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Does sharia compliance enhance ESG performance to better firm performance?

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Abstract

This study investigates the influence of ESG and Sharia compliance on firm performance Current literature provides various findings explaining the effect of ESG on firm performance. The question arises as to whether compliance with Sharia, known for its ethical principles that share similar objectives with ESG, can enhance firm performance. This study introduces a novel approach by integrating the Sharia label to explore the relationship between ESG and firm performance, a topic not extensively covered in the literature, particularly in the context of Indonesia. This study employs a panel regression model with fixed effects using data from 235 firm-year observations of non-financial firms to estimate the results. The findings indicate a negative impact of ESG on firm performance. However, this study did not confirm the influence of Sharia on firm performance. To alleviate negative effect of ESG, companies could prioritize more efficient and impactful ESG practices.

Keywords ESG; sharia; firm performance; ROE; ROA

INTRODUCTION

Stakeholders are placing escalating pressure on companies to embrace more sustainable practices and mitigate adverse impacts on society and the environment. Additionally, there is a growing expectation for companies to offer comprehensive information pertaining to sustainability through robust disclosure policies (Vitolla et al., 2021). Furthermore, disclosure is assuming greater significance for policymakers globally, owing to the interdependence of the global economy facilitated by investments and international trade (Nicolo et al., 2021). However, it is evident that financial disclosure alone is insufficient to address the informational requirements of stakeholders, policymakers, and investors (Salvi et al., 2020). Consequently, non-financial disclosure in the form of environmental reports, social reports, sustainability reports, and integrated reports is gaining prominence (Raimo et al., 2021). One form of non-financial disclosure used is Environmental, Social, and Governance (ESG).

Indonesian corporations and foreign companies operating within the country are obligated by government mandates outlined in various legislative instruments to participate in Corporate Social Responsibility (CSR) activities. These mandates are stipulated in laws such as Law No. 40/2007 on Corporations, Law No. 25/2007 on Investment in Indonesia, and Government Regulation No. 47/2012 on Corporate Social and Responsibility, which serves as an implementation framework for Law No. 40/2007. These regulations underscore the government's dedication to promoting sustainability practices in Indonesia. Despite the mandatory nature of CSR activities, sustainability reporting is not compulsory for all companies. However, there is a noticeable trend towards its adoption, with an increasing number of companies choosing to engage in sustainability reporting practices. This decision is largely driven by a desire to demonstrate their commitment to ESG considerations and to enhance transparency with stakeholders, including investors and other interested parties. Notably, as of 2019, sustainability reporting

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became mandatory in Indonesia (Gunawan et al., 2022).

For years, academia and business research have explored the relationship between ESG performance and firm value as well as profitability (Aydoğmuş et al., 2022; Lin et al., 2021; Quintiliani, 2022). Initially, much attention was directed towards analyzing how corporate governance affects stock price performance (Amelia et al., 2021). However, with increasing concerns regarding climate change, the circular economy, and biodiversity, studies have expanded to investigate the relationship between environmental performance and stock price performance (Boubaker et al., 2022). In more recent times, there has been a notable shift in focus towards health, safety, and wellbeing, as well as human capital management issues such as employee satisfaction (Torre et al., 2021), diversity (Brahma et al., 2021), and inclusion. These topics have garnered significant attention in both academia and business research.

The benefits of ESG for companies include enhancing the company's reputation, attracting environmentally conscious investors, reducing operational and legal risks (Galletta et al., 2023; Lee & Isa, 2024), fostering innovation (Di Simone et al., 2022) and operational efficiency (Aroul et al., 2022), and enhancing relationships with stakeholders such as employees, customers, and the general public (Vural-Yavaş, 2021). Prior research has yet to produce definitive conclusions regarding the influence of ESG practices on firms' financial performance. While the majority of studies conducted thus far suggest a positive impact of ESG on firms' financial performance, there are instances where certain studies indicate a negative relationship or even no discernible correlation (Brooks & Oikonomou, 2018).

