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INTEGRATION OF SHARIA COMPLIANCE, ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) ON FINANCIAL PERFORMANCE: AN EMPIRICAL STUDY ACROSS SHARIA AND CONVENTIONAL BANKS

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Abstrak

Penelitian ini menganalisis bagaimana praktik Lingkungan, Sosial, dan Tata Kelola (ESG) serta kepatuhan Syariah memengaruhi kinerja keuangan bank-bank di Indonesia, yang diukur melalui Return on Assets (ROA), dengan kepatuhan Syariah juga dipertimbangkan sebagai faktor moderasi. Menggunakan pendekatan kuantitatif, penelitian ini menganalisis data sekunder dari 34 bank yang terdaftar di Bursa Efek Indonesia (BEI) periode 2022–2024 dan dianalisis menggunakan regresi linier berganda. Hasil penelitian menunjukkan bahwa praktik ESG dan kepatuhan Syariah memiliki dampak positif dan signifikan terhadap ROA, menunjukkan bahwa inisiatif keberlanjutan dan kepatuhan terhadap prinsip-prinsip Islam berkontribusi pada peningkatan profitabilitas. Namun, interaksi antara ESG dan kepatuhan Syariah tidak memiliki dampak signifikan terhadap ROA, mengindikasikan bahwa integrasi praktik keberlanjutan dengan prinsip-prinsip etika Islam belum sepenuhnya terwujud. Temuan ini konsisten dengan teori legitimasi dan teori pemangku kepentingan, yang menekankan pentingnya kepatuhan etika dan akuntabilitas sosial dalam perbankan. Studi ini merekomendasikan agar bank memperkuat sinergi antara prinsip ESG dan Syariah untuk mendorong stabilitas dan keberlanjutan keuangan. Sinergi yang kuat antara struktur tata kelola, Dewan Pengawas Syariah (DPS), dan komite ESG mendukung implementasi ESG yang akuntabel dan membantu mencegah ketidakberesan. Pendekatan terintegrasi ini tidak hanya memperkuat mekanisme pengawasan internal tetapi juga meningkatkan kredibilitas institusional dan kepercayaan publik, yang pada akhirnya berkontribusi pada peningkatan kinerja keuangan.

Abstract

This study examines how Environmental, Social, and Governance (ESG) practices and Sharia compliance affect the financial performance of banks in Indonesia, as measured by Return on Assets (ROA), with Sharia compliance also considered as a moderating factor. Using a quantitative approach, the study analyzes secondary data from 34 banks listed on the Indonesia Stock Exchange (IDX) from 2022–2024 and is analyzed using multiple linear regression. The results indicate that ESG practices and Sharia compliance have positive and significant effects on ROA, suggesting that sustainability initiatives and adherence to Islamic principles contribute to improved profitability. However, the interaction between ESG and Sharia compliance does not have a significant effect on ROA, implying that the integration of sustainability practices with Islamic ethical principles has not yet been fully realized. These findings are consistent with legitimacy and stakeholder theories, emphasizing the strategic importance of ethical compliance and social accountability in banking. The study recommends that banks strengthen the synergy between ESG and Sharia principles to foster financial stability and sustainability. Strong synergy between governance structures, the Sharia Supervisory Board (DPS), and the ESG committee supports accountable ESG implementation and helps prevent irregularities. This integrated approach not only strengthens internal oversight mechanisms but also enhances institutional credibility and public trust, which ultimately contributes to improved financial performance.

INTRODUCTION

Research on the implementation of Environmental, Social, and Governance (ESG) principles in the banking sector particularly in Islamic banks in Indonesia—has gained increasing importance in response to growing global attention to sustainability and corporate social responsibility. Over the past decade, ESG has developed into a key framework for assessing not only financial performance but also a company's social impact, environmental responsibility, and governance quality. Within the banking sector, the integration of ESG principles is expected to enhance profitability and institutional stability by fostering responsible and transparent business practices (Ponce & Wibowo, 2023).

Empirical evidence highlights the rising influence of ESG on investment behavior and risk management. A survey by Lalhunthara et al. (2025) found that 68% of investors now include ESG data as part of their risk assessment process, while 65% believe ESG initiatives enhance institutional reputation. These findings underscore the importance of transparency and accountability core dimensions of ESG in sustaining market confidence and stakeholder trust.

