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SHARIA-BASED SUSTAINABILITY ACCOUNTING, ESG PERFORMANCE, CORPORATE GOVERNANCE, AND FIRM RISK: EVIDENCE FROM ISSI-LISTED FIRMS IN INDONESIA

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ABSTRACT

This study examines whether Environmental, Social, and Governance (ESG) performance is associated with lower risk firm risk and whether corporate governance strengthens this relationship among companies listed on the Indonesia Sharia Stock Index (ISSI). Extending prior ESG-risk research, the article frames ESG performance as a sharia-based sustainability accounting mechanism through which firm measure, disclose, communicate, and account for environmental, social, governance, and risk-related responsibilities. Drawing on Stakeholder Theory, Legitimacy Theory, Agency Theory, and Maqasid al-Shariah, the study develops an integrated framework linking ESG performance, corporate governance, Islamic accountability, and firm risk. Using panel data from 30 ISSI-listed companies over the 2019-2023 period, comprising 150 firm-year observations, firm risk is measured through stock volatility and the Altman Z-Score. ESG performance is measured using ESG scores published by the Indonesia Stock Exchange, while corporate governance is proxied by a composite index consisting of board size, independent commissioners, institutional ownership, and board meeting frequency. The findings show that ESG performance has a negative and significant effect on stock volatility and a positive and significant effect on the Altman Z-Score. Corporate governance significantly moderates both relationships, indicating that stronger governance enhances the risk-reducing value of ESG. The findings suggest that ESG is not merely a reputational instrument, but also a sustainability accounting and sharia accountability mechanism that helps protect wealth, reduce uncertainty, and strengthen corporate resilience. The study contributes to Islamic accounting and sustainable finance literature by clarifying how sharia-compliant firms translate ESG practices into risk mitigation through governance quality.

Keywords: Corporate governance, ESG performance, firm risk, Islamic capital market, sustainability accounting

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INTRODUCTION

The growing importance of sustainability has transformed how corporations are evaluated by investors, regulators, and broader stakeholder communities. Traditional financial information is no longer sufficient to explain long-term corporate resilience, particularly in economies exposed to climate risk, social inequality, regulatory pressure, and governance-related uncertainty. Environmental, Social, and Governance (ESG) performance has therefore become a central component of corporate evaluation because it provides information about how firms manage non-financial risks that may ultimately affect financial stability and market performance (Eccles et al., 2014; Friede et al., 2015; Gillan et al., 2021).

In Indonesia, the relevance of ESG is reinforced by the development of sustainable finance regulation, increasing investor attention to sustainability information, and the growing use of ESG data in investment decision-making. The Financial Services Authority has issued the Sustainable Finance Roadmap as a policy framework to encourage the integration of environmental, social, and governance considerations into financial and investment activities (Otoritas Jasa Keuangan, 2021). The Indonesia Stock Exchange has also developed ESG-related data and indices to support market transparency and sustainability-oriented investment analysis.

The ESG agenda becomes particularly significant for firms listed on the Indonesia Sharia Stock Index (ISSI). Sharia-compliant firms are expected not only to generate profit but also to avoid harmful activities, maintain fairness, protect stakeholder welfare, and support socio-environmental balance. The values embedded in ESG are closely aligned with Islamic ethical principles, including amanah, justice, transparency, social responsibility, and the pursuit of *maslahah*. Consequently, ESG in Islamic capital markets should not be understood only as a managerial strategy; it can also be interpreted as a form of moral and social accountability.

Despite the growing literature on ESG and corporate risk, the accounting dimension of ESG remains underdeveloped. ESG is frequently treated merely as a score or performance indicator, whereas its role as an accounting and accountability mechanism receives less explicit attention. From a sustainability accounting perspective, ESG information represents a process of identifying, measuring, disclosing, and communicating corporate impacts and risks. From a sharia-based accounting perspective, such disclosure is not only an informational activity but also a moral responsibility grounded in *amanah*, *masuliyah*, *adalah*, and *maslahah* (Haniffa, 2002; Haniffa & Hudaib, 2007).