Using international sample, Aydoğmuş et al. (2022) found that the combined ESG score demonstrates a notable positive association with firm value. This indicates that the benefits of ESG practices can enhance the attractiveness of firms to investors, resulting in increased market values of the firms' assets and consequently higher firm performance (Nguyen et al., 2022). Meanwhile, Chen et al. (2021) found that meeting ESG obligations may initially negatively impact firm performance, known as the "substitution effect." This suggests that the costs associated with fulfilling ESG requirements may outweigh the benefits, resulting in a short-term decrease in financial performance. However, in the long term, fulfilling ESG responsibilities can positively influence firm performance, known as the "promotional effect." Based on the stakeholder theory, this implies that meeting ESG responsibilities can enhance the relationship between management and stakeholders, ultimately leading to improved firm performance (Freeman, 1994).

Nevertheless, there exist studies with neutral findings regarding ESG investment performance. For instance, in a 2019 report by the Impact Management Project (IMP), there was no consistent evidence suggesting that sustainable funds outperformed regular funds (Chang & Lee, 2022). Additionally, it was observed that restrictions on investment targets for sustainable funds often resulted in lower performance. Auer and Schuhmacher (2016) discovered that ESG factors had no discernible impact on investment returns in the US and Asian markets, and in Europe, investment returns tended to decrease when ESG factors were taken into account.

Despite variations in findings regarding the impact of ESG on firm performance, this study introduces a novel approach by integrating the Sharia label in generating the relationship between ESG and firm performance. The adherence of firms to Sharia principles can be viewed as an approach rooted in faith towards economic activities. It shares conceptual similarities with of sustainable finance (Gillan & Wei, 2020). Numerous scholars have scrutinized the role of Islamic firms in addressing environmental degradation and advancing social empowerment (Azmi et al., 2019; Qoyum et al., 2021). They highlight the absence of specific environmental and social standards within Shariah screening procedures. Furthermore, there is a dearth of empirical studies evaluating Islamic firms' performance in terms of ESG factors, with previous research primarily concentrating on their financial aspects (Al-Awadhi & Dempsey, 2017; Erragragui et al., 2018). In both developing and developed economies, the incorporation of non-financial criteria, encompassing ethical and ESG considerations, into investment decisions has become prevalent. While numerous studies investigate the integration of non-financial criteria in evaluating firm performance, only a limited number include Islamic firms in their analyses. Consequently, our study bridges a gap in the literature by investigating whether the Sharia label drives ESG to enhance firm performance.

This research provides several noteworthy contributions to the current body of literature pertaining to the relationship between ESG, sharia and firm performance. First, It establishes a negative relationship between ESG and firm performance. The increased costs associated with implementing ESG practices, coupled with potential agency costs, can negatively impact firm performance by reducing profitability and shareholder value. Second, there is no diferrence in performance between sharia and non-sharia compliance firm. While Sharia compliance mandates adherence to Sharia law, firms also possess flexibility to substitute restrictions with Islamic instruments, ultimately yielding comparable performance to non-Sharia-compliant entities. This outcome extends the limited existing paper that seeks to assess the impact of ESG, Islamic finance and corporate firnance.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

ESG and firm performance

Many companies have integrated ESG into their business operations to strengthen their relationships with society and employees. This shift contradicts Friedman's perspective and aligns more closely with Freeman's stakeholder theory (1994). Freeman asserts that firm managers should be accountable not only to shareholders but also to all other stakeholders. This theory is pertinent to firms that prioritize efforts to safeguard the environment, enhance social welfare, foster community relations, and often adopt governance practices aimed at maximizing value for stakeholders.

According to the stakeholder theory, ESG activities can positively impact a firm's market performance through transferability or synergy. For instance, content and motivated employees are likely to be more productive; satisfied customers tend to exhibit loyalty, while content suppliers may offer discounts. These factors collectively enhance a firm's reputation, leading to improved financial performance and sustainability. Studies by Jo and Harjoto (2012) and El Ghoul, Guedhami, and Kim (2017) support this notion by demonstrating that ESG engagement is positively related with firm performance. This suggests that active ESG initiatives play a pivotal role in safeguarding the bottom line and enhancing shareholder value by addressing conflicts between managers and stakeholders. Hence, we hypothesize:

H1a : ESG has positive impact on firm performance

However on the other hand, acccording to Jensen and Meckling (1979) agency theory, the engagement of ESG activities can be viewed as creating an agency problem between managers and shareholders. This theory posits that ESG expenditure may not align with the best interests of shareholders because it represents a direct outflow of funds that could otherwise contribute to profits.