In Islamic banking, compliance with Sharia principles provides an additional ethical foundation that complements ESG frameworks. Sharia compliance ensures that banking operations avoid prohibited elements such as interest (riba), excessive uncertainty (gharar), and unethical business practices. Romadhonia & Kurniawati (2022) emphasized that adherence to Sharia not only fulfills regulatory obligations but also builds trust and strengthens legitimacy. Therefore, Sharia compliance may act as a moderating factor that strengthens the relationship between ESG implementation and financial performance. However, empirical evidence on the interaction between ESG and Sharia compliance in the Indonesian banking sector remains limited. This study seeks to address this gap by examining how ESG practices and Sharia compliance jointly influence bank profitability, as measured by Return on Assets (ROA).

The global push toward economic sustainability has encouraged financial institutions both Islamic and conventional to adopt ESG principles. Within this context, ESG has emerged as a strategic determinant of bank performance. A growing body of empirical evidence suggests that the integration of ESG principles can enhance profitability and operational resilience across both banking systems (Apriyanti et al., 2021).

Islamic banks are inherently aligned with ESG objectives, as their operations are grounded in principles of justice, transparency, and sustainability derived from Islamic law. This ethical framework enables Islamic banks to attract customers who place a high value on social and environmental responsibility, thereby contributing to improved profitability (Zuhroh, 2022). In contrast, although conventional banks are not guided by Sharia principles, they have increasingly adopted ESG initiatives to enhance their reputation and strengthen competitiveness. However, results are mixed: Khoury et al. (2021) found that ESG disclosure sometimes negatively correlates with performance in conventional banks that treat it as a compliance burden rather than a strategic necessity. In contrast, Istan & Fahlevi (2020) reported that The integration of ESG principles can enhance operational efficiency and improve ROA by promoting more effective resource management.

Understanding the determinants of ROA in both Islamic and conventional banks is essential for evaluating how ESG contributes to profitability. Banks that are able to manage risks and control costs efficiently are more likely to achieve stronger financial performance (Safitriani, 2022). Therefore, examining the interaction between ESG and Sharia compliance provides deeper insight into the mechanisms that support sustainable and responsible banking in Indonesia. While prior studies have largely focused on the ESG–performance relationship at a global level, empirical evidence from the Indonesian banking context remains limited (Izzadieny et al., 2025). This study therefore aims to examine the effect of ESG implementation on financial performance, while considering Sharia compliance as a moderating factor that may strengthen this relationship.

ESG practices encompassing environmental, social, and governance dimensions—are widely regarded as mechanisms for reducing business risks and enhancing profitability through improved corporate governance and stronger stakeholder engagement Izzadieny et al. (2025) found that banks consistently applying ESG principles manage social and environmental risks more effectively, leading to improved financial outcomes. Nonetheless, Nathania & Ekawati (2024) observed that The relationship between ESG and financial performance varies across institutional contexts and regulatory frameworks In Indonesia, where Islamic and conventional banks operate under distinct institutional frameworks, differences in governance structures and market orientation may influence how ESG practices affect profitability

This study draws on legitimacy theory and stakeholder theory to explain the conceptual linkages between ESG, Sharia compliance, and financial performance. Legitimacy theory suggests that organizations seek societal approval by aligning their operations with prevailing social norms. In the context of Islamic banking, Sharia compliance functions as both a legal and moral commitment that strengthens public legitimacy (Lahuri et al., 2024). Stakeholder theory emphasizes that firms should address the interests of all stakeholders including shareholders, employees, customers, and communities to achieve long–term sustainability. The implementation of ESG practices helps strengthen stakeholder relationships, mitigate reputational risks, and ultimately enhance financial performance. (Saleem et al., 2021).

Within Indonesia's dual banking system, the integration of ESG principles and Sharia compliance reflects both theoretical perspectives. Islamic banks derive legitimacy from adherence to ethical and religious values, while conventional banks can leverage ESG frameworks to align with global sustainability standards. Across both systems, the convergence of ethical finance and ESG–based governance contributes to a more accountable, inclusive, and sustainable financial landscape.

Although prior studies have extensively examined the relationship between ESG and financial performance, several important gaps remain particularly within the Indonesian banking sector. Most existing research has focused on global contexts or on conventional banking systems (Apriyanti et al., 2021; Khoury et al., 2021; Istan & Fahlevi, 2020). Previous literature has not fully elucidated whether Sharia compliance strengthens—or significantly alters the impact of ESG on bank performance. Although Sharia principles are inherently aligned with ESG objectives such as social justice, transparency, and environmental stewardship empirical research has not sufficiently examined whether Sharia compliance moderates the relationship between ESG and financial performance, particularly when profitability indicators such as return on assets (ROA) are considered. Consequently, it remains unclear whether the ethical foundations of Islamic finance reinforce the positive effects of ESG initiatives or whether these two frameworks operate independently in shaping bank performance.

