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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. Given the unique context of gender equality in Indonesia and the expectation that gender differences influence decision-making processes in financial reporting, this study explores women on boards impact on financial and stock market performance, mediated by ESG Risk Rating. 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 SmartPLS 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 impact negatively 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.

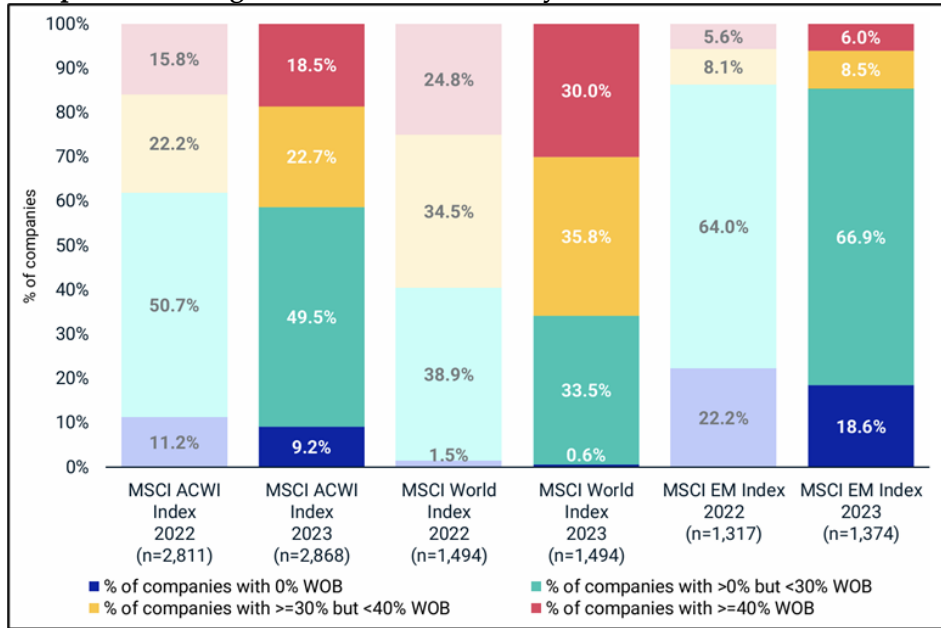
Keywords: Board Gender Diversities; ESG Risk Rating; Financial Performance; Stock Performance; Women on Board

INTRODUCTION

Gender diversity in corporate boardrooms has emerged as a critical topic in recent years, with growing recognition of its potential impact on company performance, which enhances decision-making, fosters innovation, and contributes to better overall performance. Apart from regulatory compliance, diversity, equity and inclusion (DEI) initiatives may often be driven by either the moral arguments that promote corporate diversity as the right thing to do or as a 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 current trends on Women on Board (WoB) brought by Morgan Stanley Capital International (MSCI), an investment research firm that provides stock indexes, portfolio risk and performance analytics, launched its recent progress report called MSCI ACWI as of early 2024 as presented in Graph 1 below. The report analyzed a comprehensive dataset of 2,811 constituents as of October 20221 and highlighted a positive trend in gender diversity. Overall, the percentage of director seats held by women has steadily increased, reaching 24.5% among index constituents. Notably, 38% of companies now have at least 30% female directors. In parallel, ESG risk ratings have gained prominence as a measure of a company's commitment to environmental sustainability, social responsibility, and effective governance (PWC, 2021). These ratings assess a firm's exposure to material ESG issues, and its management practices related to these concerns. Researchers have examined how ESG scores mediate the relationship between board diversity and performance.

Graph 1: Percentage of Women on Boards by Index Constituents 2022 vs 2023



Source: MSCI ACWI Progress Report, 2024

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.

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 effect. 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 negative correlation between ESG performance and financial performance. Moreover, 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.

Contrary to popular belief, the results are inconclusive. Some studies find no significant improvement in performance when more women serve on boards, while 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). There is also a knowledge gap in understanding the nuance between gender diversity, ESG risk ratings and company performance, especially within the accounting context, which requires further exploration. There are several critical research problems that this research would like to address, which include understanding how ESG risk ratings mediate the relationship between board gender diversity and company performance, employing multi-theoretical frameworks (e.g., resource-based

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view, critical mass theory) to provide a comprehensive understanding of the dynamics at play, and bridging perspectives on accounting metrics (return on assets, return on equity) and market-based indicators (price-to-earnings ratio).

Researching the relationship between board gender diversity, industry classification, company performance, and ESG risk ratings is relevant for corporate governance enhancement, stakeholder expectations, and sustainable business practices. Nowadays, companies are increasingly recognizing that diverse boards can lead to better decision-making, improved risk management and enhanced strategic oversight, while on the other hand, stakeholders expect companies to demonstrate their commitment to diversity and sustainability, which can be fulfilled by board gender diversity to leverage positive corporate image. With a growing number of regulations and recommendations to increase the representation of women on boards, it is relevant to find evidence of its impact on companies' operations and sustainable growth. Moreover, the urgency of this research topic arises from investor demand, risk mitigation, and global trends toward gender diversity and long-term sustainability.

The implications of this area of study in the context of accounting study lie in several aspects. Firstly, transparency and accountability aspects, as gender diversity in corporate boards enhance transparency and accountability, and ESG disclosure positively correlates with board gender diversity. Secondly, this research also impacts company performance on financial and market perspective aspects. Lastly, this research also implicates the governance practices in industry and geographical contexts, specifically in Indonesia.