Agency problems related to ESG activities can arise in several ways (Peng & Isa, 2020). Firstly, managers might engage in ESG activities to boost their own reputation or interests, potentially at the expense of shareholders. Secondly, focusing on ESG initiatives could lead firms to miss out on more profitable opportunities, thus hurting overall performance. Lastly, managers may use ESG activities as a way to mask poor financial performance or deflect negative attention, prioritizing positive publicity over genuine stakeholder benefits. Hence, according agency theory, we hypothesize:

H1b: ESG has negative impact on firm performance.

Sharia and firm performance

The objective of Islamic firms extends beyond maximizing profit; it also encompasses achieving social optimality in accordance with Islamic principles. According to Asutay and Yilmaz (2021), Islamic economics emphasizes the value of ethics and humanity. Simultaneously, Islamic firms are prohibited from engaging in activities contrary to Sharia principles that could harm society and the environment (Nasir et al., 2021). Building upon prior research, this study posits that religion can serve as a significant catalyst in promoting ethical behaviors within business organizations. Consequently, all activities prohibited in the Islamic business system should adhere to Sharia's ethical rules. Sharia compliance must provide reliable and pertinent information to investors, facilitating their investment and financial decisions (Saba et al., 2021).

In Addition, the major difference between Shariah-compliant and non-Shariah-compliant firms is that Shariah-compliant firms must adhere to Islamic ideology. These firms are screened based on a set of restrictions on business activities, including prohibitions on pork and alcohol, gambling, interest-based financial contracts, tobacco, trading of gold and silver as cash on a deferred basis, pornography, and weapons (Ho, 2015). Shariah compliance also imposes financial screens that restrict the levels of liquidity and debt ratios for these firms. It is believed that these restrictions indirectly reduce the business and financial risks for Shariah-compliant firms, thus distinguishing them from non-Shariah-compliant firms.

Given that Shariah firms undergo rigorous ethical and moral assessments, it is reasonable to anticipate that they exhibit a higher propensity for sound management practices. This, in turn, is expected to enhance the relationship between firms and their stakeholders, thereby yielding benefits for the firms in both the short and long term. Grounded in the stakeholder theory, we posit the following hypothesis:

H2a: Sharia firm has a better firm performance.

Sharia compliance firm also has some issue regarding agency problem. This conflict may arise due to the adherence to Islamic principles and the need to align the interests of shareholders with the principles of Sharia. Sharia compliance imposes various restrictions that limit managers' ability to identify and pursue the most profitable investment opportunities, potentially leading to lower the profits (Shahrier et al., 2020). These constraints include the prohibition of interest and speculative investments, ethical investment screening, and the requirement for profit and loss sharing.

Sharia compliance also limit the channels available to firms for meeting their financial obligations, such as liquidity management and long-term project financing (Alnori & Alqahtani, 2019). This often results in higher financing costs, reduced financial flexibility, and competitive disadvantages compared to non-sharia-compliant peers. These constraints can significantly impact the firm's ability to grow and compete effectively in the market

Hence, our alternative hypothesis regarding Sharia compliance and firm performance as follow:

H2b : Sharia firm has worse firm performance.

ESG, sharia and firm performance

Several studies have delved into the relationship between ESG activities and Sharia compliance. Many of the values upheld by Sharia businesses align with the core principles of social and environmental responsibility. Le Duc (2023) highlight that social and environmental initiatives are integral to Sharia firms because the Islamic concept is rooted in human well-being. As Sharia-compliant entities, they are expected to prioritize transparency, trust, ethical behavior, and values inherent in Sharia principles (Hirsanuddin & Martini, 2023).

The primary emphasis of Sharia principles lies in fulfilling social responsibilities, leading firms listed on Sharia indices to be more inclined to generate social benefits for their stakeholders and meet their corporate social responsibilities. Adomako and Tran (2024) suggests that when firms demonstrate their involvement in socially beneficial activities, they can more easily garner legitimacy for their operations. The study by Mohamad Ariff et al. (2024) conclude that firms with greater ESG performance were found to have higher cash holdings. The positive association between ESG performance and cash holdings was more pronounced for Sharia-compliant firms compared to non-Sharia-compliant firms. Another study by Lee and Isa (2023) find that double ESG-Shariah screening can enhance the relationship between ESG performance and firm performance. Hence, we hypothesize:

H3a: Sharia label positively moderates the relationship between ESG and firm performance.

