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Corporate governance and ESG strategies: The moderating impact of internal audit quality on financial performance in Indonesian companies

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Abstract: This study investigates the impact of Environmental, Social, and Governance (ESG) implementation, greenwashing practices, and corporate governance mechanisms on the financial performance of non-financial firms in Indonesia, an emerging market characterized by evolving sustainability regulations. Utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM) on a sample of firms from the Indonesian non-financial sector, the study assesses ESG disclosure, board structure (including size, independence, and diversity), and the moderating role of internal audit quality. Results show that ESG disclosure and greenwashing do not directly impact financial performance. However, board size, independence, and diversity significantly enhance financial outcomes. Internal audit quality strengthens the positive effects of ESG disclosure, board size, and board independence on firm performance, but does not moderate the impacts of greenwashing or board diversity. This study contributes to the existing literature by providing insights into the nuanced roles of governance and internal audit in shaping ESG outcomes within the context of an emerging economy. Additionally, it supports Indonesia's long-term sustainability vision under the "Golden Indonesia 2045" initiative by emphasizing the importance of internal audit and governance structures in enhancing firm accountability and performance. Our study offers policymakers recommendations on strengthening governance and internal audit to boost ESG and financial performance.

Keywords: *Audit quality, Corporate governance, ESG strategies, Financial performance, Indonesian companies, Internal audit.*

1. Introduction

ESG reporting has gained significant global attention, with 80% of companies now disclosing relevant information [1]. This growth is driven by an increasing awareness of environmental and social issues, including climate change, inequality, unethical practices, and regulatory developments such as the European Green Deal and national policies like Indonesia's Financial Services Authority. Companies increasingly engage in green communication to improve their reputation and meet stakeholder expectations, but its financial impact remains uncertain [2].

Scholars and industry observers have cautioned that due to the pressure from stakeholders, firms pursue committed sustainable claims by engaging in 'greenwashing' tactics when communicating with their stakeholders [3, 4]. Greenwashing or misleading information is one of the main categories of fraud [5]. Prioritizes image over genuine action and can harm reputation, reduce investor trust, and increase capital costs. These deceptive marketing tactics, employed by some firms, can severely damage corporate reputation, undermine the credibility of broader ESG narratives, increase the cost of capital, and even lead to consumer rejection [6]. However, research presents conflicting findings, with some studies suggesting greenwashing can improve financial outcomes, while others highlight its negative consequences or find no clear link [7, 8]. This study aims to examine the relationship between ESG disclosure, greenwashing, and financial performance more accurately.

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Corporate governance plays a central role in the controversy surrounding sustainability reporting and information disclosure. Managers often employ embellished disclosures as a strategic mechanism to shape stakeholder perceptions and safeguard organizational legitimacy [9]. However, these reports are frequently criticized for lacking transparency and reliability, primarily due to the inconsistent application of the voluntary reporting standard [4]. In 2020, Indonesia enacted Regulation No. 43/FSAS.04/2020 requiring small and medium-sized public companies to disclose information transparently and appoint at least one independent commissioner [10]. Research on board structure and company performance yields mixed results. While larger boards may enhance performance through increased expertise and diversity [11] they can also hinder it due to coordination issues [12]. Board independence is generally linked to improved financial performance [13]. Some studies, such as in Malaysia, report negative effects due to the costs of non-executive directors [14]. Similarly, board diversity can enhance performance by bringing varied skills and perspectives [15]. However, not all diversity attributes are beneficial, such as age and education diversity may even reduce performance [16]. Consequently, the third objective of this research is to examine the extent to which board structure influences the financial performance of firms in environmentally sensitive industries in Indonesia.

Researchers have identified internal audit quality as a crucial factor for an organization's long-term survival, growth, and sustainability [17]. We want to propose internal audit quality as our moderating variable. Based on ACFE on its report to the nation 2024, internal audit comes in second place behind the tip as the most effective anti-fraud control to be detected. Internal audit becomes the first alarm to detect fraud, especially in ESG metrics. Besides that, internal audit plays a significant role in assuring ESG disclosure [18]. Internal audit quality (IAQ) combined with successful internal control enables companies to achieve organizational goals by providing a systematic approach to risk management [19]. This study explores the impact of ESG implementation, greenwashing, and governance on financial performance in emerging markets, addressing research gaps that primarily focus on developed economies. Additionally, it examines the moderating role of internal audit quality in this relationship, emphasizing its significance in enhancing corporate performance. Lastly, the research aligns with Indonesia's "Golden Indonesia 2045" vision, supporting long-term sustainability goals.

2. Literature Review and Hypothesis Development

2.1. Agency Theory

This study uses agency theory as the main framework to explain the relationship between variables. Agency theory addresses issues arising from the separation of ownership and management, where principals delegate authority to agents, leading to potential conflicts of interest [20]. These conflicts can result in agency costs, expenses for monitoring and controlling agents to prevent misuse of power. These include hiring costs, performance monitoring, bonding costs, and losses from inefficient decisions [21, 22]. Agency costs may negatively affect firm performance [23].