Given the unique context of gender equality in Indonesia, the results of prior studies and the evolving landscape make it compelling for researchers to explore the relationship of BOD towards company performance, which is mediated by ESG Risk Rating. The research explores the relationship between gender diversity in corporate boards, ESG performance, and company performance in financial and market based. This research specifically examines how the presence of women on corporate boards impacts ESG disclosure within the unique context of Indonesia as a developing country. The study offers theoretical and empirical arguments for the feminization of corporate boards and highlights the positive correlation between transparency (measured through ESG disclosure) and a significant proportion of women on boards. Moreover, by emphasizing organizational performance through governance, the research underscores the importance of gender diversity in achieving sustainable financial reporting.

Within the realm of gender-based board diversity, this study aims to scrutinize gender differences among corporate executives concerning Environmental, Social, and Governance (ESG) performance reporting initiatives. The investigation focuses on analyzing the effect of board diversity, specifically gender diversity in the board of directors, on the level of ESG performance risk in Indonesia. Companies aspire to showcase optimal financial performance in their statements to captivate stakeholders' interest, prompting management to present ESG performance reports. Ultimately, the study endeavors to scrutinize the impact of gender board diversity on sustainable financial reporting in Indonesia, specifically in the form of reporting on ESG performance.

The study provides insights into the impact of board gender diversity and industry classification on ESG ratings within the unique context of Indonesia. This is valuable as it adds to the limited body of research focused on emerging markets, particularly Indonesia, where most existing studies on ESG and board diversity are centered on developed markets. By focusing on Indonesia, this research addresses a gap in the literature and provides context-specific findings. The study explores the influence of gender differences on decision-making processes in financial reporting, which is crucial for understanding how gender diversity impacts corporate governance and performance. The emphasis on gender equality in Indonesia and its impact on ESG ratings and financial performance is relatively unexplored, making this a novel contribution to the field.

The study's findings that board gender diversity and industry classification negatively affect ESG Risk Rating, while ESG Risk Rating positively impacts stock performance, offer valuable insights for investors and policymakers. The identification of these relationships in the Indonesian context is unique and contributes to the broader understanding of how ESG factors influence market performance in emerging markets. The finding that there is no strong evidence of ESG Risk Rating significantly impacting financial performance highlights the complexity of the relationship between ESG practices and financial outcomes. This nuanced result adds depth to the existing literature, suggesting that the impact of ESG ratings on financial performance may vary depending on the

context and specific variables considered.

Overall, 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. It addresses gaps in the literature and offers practical implications for companies, investors, and policymakers in emerging markets.

Hypotheses Development

Numerous theories, including agency theory, upper echelon theory and critical mass theory have been used to understand the implication of Board Gender Diversity and Risk Performance towards Company's performance. The Upper Echelon Theory suggests that organizational outcomes are influenced by the characteristics, values, and experiences of top executives and decision-makers within the organization. This theory indicates that the demographic composition, background, skills, and personality traits of top management teams significantly shape strategic decisions and organizational performance outcomes. By examining the cognitive and demographic attributes of top leaders including gender diversity, the Upper Echelon Theory offers insights into how the composition of the executive team affects decision-making processes, strategic choices, and overall organizational outcomes.

Critical mass theory is a concept used in various fields, including sociology, economics, and technology, which refers to a sufficient number or threshold within statistical modeling. When a committed minority reaching critical mass can trigger a cascade of behavior change, rapidly increasing acceptance of a minority view, which helps to explain how new norms, practices, or innovation become widespread, informs strategies for policy change, advocacy and social movements. Critical mass theory suggests that a certain threshold of gender diversity is needed for its positive effects to manifest. Boards with a critical mass of women may perform better. Examining whether a specific proportion of women on boards impacts ESG disclosure and financial reporting aligns with critical mass theory.

The increasing demand for corporate social responsibility (CSR) reports in Indonesia and ASEAN countries has captured the attention of the public and shareholders. This trend represents a significant stride toward enhancing governance quality, responsibility, and accountability within the business sphere. Across ASEAN nations, deliberate steps have been taken to amplify the disclosure of CSR activities. In Indonesia, reporting on CSR activities is not only seen as a mitigation strategy but also as a means of value creation. However, it's essential to recognize that while CSR and environmental, social, and governance (ESG) practices contribute positively, they also introduce complexities and risks. ESG considerations broaden the scope for companies, encompassing both social and performance-related aspects. Transparency in financial reporting becomes crucial, aligning with the principles of responsible business conduct. Yet, this expanded focus also exposes organizations – both in the market and industry – to heightened risk (Ben-Amar et al., 2017).

Board of diversity refers to the variety of individual characteristics within a board of directors. These characteristics span gender, ethnicity, nationality, education, abilities, and more. 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. Notably, female directors often champion ESG initiatives, as women bring unique perspectives to the boardroom due to distinct leadership roles, educational backgrounds, experiences, communication styles, and risk preferences. Research suggests that women tend to be more risk-averse and ambiguity-averse than their male counterparts in decision-making. In summary, having women on boards not only promotes diversity but also contributes to reducing ESG risks. Their presence fosters a holistic approach to responsible business practices, benefiting both the organization and its stakeholders.