This study addresses this conceptual gap by examining the ESG-risk relationship within the ISSI context and by interpreting ESG performance as part of sharia-based sustainability accounting. The Islamic capital market offers a distinctive research setting because sharia screening restricts firms from activities considered inconsistent with

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Islamic principles, including *riba*, *gharar*, *maysir*, and businesses harmful to society. However, ISSI membership should not be interpreted as a complete measure of sharia governance; rather, it provides a formal sharia-compliant setting in which ESG, corporate governance, and risk accountability can be examined. Empirical studies on the ESG-risk relationship within Islamic capital markets remain scarce, and existing evidence on ISSI-listed and sharia-compliant firms has focused mainly on ESG disclosure or performance rather than firm risk outcomes (Qoyum et al., 2022; Hambali & Adhariani, 2023; Gati et al., 2024).

The study focuses on firm risk for two reasons. First, risk reduction is one of the most economically relevant outcomes of sustainability practices. Firms with stronger ESG performance may face lower reputational, regulatory, legal, and operational risks (Godfrey et al., 2009; Sassen et al., 2016; Broadstock et al., 2021). Second, in Islamic finance, risk management is closely related to *hifz al-mal*, or the protection of wealth, one of the key objectives of *Maqasid al-Shariah* (Chapra, 2008). When ESG practices contribute to lower volatility and stronger financial health, they may be interpreted as supporting the preservation of stakeholder wealth and institutional stability.

Corporate governance is positioned as a moderating variable because ESG performance does not automatically translate into risk reduction. Without effective monitoring, ESG initiatives may remain symbolic, ceremonial, or vulnerable to greenwashing. Strong governance mechanisms, including active boards, independent commissioners, institutional ownership, and frequent board meetings, enhance the credibility and substantive implementation of ESG. In the sharia context, governance is not merely a technical control mechanism but also an ethical system that reinforces trustworthiness and accountability.

Accordingly, this study investigates whether ESG performance is associated with lower risk firm risk and whether corporate governance strengthens this effect among ISSI-listed firms over the 2019-2023 period. The study contributes to the literature in three ways. First, it extends ESG-risk research to the Islamic capital market setting. Second, it integrates sustainability accounting and Islamic accountability into the interpretation of ESG performance. Third, it develops a sharia-based governance interpretation of corporate governance as an assurance mechanism that strengthens the risk-reducing effect of ESG. The remainder of the article is organized as follows: the Introduction discusses the literature and hypotheses development, the Methods section presents the research methodology, and the Results and Discussion section reports the findings together with their discussion, followed by the Conclusion.

ESG Performance, Sustainability Accounting, and Firm Risk

ESG performance reflects the extent to which a firm integrates environmental responsibility, social responsibility, and governance quality into its strategy and

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operations. In the financial literature, ESG is often associated with lower firm risk because it improves stakeholder trust, is associated with lower risk information asymmetry, and mitigates regulatory, reputational, and operational shocks (Bouslah et al., 2013; Becchetti et al., 2015; Sassen et al., 2016; De Giuli et al., 2024). Firms with stronger ESG performance are more likely to anticipate environmental liabilities, manage social relationships, and maintain governance systems that support prudent decision-making.

Stakeholder Theory explains that firms operate within a network of relationships involving shareholders, employees, customers, regulators, communities, and the environment (Freeman, 1984). ESG performance can reduce firm risk because it demonstrates managerial responsiveness to stakeholder expectations. When firms are perceived as more responsible, they can reduce conflict, litigation exposure, regulatory pressure, and reputational damage (Godfrey et al., 2009; Lins et al., 2017).

Legitimacy Theory provides a complementary explanation. Firms seek congruence between corporate conduct and societal norms to maintain social legitimacy (Suchman, 1995). ESG disclosure becomes a mechanism through which firms signal that their operations are consistent with social and environmental expectations. Strong legitimacy may reduce reputational risk, regulatory scrutiny, and public resistance (Cho et al., 2013).