Agency problems often arise due to misaligned interests and information asymmetry [24]. According to agency theory, principals rely on public information, while agents have deeper knowledge of company conditions [25, 26]. To lower agency cost, principals need clear financial and non-financial disclosure like ESG, which increases transparency and minimizes monitoring costs [27, 28]. However, expectation gaps may push agents to use greenwashing or false environmental claims, to reduce pressure and enhance legitimacy, potentially lowering agency costs [8, 29]. However, it can also increase agency costs due to information asymmetry, highlighting the need for stronger monitoring [24, 30].

Agency theory is applied to examine the relationship between board size, independence, diversity, and financial performance, and the role of internal audit as a moderating variable. Principals use governance mechanisms to align the goals with the organization [22]. The board of directors helps

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protect shareholders by monitoring management and ensuring transparency [31, 32]. Likewise, the presence of an internal audit strengthens internal control and risk management and reduces agency costs [33]. An appropriate governance system can reduce agency conflict [24, 34] which in turn improves firm performance [35].

2.2. ESG Disclosure and Financial Performance

Various theories explain the impact of ESG disclosure on financial performance. Agency theory suggests that transparent ESG reporting reduces agency costs and information asymmetry, improving financial outcomes [20, 27, 36]. Stakeholder theory highlights the need for companies to create value for communities and meet stakeholder expectations to maintain business continuity [37]. Signaling theory views ESG disclosure as a commitment to social and environmental values, providing investors with positive signals about market prospects [38]. Meanwhile, legitimacy theory emphasizes that ESG disclosure helps companies gain trust, enhance their reputation, and achieve better financial results [39].

Empirical studies on ESG disclosure and financial performance show mixed results. While some research finds a significant positive relationship, attributing increased revenues to customer appreciation of sustainability initiatives [38]. Other findings suggest that outcomes depend on implementation quality [27, 40]. Aligning with agency theory, which states that comprehensive ESG disclosure can reduce agency costs and enhance the company's financial performance, we formulate the first hypothesis of the study as:

H_1: ESG Performance positively and significantly impacts Financial Performance.

2.3. Greenwashing and Financial Performance

Greenwashing is when firms falsely present themselves as environmentally responsible to boost their image and attract investors [8, 41]. Legitimacy theory sees it as meeting stakeholder expectations and gaining legitimacy [8]. While agency theory suggests it arises from agency conflicts and a lack of genuine ESG commitment, increasing reputational and financial risks [29, 42]. This behavior raises agency costs and highlights the need for stronger monitoring Bernini and La Rosa [30]. Lee and Raschke [8] discovered that companies with lower ESG performance are more likely to have management engage in greenwashing practice.

Research on the impact of greenwashing on corporate financial performance remains limited and inconclusive. A U.S. study of 500 major firms found that greenwashing can significantly reduce firm value as investors penalize unmet environmental claims [43]. Once greenwashing is exposed, it may lead to reputational damage and market penalties [44]. Additionally, greenwashing increases the risk of stock price crashes due to information asymmetry [42]. Aligning with agency theory, which states that such asymmetry leads to agency conflict and rising agency costs. Therefore, we formulate the second hypothesis of the study as:

H_2: Greenwashing negatively significantly impacts Financial Performance

2.4. Board Size and Financial Performance

Board size, referring to the number of directors in a company, plays a crucial role in governance and financial performance [22, 45]. Agency theory suggests that a larger board improves oversight, but warns of communication challenges if excessively large [46]. Resource dependency theory argues that larger boards bring diversity and expertise [13, 44] while stewardship theory favors smaller boards for better coordination [13, 47].

Empirical studies on board size and financial performance show mixed results. Some research supports agency and resource dependency theories, finding that larger boards enhance financial

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outcomes by bringing diverse skills and reducing information asymmetric [48, 49]. Based on agency theory, we formulate the third hypothesis of the study as:

H_3: Board Size positively significantly impacts Financial Performance

2.5. Board Independence and Financial Performance

Board independence, referring to non-executive directors, plays a crucial role in corporate governance. Agency theory suggests that independent directors minimize agency problems by enhancing oversight and reducing self-serving management behavior problems [13, 20, 50].

Resource dependence theory argues that they bring valuable expertise, strengthening stakeholder relationships and business strategy performance [51]. Additionally, board independence can influence asset allocation and financial performance [52]. However, some limitations exist, such as directors being stretched across multiple companies, leading to reduced involvement and potential agency conflicts [46, 53].