To address this gap, the present study makes several important contributions. First, it provides empirical evidence from Indonesia an emerging market characterized by a unique dual banking system thereby enriching the regional and comparative literature on sustainable finance. Second, this study explicitly incorporates Sharia compliance as a moderating variable, offering new theoretical insights into how ethical governance mechanisms interact with ESG practices in shaping financial outcomes. This approach extends prior research by integrating legitimacy theory and stakeholder theory, which posit that organizations are more likely to achieve stronger performance when sustainability initiatives are aligned with social norms, stakeholder expectations, and religious ethics. Furthermore, by examining a sample of Islamic and conventional banks listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period, this study captures recent developments in sustainability reporting practices as well as evolving regulatory frameworks.

Literature Review

Legitimacy Theory

Legitimacy theory explains how organizations seek societal acceptance by aligning their operations with prevailing social norms. In the banking sector, legitimacy is particularly critical because trust forms the foundation of financial intermediation. Kanyurhi et al. (2024) note that when institutions fail to meet social expectations, they risk losing credibility, leading to financial losses and declining investor confidence.

Banks often use ESG initiatives as a means to sustain organizational legitimacy. Bolibok (2021) found that institutions with strong ESG performance enjoy higher market valuations, as social responsibility enhances their perceived legitimacy. Thus, ESG practices serve a dual purpose: strengthening corporate reputation and enhancing financial performance. In Islamic finance, this legitimacy extends further, as compliance with Sharia principles not only fulfills regulatory requirements but also represents a moral commitment to society.

Stakeholder Theory

Stakeholder theory Kovalenko et al. (2022) posits that firms must address the needs of diverse stakeholders including employees, customers, investors, and communities—to achieve sustainable success. In the banking sector, managing these relationships through ESG frameworks helps foster trust and long–term loyalty. Macini et al. (2020) highlight that integrating stakeholder concerns into operations enhances organizational efficiency and employee engagement.

Zhang et al. (2022) emphasize that green banking and ESG–oriented investments not only mitigate environmental risks but also generate competitive advantages. Transparency and responsible governance enhance investor confidence and reduce reputational risk. For Islamic banks, meeting stakeholder expectations involves adherence to both ethical finance principles and sustainability standards, thereby strengthening credibility among socially conscious clients.

The Impact of ESG on Financial Performance (ROA)

A firm's financial performance, commonly measured by Return on Assets (ROA), reflects its efficiency in utilizing assets to generate profits. ROA serves as a key indicator of operational capability, competitiveness, and resource management. In the banking sector, financial performance is particularly important, as banks operate in dynamic environments that require continuous adaptation. Among the various factors influencing financial outcomes, ESG principles have emerged as a critical determinant of long–term success. Based on the indicator structure in Katadata, ESG is not merely an additional reporting framework but a fundamental infrastructure for the long–term success of the banking sector. Environmental indicators enhance operational efficiency and risk mitigation; social indicators strengthen relationships with employees, customers, and the wider community; and governance indicators ensure accountability, transparency, and sustainable strategic decision−making. Together, these interconnected dimensions serve as key drivers of banks' long−term profitability, stability, and competitiveness.

ESG has emerged as a global benchmark for evaluating corporate sustainability and ethical performance. The environmental dimension emphasizes efficient resource utilization and emission reduction, the social dimension focuses on employee welfare and community engagement, and the governance dimension highlights transparency and accountability. Research by Cortez & Kelly (2025) shows that companies with strong ESG performance tend to achieve superior long−term financial outcomes by effectively managing environmental and social risks and maintaining stakeholder trust. Transparent governance further enhances corporate credibility and supports sustained profitability.

Empirical studies confirm a relationship between ESG and financial outcomes, although the findings remain mixed. Liu (2024) shows that ESG−related adjustments affect bank liquidity risk and profitability, with the magnitude and direction of the impact depending on how each ESG component is implemented. Oh−Suk & Jae−Hoon (2023) observed that while ESG does not always have an immediate effect on accounting performance, it contributes to higher market valuation and stronger investor confidence. These findings underscore the strategic role of ESG in sustaining long−term competitiveness.

Maama (2021) noted that stakeholders do not always directly value ESG information, particularly in developing markets where awareness remains limited. However, consistent engagement with ESG practices contributes to long−term stability and reputation. Therefore, the benefits of ESG are cumulative and depend on sustained commitment rather than short−term compliance.