From a sustainability accounting perspective, ESG performance is not only an indicator of corporate responsibility but also an information system. It converts sustainability-related activities into measurable and communicable information that can be used by investors, creditors, regulators, and society. In this sense, ESG scores are linked to the quality of sustainability accounting because they reflect how firms account for environmental impacts, social commitments, governance practices, and long-term risks.

Firm risk may be observed through both market-based and accounting-based indicators. Stock volatility captures market uncertainty and investor perception, whereas the Altman Z-Score captures financial health and bankruptcy risk (Altman, 1968). If ESG performance strengthens stakeholder confidence and improves risk management, it should reduce stock volatility and improve the Z-Score. Therefore, the following hypotheses are proposed.

H1: ESG performance has a negative and significant effect on firm stock volatility.

H2: ESG performance has a positive and significant effect on firm Altman Z-Score.

Sharia-Based Sustainability Accounting and Islamic Accountability

Sharia-based sustainability accounting extends conventional sustainability accounting by grounding disclosure and accountability in Islamic ethical principles. The firm is viewed not only as a contractual nexus between managers and shareholders but also as an accountable institution that carries responsibilities toward Allah, investors,

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employees, communities, future generations, and the environment. This accountability is expressed through amanah, masuliyah, adalah, and maslahah.

The Maqasid al-Shariah framework provides a normative foundation for interpreting the ESG-risk relationship. Environmental responsibility is linked to the protection of life and ecological balance; social responsibility is linked to justice, welfare, and protection of human dignity; governance quality is linked to amanah, transparency, and protection of wealth (Chapra, 2008). Accordingly, ESG practices in ISSI-listed firms can be interpreted as mechanisms through which companies pursue sustainable value while supporting the broader objectives of Islamic law.

This perspective also clarifies that sharia compliance should not be reduced to formal screening criteria alone. ISSI membership indicates that a firm satisfies sharia screening requirements, but substantive sharia-based sustainability accountability requires further evidence of ethical governance, transparent disclosure, risk management, and measurable social-environmental impact. Thus, ESG performance can become an important bridge between formal sharia compliance and substantive sustainability accountability.

Corporate Governance and Sharia-Based Governance

Corporate governance refers to the structures and processes through which firms are directed, controlled, and held accountable. Agency Theory explains that governance mechanisms reduce conflicts between managers and shareholders, constrain opportunistic behavior, and improve the credibility of corporate disclosures (Jensen & Meckling, 1976; Agrawal & Knoeber, 1996). In ESG research, corporate governance is particularly important because it determines whether sustainability commitments are substantively implemented or remain symbolic.

In a sharia-based governance perspective, corporate governance is not limited to shareholder protection. It also functions as an ethical accountability mechanism that ensures business activities comply with principles of fairness, transparency, prudence, and public benefit. The board of commissioners, independent commissioners, institutional ownership, and board meeting frequency can therefore be understood as monitoring mechanisms that support both financial discipline and sustainability accountability.

Strong governance can strengthen the ESG-risk relationship by increasing the credibility of ESG information, reducing greenwashing risk, and ensuring that ESG initiatives are embedded in risk management processes (Hussain et al., 2018; Fatemi et al., 2018; Velte, 2023; Elamer et al., 2024). This is especially relevant in the ISSI context, where investors may expect firms to demonstrate alignment between sharia compliance and sustainability conduct. Therefore, the following hypotheses are proposed.

H3: Corporate governance strengthens the negative effect of ESG performance on firm stock volatility.

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H4: Corporate governance strengthens the positive effect of ESG performance on firm Altman Z-Score.

Integrated Sharia Sustainability Accounting-Governance Framework

This study develops an Integrated Sharia Sustainability Accounting-Governance Framework. The framework proposes that ESG performance is associated with lower risk firm risk through two channels: stakeholder trust and social legitimacy. Corporate governance strengthens these channels by ensuring credible monitoring, disclosure reliability, and managerial accountability. Maqasid al-Shariah provides the ethical foundation that links ESG and governance to the protection of welfare and wealth.

