), and Return on Equity (ROE)
	Stock Performance	Company stock performance refers to how well a company's stock is doing in the market, which is typically measured by the change in the stock's price over a specific period, reflecting the company's ability to increase or decrease the wealth of its shareholders.	Earning per Share (EPS), Relative Price Strength (RPS), and Price Book Value per Share (BVPS)
Mediating Variable	ESG Risk	<p>The ESG Risk Ratings measure the degree to which a company's economic value (enterprise value) is at risk driven by ESG factors or the magnitude of a company's Unmanaged ESG Risks. In this respect, the ESG Risk Ratings comprise two dimensions: Exposure and Management.</p> <p><b>Unmanaged Risk = (SE * IBE) – (CE* MRF * MS), where:</b></p> <p>SE: Subindustry Exposure IBF: Issue Beta Exposure CE: Company Exposure MRF: Manageable Risk Factor MS: Management Score.</p>	<p>The proxy measure reflects the level of ESG risk rating, which is assessed by independent rating agencies based on various ESG criteria, such as environmental impact, social responsibility, and corporate governance practices. The company's ESG risk rating is obtained from the Sustainalytics website</p> <p>ESG Risk Rating score converted into dummy number. For example, Negligible Risk (0,00-9,99) converted into 0, while Low Risk (10,00-19,9) converted into 1, and so on.</p>
Independent Variable	Board Gender Diversity (BGD)	BGD represents the gender composition of corporate boards which encompasses the representation of women, emphasizing diversity within the highest decision-making body of organizations/high level position in the companies, particularly in boards of director and commissioner. Therefore, the proportion of women are seen based on three proxies to measure BGD adapted from Ben-Amar et al., (2017).	<p>Scoring based three proxies:</p> <p>a) Proportion of women on BOD b) Proportion of women on commissioner board c) Proportion of women in BOD &amp; commissioner board.</p>
	Industry Classification	The category of industry-type is based on the grouping used in the IDX, which consist of 12 categories of industry. Each sample company already has a particular classification of industry.	The sample companies will used in dummy variable valued 0-11 to indicate their industry classification.

The analysis in this study includes descriptive statistics, classical assumption tests, and hypothesis testing. All statistical tests will be conducted using Smart PLS, following a two-step of the test as follow:

- a) **Measurement Model Assessment:** This step checks the reliability and validity of the constructs and ensures indicator loadings are above the recommended threshold of 0.7.
- b) **Structural Model Assessment:** This step examines the path coefficients to understand the strength and direction of relationships between constructs, R-squared values to assess the model's explanatory power, and significance testing using bootstrapping to determine if the relationships are statistically significant through p-values.



The hypothesis testing will evaluate four research hypotheses, as illustrated below.

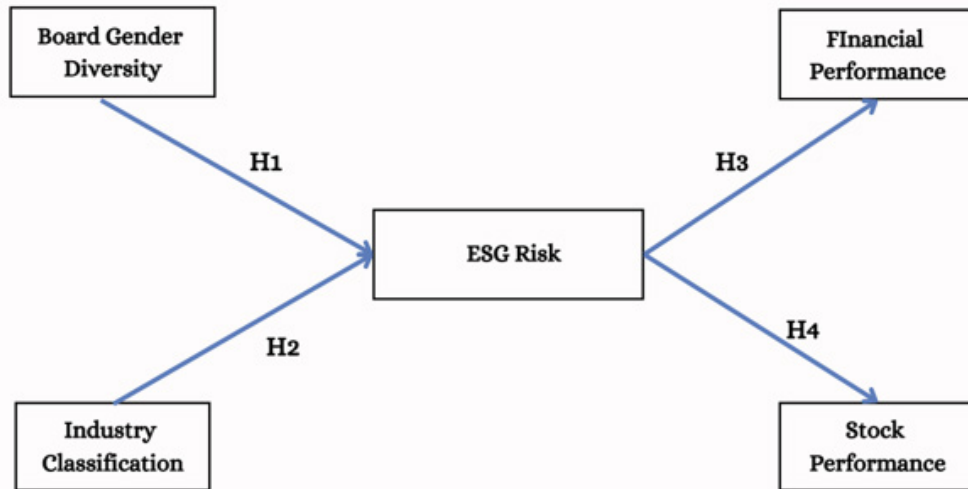


Figure 1. Research Model

## RESULTS AND DISCUSSION

This research examines the impact of gender diversity on boards on financial reporting and stock performance, mediated by ESG implementation in Indonesia. The study focuses on companies listed on the Indonesia Stock Exchange (IDX) that practice ESG, using purposive sampling. As of 2024, IDX has four ESG-specific indices: IDX ESG Leader, IDX ESG Sector Leaders, ESG Quality 45 IDX, and ESG Srikehati. These indices measure the performance of companies based on ESG criteria, with evaluations conducted periodically.