However according to Nasution et al. (2022) outline significant challenges in implementing ESG practices within Islamic finance. The challenges underscore the need for concerted efforts to address the complexities and discrepancies between ESG principles and Sharia requirements to foster wider adoption and growth of ESG investment practices within Islamic finance. Additionally, in agency theory perspective, a study by Alsaadi et al. (2017) found that firms with high CSR ratings and Shariah compliance are inclined to utilize ethical codes as a label to cultivate a positive perception, aiming to attract investments. They posit that membership in a Shariah index leads to earnings manipulation which is pottetially affecting firm tranpaency and ethical conduct.

H3b: Sharia label negatively moderates the relationship between ESG and firm performance.

METHODS

For our research, we assembled a dataset comprising Indonesian publicly listed companies, utilizing data spanning from 2008 to 2019. The year of 2008 was chosen because it corresponds to the initiation of ESG data disclosure by Indonesian listed firm. Additionally, we concluded our dataset at 2019 to maintain the integrity of our findings, avoiding potential distortions caused by the COVID-19 pandemic following Zahed (2023). To ensure data consistency and reliability, we excluded companies operating within the finance and insurance sectors. This exclusion was justified by notable disparities in corporate attributes and financial practices observed in these sectors compared to others, as elucidated by Dawar (2014). Moreover, we omitted companies with incomplete key information variables to uphold the robustness of our analysis.

We sourced ESG scores and financial data from Refinitiv. The ESG scores, ranging from 0 to 100, evaluate a company's environmental, social, and governance (ESG) performance using disclosed data. A higher score indicates stronger ESG practices across three pillars: environmental, social, and governance (Bofinger et al., 2022; Usman et al., 2020). Meanwhile, the Sharia label is assigned based on adherence to Islamic principles and is indexed in the Indonesia Sharia Stock Index (ISSI). Our analysis focuses exclusively on the second evaluation period of the ISSI membership index. Consequently, our final dataset comprises an unbalanced panel of 30 firm with 235 firm-year observations, consisting of 84 non-Sharia and 151 Sharia observations.

The study used a panel regression framework, specifically employing a fixed-effects model. The Hausman test results, which showed significance below 0.05, confirmed the appropriateness of choosing the fixed-effects model over the random-effects model. Additionally, we conducted additional classical assumption tests, including normality tests, the Breusch-Pagan test for heteroscedasticity, and coefficient correlation analysis, to mitigate estimation bias.

To assess the expected connections between ESG and firm performance, the study calculated the following multivariate regression model:

$$Performance_{i,t} = \alpha_{i,t} + \beta_1 ESG_{i,t} + \sum_{i=0}^{n} \beta_k Z_{k,i,t} + e_{i,t} \quad (1)$$

The performance variable is measured using ROE and ROA. ROE is calculated by dividing net income by equity shareholders' funds, while ROA is calculated by dividing the net income by the firm's total assets. The ESG is ESG performance score. The term "e" corresponds to the residual or error term in the regression model.The subscript "i" is used to represent individual firms, and "t" denotes different time points within the year under investigation.

The letter "Z" denotes the incorporation of company-specific control variables, as commonly employed in prior research studies. First, we employ SIZE which represent firm size measured by natural logarithm of total assets. D'Amato and Falivena (2020) stated that larger and/or more mature companies may possess specific resources such as financial stability, greater visibility, and established reputation, which could enhance the effectiveness of ESG, unlike smaller and/or younger companies. Secondly, we include LEV which represent firm leverage ratio measured by total debt divided by total assets. Ali et al. (2022) identified a positive relationship between financial leverage and firm performance, attributing it to the disciplining effect of debt on management. According to agency theory, this relationship is expected as debt can serve as a tool to monitor managers. However, it is not universally valid that firms benefit from high levels of debt in their capital structure. Excessive debt can have limitations such as high interest payments and an increased risk of bankruptcy, which may ultimately negatively impact firm performance.