The framework positions ESG performance as sustainability accounting information, corporate governance as an assurance and monitoring mechanism, and firm risk as an outcome reflected in market volatility and accounting-based financial health. In this way, the ESG-risk relationship is interpreted not merely as a financial association but as an accountability relationship embedded in Islamic ethical principles.

Figure 1. Integrated Sharia Sustainability Accounting–Governance Framework

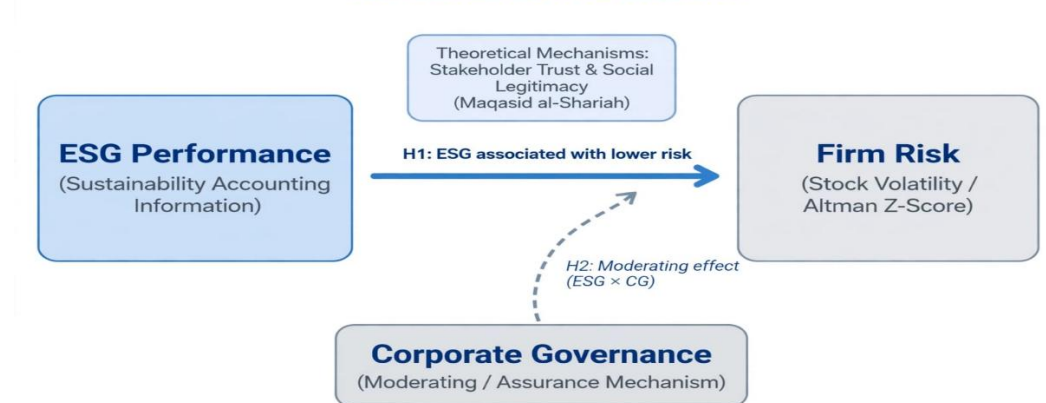


Figure 1. Integrated Sharia Sustainability Accounting-Governance Framework

METHODS

Research Design and Sample

This study employs a quantitative causal-associative design using panel data. The population consists of companies listed on the Indonesia Sharia Stock Index during 2019-2023. The final sample comprises 30 companies with complete ESG, corporate governance, financial, and stock data, yielding 150 firm-year observations. The ISSI setting is used to capture the Islamic capital market context; however, ISSI membership is treated as the sample frame rather than a direct variable measuring sharia governance quality.

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Purposive sampling is used with four criteria: (1) the company was consistently listed on the ISSI throughout the observation period; (2) the company had complete ESG score data available on the Indonesia Stock Exchange platform; (3) the company did not undergo delisting or trading suspension during the observation period; and (4) the company had complete annual reports and audited financial statements. Panel data are appropriate because they allow the study to observe cross-sectional and time-series variation simultaneously. The 2019-2023 period also captures important changes in ESG awareness, including the COVID-19 transition period and subsequent recovery in capital market conditions.

Variable Measurement

Table 1 summarizes the operational measurement of each variable. Firm risk is measured through two dependent variables: stock volatility as a market-based risk measure and Altman Z-Score as an accounting-based financial health measure. ESG performance is measured using the composite ESG score published by the IDX ESG platform. Corporate governance is measured through a composite index consisting of board size, independent commissioners, institutional ownership, and board meeting frequency. Control variables include firm size, leverage, ROA, and firm age.

Data Sources and Analytical Procedure

ESG scores are obtained from the official Indonesia Stock Exchange ESG platform. Corporate governance data, including board size, independent commissioner proportion, institutional ownership, and board meeting frequency, are collected from company annual reports and issuer disclosures. Financial data are obtained from audited financial statements, while stock return data are used to calculate annual stock volatility.

The analytical technique combines panel data regression and moderated regression analysis (MRA). Prior to estimation, diagnostic tests are conducted for normality (Jarque-Bera), multicollinearity (VIP), heteroskedasticity (Breusch-Pagan), and autocorrelation (Wooldridge). Multicollinearity assessment shows VIF for ESG and CG index is 2.17, below the Threshold of 10, indicating no severe multicollinearity despite the correlation of 0.735. The high correlation between Z-Score and ROA (0.716) is expected because ROA, proxied by EBIT/total assets, is a component of the Altman Z-Score formula. Model selection follows the Chow test, Hausman test, and Lagrange multiplier test to determine the most appropriate panel specification (FEM for volatility models, RE for Z-Score models). Year fixed effects are included to control for the Covid-19 volatility spike in 2020. To mitigate reverse causality, ESG is also tested with one-year lag ($t-1$) and robustness checks. Data processing uses EViews 12 and Stata 17.