The study also incorporates ESG risk ratings and controversy analysis from Sustainalytics, an independent institution that assesses ESG risks globally. Sustainalytics evaluates companies based on exposure to ESG material risks and their management of these risks through policies and programs. Based on these criteria, detailed list of companies that are selected as the sample is as follows:

Table 3. Research Sample Selection Criteria

No	Indices	Number of Companies
1	IDX ESG Leaders 2024	30
2	IDX ESG Sector Leaders 2024	57
3	ESG Quality 45 IDX 2024	45
4	ESG Srikehati 2024	25
	Less: Companies that are included in more than 1x in the indices will be counted as 1 sample	(87)
5	Less: Companies whose ESG scores are not found on the Sustainalytics website	(9)
Total Sample used in data processing		<b>61</b>

The sample companies consist of various industries, to represent various characteristics of industry, which illustrated as follows:

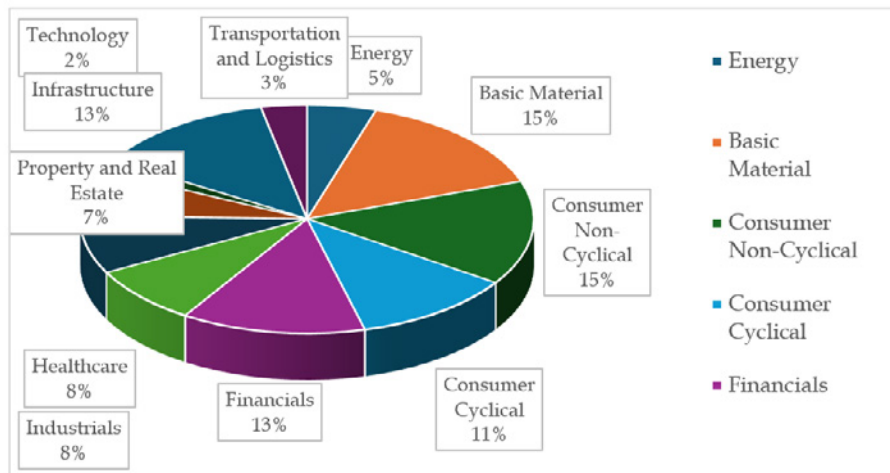


Figure 2. Proportion of Sample Companies based on Industries

Table 4. Statistic Descriptive of Variables

No	Variable	Proxy	Min	Max	Mean	Std. Dev
1	Financial Performance	Return on Equity	-98,13	358,22	17,18	48,97
		Gross Profit Margin	0	72,75	31,27	18,55
		Net Profit Margin	-32,07	144,22	14,08	20,87
		Operating Profit Margin	-23,09	63,18	18,33	16,92
2	Stock Performance	Relative Price Strength	0,04	8689,32	612,21	1220,65
		Earning per Share	-28,4	1219,05	70,62	165,29
		Price Book Value per Share	0,29	22848,32	1920,67	3397,30
3	ESG Risk	ESG Risk Rating	0	4	1,98	0,98
4	Board Gender Diversity	Women on Director Boards	0	0,6667	0,19	0,146622
		Women on Commissioner Boards	0	0,75	0,15	0,17
		Women on BOD	0	0,5	0,17	0,12
5	Industry Classification	Industry	0	10	4,5	2,87

### Measurement Model Assessment (Outer Model Assesment)

The Measurement Model Assessment focuses on evaluating the relationships between latent variables (constructs) and their observed indicators (measured variables) to checks the reliability and validity of the constructs and ensures indicator loadings are above the recommended threshold. The reliability test was calculated using the Composite Reliability, Cronbach Alpha and AVE (Average Variance Extracted) statistical test. Using SmartPLS, the result of Composite Reliability, Cronbach Alpha and AVE are shown: The Cronbach Alpha indicates that the research instrument has high reliability, hence the items can be used as a reliable measuring tool. The AVE value indicates that all indicators are valid.