Next, we estimate the following equation to address our second hypothesis:

$$Performance_{i,t} = \alpha_{i,t} + \beta_1 Sharia_{i,t} + \sum_{i=0}^{n} \beta_k Z_{k,i,t} + e_{i,t} \quad (2)$$

We replaced the focal variable from ESG to Sharia. Sharia is a dummy variable which equals 1 if the firm is included in the ISSI Index membership in the second period evaluation, and 0 otherwise. If Sharia has a positive and significant coefficient, it suggests that Sharia-compliant firms exhibit better performance compared to non-Sharia-compliant ones.

For the third hypothesis, we estimate the following equation:

$$Performance_{i,t} = \alpha_{i,t} + \beta_1 ESG_{i,t} + \beta_2 Sharia_{i,t} + \beta_3 ESG * Sharia_{i,t} + \sum_{i=0}^{n} \beta_k Z_{k,i,t} + e_{i,t} \quad (3)$$

This equation aims to assess the moderating effect of Sharia compliance on the relationship between ESG and firm performance.

RESULTS AND DISCUSSION

Table 1 presents the distribution of our sample. The percentage of observations from each industry in Indonesia are Energy, 27.23%; Industrials, 5.11%; Property, 9.79%; Infrastructure, 22.55%; Basic materials, 7.23%; Consumer Cyclicals, 1.70%; Consumer non-cyclicals, 22.13%; and Healthcare, 4.26%.

Table 2 reports the descriptive statistics of the variables observed in this study, comprising

Table 1.
Sample distribution

Industry	Sharia sample	Non-Sharia sample	Total	%
Energy	46	18	64	27.23%
Industrials	6	6	12	5.11%
Property	19	4	23	9.79%
Infrastructure	30	23	53	22.55%
Basic materials	10	7	17	7.23%
Consumer cyclicals	2	2	4	1.70%
Consumer non-cyclicals	28	24	52	22.13%
Healthcare	10	0	10	4.26%
Total observations	151	84	235	100%

Table 2.
Descriptive statistic

Variables	Mean	Median	Maximum	Minimum	Std. Dev.
ROE	13.924	13.820	69.440	-7.089	10.089
ROA	10.296	9.130	40.170	-4.670	7.630
ESG	42.503	39.940	89.640	7.040	20.505
SHARIA	0.643	1.000	1.000	0.000	0.480
SIZE	24.380	24.340	26.573	22.476	0.841
LEV	0.262	0.257	0.812	0.000	0.180
Total observations					235

a mixed sample of Sharia and Non-Sharia firms, with 235 firm-year observations within the period 2008 to 2019.

Table 3 presents descriptive statistics for the variables used in the analysis, categorized by the type of firm. ROE of sharia firm is lower than non sharia firm. Sharia-compliant firms might show lower ROE due to their financial structure, but their actions are in line with ethical guidelines. (Abbas & Arizah, 2019; Mahadi Hasan et al., 2022). However, ROA of sharia firms is higher than non-sharia firms but the difference is not significant. According to Hati et al. (2023) sharia-compliant companies listed in the stock market often boast significantly higher brand equity compared to non-Sharia-compliant counterparts.

Shariah-compliant firms have higher ESG scores compared to non-Shariah firms. This is because Shariah-compliant firms prioritize ethical practices and sustainable strategies as part of their core values. Additionally, Shariah-compliant firms tend to be larger in size than non-Shariah firms. This aligns with findings that Shariah-compliant companies listed on the stock market often exhibit significantly higher brand equity, which contributes to an increase in their overall total assets.

The ESG performance of Sharia-compliant firms tends to be higher than that of non-Sharia firms. As Mohamad Ariff et al. (2024) noted, Shariah-compliant companies prioritize ethical practices and sustainable strategies as integral components of their core values. Additionally, the SIZE of Sharia-compliant firms is typically larger than that of non-Sharia firms. This aligns with the findings of Hati et al. (2023), who observed that Sharia-compliant companies listed in the stock market often exhibit significantly higher brand equity compared to their non-Sharia-compliant counterparts, consequently leading to an increase in overall total assets.