H1: The presence of gender diversity on the board of directors will lower the level of ESG risk

In the capital market, the Indonesia Stock Exchange (IDX) categorizes companies into similar industry sectors. Different industries exhibit varying levels of environmental, social, and governance risks due to sector-specific characteristics, regulations, and business practices. Firstly, companies in certain industries (e.g., extractive industries, heavy manufacturing, or energy) are more exposed to ESG risks compared to others (e.g., technology, healthcare, or services), since there are industry-specific factors, such as resource usage, emissions, labor practices, and supply chain complexities, contribute to

varying ESG risk profiles. Secondly, industry norms and practices influence a company's ESG performance and risk exposure, for example industries with established sustainability practices may exhibit lower ESG risks, while those lagging may face higher risks. Thirdly, there are also the regulatory environment within specific industries affects ESG risk levels, where government set stringent regulations in certain sectors (e.g., financial services or pharmaceuticals) which may lead to better ESG practices and lower risks. Thus, companies within the same industry tend to exhibit similar ESG risk profiles, because industry peers often adopt similar practices, leading to shared ESG risks.

To explore the influence of industry classification on Environmental, Social, and Governance (ESG) performance, several research studies have been conducted. Zhao (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 classification of 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.

H2: The industry classification negatively affects the level of ESG risk

Companies with better ESG risk ratings may exhibit stronger financial performance due to improved operational efficiency, reduced risks, and enhanced stakeholder trust. Better ESG Risk Rating represented by lower ESG risk score, which will result improved operational efficiency, and resulting higher profitability (Cho et al., 2019). Further, higher ESG risk rating negatively impact profitability since companies with high ESG risk may incur additional cost that reduce profitability, for example added cost in handling environmental compliance and cost to repair management reputation. In investor perspective, companies with better ESG risk ratings experience lower cost of capital and lower financial risk, which leading to favourable financing terms and ESG issues. Further, lower ESG risk ratings positively impact long-term value creation, so companies will have a better position for sustained success and stakeholder trust.

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 ESG give a significant positive effect on financial performance in Indonesian and Malaysian listed companies. On the contrary, Liang et al. (2023) who analyse 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 indicating that companies with better ESG performance might have lower financial performance.

H3: ESG risk negatively impact a company's financial performance

Companies facing higher ESG risks may experience lower stock prices, reduced investor confidence, and weaker market performance. High ESG risk companies will be perceived as riskier investments by the market. Thus, 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 risk negatively impacts a company's reputation and stakeholder trust, as negative ESG events can erode investor confidence and lead to stock price declines. Further, higher ESG risk can be represented by inefficient resource use and poor supply chain management will negatively impact operational efficiency affecting stock performance. Therefore, ESG-conscious investors may actively choose companies with strong ESG practices, leading to better stock performance.

The reviewed studies collectively suggest that companies with strong Environmental, Social, and Governance (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.

H4: ESG risk negatively impact a company's stock performance

METHOD, DATA, AND ANALYSIS

Research Design

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. To achieve this, we adopt 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 accounting domain, with a particular emphasis on financial accounting practices. Within this context, we narrow our discussion to explore how a company's ESG initiatives impact its reporting practices. By doing so, we aim to shed light on the interplay between gender diversity, sustainability, and financial transparency.

Data Collection

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 environmental, social, and governance (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. By combining data from these two sources, we aim to explore the intricate relationship between gender diversity, ESG practices, and financial reporting within Indonesian companies. On the table 3.1 below, concluded the information regarding Rating System from Sustainalytics:

Table 3.1 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. 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)
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	
Managed Risk	Risk that can be addressed by company initiatives 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	Company Exposure X	
		Managed Risk	

	to and management of those issues.		
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Variables and Measurements

There are two dependent variables which are company's corporate performance and company's stock performance. This paper believes that evaluating corporate financial performance effectively requires consideration of profitability factors, and a single proxy may not suffice. To address this concern, this paper constructs a comprehensive profitability performance evaluation, which consists of Gross Profit Margin (GPM), Net Profit Margin (NPM), Operating Profit Margin (OPM), and Return on Equity (ROE). The second dependent variable is company's stock performance, which use three proxies that consist of Earning per Share (EPS), Relative Price Strength (RPS) and Price Book Value per Share (BVPS). These ratios provide valuable insights into a company's financial health and stock performance, helping investors make informed decisions.

The mediating variable studied in this research is the level of ESG risk, associated with a company's operations and performance. The ESG Risk Rating is a proxy chosen to reflects the level of ESG risk, which typically assessed by independent rating agencies based on various ESG criterias, such as environmental impact, social responsibility, and corporate governance practices. The company's ESG risk rating use in this research is obtained from the Sustainalytics website, which is an independent institution that measures and ranks the ESG risk and performance of companies in the world. The ESG risk rating is designed to assist investors in identifying and understanding the financial material of ESG risk in the company's portfolio and understanding the effect of these risks on the company's performance.

Table 3.2 Operational Variables and Measurement

Variable Type	Variable	Description	Measurement
Dependent Variable	Company's 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)
	Company's Stock Performance	Company stock performance refers to how well a company's stock is doing in the market, which 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	Proxy measure reflects the level of ESG risk rating, which is typically 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.	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.
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	Scoring based three proxies: a) Proportion of women on BOD b) Proportion of women

		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).	c) Proportion of women in BOD & commissioner board.
	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 independent variable studied in this study is board gender diversity (BoD) and industry classification. The BoD 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. This variable is measured by analyzing the proportion of female commissioners in the sample companies. The variable proportion of the female board of commissioners will be measured by using the percentage of the number of women on the board of directors, divided by the total number of members on the board of directors. This proxy adopts one of the 3 proxies conducted in the research of Ben-Amar et al.(2017) in measuring board gender diversity, which later called as women on board (WoB).