Discriminant validity is measured to ensure that the square root of the AVE for each construct is greater than the correlations between the construct and other constructs, which indicates that the construct is more closely related to its own indicators than to other constructs. HTMT ratio is used to assess discriminant validity, which should be below 0.85 (or 0.90 in some cases), indicating good discriminant validity.

### Structural Model Assessment (Inner Model Assessment)

The Structural Model Assessment focuses on evaluating the relationships between latent variables (constructs) and their observed indicators (measured variables). This step examines the path coefficients to understand the strength and direction of relationships between constructs, R-squared values to assess the model's explanatory power, and significance testing using bootstrapping to determine if the relationships are statistically significant through p-values.

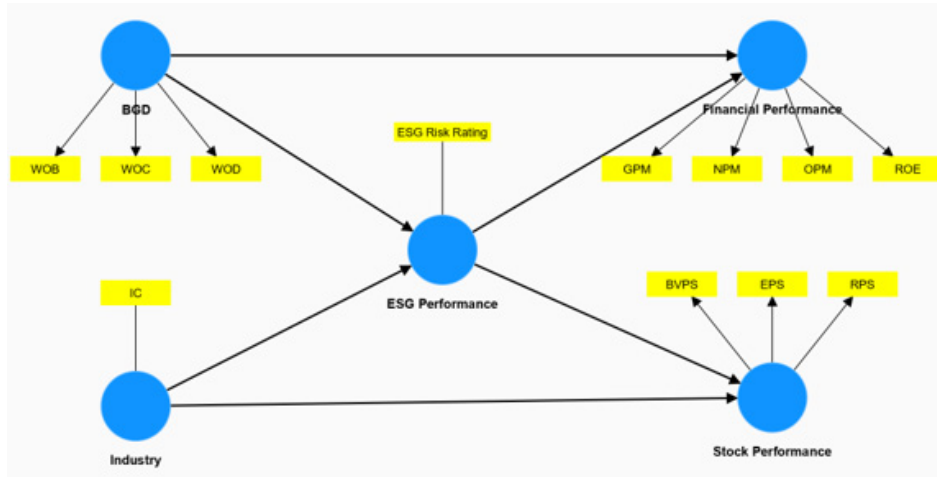


Figure 3. PLS Algorithm Test Result

There are several steps in conducting Structural Model Assessment which include assessing collinearity issues, evaluate path coefficients, assessing explanatory power, assessing effect size, assessing predictive relevance, and assessing model fit.

Table 5. Path Coefficient

	Original sample (O)	Sample mean (M)	Standard deviation	T statistics ( O/STDEV )	P values
ESG Risk -> Financial Performance	-0.071	-0.083	0.190	0.374	0.709
ESG Risk -> Stock Performance	0.390	0.403	0.095	4.083	0.000
Industry Classification -> ESG Risk	-0.286	-0.284	0.096	2.987	0.003
Industry Classification -> Stock Performance	-0.050	-0.053	0.073	0.679	0.497
BGD -> ESG Risk	-0.312	-0.317	0.120	2.602	0.009
BGD -> Financial Performance	0.219	0.196	0.236	0,929	0.353

Path coefficient indicates significance and relevance which assessed using bootstrapping. Path coefficients should be statistically significant (p-values < 0,05) and relevant to the theoretical model. The result indicates strong statistical significance on ESG-> Stock performance, Industry->ESG, and BGD-> ESG. Further, the result of path coefficient also indicates that there are weak evidence against the null hypothesis for ESG->Financial Performance, Industry-> Stock Performance, and BDG -> Financial Performance. The key takeaways of the results highlighted the industry and women on board significantly affect the ESG, and ESG significantly affect the Stock Performance.

The result of R<sup>2</sup> test explain that the model can only explain the impact of variables approximately 19% of the changes in company ESG. Moreover, the R<sup>2</sup> test shows that the model can only explain the

impact of variables approximately 6,3% of the changes on profitability. Lastly, the R<sup>2</sup> test shows that the model can only explain the impact of variables approximately 16.6% of the changes in company stock performance.

The F-squared values from the F<sup>2</sup> Square test reveal industry explains 10.1% of the variance in ESG performance, while BGD account for 12% of the variance in ESG Risk. ESG performance explains 0.5% of the variance in financial performance, and BGD contribute to 4.6% of the variance in financial performance. ESG performance accounts for 16.5% of the variance in stock performance, while industry accounts for 3% of the variance in stock performance.