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Table 1. Variable Measurement

Variable	Role	Measurement	Interpretation
Stock volatility	Dependent variable	Annualized standard deviation of daily stock returns over one year	Market risk (annualized); higher value indicates greater market uncertainty, while lower value indicates greater market stability
Altman Z-Score	Dependent variable	Altman (1968)=1.2_(working capital/total assets) + 1.4_(retained earnings/total assets) + 3.3_(EBIT/total assets) + 0.6_(market value equity/total liabilities) + 1.0*(sales/total assets)	Accounting-based financial health; higher value indicates lower bankruptcy risk. Note: ROA component is part of EBIT/TA in the formula.
ESG performance	Independent variable	Composite ESG score from the IDX ESG platform	Sustainability accounting disclosure and performance signal
Corporate governance index	Moderating variable	Composite index of board size, independent commissioners, institutional ownership, and board meeting frequency	Monitoring, assurance, and governance credibility proxy
Firm size	Control variable	Natural logarithm of total assets	Resource capacity and firm visibility
Leverage	Control variable	Total debt to total assets	Financial risk exposure
ROA	Control variable	Net income to total assets	Profitability and internal resource capacity
Firm age	Control variable	Years since establishment	Organizational maturity

Source: Developed by the authors based on prior ESG-risk and governance literature.

Model Specification

The empirical models are specified as follows:

Model 1: Volatility_{it} = alpha + beta1 ESG_{it} + beta2 CG_{it} + beta3 ESGxCG_{it} + beta4 Firm_Size_{it} + beta5 Leverage_{it} + beta6 ROA_{it} + beta7 Firm_Age_{it} + epsilon_{it}

Model 2: Z_Score_{it} = alpha + beta1 ESG_{it} + beta2 CG_{it} + beta3 ESGxCG_{it} + beta4 Firm_Size_{it} + beta5 Leverage_{it} + beta6 ROA_{it} + beta7 Firm_Age_{it} + epsilon_{it}

All continuous Variables are winsorized at 1% and 99% to mitigate outlier effects. The interaction term ESG × CG is calculated using mean-centered values to reduce potential multicollinearity in moderation models.

The interaction term ESGxCG captures the moderating role of corporate governance. A negative coefficient in the volatility model and a positive coefficient in the

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Z-Score model indicate that corporate governance strengthens the risk-reducing effect of ESG performance. Hypothesis testing is conducted at conventional significance levels of 1%, 5%, and 10%.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 2 presents descriptive statistics for all research variables based on 150 observations. The mean ESG score is 48.152, with a minimum value of 28.2 and a maximum value of 74.7, indicating substantial variation in sustainability performance among ISSI-listed firms. Among the three ESG dimensions, governance records the highest mean, followed by social and environmental performance. This pattern suggests that environmental performance remains the weakest area and requires stronger managerial and regulatory attention.

Table 2. Descriptive Statistics of Research Variables

Variable	N	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
ESG_Score	150	48.152	11.233	28.2	74.7	0.351	-0.693
ENV_Score	150	43.630	11.656	22.5	70.7	0.302	-0.797
SOC_Score	150	50.067	11.573	27.7	77.5	0.335	-0.640
GOV_Score	150	51.707	11.439	31.9	80.0	0.345	-0.760
CG_Index	150	60.189	5.672	50.21	76.49	0.343	-0.299
Board_Size	150	7.467	1.283	5	11	0.679	0.198
Ind_Board (%)	150	0.529	0.045	0.385	0.622	-0.294	0.234
Inst_Own (%)	150	0.644	0.102	0.486	0.938	0.846	0.436
Board_Meet	150	9.500	1.478	7	13	0.359	-0.707
Stock_Volatility	150	0.293	0.066	0.163	0.555	0.804	1.215
Z_Score	150	3.251	0.973	1.767	5.715	0.681	-0.217
Firm_Size (Ln)	150	30.997	0.916	29.09	33.65	0.650	0.606
Leverage	150	0.429	0.159	0.113	0.730	-0.273	-0.494
ROA	150	0.082	0.072	0.011	0.423	2.572	7.508
Firm_Age	150	45.100	20.845	12	112	1.260	1.439