Empirical studies show mixed results. Some research finds that board independence positively impacts financial performance, improving asset allocation and shareholder value, as seen in Vietnam and Kenya [13, 54, 55]. Based on role and agency theory, we formulate the fourth hypothesis of the study as:

H_4: Board Independence positively and significantly impacts Financial Performance

2.6. Board Diversity and Financial Performance

Board diversity, the mix of different backgrounds among directors, plays a vital role in corporate governance. Agency theory suggests it improves financial performance by reducing conflicts and agency costs, while resource dependence theory argues that diverse boards bring valuable skills and perspectives that enhance business outcomes [13, 20, 56]. Studies usually measure diversity based on gender, age, expertise, nationality, education, and tenure [57, 58] with gender being the most frequently examined attribute [16].

Empirical studies on board diversity and financial performance show mixed results. A study Bagh, et al. [59] discovered positive effects of composite attributes of six diversity attributes (gender, age, nationality, expertise, tenure, education) across four stock exchanges (Moscow, Shanghai, Bombay, and Pakistan). In addition, other studies also support positive links between board diversity and firm performance composite four attributes of board diversity (gender, age, tenure, and professional background) and revealed the beneficial effect [60]. Recent studies also show that gender and nationality diversity enhance performance [61, 62]. Therefore, based on an agency theory, we formulate the fifth hypothesis of the study as:

H_5: Board Diversity positively significantly impacts Financial Performance

2.7. The Moderating Role of Internal Audit Quality

Internal audit is one of the key pillars of a good corporate governance framework. Internal audit is expected to assure with a systematic approach to evaluate and enhance effectiveness, ensuring that the organization's control processes are sufficient to manage risks, governance processes are effective and efficient [63]. The effectiveness of internal audit is crucial to reducing potential agency conflicts between principal and agent [64]. As the internal audit function progresses, it assures the principal that the company's internal control system is functioning properly and that the decisions made by management align with the company's long-term goals.

Beyond financial oversight, internal audit has expanded to include ESG factors due to increasing sustainability concerns [65]. It supports governance by promoting accountability and transparency in ESG disclosures, helping to prevent greenwashing [66]. Internal audit helps align ESG disclosures with regulations and stakeholder expectations, boosting financial performance [29]. Regulators

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emphasize their role in ensuring ESG reporting accuracy, compliance, and investor trust [65]. High-quality internal auditing strengthens corporate governance, reduces agency costs, and enhances financial performance by providing valuable insights to boards and audit committees [67, 68]. Experienced internal auditors with independence and access contribute to better oversight and decision-making [69].

H 6. Internal Audit Quality moderates the effect between ESG Disclosure and Financial Performance
H 7. Internal Audit Quality moderates the effect between Greenwashing and Financial Performance
H 8. Internal Audit Quality moderates the effect between Board Size and Financial Performance
H 9. Internal Audit Quality moderates the effect between Board Independence and Financial Performance
H 10. Internal Audit Quality moderates the effect between Board Diversity and Financial Performance