Table 4 presents the correlation matrix of all variables utilized in this study. None of the variables exhibit high correlation with ROE and ROA. The correlation coefficients between firm performance (ROE and ROA) and the other variables are all below 0.6, indicating the absence of significant multicollinearity among the variables (Lee, 2006).Consequently, all the variables can be employed to estimate the

Table 3.
Descriptive statistic and univariate test

Variables	Sharia sample		Non-Sharia sample		Difference test	
	Mean	Std. Dev.	Mean	Std. Dev.	T statistic	Sig.
ROE	12.975	7.604	15.631	13.338	-1.680	**
ROA	10.640	7.325	9.679	8.161	0.897	
ESG	44.696	19.344	38.561	22.015	2.136	**
SIZE	24.305	0.900	24.517	0.707	-1.994	**
LEV	0.212	0.142	0.353	0.205	-5.596	**

Table 4.
Correlation matrix

Variables	ROE		ROA		ESG		SHARIA		SIZE		LEV
ROE	1.000										
ROA	-		1.000								
ESG	-0.193	***	-0.054		1.000						
SHARIA	-0.126	*	0.060		0.144	**	1.000				
SIZE	-0.248	***	-0.363	***	0.000		-0.121	*	1.000		
LEV	-0.011	*	-0.517	***	-0.165	**	-0.375	***	0.418	***	1.000

Notes: This table displays the simple correlations of variables selected from Indonesia from 2008 to 2019. ***, **, and * indicate significance levels at the 1%, 5%, and 10%, respectively.

Equations. Additionally, the coefficient correlation between ESG and ROE displays a negative sign, preliminarily confirming our first hypothesis (H1b). The Sharia variable also show negative correlation with ROE eventhough it's only significant at 10%. It also initially confirm the second hypothesis (H2b).

All the control variables negatively correlate with ROE and ROA. SIZE is negatively correlated with firm performance because, according to Muthusamy and Kannan (2023) beyond a certain point, expanding a firm's size may result in diseconomies of scale, where costs increase more rapidly than revenues. Meanwhile, the negative correlation between LEV and performance aligns with the pecking order theory of capital structure (Myers & Majluf, 1984).The findings indicate that firms prefer to borrow less, opting instead to maintain a sufficient amount of internal funds.

We conducted a panel regression analysis incorporating fixed effects to investigate the association between ESG and firm performance, Sharia compliance and firm performance, and the moderating effect of Sharia compliance on the relationship between ESG and firm performance. The dependent variable of interest is firm performance measured by ROE and ROA. Table 5 shows the regression panel output of Equation (1) to Equation (3). Equation (1) in Table 5, estimating the effect of ESG on firm performance using both ROE and ROA as performance metrics. The findings indicate that ESG has a negative impact on firm performance, consistent with our first hypothesis (H1b). This negative relationship is observed for both ROE and ROA which signicantly at level 1% and 5%, respectively. Friedman (1970) highlighted that investing in ESG often leads to increased costs. These costs can be both direct and indirect, encompassing expenses related to waste treatment, planning, budgeting, managing, and evaluating ESG initiatives. Some scholars suggest that the indirect costs might be even higher than reported, including those for waste management, occupational health and safety investments, fair trade practices, employee welfare, community services, and donations, all seen as part of a firm's social responsibilities (Lin et al., 2019; Lu et al., 2014). As a company becomes more involved in ESG activities, these associated costs tend to rise, leading to a potential decrease in profits and, consequently, a loss in shareholder value (Chen et al., 2021). Thus, the increased costs of fulfilling ESG responsibilities may negatively impact financial performance.

Additionally, according to Cornell and Shapiro (2021) agency problems arise when companies are pressured to adopt ESG initiatives. Cornell and Shapiro (2021) argues that when managers are given the power to tax shareholders to fund social objectives without shareholder approval, it creates an agency problem because the managers' idiosyncratic preferences determine corporate policies. Furthermore, companies that use corporate resources to satisfy ESG stakeholders may have fewer resources available to meet their other implicit claims, potentially reducing the value of these claims and the value of the company. This interference with the process of