The second independent variable used in this study is Industry Classification, the category of type of industry based on the grouping used in the IDX. IDX grouped companies into 12 classification, which 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. The value included on data is using numerical dummy variables value 0-11.

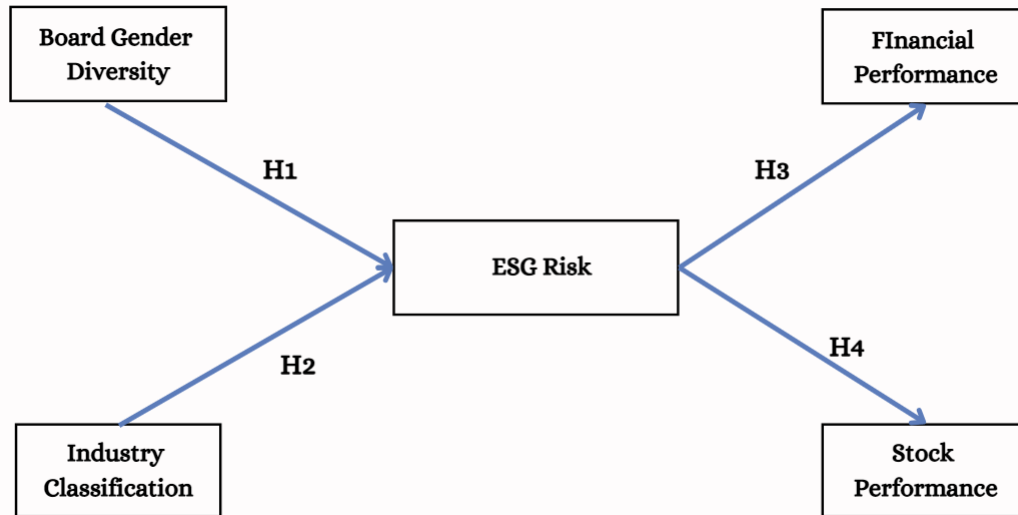
Data Analysis Techniques

The analysis in this study includes descriptive statistics, classical assumption tests, and hypothesis testing. All statistical tests will be conducted using SmartPLS, 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 in Graph 3.1 below.

Graph 3.1 Research Model



RESULTS AND DISCUSSION (6-9 pages)

This research aims to examine the impact of gender board diversity on financial reporting and stock performance, which mediated by the implementation of ESG in Indonesia. The population in this study consists of companies listed on the Indonesia Stock Exchange (IDX). Currently in 2024, there are 44 stock indices in IDX, which represent statistical measure that reflects the overall movement of prices for a group of stocks based on specific criteria and methodology, which evaluated periodically. Since this study focused to analyze the implementation of ESG in Indonesia, listed companies in IDX are selected and narrowed down using purposive sampling to companies that implement ESG practices.

Until 2024, IDX has issued four indices to specifically measure the ESG criteria, which consist of IDX ESG Leader, IDX ESG Sector Leaders, ESG Quality 45 IDX, and ESG Srikehati. IDX conducts periodic evaluations, which the significant evaluations are carried out in early March and September, while minor evaluations are carried out in early June and December. IDX ESG Leaders is an index that measures price performance of stocks that become leaders in ESG rating and not have significant controversies selected from stocks with high trading liquidity and good financial performance. ESG Sector Leaders IDX KEHATI is an index that offers broad market exposure and diversification by choosing representative in each industry with best ESG score to represent the industry and grouped by IDX Industry Classification. ESG Quality 45 IDX KEHATI is an index that measures the stock price performance of 45 stocks that consider the quality of financial and ESG aspects with relatively large market capitalization and high liquidity. ESG Srikehati is an index that measures the stock price performance of 25 listed companies with strong performance in promoting sustainable business practices and awareness of environmental, social, and good corporate governance, known as Sustainable and Responsible Investment (SRI). The SRI-KEHATI Index is launched and managed in collaboration with the Indonesian Biodiversity Foundation (KEHATI Foundation).

After selected sample companies, this study also gathered data of the ESG risk rating and controversy analysis developed by Sustainalytics. Sustainalytics is an independent institution that conducts ESG risk assessments of companies around the world, and issues the company's ESG risk rating. Sustainalytics's ESG risks evaluation using draft decomposition risk where is the company faced with two dimensions ESG issues, which are exposure and management. Exposure is ESG material risks faced by the company and affect evaluation ESG risk. Management is commitment and action real company in handling ESG issues through various policies and work programs company. Based on these criteria, detailed list of companies that are selected as the sample is as follows:

Table 4.1 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	61

Statistic Descriptive

The sample companies consist of various industries, to represent various characteristics of industry, which illustrated in Table 4.2 as follows:

Table 4.2 List of Sample Companies based on Industry

No	Industry	Number of Companies	Proportion
1	Energy	3	5%
2	Basic Material	9	14,7%
3	Consumer Non-Cyclical	9	14,7%
4	Consumer Cyclical	7	11,5%
5	Financials	8	13,1%
6	Healthcare	5	8,1%
7	Industrials	5	8,1%
8	Property and Real Estate	4	6,4%
9	Technology	1	1,6%
10	Infrastructure	8	13,1%
11	Transportation and Logistics	2	3,2%
	Total	61	100%