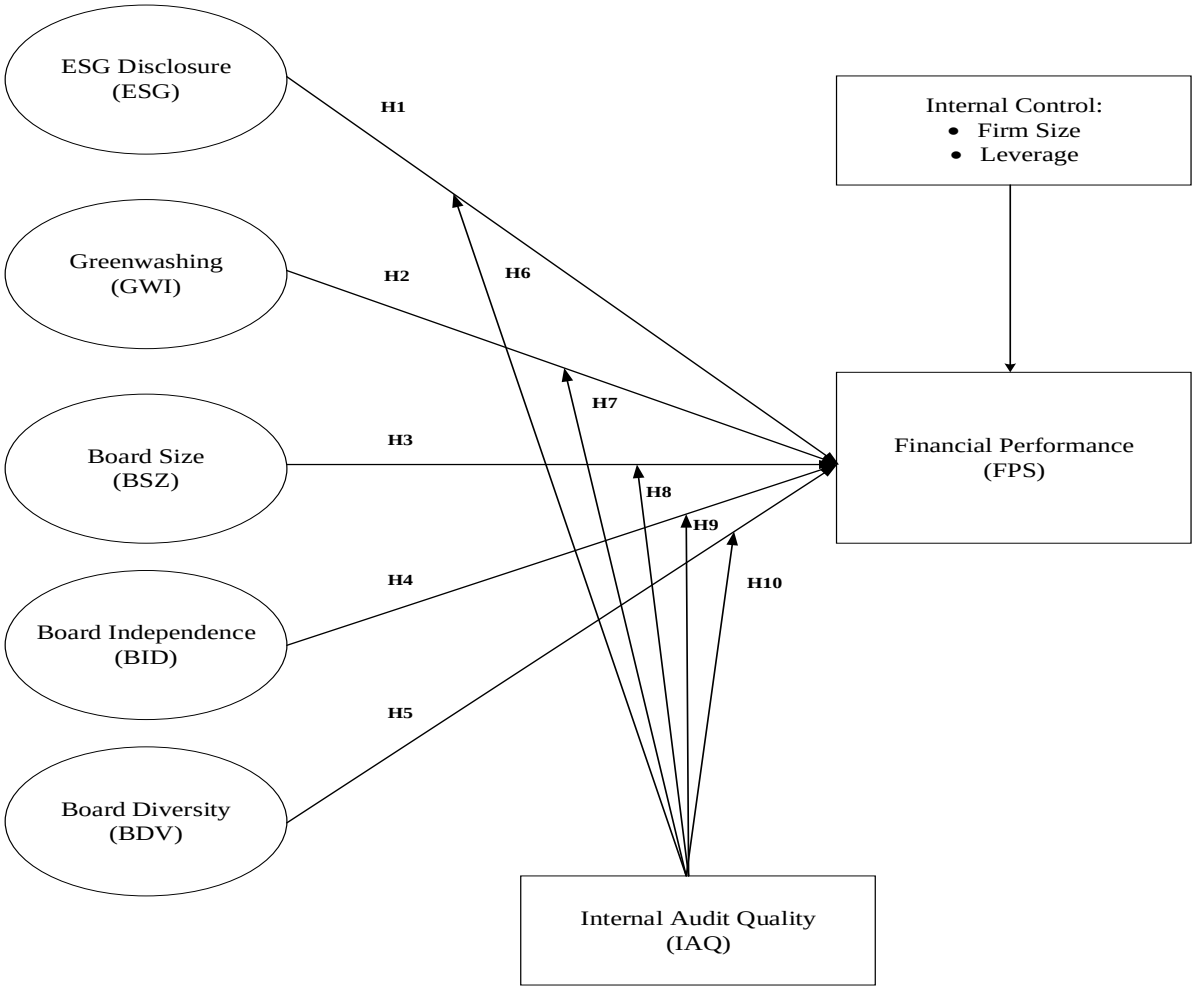

Figure 1.
Research Model.

3. Methodology

3.1. Data and Sample

This study analyzes non-financial firms listed on the Indonesian Stock Exchange (IDX) from 2019 to 2023 that published sustainability reports. Non-financial firms are selected due to their significant

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role in environmental impact and green innovation. The sample was chosen using non-probability purposive sampling, with criteria including non-financial companies listed on the IDX during 2019–2023, which disclosed sustainability reports, were publicly listed since 2018, and provided financial statements for 2019–2023 with unqualified audit opinions. This study employed the partial least squares-structural equation modeling (PLS-SEM) method for data analysis (Smart PLS version 4 software). PLS-SEM was chosen because the ESG variables are measured using three formative indicators [70]. PLS-SEM makes no distributional assumptions (i.e., it is nonparametric), and can easily handle reflective and formative measurement models, as well as single-item constructs, with no identification problems.

Table 1.
Research Sample.

Information	Total
All sector companies listed in IDX between 2019-2023.	951
Non-Financial companies that did not disclose sustainability reports from 2019-2023 and a disclaimer audit opinion	(896)
Non-Financial companies that disclosed sustainability reports 2019-2023 and an unqualified audit opinion	55
Sample total (55 x 5)	275

3.2. Variables

We measure financial performance as our dependent variable using the Tobin's Q ratio, which is widely used in management and financial research to evaluate corporate market responses and reflect business growth opportunities for the long term [71, 72] Tobin's Q is the ratio of market capitalization plus liabilities to total assets. Independent variables such as ESG disclosure, measured using an unweighted disclosure index (ESG Disclosure Index) as adopted by Sharma, et al. [73] where each item is scored 1 if it is disclosed in the annual report, and 0 if it is not. The number of disclosure items for each ESG pillar is as follows: environmental (59 items), social (54 items), and governance (27 items). Each pillar's score is calculated as the percentage of disclosed items out of the total possible items within the pillar.

Greenwashing is evaluated by comparing the Green Practice Index (GPI) and Green Communication Index (GCI), which reflect the average disclosure of annual green practices and green communication activities, respectively. The extent of greenwashing (GWI) is determined by the difference between GCI and GPI. Both indices are standardized by subtracting the sample mean and dividing by the sample standard deviation [4, 29, 74]. The formula for calculating GWI is as follows:
Equation 1

$$GWI_{it} = \frac{(GCI_{it} - \overline{GCI})}{\sigma GCI} - \frac{(GPI_{it} - \overline{GPI})}{\sigma GPI}$$

Equation 1. GWI Index

GCI_{it} and GPI_{it} represent the GCI and GPI of firm i in year t, while GCI and GPI are the sample mean values, and σGCI and σGPI are the standard deviation values of GCI and GPI.