Source: Authors' calculations based on 2019–2023 observations.

The mean CG_Index of 60.189 indicates generally adequate governance quality in the sample. The mean stock volatility of 0.293 and mean Z-Score of 3.251 suggest that

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the sample companies are generally in sound financial condition, although the dispersion across firms indicates meaningful differences in both market risk and accounting-based financial health.

Trend Analysis

Table 3 reports annual averages of key variables over the observation period. ESG scores increased from 44.32 in 2019 to 52.05 in 2023, representing a cumulative improvement of approximately 17.4%. Stock volatility increased sharply in 2020 during the COVID-19 shock but declined steadily afterward. This descriptive pattern indicates that stronger ESG and governance profiles may be associated with improved post-crisis stability.

Table 3. Annual Averages of Key Variables

Year	ESG Score	CG Index	Volatility	Z-Score	Leverage	ROA
2019	44.32	59.12	0.2661	3.321	0.4331	0.0874
2020	46.12	59.45	0.3596	3.217	0.4326	0.0528
2021	48.12	59.89	0.2914	3.264	0.4218	0.0775
2022	50.15	61.10	0.2842	3.225	0.4328	0.0950
2023	52.05	62.42	0.2610	3.229	0.4262	0.0983

Source: Authors' calculations based on 2019–2023 observations.

Correlation Analysis

Table 4 presents the Pearson correlation matrix. ESG performance is negatively correlated with stock volatility and positively correlated with the Altman Z-Score, providing preliminary evidence that stronger ESG performance is associated with lower market risk and better financial health. The positive correlation between ESG and CG_Index indicates that firms with stronger governance profiles also tend to report higher ESG performance. The relatively high ESG-CG correlation should therefore be considered when interpreting the regression estimates, particularly the interaction term in the moderation models.

Regression and Moderation Results

Table 5 reports the panel regression and moderation results. In Model 1a, ESG performance has a negative and significant effect on stock volatility, supporting H1. In Model 2a, ESG performance has a positive and significant effect on the Altman Z-Score, supporting H2. These results indicate that stronger ESG performance is associated with lower market uncertainty and better financial health among ISSI-listed companies.

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Table 4. Pearson Correlation Matrix

Variable	ESG	CG Index	Volatility	Z-Score	Firm Size	Leverage	ROA
ESG Score	1.000	0.735*	-0.351*	0.350*	0.342*	0.419*	0.148
CG Index	0.735*	1.000	-0.401*	0.271*	0.258*	0.662*	0.290*
Volatility	-0.351*	-0.401*	1.000	-0.489*	0.201*	0.320*	0.103
Z-Score	0.350*	0.271*	-0.489*	1.000	-0.526*	-0.320*	0.716*
Firm Size	0.342_	0.258*	0.201*	-0.526*	1.000	0.099	-0.526*
Leverage	0.419*	0.662*	0.320*	-0.320*	0.099	1.000	0.285*
ROA	0.148	0.290*	0.103	0.716*	-0.526*	0.285*	1.000

Note: * indicates two-tailed significance at 5%; with N = 150, $|r| \geq 0.160$ is significant at the 5% level. Source: Authors' calculations based on 2019–2023 observations.