Figure 4.1 Proportion of Sample Companies based on Industries

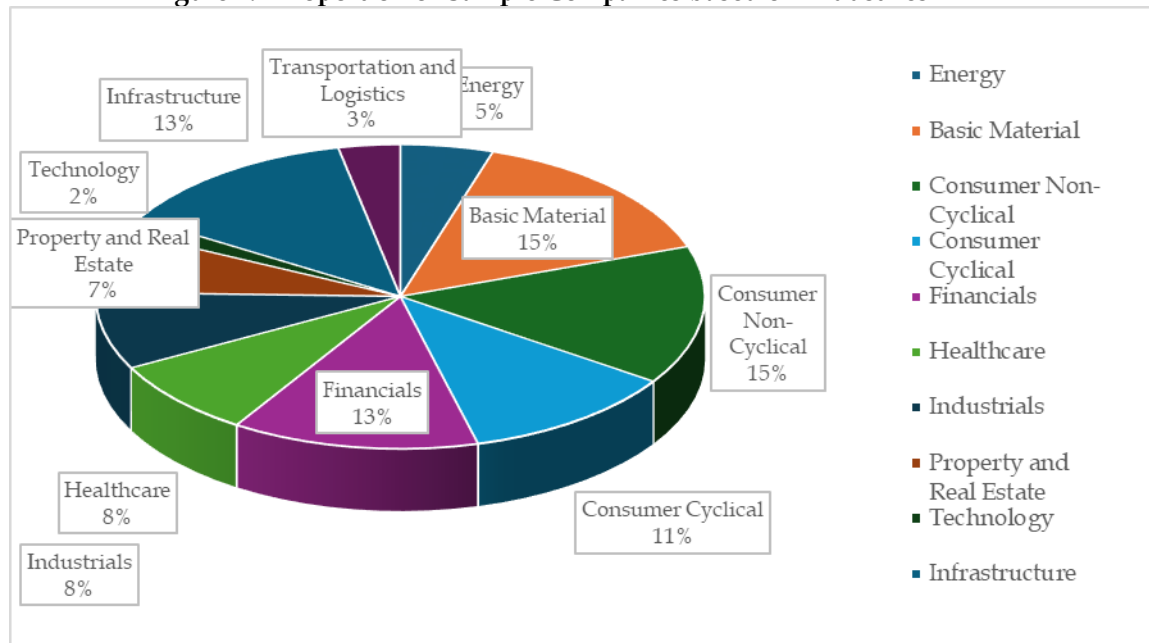


Table 4.2 Statistic Descriptive of Variables

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 Commisioner 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). This step 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. Composite Reliability (CR) evaluate the composite reliability of each construct. CR values should be above 0,7, indicating good internal consistency among the indicators. Although less preferred than CR, Cronbach’s Alpha can also be used to assess internal consistency, where values above 0,7 are considered acceptably reliable. Calculate the AVE for each construct. AVE values should be above 0,5, indicating that the construct explains more than 50% of the variance in its indicators, which represent that all the indicators are convergent valid. Using SmartPLS, the result of Composite Reliability, Cronbach Alpha and AVE are shown on Table 4.4 below:

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Table 4.4 Construct Reliability and Validity Test

	Cronbach Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	AVE
Financial Performance	0,781	1,143	0,845	0,580
Stock Performance	0,965	0,971	0,977	0,935
WoB	0,785	0,854	0,873	0,701

Based on the Table 4.4 above 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 on the Table 4.4 indicates that all indicators are valid.

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Tabel 4.5 Discriminant Validity HTMT Matrix

	ESG Risk	Financial Performance	Industry	Stock Performance	BDG
ESG Risk					
Financial Performance	0,141				
Industry	0,305	0,213			
Stock Performance	0,411	0,093	0,171		
Board Gender Diversity	0,370	0,253	0,073	0,218	

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. This indicates that the

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construct is more closely related to its own indicators than to other constructs. HTMT ratio is used to asses discriminant validity, which should be below 0.85 (or 0.90 in some cases), indicating good discriminant validity.

Tabel 4.6 Model Fit

	Saturated Model
SRMR	0,110

Goodness of Fit test is used to measure of how well a Partial Least Squares Structural Equation Modeling (PLS-SEM) model fits the observed data. Commonly used indicator of good fit is SRMR SRMR (Standardized Root Mean Square Residual) as shown in Table 4.6 measures the discrepancy between observed and predicted values. As a lower SRMR indicates better fit, the test of model fit show that the value of SRMR is 0,110 which indicates that the model less likely fit to test the independent variable.

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.