Furthermore, based on the existing literature, we measure corporate governance mechanisms as follows: (i) board size (BSZ) is measured by the total number of the board, (ii) board independence (BID) is measured using the percentage of the independent directors on the board, and (iii) board diversity (BDV) using Blau index [59]. We measure the board diversity attributes using the Blau index. the formula of which is:

$$H = 1 - \sum_i^{p2}$$

Equation 2. Blau Index

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Following Hsu, et al. [60] The Blau index results for each attribute are then divided into four quartiles (lowest 25%: 0; lower-middle 25%: 1; upper-middle 25%: 2; highest 25%: 3). These quartile scores convert each individual variable into a categorical variable, which are then summed to create a comprehensive index of board diversity.

We estimate Internal audit quality by the World Bank indicators [29]. We used six items to assess internal audit key performance indicators (IAKPIs) of sampled firms and ranked them based on the availability of relevant internal audit functions within the firm (score '0' represents no implementation of IAKPIs while '6' indicates that relevant are implemented). IAKPIs comprise external indicators, planning, budgeting, staffing, impact, and the quality of internal audit.

Recognizing company characteristics can influence both a firm's financial market performance. In this context, two control variables are considered: firm size and leverage. Firm size is measured by the logarithm of total assets, and leverage is measured by total liabilities divided by total assets [75].

Table 2.
Measurement of variables.

Variable Type	Variable name	Measured	Sources
Dependent Variable	Financial Performance	The ratio of market capitalization plus liabilities to total assets (Tobin's Q).	Bhandari, et al. [71] and Nirino, et al. [72]
Independent Variable	ESG Disclosure	Each pillar's score is calculated as the percentage of disclosed items out of the total possible items within the pillar.	Sharma, et al. [73]
	Greenwashing	Green Communication and Green Practice Index	Li, et al. [4]; Purnamasari and Umiyati [29] and Testa, et al. [74]
	Board Size	Total number of the board	Jiang [24]
	Board Independence	The percentage of independent directors on the board	Jiang [24]
	Board Diversity	Blau Index	[59]
Moderating Variable	Internal Audit Quality	The 6 internal audit key performance indicators (IAKPIs) by the World Bank	Purnamasari and Umiyati [29]
Control Variable	Firm Size	Natural logarithm of total assets.	Shatnawi, et al. [75]
	Leverage	Total liabilities divided by total assets.	Shatnawi, et al. [75]

4. Results and Discussions

4.1. Descriptive Statistics

The descriptive statistics of each variable, including mean, median, minimum, maximum, and standard deviation, are presented in Table 3. As shown in the table, the three pillars of ESG disclosure have obtained mean values of 80.493 for EDS, 79.661 for SDS, and 76.798 for GDS. This indicates that, during the research period, companies demonstrated a strong level of commitment to disclosing ESG practices. The Greenwashing (GWI) variable has a mean value of 18.027, with a maximum score obtained is 51.654, which indicates a high level of greenwashing practices.

The average board size (BSZ) is 5.698, with the largest board having 15 members. Board independence (BID), measured by the proportion of independent directors, averages 0.435, indicating compliance with governance codes. Board diversity (BDV) has a mean of 4.796, with scores ranging from 0 to 9, where 9 represents the highest diversity.

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Table 3.
Descriptive Statistics.

Variable	N	Mean	Median	Min	Max	Std. Deviation
FPS	275	1.640	1.062	0.124	16.264	1.953
EDS	275	80.493	79.661	71.186	89.831	7.042
SDS	275	79.798	77.778	74.074	87.037	4.122
GDS	275	76.606	74.074	74.074	85.185	3.339
GWI	275	18.027	14.767	-0.195	51.654	11.888
BSZ	275	5.698	5.000	3.000	15.000	2.085
BID	275	0.435	0.429	0.167	0.857	0.112
BDV	275	4.796	5.000	0.000	9.000	1.619
IAQ	275	3.393	4.000	2.000	5.000	1.127
SZE	275	30.437	30.653	24.018	33.731	1.611
LEV	275	0.558	0.486	0.048	5.893	0.550

The maximum score value of the internal audit quality variable (IAQ) obtained by the company during the period of research was 5.000, with the mean score of 3.393. Regarding the control variables, the contributed mean value of 30.437 for firm size and 0.558 for leverage. The mean value of the financial performance variable (FPS) was 1.640, indicating that the companies during the research period exhibited strong financial performance and positive market value.

Standard deviation reflects the variability and dispersion of the data. Financial performance (FPS) is the only variable with a standard deviation above the average, indicating a high level of data variation. Meanwhile, the other variables have a standard deviation below the average, meaning that the data tends to be more concentrated around the mean.

4.2. Validity and Reliability Testing

Before testing the structural relationships between latent variables (inner model), the outer model test must be performed to test validity and reliability. The validity test will be examined using the outer loading value and Average Variance Extracted (AVE). To fulfill convergent validity, the outer loading value should be greater than 0.7, and AVE should be greater than 0.5 [76].

Table 4.
Convergent validity test.