Goodness of Fit test is used to measure of how well a Partial Least Squares Structural Equation Modelling (PLS-SEM) model fits the observed data. SRMR measures the discrepancy between observed and predicted values, indicates that the model less likely fit to test the independent variable.

### Hypothesis Testing Results

The result of hypothesis testing in this study are elaborate as follow:

**Table 6.** Hypothesis Testing Results

Hypothesis	Relationship	Original sample	T stat	P-values	Decision
H1	BGD -> ESG Risk	-0,312	2,585	0,009	Supported
H2	Industry Classification -> ESG Risk	-0,286	2,994	0,003	Supported
H3	ESG Risk -> Financial Performance	-0,071	0,368	0,709	Not Supported
H4	ESG Risk -> Stock Performance	0,390	4,295	0,000	Not Supported

### Board Gender Diversity and ESG Risk

The statistical analysis conducted indicates that the path coefficient is -0,312, which signifies a negative relationship between board gender diversity and ESG Risk. The p-value associated with this coefficient is 0,009, suggesting that there is statistically significant evidence to support the first hypothesis. Specifically, it highlights that the presence of gender diversity on boards leads to a reduction in ESG risk. Therefore, the first hypothesis is confirmed and supported, that greater gender diversity on corporate boards is associated with lower ESG risk levels.

### Industry Classification and ESG Risk

The statistical analysis conducted indicates that the path coefficient is -0,286, which signifies a negative relationship between industry and ESG Risk Rating. The p-value associated with this coefficient is 0,003, suggesting that there is statistically significant evidence to support the second hypothesis. Specifically, the findings highlight that the type of industry is linked to a reduction in ESG risk. Therefore, the second hypothesis is confirmed and supported, that the industry classification negatively affects the level of ESG risk.

### ESG Risk and Financial Performances

Based on the statistical analysis conducted, the path coefficient has a value of -0,071, which indicates a negative relationship between ESG Risk Rating and financial performance. The associated p-value is 0,709, suggesting that there is no statistically significant evidence to support the third hypothesis,

which posits that ESG risk negatively impacts a company's financial performance. Therefore, the third hypothesis is not supported.

### **ESG Risk and Stock Performances**

The statistical analysis reveals that the path coefficient is 0.390, indicating a positive relationship between ESG Risk Rating and stock performance. The associated p-value is 0.000, suggesting that there is statistically significant evidence to support the fourth hypothesis. However, this finding implies that ESG risk positively impacts a company's stock performance, which contradicts the assertion of the fourth hypothesis. Therefore, the fourth hypothesis is not supported.

### **The Impact of Board Gender Diversity on ESG Risk**

The statistical analysis indicates a significant negative relationship between board gender diversity and ESG risk. This finding supports the first hypothesis, which suggests that a higher percentage of women on boards significantly reduces ESG risk. This result reinforces the application of Upper Echelon Theory, which posits that the characteristics, values, and experiences of top executives and decision-makers can greatly influence organizational outcomes. Additionally, it highlights that greater diversity among board members, particularly in terms of gender, can lead to more positive results for the organization.

This finding is in line with prior studies, which suggest that including women enhances decision-making, fosters innovation, and improves overall performance, especially in ESG initiatives (Ben-Amar et al., 2017; Cucari et al., 2018; Liao et al., 2015; Wasiuzzaman & Wan Mohammad, 2020). Women often excel in monitoring roles, tend to make more ethical decisions, and are generally more risk-averse (Barrangou et al., 2014; Oradi & Izadi, 2020). These attributes contribute to more comprehensive strategies for addressing ESG issues. The diversity in leadership helps balance financial objectives with social responsibilities, aligns with global trends towards gender equality, and can enhance a company's reputation while attracting socially conscious investors.

### **The Impact of Industry Classification on ESG Risk**

The analysis reveals a significant negative relationship between industry classification and ESG (Environmental, Social, and Governance) risk ratings, supporting the second hypothesis that industry classification negatively affects the level of ESG risk. This finding strengthens the application of Resource-Based Theory (RBT), which emphasizes that a firm's competitive advantage and performance are rooted in its unique resources and capabilities. The results illustrate how resource endowments and industry-specific conditions influence ESG outcomes.

Different industries face varying levels of ESG risk exposure, which is shaped by the nature of the industry itself. This, in turn, influences the cognitive framework and priorities of top executives. Leaders in high-risk industries are generally more focused on risk mitigation and sustainability due to external pressures and stakeholder expectations. In contrast, executives in low-risk industries may minimize ESG considerations unless motivated by personal values or regulatory changes.