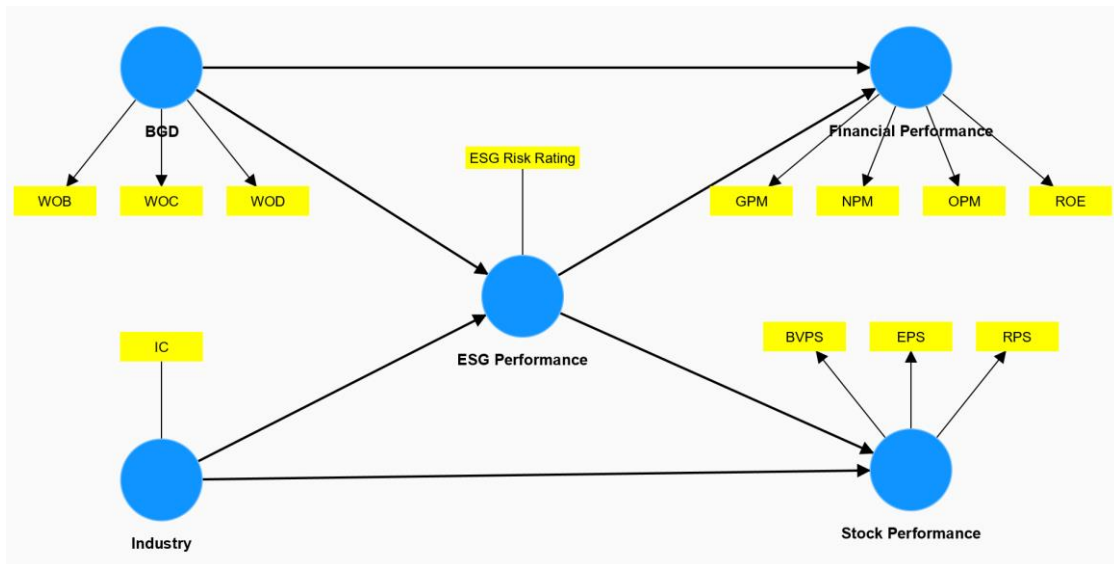


Figure 4.2 PLS Algorithm Test Result

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 4.7 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
ESGRD -> Stock Performance	0.390	0.403	0.095	4.083	0.000
Industry -> ESG Risk	-0.286	-0.284	0.096	2.987	0.003
Industry -> 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
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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 table provides statistical information related to path coefficients in a Structural Equation Model. The interpretation of the result from table 4. 7 Path Coefficient indicating the p values which provides a probability that measures evidence against a null hypothesis, where lower p-values suggest stronger evidence against the null hypothesis. The result indicate the strong statistical significance on ESG -> Stock performance, and statistical significance in Industry -> ESG, and WoB -> ESG. Moreover, the result of Path Coefficient also indicate that there are weak evidence against the null hypothesis for ESGRD -> Profitability, IP -> Stock Performance, and WOB -> Profitability. The key takeaways of the results highlighted the industry and women on board significantly affect the ESG, and ESG significantly affect the Stock Performance.

Table 4.6 R² Test Result

	R ²	Adjusted R ²
ESG Risk	0,190	0,162
Financial Performance	0,063	0,031
Stock Performance	0,166	0,137

The explanatory power of the model is evaluated by R² values of the endogenous constructs. R² values indicate the proportion of variance explained by the predictor constructs of the model. Higher R² values suggest better explanatory power and better fit. As show in Table 4.6, the result of R² test explain that the model can only explain the impact of variables approximately 19% of the changes in company ESG, while the remaining 81% of ESG changes are explained by other factors not included in the model. Moreover, the R² test shows that the model can only explain the impact of variables approximately 6,3% of the changes on profitability, which the remaining 93% of profitability changes are explained by other factors not included in the model. Lastly, the R² test shows that the model can only explain the impact of variables approximately 16.6% of the changes in company stock performance, which the remaining 83.4% of changes stock performance are explained by other factors not included in the model.

Table 4. 7 f² Test Result

	ESG Risk	Financial Performance	Industry	Stock Performance	BGD
ESG Risk					
Financial Performance		0,005		0,165	
Industry	0,101				
Stock Performance				0,003	
BGD	0,120	0,046			

The f² effect size is used to determine the impact of each predictor construct on the endogenous constructs. Effect sizes can be classified as small (0.02), medium (0.15), or large (0.35). The F-squared values from the F² Square test in Table 4.7 reveal how much of the variance in the dependent variables (financial and stock performance) is accounted for by the independent variables (ESG, Industry, and BGD). 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.

Table 4. 8 Q² Test

Indicator	BGD	ESG Risk	Financial Performance	Industry	Stock Performance
Q ²	0,421	1,000	0,131	1,000	0,686

Assessing predictive relevance, the blindfolding procedure is conducted to calculate the Q² value, which assesses the model's predictive relevance. Q² values greater than 0 indicate that the model has predictive relevance. The Q² result indicates that the model has predictive value. SRMR is used to assess the model fit, which values below 0,08 indicate a good fit. As the value of SRMR is 0,110 which indicates that the model less likely fit to test the independent variable as illustrated in Tabel 4.6 below:

Tabel 4.6 Model Fit Test

	Saturated Model	Estimated Model
SRMR	0,110	0,112

Hypothesis Testing Results

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

Table 4.10 Hypothesis Testing Results

HYPOTHESIS	RELATIONSHIP	ORIGINAL SAMPLE	T STAT	P-VALUE	DECISION
H1	BGD -> ESG Risk	-0.312	2.585	0.009	Supported
H2	Industry -> 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

1) Board Gender Diversity and ESG Risk

Based on the statistical analysis that has been conducted, the path coefficient shows the value of -0,312, which indicating a negative relationship between Board Gender Diversity to ESG Risk Rating with p-value is 0,009. There result means there is statistically significant evidence to support the hypothesis that WOB negatively affects ESG at the significance level (typically p<0.05).