H_1: There is a positive and significant effect between ESG and ROA.

Sharia Compliance and Financial Performance

Sharia compliance is another key determinant of banking performance, particularly in Islamic financial institutions. It ensures adherence to Islamic law, which prohibits practices such as riba (interest), gharar (excessive uncertainty), and unethical investments. Arno et al. (2024) found that Islamic banks with high levels of Sharia compliance tend to perform better, as such adherence strengthens customer trust and enhances risk management practices. Sueb et al. (2022) also noted that compliance contributes to greater financial stability by discouraging speculative behavior.

Ahmed et al. (2021) reported that Robust adherence to Sharia principles fosters customer trust and loyalty, thereby supporting higher profitability, while conventional banks may also gain advantages by integrating Sharia−based ethical values into their practices. (Sueb et al., 2022). This integration promotes competitiveness and better corporate reputation, supporting profitability and long−term sustainability.

H_2: There is a positive and significant effect between Sharia compliance and ROA.

Sharia Compliance as a Moderator Between ESG and Financial Performance

Sharia compliance can strengthen the relationship between ESG and financial performance by providing a strong moral and ethical foundation. It reinforces principles such as fairness, transparency, and social justice, while discouraging unethical practices, including usury and excessive speculation. Windasari et al. (2023) found that consumers prefer firms adhering to Sharia principles, as this builds integrity and trust. Consequently, Sharia compliance may enhance the positive effect of ESG practices on financial outcomes.

Furthermore, Siswanti et al. (2021) revealed that strong governance under Sharia principles promotes transparency and mitigates financial risk, aligning closely with ESG objectives. Although some skepticism remains regarding its direct profit impact, Arno et al. (2024) demonstrated that Islamic banks tend to exhibit more consistent performance and greater stability. Their avoidance of excessive risk−taking contributes not only to sustained profitability but also to broader social benefits.

H_3: Sharia compliance positively and significantly moderates the effect of ESG on ROA.

Company Size as a Control Variable

Firm size significantly influences financial performance as well as the implementation of ESG and Sharia principles. Larger banks typically possess greater resources and managerial capacity, which enable more effective adoption of sustainability initiatives and compliance practices. Saragih & Sihombing (2021) found that firm size positively influences financial performance, while Asrori et al. (2024) noted that Sharia compliance strengthens risk management in large banks. Institutions that combine organizational scale with ethical governance tend to achieve higher profitability, greater stability, and stronger stakeholder trust.

H_4: Company size, measured based on total assets, has a positive and significant effect on

ROA.

METHOD

Sample and Data

The population of this study comprises 34 banking companies listed on the Indonesia Stock Exchange (IDX) during the 2022−2024 period. Using purposive sampling, these banks were selected based on specific inclusion criteria, which include:

1. Listed on IDX during 2022−2024.
2. Availability of ESG index data.
3. Complete financial data for ROA and total assets.

After outlier removal using Z−scores ($|Z| > 3$), three observations—two from Bank KB Bukopin Tbk. and one from Bank BTPN Syariah—were excluded, resulting in 99 valid samples. In this study, outliers were removed using a Z−score threshold. This finding suggests that these observations deviated substantially from the rest of the sample in terms of key financial indicators, such as profitability, Return on Assets (ROA), or ESG scores. By excluding these extreme values, the analysis focuses more closely on the typical performance of the banks included in the study, thereby enhancing the overall quality and reliability of the results. Table 1 presents the banking companies that constitute the study sample.

Table 1. Banking Company Sample List

No	Code	Company Name
1	AGRO	Bank Rakyat Indonesia Agroniaga Tbk.
2	AMAR	Bank Amar Indonesia Tbk.
3	BACA	Bank Capital Indonesia Tbk.
4	BBCA	Bank Central Asia Tbk.
5	BBKP	Bank Bukopin Tbk.
6	BBNI	Bank Negara Indonesia (Persero) Tbk.
7	BBRI	Bank Rakyat Indonesia (Persero) Tbk.
8	BBTN	Bank Tabungan Negara (Persero) Tbk.
9	BDMN	Bank Danamon Indonesia Tbk.