Table 5. Moderated Regression Analysis Results

Variable	Model 1a (Volatility)	Model 1b (Volatility + MRA)	Model 2a (Z- Score)	Model 2b (Z-Score + MRA)
Constant	0.1572 (1.10)	0.4823 (2.31)**	14.3217 (5.47)***	11.8943 (4.12)***
ESG_Score	-0.00185 (-3.21)***	-0.00512 (-2.87)***	0.02147 (2.89)***	0.01823 (2.34)**
CG_Index	-	-0.00389 (-2.14)**	-	0.02156 (1.98)**
ESG x CG	-	-0.0000631 (-2.03)**	-	0.000318 (2.12)**
Firm_Size	0.00612 (1.52)	0.00587 (1.48)	-0.3812 (-3.41)***	-0.3691 (-3.32)***
Leverage	0.0583 (2.34)**	0.0601 (2.41)**	-1.2156 (-3.68)***	-1.1872 (-3.61)***
ROA	-0.0821 (-1.63)	-0.0783 (-1.58)	6.8923 (8.71)***	6.7814 (8.58)***
Firm_Age	-0.000321 (-1.89)*	-0.000298 (-1.76)*	0.003812 (1.52)	0.003654 (1.47)
R-squared	0.2743	0.3187	0.5821	0.6104
Adj. R-squared	0.2498	0.2873	0.5691	0.5921
F-statistic	11.19	10.14	44.72	33.41
Prob(F-stat)	0.0000	0.0000	0.0000	0.0000
Selected Model	FEM	FEM	REM	REM

Notes: t-statistics are shown in parentheses. ***, **, and * indicate significance at 1%, 5%, and 10%, respectively. FEM = Fixed Effect Model; REM = Random Effect Model.

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The interaction term $ESG \times CG$ is negative and significant in the volatility model and positive and significant in the Z-Score model. These findings support H3 and H4, indicating that the association between ESG performance and risk outcomes becomes stronger at higher levels of corporate governance. Because CG_Index is not mean-centered, the ESG coefficient in Models 1b and 2b represents the conditional effect when CG_Index equals zero and should not be compared directly in magnitude with the ESG coefficient in Models 1a and 2a. Using the reported mean CG_Index of 60.189, the implied marginal ESG effects are approximately -0.00892 for volatility and 0.03737 for the Z-Score. Thus, the larger absolute ESG coefficient in Model 1b is a consequence of the interaction specification rather than, by itself, evidence of an estimation error.

Robustness Tests

Robustness tests using individual ESG dimension scores confirm the consistency of the main results. Environmental, social, and governance scores all show negative coefficients in the volatility model and positive coefficients in the Z-Score model. The governance dimension displays the strongest effect, which is theoretically consistent with the role of governance in monitoring, risk control, and disclosure credibility.

Table 6. Robustness Test Using ESG Dimension Scores

ESG Dimension	Beta (Volatility)	p-value	Beta (Z-Score)	p-value
ENV_Score	-0.00162	0.0221	0.01835	0.0412
SOC_Score	-0.00171	0.0187	0.01947	0.0376
GOV_Score	-0.00198	0.0089	0.02214	0.0281

Source: Authors' calculations based on 2019–2023 observations.

ESG Performance as a Sharia-Based Risk Accountability Mechanism

The finding that ESG performance is associated with lower risk stock volatility supports the argument that sustainability practices help firms manage stakeholder-related uncertainty. In ISSI-listed firms, this effect can be interpreted through both conventional and Islamic perspectives. Conventionally, ESG is associated with lower risk regulatory, reputational, and operational risks. From a sharia perspective, ESG supports *maslahah* by reducing harm and protecting stakeholders from avoidable uncertainty. This is consistent with prior evidence that stronger ESG performance is associated with lower firm risk in both conventional and emerging-market settings (Godfrey et al., 2009; Sassen et al., 2016).

The positive effect of ESG performance on the Altman Z-Score indicates that firms with better ESG practices tend to exhibit stronger financial health. This result is consistent with the principle of *hifz al-mal*, which emphasizes the protection of wealth and financial stability. In this sense, sustainability accounting is not merely a reporting practice but also a mechanism for preserving corporate resilience and stakeholder value.