Table 5.
The relationship between ESG, sharia, and firm performance

Variables	**ROE**						**ROA**					
	(1)		**(2)**		**(3)**		**(1)**		**(2)**		**(3)**	
Constant	19.483	***	21.784	***	19.644	***	19.446	***	21.727	***	19.583	***
	(6.794)		(7.891)		(7.932)		(6.793)		(9.676)		(6.794)	
ESG	-0.010	***			-0.011	**	-0.010	**			-0.011	**
	(-2.591)				(-2.367)		(-2.574)				(-2.302)	
SHARIA			0.115		0.005				0.114		0.022	
			(1.090)		(0.021)				(1.083)		(0.101)	
ESG*SHARIA					0.002						0.002	
					(0.475)						(0.380)	
SIZE	-0.666	***	-0.784	***	-0.674	***	-0.662	***	-0.779	***	-0.669	***
	(-5.43)		(-6.779)		(-5.476)		(-5.418)		(-6.752)		(-5.451)	
LEV	-1.549	**	-1.244	*	-1.516	**	-3.052	***	-2.749	***	-3.018	***
	(-2.337)		(-1.871)		-2.276)		(-4.612)		(-4.143)		(-4.539)	
Adjusted R^2	0.572		0.560		0.570		0.622		0.612		0.620	
F Statistic	10.431	***	9.976	***	9.796	***	12.639	***	12.131	***	11.856	***
Observations	235		235		235		235		235		235	

Notes: : Table 5 presents the results of the fixed effect panel regression from Equation (1) to Equation(3). The dataset comprises a total of 235 observations, encompassing a diverse mix of both Sharia and Non-Sharia firms. Sharias is dummy variable assumes a value of 1 for firm indexed in ISSI and 0 otherwise. The regression model incorporates several control variables, specifically SIZE and LEV. The t-statistics are denoted within parentheses. The symbols ***, **, and * signify the levels of significance at 1%, 5%, and 10%, respectively.

creating value by selling implicit claims can potentially cost society the resources needed to address various concerns.

In Equation (2), we estimate the effect of Sharia compliance on firm performance, using both ROE and ROA as performance metrics. However, our model did not confirm the prediction in Hypothesis 2. While the results suggest that Sharia-compliant firms might have better performance than non-Sharia-compliant firms, the findings are not statistically significant at any significance level. Sharia-compliant firms, while operating under certain financial restrictions, have developed robust mechanisms to address their financial needs and maintain flexibility. The use of Islamic financial instruments such as sukuk, and profit-sharing mechanisms like Mudarabah and Musharakah, allows these firms to manage their debt levels effectively (Mohamed et al., 2015). Empirical evidence supports the notion that Sharia-compliant firms in Muslim-majority countries are as flexible in managing leverage as their non-majority counterparts (Gunn & Shackman, 2014). Therefore, Sharia compliance does not necessarily hinder financial performance but rather promotes a different, ethically grounded approach to financial management.

Additionally, we didn't analyze firms that consistently remained either shariah-compliant or non-shariah-compliant throughout the sample period. We didn't focus on firms that changed their status. A study by Akguc and Al Rahahleh (2018) found that the profitability difference between sharia and non-sharia firms was approximately twice as large among firms that maintained their status compared to those that changed it. Overall, the results indicate no significant performance difference between sharia and non-sharia firms.

Lastly, our third hypothesis was also rejected in this study. We were unable to demonstrate that sharia compliance moderates the relationship between ESG factors and firm performance. Both models yielded the same

Table 6.
The robustness test of the relationship between ESG, sharia, and firm performance

Variables	ROE						ROA					
	(1)		(2)		(3)		(1)		(2)		(3)	
Constant	19.483	***	21.784	***	19.644	***	19.446	***	21.727	***	19.583	***
	(8.372)		(8.722)		(7.940)		(8.482)		(8.843)		(8.060)	
ESG	-0.009	***			-0.010	**	-0.010	**			-0.010	**
	(-3.421)				(-2.781)		(-3.367)				(-2.704)	
SHARIA			0.115		0.004				0.114		0.021	
			(1.143)		(0.031)				(1.125)		(0.148)	
ESG*SHARIA					0.002						0.002	
					(0.517)						(0.415)	
SIZE	-0.665	***	-0.784	***	-0.674	***	-0.662	***	-0.779	***	-0.669	***
	(-6.766)		(-7.342)		(-6.510)		(-6.829)		(-7.407)		(-6.587)	
LEV	-1.549	**	-1.244	**	-1.516	**	-3.052	***	-2.749	***	-3.018	***
	(-2.569)		(-2.031)		-2.238)		(-4.799)		(-4.287)		(-4.539)	
Adjusted R^2	0.571		0.559		0.569		0.622		0.612		0.620	
F Statistic	10.430	***	9.976	***	9.796	***	12.639	***	12.131	***	11.856	***
Observations	235		235		235		235		235		235	