No	Code	Company Name
10	BEKS	BPD Banten Tbk.
11	BGTG	Bank Ganesha Tbk.
12	BINA	Bank Ina Perdana Tbk.
13	BJBR	BPD Jawa Barat dan Banten Tbk.
14	BJTM	BPD Jawa Timur Tbk.
15	BMAS	Bank Maspion Indonesia Tbk.
16	BMRI	Bank Mandiri (Persero) Tbk.
17	BNBA	Bank Bumi Arta Tbk.
18	BNGA	Bank CIMB Niaga Tbk.
19	BNII	Bank Maybank Indonesia Tbk.
20	BNLI	Bank Permata Tbk.
21	BRIS	Bank BRIsyariah Tbk.
22	BSIM	Bank Sinarmas Tbk.
23	BSWD	Bank of India Indonesia Tbk.
24	BTPN	Bank BTPN Tbk. (SMBC Indonesia)
25	BTPS	Bank Tabungan Pensiunan Nasional Syariah Tbk.
26	DNAR	Bank Oke Indonesia Tbk.
27	INPC	Bank Artha Graha Internasional Tbk.
28	MASB	Bank Multiarta Sentosa
29	MAYA	Bank Mayapada Internasional Tbk.
30	MEGA	Bank Mega Tbk.
31	NISP	Bank OCBC NISP Tbk.
32	NOBU	Bank Nationalnobu Tbk.
33	PNBS	Bank Panin Dubai Syariah Tbk.
34	SDRA	Bank Woori Saudara Indonesia 1906 Tbk.

Source : *BEI, data processed*

Data Collection Techniques

The data sources include ESG indices obtained from Katadata, financial indicators (ROA and total assets) derived from Indonesia Stock Exchange (IDX) reports, and Sharia status based on the Financial Services Authority's (OJK) Sharia Securities List (DES). All variables were compiled for the 2022–2024 period.

Data Analysis Techniques

This study employs standard multiple regression analysis to examine the effect of ESG policies on ROA across two types of banking institutions, namely Sharia banks and conventional banks, while accounting for the predetermined control variables. The regression model facilitates analysis of the relationships between the independent variables ESG, firm size, and Sharia compliance and financial performance, as measured by ROA. Data analysis is conducted using SPSS version 25, which enables efficient multiple regression estimation and hypothesis testing.

Regression Model

In the first regression model, ROA is employed as the dependent variable representing the company's financial performance. The independent variables include ESG and Sharia compliance. In addition, firm size, measured by total assets, is incorporated as a control variable.

To examine the relationships among these variables, this study employs a multiple linear regression model. The model provides quantitative information in the form of coefficients (β), which indicate the strength and direction of the relationship between each variable and ROA. The multiple linear regression model is specified as follows:

$$ROA_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 ShariaCompliance_{i,t} + \beta_3 Size_{i,t} + \epsilon_{i,t}.[1]$$

In the second regression model, ROA serves as the dependent variable representing the firm's financial performance. The independent variables include ESG and Sharia compliance, with Sharia compliance measured using a dummy variable (1 if the company is listed in the Sharia Securities List [DES] and 0 otherwise). The model also incorporates a moderating variable in the form of Sharia compliance, operationalized through the interaction between ESG and Sharia compliance. In addition, firm size, measured by total assets, is included as a control variable.

To examine the relationships among these variables, this study employs a multiple linear regression model, as expressed in the following equation:

$$ROA_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 ShariaCompliance_{i,t} + \beta_3 (ESG_{i,t} \times ShariaCompliance_{i,t}) + \beta_4 Size_{i,t} + \epsilon_{i,t} \quad .[2]$$

Variable Explanation:

$ROA_{i,t}$: Return on Assets of company i in year t (as a financial performance indicator),

$ESG_{i,t}$: Environmental, Social, and Governance policy index of company i in year t,

$ShariaCompliance_{i,t}$: A dummy variable indicating the Sharia compliance of company i in year t (1 if the company is listed in the Sharia Issuers List (DES) and zero if not),

$ESG_{i,t} \times ShariaCompliance_{i,t}$: Interaction between ESG policy and sharia compliance as a moderating variable that aims to test whether sharia compliance strengthens or weakens the influence of ESG on financial performance,

$Size_{i,t}$: The size of company i in year t, measured by the company's total assets,

β_0 : Constant (intercept),

$\beta_1, \beta_2, \beta_3, \beta_4$: Regression coefficients indicating the influence of each variable on ROA,

$\epsilon_{i,t}$: Error term (disturbance) for company i in year t.

There are several reasons why using firm size as the sole control variable may be considered adequate. The variables included in the model already capture key factors relevant to the research objectives, particularly firm size, which is well known to influence financial performance (ROA). In banking—sector studies, firm size is often a dominant determinant of performance, as larger banks generally possess greater resources and operational capacity, which in turn can affect their profitability. Therefore, incorporating additional control variables may be unnecessary, given that the primary focus of this study is the comparison between Islamic and conventional banking in the context of ESG and Sharia compliance. Moreover, the theoretical foundations of this research such as legitimacy theory and stakeholder theory provide a clear framework for understanding how ESG practices and Sharia implementation can influence financial performance.