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These findings also clarify the accounting role of ESG. ESG information allows investors and other stakeholders to evaluate whether companies identify, measure, and communicate sustainability-related risks. Therefore, ESG performance in this study should be understood not only as a sustainability score but also as a form of risk accountability embedded in the broader system of sharia-based sustainability accounting.

Corporate Governance as Sharia-Based Assurance

The significant moderating role of corporate governance confirms that ESG performance becomes more effective when supported by strong monitoring structures. Governance is associated with lower risk the risk that ESG disclosure is symbolic or merely ceremonial. This finding is important because sustainability accounting requires not only disclosure but also credible governance mechanisms that ensure reported information reflects substantive practice. This finding aligns with prior studies showing that governance quality strengthens the credibility and risk-reducing effect of ESG and sustainability disclosure (Fatemi et al., 2018; Hussain et al., 2018; Velte, 2023; Elamer et al., 2024).

In sharia-based governance, corporate governance plays an assurance role. It safeguards amanah by monitoring managerial conduct, protects masalah by ensuring sustainability commitments are implemented, and supports masuliyah by strengthening accountability to investors, regulators, communities, and the environment. Therefore, the ESG x CG interaction can be interpreted as evidence that governance quality converts sustainability performance into more credible risk mitigation.

The results also indicate that corporate governance can function as an anti-greenwashing mechanism. When boards are active, independent, and supported by institutional monitoring, ESG activities are more likely to be integrated into strategic decision-making and risk management rather than used as symbolic reporting. This strengthens the credibility of ESG disclosure in sharia-compliant firms.

Implications for Islamic Capital Market and Sustainability Accounting

For Islamic capital market regulators, the findings imply that ISSI screening could be further strengthened by encouraging more standardized ESG and sustainability accounting disclosure among sharia-compliant firms. Formal sharia compliance alone may not be sufficient to demonstrate substantive accountability; it should be supported by measurable environmental, social, governance, and risk-related indicators.

For corporate management, the findings suggest that investment in ESG and governance should be understood as a risk management strategy rather than a compliance cost. Environmental performance deserves particular attention because it shows the lowest mean score among the ESG dimensions. Strengthening environmental accounting, emission reporting, energy efficiency disclosure, and waste management metrics would improve both sustainability accountability and risk resilience.

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For investors, ESG and governance information can provide a useful basis for sharia-compliant investment analysis. Firms with strong ESG performance and credible governance may offer lower risk exposure and stronger financial stability, making them more attractive to investors seeking both financial and ethical value alignment.

CONCLUSION

This study examines the effect of ESG performance on firm risk and the moderating role of corporate governance among ISSI-listed firms during 2019-2023. The findings show that ESG performance significantly is associated with lower risk stock volatility and significantly improves the Altman Z-Score. Corporate governance strengthens both relationships, indicating that governance quality enhances the risk-reducing effectiveness of ESG.

Theoretically, the study contributes to ESG-risk literature by integrating Stakeholder Theory, Legitimacy Theory, Agency Theory, and Maqasid al-Shariah into a sharia-based sustainability accounting framework. Empirically, it demonstrates that ESG performance and corporate governance are relevant to risk mitigation in the Indonesian Islamic capital market. Conceptually, it clarifies that ESG information should be treated not only as a sustainability score but also as an accounting and accountability mechanism. The study has several policy implications. OJK and BEI may consider strengthening ESG disclosure guidance for ISSI-listed companies, particularly by incorporating measurable environmental indicators and governance assurance mechanisms. Companies should integrate sustainability accounting into enterprise risk management and board-level governance. Investors should evaluate ESG performance jointly with corporate governance quality to assess the credibility of sharia-compliant sustainability practices.

This study is subject to limitations. The sample is limited to 30 ISSI-listed firms due to ESG data availability, and the study does not directly measure sharia governance through variables such as sharia supervisory mechanisms, sharia audit, or sharia risk management. Future research should expand the sample, compare ISSI and non-ISSI firms, disaggregate corporate governance components, and develop a more comprehensive Sharia Sustainability Accounting Index that incorporates ESG, Islamic accountability, and Maqasid al-Shariah indicators.

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