Notes: : Table 6 presents the robust standard errors using white cross section of the fixed effect panel regression from Equation (1) to Equation(3). The dataset comprises a total of 235 observations, encompassing a diverse mix of both Sharia and Non-Sharia firms. Sharias is dummy variable assumes a value of 1 for firm indexed in ISSI and 0 otherwise. The regression model incorporates several control variables, specifically SIZE and LEV. The t-statistics are denoted within parentheses. The symbols ***, **, and * signify the levels of significance at 1%, 5%, and 10%, respectively.

results, which were insignificant. The results imply that the negative effect of ESG factors on firm performance is consistent for both Sharia-compliant firms and non-compliant firms. Sharia compliance does not moderate this relationship.

In practice, research suggests that Shariah screening does not always align perfectly with Shariah principles, as some filters focus on stock growth and value rather than strictly adhering to ethical guidelines (Hoepner et al., 2011). Additionally, literature indicates that Shariah membership often aims to attract investments from Shariah-compliant investors rather than solely focusing on ethical and social commitments. For example, Callen et al. (2011) found a correlation between earnings management and religiosity or specific religious contexts. Despite the ethical expectations, Wan Ismail et al. (2015) observed that over 500 Shariah-compliant companies in Malaysia, which maintained high earnings quality before 2008, engaged in earnings management behaviors post-2008. These findings suggest that the Shariah screening processes may not fully adhere to the Islamic principles of trustworthiness, ethics, and transparency. This misalignment indicates a need for more rigorous and principled screening practices to ensure that Shariah compliance genuinely reflects the ethical and social commitments it intends to uphold.

We also include robust standard error regression test using white cross-section to establishes whether the variance of the errors in a regression model is constant. Table 6 presents the robustness test of the relationship between ESG, sharia, and firm performance. The result shows that our regression model remaining constant.

CONCLUSION

This study examined the impact of ESG practices and Sharia compliance on firm performance in Indonesia, utilizing ROE and

ROA as performance metrics. Several key findings and conclusions emerged from our analysis.

First, the study revealed that ESG practices negatively impact firm performance, supporting hypothesis H1b. This finding aligns with previous research indicating that ESG initiatives often lead to increased direct and indirect costs, thereby reducing profits and shareholder value (Friedman, 1970; W. L. Lin et al., 2019; Lu et al., 2014; Chen et al., 2021). Furthermore, agency problems may arise when managers allocate resources to ESG initiatives without shareholder approval, potentially lowering company value (Cornell & Shapiro, 2021). To mitigate these negative financial impacts, firms could focus on more efficient and impactful ESG practices. This may involve prioritizing initiatives with clear long-term benefits and cost-saving potential, such as energy efficiency measures or sustainable supply chain management.

Second, while Sharia-compliant firms might outperform non-compliant firms, the results were not statistically significant. These firms effectively can manage debt through mechanisms such as sukuk and profit-sharing models (Mudarabah and Musharakah) (Mohamed et al., 2015; Gunn & Shackman, 2014). Sharia compliance also does not moderate the relationship between ESG factors and firm performance, as the negative effect of ESG factors is consistent for both Sharia-compliant and non-compliant firms. This implies that the lack of moderation by Sharia compliance on the relationship between ESG and firm performance suggests that investors interested in both ESG and Sharia principles should carefully assess individual firm practices rather than assuming inherent benefits from Sharia compliance alone.

Lastly, this study is subject to specific limitations. The ESG score covered only 30 firms across the non-financial sector in Indonesia, derived from ASSET4 Refinitiv. Future research should consider other ESG datasets that encompass all firms in Indonesia. Additionally, further research is required to explore the long-term impacts of ESG practices on financial performance across different sectors or countries.

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