Including firm size, which is closely related to bank performance, is considered sufficient to capture the relationships among ESG, Sharia compliance, and ROA across both Islamic and conventional banks.

Measurement

ESG

ESG data obtained from Katadata are considered relevant because Katadata provides up−to−date information on ESG policies implemented by companies in Indonesia, particularly those listed on the Indonesia Stock Exchange (IDX). The 2022−2024 period was selected based on the availability of ESG Index data. Additionally, this timeframe reflects a period of increasing attention to ESG in Indonesia, during which many companies began integrating ESG considerations into their corporate strategies.

Sharia Compliance

Sharia compliance is measured using a dummy variable, assigned a value of 1 if the company is listed in the Sharia Securities List (DES) issued by the Financial Services Authority (OJK), and 0 otherwise. This dummy variable is used to capture whether a company complies with sharia principles in its operations, which may influence its financial performance. (Izzadieny et al., 2024).

ROA

ROA is a financial ratio that measures a company's effectiveness in generating net income from all of its assets. ROA formula based on Tutcu et al., (2024):

$$ROA = \left(\frac{Net\ Profit}{Total\ Asset}\right) \times 100\% \ldots.[3]$$

This formula uses net profit after tax as the numerator, reflecting the final profit actually earned by the company from the utilization of all its assets. The use of profit after tax ensures that the ROA measure is not distorted by tax expenses, thereby providing a clearer representation of the company's operational efficiency.

Size

Company size is commonly measured using total assets, as this indicator reflects a firm's financial strength and operational capacity.
Formula based on Yulianto (2022):

$$Size = Ln(TotalAsset) \ \ldots[4]$$

Measuring firm size using the natural logarithm of total assets (Ln Total Assets) is a standard practice in financial research, as it facilitates analysis and comparability across firms. This measure is widely recognized and applicable across various sectors and research contexts. Total assets are used because firms with larger asset bases typically have broader operational capacity, greater revenue−generating potential, stronger financing structures, and easier access to external funding. These characteristics can naturally influence ROA. Therefore, firm size is included as a control variable to ensure that the effects of the independent variables—such as ESG—can be accurately observed without being confounded by differences in firm size.

RESULTS AND DISCUSSIONS

Results

Descriptive Statistics

The descriptive statistics presented below compare the performance of the overall sample, Islamic banks, and conventional banks in terms of ROA, ESG, and firm size.

Table 1. Descriptive Statistics

	Min	Max	Mean	Std. Deviation	N
All Samples					
ROA	−4.26	5.04	1.29	1.48	99
ESG	6.85	73.49	44.13	13.74	99
Size	26.81	35.43	31.68	1.91	99
Islamic Bank					
ROA	1.18	5.04	2.36	1.61	8
ESG	21.26	57.10	41.98	12.68	8
Size	30.33	33.64	31.98	1.53	8
Conventional Bank					
ROA	−4.26	4.43	1.19	1.44	91
ESG	6.85	73.49	44.32	13.86	91
Size	26.81	35.43	31.66	1.94	91

Source : *BEI, data processed*

Based on the table, Islamic banks exhibit a higher average ROA (2.36) than conventional banks (1.19), indicating greater efficiency in generating profits from their assets. The overall sample shows an average ROA of 1.29, further confirming the stronger financial performance of Islamic banks. In contrast, conventional banks report a slightly higher ESG score (44.32) compared to Islamic banks (41.98), reflecting relatively stronger sustainability practices. The overall ESG average of 44.13 suggests a general commitment to responsible banking across the sample. Meanwhile, firm size remains comparable between the two banking systems (31.98 versus 31.66). These findings indicate that Islamic banks tend to prioritize profitability, whereas conventional banks place greater emphasis on sustainability performance.

Basic Assumption and Model Accuracy Tests

a. Normality Test

Table 2. Normality Test

		Unstandardized Residual Model I	Unstandardized Residual Model II
N		99	99
Asymp. Sig. (2−tailed)		.001c	.000c
Monte Carlo Sig. (2−tailed)	Sig.	.066d	.066d

Test distribution is Normal.