This result indicates that industries such as energy and basic materials have higher ESG risks due to their environmental and social impacts. Conversely, industries such as technology and infrastructure have lower ESG risks. This result aligns with Jin (2023) and H. Zhao et al. (2023), who found a positive influence on corporate ESG performance within companies from the same industry. Ultimately,

this suggests that companies in high-risk industries must adopt sustainable practices and enhance governance to effectively manage their ESG risks. By doing so, they can improve their ESG performance and reputation, attract socially conscious investors, and contribute to a more sustainable future.

### **The Impact of ESG Risk on Financial Performance**

The statistical analysis indicates a negative but statistically insignificant relationship between ESG risk and financial performance, suggesting that the third hypothesis is not supported. However, these findings extend the principles outlined in the Resource-Based View (RBV) theory. The RBV emphasizes the connection between ESG factors and company performance. It suggests that companies that effectively integrate ESG considerations into their operations are more likely to achieve a competitive advantage in the marketplace, which often results in an enhanced reputation, increased customer loyalty, and improved financial performance, although the timeframe for these outcomes remains uncertain. The lack of a significant impact may be attributed to the high initial costs of implementing ESG initiatives, the long-term nature of ESG benefits, and inconsistencies in measuring ESG performance.

Overall, these results suggest that ESG risk does not have a significant impact on financial performance, which both aligns with and contradicts findings from other studies. This study supports and aligns with Husada & Handayani (2021) but contradicting other studies like Almeyda & Darmansya (2019), Cho et al. (2019) and Liang et al. (2023).

### **The Impact of ESG Risk on Stock Performance**

The analysis reveals a significant positive correlation between ESG Risk Rating and corporate stock performance, indicating that the fourth hypothesis is not supported. This implies that greater ESG risk ratings are linked to improved market performance, suggesting that investors might favor higher ESG risks for potential future gains. This finding contradicts the Resource-Based View (RBV) theory, which posits that companies that successfully embed ESG factors into their operations are more likely to attain a competitive edge in the marketplace, often leading to an improved reputation, greater customer loyalty, and enhanced financial and stock performance.

The positive impact of ESG risk on market performance may be due to several factors. Companies with poor ESG ratings may avoid costs associated with sustainable practices, temporarily boosting book values, Earnings Per Share (EPS), and Revenue Per Share (RPS). Investors might prioritize short-term financial results, leading to higher book values despite poor ESG performance. Sector-specific dynamics, such as in energy or mining, can result in higher potential returns and increased book values despite higher ESG risks. Speculative investors may drive up stock prices, anticipating future improvements. Additionally, regulatory and market lags in the Indonesian Stock Market can delay the recognition of ESG risks, allowing book values to remain high temporarily. Nevertheless, this outcome differs from earlier research that indicated favorable ESG performance diminishes stock price volatility or has a positive relationship with stock returns (Jin, 2023; Kulal et al., 2023; Wahyudyatmika & Astuti, 2024).

## **CONCLUSION AND SUGGESTIONS**

This research examines the impact of board gender diversity and industry classification on ESG performance, financial performance, and stock performance in Indonesia. Using a quantitative approach with Smart PLS, the study finds that a higher proportion of women on boards improves ESG performance

by lowering ESG risk. Industry classification also significantly affects ESG risk. Interestingly, ESG risk positively influences stock performance but not financial performance.

The study highlights the importance of consistent ESG metrics and reporting frameworks, and the need for companies to view ESG as an integrated system. Companies should promote gender diversity and adopt sustainable practices to enhance ESG performance, reputation, and attract socially conscious investors.

However, this study's limitations include its focus on Indonesia, subjective ESG metrics, and external factors influencing performance. This research focuses on Indonesia as an emerging market, providing valuable insights. However, it is important to recognize that these findings may not be directly applicable to other countries or regions with different institutional settings, cultural norms, and market dynamics. ESG performance metrics can be subjective and vary across sources, even though this research already conducts several statistical tests to ensure robust measurement validity and reliability. Thirdly, ESG performance and stock performance are influenced by external factors, which may not be fully captured in the research model. This study focuses on the immediate impact of gender diversity and ESG performance on stock performance. However, long-term effects may differ depend on the selected time horizon, so expanding the time horizon may result in different conclusions.

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