2) Industri and ESG Risk

Based on the statistical analysis that has been conducted, the path coefficient shows the value of -0,286, which indicating a negative relationship between Industry to ESG Risk Rating with p-value is 0,003. There result means there is statistically significant evidence to support the hypothesis that Industry Classification negatively affects ESG Performance at the significance level.

3) ESG Risk and Corporate Financial Performances

Based on the statistical analysis that has been conducted, the path coefficient shows the value of -0.071, which indicating a negative relationship between ESG Risk Rating to Financial Performance with p-value is 0,713. There result means there is no statistically significant evidence to support the hypothesis that ESG negatively affects Financial Performance.

4) ESG Risk and Corporate Stock Performaces

Based on the statistical analysis that has been conducted, the path coefficient shows the value of 0,390, which indicating a positive relationship between ESG Risk Rating to Corporate Stock Performaces with p-value is 0,000. There result means there is statistically significant evidence to support the hypothesis that ESG positively affects Stock Performance at the significance level.

Discussion

The statistical analysis reveals a significant negative relationship between board gender diversity and ESG Risk, as indicated by a path coefficient of -0.312 and a p-value of 0.009 . This finding supports the hypothesis that the presence of women on boards negatively affects ESG risk, suggesting that a higher percentage of women on the board will significantly improve the ESG Risk. This result is allign with Wasiuzzaman & Wan Mohammad (2020) which stated that ESG disclosure scores are significantly enhanced with the increasing presence of women directors on corporate board. This result is confirmed to (Ben-Amar et al., 2017; Cucari et al., 2018; Liao et al., 2015; Wasiuzzaman & Wan Mohammad, 2020).

This result indicates that companies with higher ESG risk ratings could benefit from adding women at the board level. The inclusion of women in board positions enhances the decision-making process, fosters innovation, and contributes to better overall performance, particularly in ESG initiatives. Moreover, this action helps break the glass ceiling for women aspiring to enter C-level positions, as the unique perspectives women bring can elevate the company's value. As stated by Oradi & Izadi (2020), women perform better in monitoring role, are more conservative and make more ethical decisions. Furthermore, the presence of women on boards can lead to more comprehensive and inclusive strategies that address environmental, social, and governance issues more effectively since they are more risk-averse than their male rivals (Zalata et al., 2019). Women's participation serves as a catalyst to balance firms' financial targets with social responsibilities. This diversity in leadership not only improves ESG performance but also aligns with global trends towards gender equality and sustainable business practices. Companies that prioritize gender diversity are likely to gain a competitive edge, attract socially conscious investors, and enhance their reputation in the market.

The analysis indicates a significant negative relationship between industry classification and ESG risk rating, with a path coefficient of -0.286 and a p-value of 0.003 . This result provides evidence that industry classification negatively impacts ESG performance, implying that industries classified earlier (represented by smaller dummy variable values) have higher ESG risk ratings. Industries such as energy, basic materials, consumer non-cyclical, and consumer cyclical are classified in the early order. These industries involve significant environmental impacts due to production activities, including emissions, pollution, and waste management. They also face social and governance issues such as labor practices, worker safety, community impact, and regulatory compliance. Conversely, industries like technology, infrastructure, and transportation & logistics are classified later. These industries typically have lower environmental impacts compared to heavier industries due to their production activities. This result allign with Jin (2023) and H. Zhao et al. (2023) who found a positive influence on corporate ESG performance within the companies from the same industry.

This result highlights that each industry has its own characteristics based on its production activities. It underscores the responsibility of companies to implement effective ESG initiatives to mitigate environmental and social impacts. Companies in high-risk industries must prioritize sustainable practices and governance improvements to reduce their ESG risk ratings. This includes adopting cleaner technologies, improving waste management, ensuring fair labor practices, and engaging with communities to address their concerns. By doing so, companies can not only improve their ESG performance but also enhance their reputation, attract socially conscious investors, and contribute to a more sustainable future.

The statistical analysis shows a negative relationship between ESG risk and financial performance, with a path coefficient of -0.071 and a p-value of 0.713 . However, this result is not statistically significant, indicating that there is no strong evidence to support the hypothesis that ESG risk negatively affects financial performance. This suggests the ESG Risk does not impact the financial performance. This hypotheses result confirmed the research that have been done by Husada & Handayani (2021) who analyzed the impact of ESG innitiatives to financial performances in financial sector companies. However,. this result are not alligned with Almeyda & Darmansya (2019) and Rasyad et al., (2024) who found a positive and significant effect of ESG performance on companies financial performance that listed real estate companies in G7 countries between 2014-2018. This result also not support the result found by Liang et al., (2023) which indicate a significant negative

12 correlation between ESG performance and financial performance. The lack of significant impact of ESG risk rating on financial performance can be attributed to several factors.

17 Firstly, implementing ESG initiatives can be costly, where companies may incur a significant initial expenses in the short term to improve their ESG performance, which can offset the immediate financial gains. Secondly, ESG initiatives often yield benefits over long term, so the positive effect of ESG practices may not be immediately visible in short term financial results. Thirdly, no universal standard to measure ESG performance leads to inconsistencies in the calculation and interpretation of ESG Risk Rating, which can dilute the perceived impact on financial performance.