Source : BEI, data processed

The normality test, based on the Monte Carlo Sig. (2−tailed) from the One−Sample Kolmogorov−Smirnov Test, yielded a p−value of 0.066 for both models, exceeding the

0.05 threshold. This result indicates that the residuals were normally distributed, allowing the regression analysis to proceed without major adjustments.

b. Multicollinearity Test

Table 3. Multicollinearity Test

	Collinearity Statistics			
	Model I		Model II	
	Tolerance	VIF	Tolerance	VIF
(Constant)				
ESG	0.82	1.219	0.785	1,274
Sharia	0.993	1,007	0.315	3,170
ESG_Sharia			0.313	3,196
Size	0.82	1,219	0.82	1.22

Source : BEI, data processed

The multicollinearity test results showed that all variables had Tolerance values above 0.1 and VIF values below 10, indicating the absence of multicollinearity issues. Both Model I and Model II exhibited acceptable intercorrelations among variables, confirming that each independent variable uniquely contributed to explaining ROA.

c. Outlier Test

Table 4. Outlier Test

Residuals Statistics[a]

	Model I		Model II		
	Minimum	Maximum	Minimum	Maximum	N
Mahal. Distance	0.088	13,605	0.088	40,493	99
Cook's Distance	0	0.219	0	0.232	99

a. Dependent Variable: ROA

Source : BEI, data processed

The outlier test using the Mahalanobis Distance method identified maximum values of 13 (Model I) and 40 (Model II), both of which were below the chi-square critical value (147.01). These results indicate the absence of multivariate outliers, confirming that all data were statistically suitable for further analysis.

d. Coefficient of Determination (RÄ)

Table 5. Coefficient of Determination

	Model I	Model II
R	.520[a]	.524[a]
R Square	.271	.275
Adjusted R Square	.248	.244

Source : BEI, data processed

The coefficient of determination (RÄ) indicated a moderate level of explanatory power, with 27.1% (Model I) and 27.5% (Model II) of the variation in ROA explained by the variables tested.

e. Feasibility Test (F-Test) Model

Table 6. Feasibility Test (F-Test) Model

	Model I	Model II
F Statistic	11.748	8.913
sig. p	0.0000	0.000

Source : BEI, data processed

The F-test results confirmed the feasibility of both models, with significant p-values (0.000), indicating that the independent variables collectively influenced ROA and that the regression models were statistically sound for interpretation.

RESULTS AND DISCUSSIONS

Results

Table 7. Regression Test Results for

DV = ROA						
	Model I			Model II		
Variable	Coefficient	t-value	p-value	Coefficient	t-value	p-value
ESG	.377***	3.898	.000	.393***	3.960	.000
Sharia	.227**	2.576	.012	.324**	2.071	.041
ESG*Sharia				-.118	-.753	.453
Size	.168*	1.740	.085	.170*	1.756	.082
F-statistic (p-value)	11.748 (p = 0.000)***			8.913 (p = 0.000)***		
R-Squared	0.271			0.275		
Adjusted R-Square	0.248			0.244		
N	99			99		
*, **, *** indicate significance levels of 10%, 5%, 1%						

Source : BEI, data processed

The analysis focuses on two primary models that assess the impact of Environmental, Social, and Governance (ESG) factors and Sharia compliance on corporate financial performance, as measured by Return on Assets (ROA). Model I reveals a positive and statistically significant relationship between ESG and ROA, with a coefficient of 0.377 and a p-value of 0.000, underscoring the role of ESG in enhancing financial performance. (Makhdalena et al., 2023). Extensive research consistently demonstrates that corporate performance improves when firms align their operations with environmental and social dimensions, thereby reinforcing the findings of the regression analysis. (Makhdalena et al., 2023). This evidence aligns with the legitimacy theory, suggesting that socio-environmental alignment fosters both sustainability and profitability (Rahcmatulloh & Suranta, 2023).

In contrast, compliance with Sharia practices also positively influences ROA, with a coefficient of 0.227 and a p-value of 0.012, indicating a meaningful relationship at the 5% significance level (Asih et al., 2024). This suggests that organizations adhering to Sharia principles tend to demonstrate superior financial performance, a conclusion supported by numerous empirical studies highlighting the role of faith‒based governance in improving financial outcomes under specific market conditions. (Asih et al., 2024).

While firm size shows a positive association with ROA, as indicated by a coefficient of 0.168, its p‒value of 0.085 suggests that this relationship is not statistically robust at the 5% significance level. Although the literature generally indicates that larger firms tend to benefit from superior resource allocation and managerial capabilities, this association remains weak in some studies, particularly when accounting for the structural complexities of different sectors and economic environments. (Chung et al., 2023). The R‒squared values of both models (0.271 for Model I and 0.275 for Model II) encapsulate how these variables explain approximately 27% of the variance in ROA, underscoring the complexities inherent in financial performance analysis beyond the immediate metrics (Chung et al., 2023).