Latent Variable	Indicator	Outer loading	AVE
ESG disclosure (ESG) (X1)	EDS	0.838	0.708
	SDS	0.898	
	GDS	0.785	

In this research study, only one latent variable requires measurement using an indicator, which is ESG disclosure (X1). As shown in Table 4, the result demonstrates that all indicators have an outer loading > 0.7 and AVE value > 0.5, indicating that the observed variables can explain at least more than 50% of the construct model, demonstrating that the indicators are relevant and reliable in representing the intended construct [76].

Table 5.
Indicator reliability test.

Variable	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
ESG disclosure (ESG) (X1)	0.798	0.816	0.879

To ensure model reliability, Cronbach's alpha and Composite Reliability were assessed, as suggested by Hair and Alamer [70] and Hair, et al. [76]. The indicators used are considered reliable if

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Cronbach's alpha > 0.70 and Composite reliability > 0.70. Both measures are considered acceptable when their values are at least 0.70. As shown in Table 5, Cronbach's alpha is 0.798, and the composite reliability exceeds 0.70. This indicates that all indicators for ESG disclosure (ESG), as the sole latent variable in this study, meet the required reliability standards, confirming that the construct has strong internal consistency and meets reliability standards.

Table 6.
Discriminant validity with Heterotrait-Monotrait Ratio (HTMT).

	BDV	**BID**	**BSZ**	**ESG**	**FPS**	**GWI**	**IAQ**	**LEV**	**SZE**	**IAQ x BDV**	**IAQ x BID**	**IAQ x BSZ**	**IAQ x GWI**	**IAQ x ESG**
BDV														
BID	0.082													
BSZ	0.132	0.049												
ESG	0.062	0.047	0.154											
FPS	0.193	0.368	0.273	0.155										
GWI	0.086	0.022	0.053	0.187	0.060									
IAQ	0.038	0.168	0.025	0.092	0.002	0.022								
LEV	0.103	0.123	0.053	0.174	0.022	0.118	0.158							
SZE	0.124	0.189	0.269	0.048	0.087	0.066	0.059	0.247						
IAQ x BDV	0.103	0.018	0.129	0.126	0.053	0.051	0.180	0.123	0.098					
IAQ x BID	0.023	0.107	0.039	0.067	0.142	0.004	0.066	0.097	0.012	0.039				
IAQ x BSZ	0.132	0.032	0.319	0.090	0.287	0.067	0.017	0.113	0.122	0.151	0.072			
IAQ x GWI	0.048	0.003	0.061	0.051	0.050	0.034	0.094	0.156	0.115	0.177	0.047	0.085		
IAQ x ESG	0.110	0.051	0.086	0.035	0.106	0.045	0.081	0.281	0.273	0.003	0.144	0.007	0.172	

Discriminant validity is shown in Table 6. To evaluate this, the study applied the Heterotrait-Monotrait Ratio (HTMT). This test aims to assess the extent to which constructs being developed are distinct from one another in the structural model [76]. The results of the discriminant validity test indicate that all values are below 0.90, indicating that the constructs are conceptually distinct and meet the criteria for discriminant validity. This confirms that each indicator correlates more strongly with its intended construct than with others in the model. In other words, each indicator is more closely associated with the variable it is supposed to represent, rather than overlapping significantly with indicators of other variables. This is essential for ensuring that each construct in the model is conceptually distinct and not merely a reflection of another.

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4.3. Multicollinearity testing

Table 7.
Multicollinearity testing.

Variables	VIF
ESG -> FPS	1.115
GWI -> FPS	1.083
BSZ -> FPS	1.261
BID -> FPS	1.210
BDV -> FPS	1.133
IAQ -> FPS	1.155
IAQ x ESG -> FPS	1.225
IAQ x GWI -> FPS	1.140
IAQ x BSZ -> FPS	1.237
IAQ x BID -> FPS	1.087
IAQ x BDV -> FPS	1.201
LEV -> FPS	1.389
SZE -> FPS	1.409

Table 7 presents the Variance Inflation Factor (VIF) results to test multicollinearity. VIF values below 3 indicate no collinearity issues. Since all variables have VIF < 3, the model is free from multicollinearity [76]. This suggests that the independent variables are not highly correlated with each other.

4.4. Determinant Coefficient

Table 7.
Coefficient of determination (R-square)

Variable	R-square	R-square adjusted
Financial Performance (FPS) (Y)	0.330	0.297

Table 7 presents the coefficient of determination, with an R-squared of 0.330 and an adjusted R-squared of 0.297. This indicates that the independent variables explain about 30% of the variance in financial performance (FPS), while the remaining 70% is influenced by other factors not included in the model. The adequacy of R-squared is evaluated in the context of the study, as suggested by Hair and Alamer [70].

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4.5. Hypothesis Testing

Table 8.
Hypothesis testing result.