8 The analysis demonstrates a significant positive relationship between ESG Risk Rating and Corporate Stock Performance, as evidenced by a path coefficient of 0.390 and a p-value of 0.000. This finding does not support the hypothesis that ESG performance negatively influences stock performance; rather, the higher ESG risk rating, the higher market performance. The interesting positive impact implies that the higher ESG Risk will be more preferred by investors since it represents a higher return in the future. This research result does not align with Wahyudyatmika & Astuti (2024) who found that good ESG performance can help reduce stock price volatility in 283 IDX-listed companies from various industries during 2018-2022. This result also differs from Jin (2023) and Kulal et al. (2023) who found a positive correlation between ESG performance and their stock returns. The significant positive impact of ESG risk on market performance can be attributed to several possible factors.

24 Firstly, companies might employ a cost avoidance strategy, where companies with poor ESG ratings might avoid costs associated with implementing sustainable practices, temporarily boosting book values. Avoiding ESG-related expenses can lead to higher short-term earnings, thereby increasing Earnings Per Share (EPS), a key measure of market performance. Additionally, revenue might be higher if companies cut costs related to ESG compliance, thus increasing Revenue Per Share (RPS). On the other hand, there might be a market misinterpretation or a short-term focus among investors. Investors may prioritize short-term financial results, leading to higher book values despite poor ESG performance. Short-term earnings might be prioritized over long-term sustainability, boosting EPS despite poor ESG ratings. Revenue growth might be driven by aggressive strategies that neglect ESG considerations, increasing RPS in the short term. Consequently, aggressive revenue generation strategies might result in higher RPS, despite poor ESG practices.

Secondly, sector-specific dynamics play a role. In certain sectors, such as energy or mining, companies might have inherently higher ESG risks but also higher potential returns, leading to increased book values. These sectors might generate substantial earnings despite poor ESG ratings, boosting EPS. RPS might be high in these sectors due to strong demand for their products, regardless of ESG performance. Moreover, speculative investors might drive up the stock prices of companies with high ESG risks, anticipating future improvements or turnarounds, which can increase book values. Speculation on potential future gains might lead to higher stock prices and EPS, even if current ESG performance is poor. Speculative investments might boost RPS due to investors' perception which believe the company will eventually improve its ESG practices.

Thirdly, there are regulatory and market lags in the Indonesian Stock Market, which cause a delay between recognizing ESG risks and their impact on financial performance, allowing book values to remain high temporarily. Earnings might not immediately reflect the negative impact of poor ESG performance due to regulatory or market delays. RPS might remain high until the market fully accounts for the ESG risks.

CONCLUSION AND SUGGESTIONS

4 This research analyzes the impact of board gender diversity and industry classification on ESG performance, and how it affects financial performance and stock performance in Indonesia as an emerging market. Conducting a quantitative approach and analyzing data using SmartPLS to ensure rigorous statistical testing, this research uncovers several key findings. Firstly, a higher proportion of women on the board improves ESG performance by lowering its ESG risk level. Gender diversity fosters better decision making and risk management, which positively impacts ESG performance. Secondly, industry classification significantly affects ESG risk, as each industry has its unique characteristics related to production activities, influencing its ESG risk profile. However, this research found that ESG risk positively influences stock performance, instead of financial performance.

The result of this study covers theoretical and practical benefits for various parties. Researchers and practitioners can use this insight to refine their understanding of how ESG factors directly impact financial outcomes. Researchers and policymakers should work toward consistent metrics and reporting frameworks to enhance comparability and reliability.

Companies need to weigh short-term expenses against long-term benefits and develop understanding the initial investment required for ESG improvements informs decision-making. Companies should view ESG as an integrated system rather than isolated components, where comprehensive approach can lead to more meaningful financial impact. Further, companies should communicate their ESG efforts transparently to investors, emphasizing long-term value to enhance investor perception and market signals.

Understanding this relationship allows companies, policymakers, and investors to recognize the importance of diverse leadership teams in managing ESG risks effectively. Companies can actively promote gender diversity at the board level as a strategic move to enhance ESG performance. This includes targeted recruitment efforts and creating an inclusive environment. Companies can address environmental, social, and governance issues more effectively by leveraging diverse viewpoints and experience.

This result also highlights that each industry has its own characteristics based on production characteristics, which also points out the company's responsibility to implement effective ESG initiatives to mitigate environmental and social impacts. Companies in high-risk industries must prioritize sustainable practices and governance improvements to reduce their ESG risk ratings, which may include adopting cleaner technologies, improving waste management, ensuring fair labor practices, and engaging with communities to address their concerns. By doing so, companies can not only improve their ESG performance but also enhance their reputation, attract socially conscious investors, and contribute to a more sustainable future.

However, this study also has some limitations. Firstly, our research focuses on Indonesia as an emerging market. While this context is valuable, it's crucial to acknowledge that findings may not directly apply to other countries or regions with different institutional settings, cultural norms, and market dynamics. Secondly, ESG performance metrics can be subjective and vary across sources, even though this research already conducted several statistical tests to ensure robust measurement validity and reliability. Thirdly, ESG performance and stock performance are influenced by external factors (macroeconomic conditions, regulatory changes, investor sentiment, etc.), which may not be fully captured in the research model. Fourthly, this study focuses on the immediate impact of gender diversity and ESG performance on stock performance. However, long-term effects may differ depending on the selected time horizon, so expanding the time horizon may result in different conclusions.

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