	Coefficient	t statistics	Prob.	Decision
ESG -> FPS	0.076	1.096	0.273	Rejected
GWI -> FPS	-0.062	1.180	0.238	Rejected
BSZ -> FPS	0.193	2.895	0.004	Accepted
BID -> FPS	0.302	4.077	0.000	Accepted
BDV -> FPS	0.128	2.757	0.006	Accepted
IAQ x ESG -> FPS	0.168	2.400	0.016	Accepted
IAQ x GWI -> FPS	-0.060	1.343	0.179	Rejected
IAQ x BSZ -> FPS	0.255	4.712	0.000	Accepted
IAQ x BID -> FPS	0.188	2.121	0.034	Accepted
IAQ x BDV -> FPS	-0.034	0.551	0.582	Rejected
LEV -> FPS	-0.003	0.081	0.935	Rejected
SZE -> FPS	-0.171	3.087	0.002	Accepted

The hypothesis testing was conducted using the Bootstrapping method, with a confidence level set at 95% (significance level of 5%) and a critical t-value of 1.96. This approach allowed for the assessment of the significance of the relationship between the variables in the research model. If the p-value exceeds 0.05, it indicates that there is no significant relationship between the variables [70, 76].

Based on the test result presented in Table 8. It shows that ESG disclosure has a positive coefficient of 0.076, a t-statistic of 1.096, and a p-value of 0.273, indicating that ESG disclosure insignificantly affects the financial performance; hence, H1 is rejected. Greenwashing has a negative coefficient of -0.062, t-statistics of 0.176, and p-value of 0.430, indicating that greenwashing has insignificant effects on financial performance, hence, H2 is rejected. Meanwhile, board size has a p-value of 0.004, t-statistics of 2.895, and a positive coefficient of 0.193, which means that board size positively impacts financial performance. Therefore, H3 is accepted. Board independence also has a positive and significant effect on financial performance, as seen in the results possess a p-value of 0.000, a t-statistic of 4.077, and a positive coefficient of 0.302, therefore, H4 is accepted. For board diversity, the result showed the p-value of 0.006, t-statistics of 2.757and a positive coefficient, which means that board diversity significantly positively affects financial performance, hence, H5 is accepted.

Regarding moderating variables, the result shows that it insignificantly moderates the relationship between greenwashing and board diversity with financial performance, because the p-value > 0,05, which means that internal audit quality does not moderate the relationship, hence, H7 and H10 are rejected. Meanwhile, the result demonstrated that internal audit quality moderates the relationship between ESG disclosure with financial performance, with the p-values of 0.016 and a positive coefficient, which means that the internal audit quality can strengthen the positive relationship between ESG disclosure and financial performance, therefore, H6 is accepted. From the results, it also shows that internal audit quality moderates the relationship between board size and financial performance, with a p-value of 0.000 and a positive coefficient. This suggests that the positive impact of board size on financial performance can be strengthened with internal audit quality, hence, H8 is accepted. internal audit quality also moderates the relationship between board independence and financial performance, with the p-value of 0.034 and a positive coefficient, indicating that internal audit quality significantly positively moderates the positive relationship between board independence and financial performance, therefore, H9 is accepted. Regarding the control variable, it is found that firm size significantly negatively influences financial performance, while leverage insignificantly affects financial performance.

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5. Conclusion

This study investigates the impact of ESG reporting on financial performance amid rising global ESG awareness and regulatory demands. While ESG disclosures often correlate with improved financial outcomes, results vary due to firm-specific factors and risks like greenwashing. Strong corporate governance and internal audits are essential for transparency and performance. Using PLS-SEM with 275 samples, consisting of 55 companies that have been listed on the Indonesia Stock Exchange (IDX) since 2018, published sustainability reports, and financial statements with unqualified audit opinions from 2019 – 2023, excluding financial services and the real estate sector. The findings highlight several key insights.

Hypothesis 1 (H1), which proposed a positive impact of ESG disclosure on financial performance, was not supported, as the relationship was found to be positive but statistically insignificant. This contradicts agency and signaling theories, which suggest that ESG disclosure should reduce information asymmetry and enhance performance. The insignificance of ESG disclosure may be due to its dimensional nature. Improvements in one or more areas may not enhance financial performance unless they align with investor expectations and market conditions. This result aligns with the prior study by Gholami, et al. [77] and Fernando, et al. [37]. Therefore, H1 was rejected.

In Hypothesis 2 (H2), the test also found that greenwashing has an insignificant effect on financial performance. The phenomenon of greenwashing stands in contrast to the assumptions of agency theory, which views it as a manifestation of agency conflict stemming from information asymmetry and leading to higher agency costs. Greenwashing showed no significant impact on financial performance, likely because investors in Indonesia's non-financial sector still prioritize financial reporting over ESG factors in their decision-making. The result aligns with prior studies by Lee and Raschke [8] and Testa, et al. [74]. Therefore, H2 was rejected.

In Hypothesis 3 (H3), the results also demonstrate that board size significantly influences financial performance, supporting both the agency and resource dependency theories. Although agency theory predicts minimal communication and coordination issues on large boards, these do not outweigh the benefits and contributions of large boards to improving the company's financial performance [78]. These findings support the prior study by Yuanyuan and Wenyi [48] and Lee, et al. [49] which states that the larger board size brings diverse experiences, expertise, and skills, which collectively contribute to improving the company's financial performance. Therefore, H3 was accepted.

In Hypothesis 4 (H4), the result also states that board independence significantly positively affects financial performance. This result is consistent with the finding by Kiptoo, et al. [13] and Ngo, et al. [55]. The result suggests that firms can enhance their financial performance by having a higher number of independent directors. In line with agency theory, independent directors contribute to reducing conflict of interest between company agents and principals, which in turn has a positive influence on profitability. Therefore, H4 was accepted.

In Hypothesis 5 (H5), board diversity also has a positive and significant impact on financial performance. This corresponds with agency theory and resource dependency theory, which states diverse boards reduce agency problems by offering varied perspectives, improving decision-making, and enhancing access to resources and expertise, which ultimately boosts performance. The finding agrees with the study conducted by Bagh, et al. [59] and Hsu, et al. [60] which showed that diverse board brings different backgrounds and perspectives, leading to innovative solutions and better decision-making, which are crucial for improving financial performance. Therefore, H5 was accepted.

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In Hypothesis 6 (H6), the result also found that internal audit moderates significantly the relationship between ESG disclosure and financial performance. Internal audit is aligned with agency theory, which posits that it functions as a mechanism to reduce agency costs. It may moderate the relationship between ESG disclosure and financial performance by acting as a provider of assurance and strategic recommendations to management concerning their ESG performance. This study aligned with Boulhaga, et al. [66]; Tumwebaze, et al. [79] and El Gharbaoui and Chraibi [19]. Therefore, H6 was accepted.

Hypothesis 7 (H7), the test found that internal audit quality insignificantly moderates the relationship between greenwashing on financial performance. The role of internal audit appears to contradict agency theory's assumption that it functions as a means of reducing agency costs. While internal audit improves the quality and credibility of ESG reporting, it cannot directly prevent greenwashing due to its limited authority. Effective prevention requires external oversight, such as media scrutiny and government regulation. This study supports the existing literature [2, 8]. Therefore, H7 was rejected.

In Hypothesis 8 (H8), Hypothesis 9 (H9), and Hypothesis 10 (H10) regarding internal audit quality as a moderator in relation to corporate governance. Internal audit quality moderates the relationship between board size, board independence, and financial performance by enhancing the effectiveness of the audit committee and board. It provides objective insights that reduce information asymmetry, enabling independent directors to make better decisions and support organizational goals and profitability. This result also supports the agency theory, which states that the transparency of information may reduce agency costs. This result supports prior study by Prasad, et al. [67]; Al Matari and Mgammal [68] and Shatnawi, et al. [75]. Therefore, H8 and H9 were accepted.

However, the absence of a moderating effect of internal audit on the relationship between board diversity and financial performance does not support agency theory, which suggests that internal audit serves as a mechanism to reduce information asymmetry and lower agency costs. This finding may be explained by the fact that a high level of board diversity can exist even in companies with low internal audit quality, and vice versa. This indicates that the effectiveness of board diversity is influenced by other factors beyond the quality of the internal audit alone. This study supports existing literature [80]. Therefore, H10 was rejected.

Regarding the control variables, the results show that firm size has a significant negative relationship with financial performance, consistent with the findings of Yadav, et al. [81] which argues that as companies get bigger, their profit growth tends to slow down, showing that being too large can lead to inefficiency. The result also demonstrated that leverage has no significant effect on financial performance, in line with Sen and Ranjan [82] highlighting the insignificant effect of leverage on financial performance.

This study has important implications for regulators, policymakers, and corporations, suggesting that improving ESG credibility, governance mechanisms, and internal audit effectiveness can lead to more sustainable and financially resilient businesses. Future research could further explore how industry-specific factors influence ESG outcomes and whether stronger ESG regulations could enhance the financial impact of ESG initiatives in the long run. While providing ESG-financial insights, this study has limitations requiring future attention. The moderate R-squared indicates that the independent variables account for only 33% of the variation in financial performance. This suggests that other important factors influencing performance may not have been included in the model, such as industry

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characteristics, innovation, or managerial capabilities. This study also proposes several suggestions for upcoming further research:

1. Extend the dataset beyond 2019–2023. A longer-term analysis should be obtained to assess whether ESG initiatives contribute to sustained firm value over time, especially during economic downturns or industry-specific crises.
2. Use ESG rating agencies' scores or textual analysis of sustainability reports to distinguish between high-quality and low-quality disclosures because not all ESG disclosures are equal. Firms may report ESG metrics superficially or integrate them deeply into their strategy.
3. Considering the role of government as a regulator in moderating or mediating future research.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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