Model II further corroborates the positive and significant effect of ESG on ROA, with a slightly higher coefficient of 0.393 and a p‒value remaining at 0.000. This result reinforces the argument that firms with stronger ESG orientation tend to achieve superior financial outcomes. (Ho et al., 2024). The Sharia variable also demonstrates a positive and significant relationship with ROA, as reflected in a coefficient of 0.324 and p‒value of 0.041, indicating that adherence to Sharia regulations confers financial resiliency on organizations, such as greater stakeholder trust and investor attraction (Asih et al., 2024).

However, it is noteworthy that the interaction term between ESG and Sharia compliance yields a negative coefficient of −0.118 with a p‒value of 0.453, indicating that their combined effect does not significantly enhance financial performance. This finding suggests that while ESG may improve performance independently, its synergistic interaction with Sharia compliance remains unclear and warrants further investigation, given the lack of statistical significance. (Alahdal et al., 2024). This finding may offer insights into the complexity of combining various governance frameworks and their impact on firm performance.

OOverall, while the results indicate an acceptable model fit, the R‒squared values suggest that a substantial proportion of the variation in financial performance remains explained by other, unobserved factors. Future research could therefore explore potential mediating variables or external influences that may further clarify the dynamics of the relationship between ESG, Sharia compliance, and financial performance indicators. (Lei & Yu, 2023).

Discussions

Model I

The application of ESG principles in the banking sector has a significant influence on the profitability and competitiveness of financial institutions. ESG reflects a bank's commitment to environmental stewardship, social welfare, and transparent, responsible governance. Banks that integrate ESG into their business strategies tend to achieve stronger financial performance for three main reasons.

First, from an environmental perspective, banks that support green financing such as investments in renewable energy, energy efficiency, and environmentally friendly projects can reduce long‒term exposure to climate‒related risks and gain support from governments and institutional investors. In addition, banks that implement energy efficiency measures within their operations can lower operating costs, thereby improving asset efficiency.

Second, from a social perspective, banks that prioritize employee welfare, financial inclusion, and corporate social responsibility (CSR) can build a strong reputation for trust among the public. This trust directly enhances customer loyalty and increases third‒

party funds (DPK), thereby expanding the funding base and ultimately strengthening ROA.

Third, corporate governance plays a crucial role in ensuring the sustainability of banks. The implementation of Good Corporate Governance (GCG) principles such as transparency, accountability, and robust internal controls enhances investor confidence and reduces both operational and reputational risks.

Empirical findings by Sandberg et al. (2022) suggest that banks with high ESG scores tend to exhibit better financial performance, primarily due to increased efficiency and effective risk management. Meanwhile, Kim & Li (2021) emphasize that ESG should be viewed not merely as a moral instrument but also as a strategic business approach that creates long–term value through enhanced social legitimacy and stakeholder trust. In the Indonesian context, this perspective is consistent with the policy direction of the Otoritas Jasa Keuangan through the Sustainable Finance Roadmap 2021–2025, which underscores the importance of integrating ESG principles into bank financing strategies to safeguard the resilience of the financial sector.

In addition to ESG considerations, Sharia compliance plays a crucial role in shaping financial performance, particularly within Islamic banks. Sharia principles require financial institutions to avoid riba (interest), gharar (excessive uncertainty), and maysir (speculation), while encouraging profit–sharing arrangements such as mudarabah and musharakah. These mechanisms emphasize fairness, transparency, and risk sharing between banks and customers, which in theory can foster long–term financial stability and sustainable profitability.

According to Iqbal (2023), Compliance with Sharia principles has a positive effect on ROA because it promotes prudence in risk management and ensures that financing activities are grounded in real, asset–based transactions. As a result, income volatility can be reduced and financial stability better maintained.Furthermore, Asih et al. (2024) and Rasyad et al. (2024) found that banks that comply with both ESG and Sharia principles show superior financial performance compared to conventional banks. This is due to their strong ethical reputation, stakeholder orientation, and more disciplined governance.

Sharia compliance also plays a key role in building public trust. By prohibiting exploitative practices and emphasizing fair transactions, Islamic banking principles help strengthen customer loyalty and attract investors who prioritize ethical values. From the perspective of stakeholder theory, banks that effectively address the expectations of diverse stakeholders including customers, employees, regulators, and the broader community are more likely to secure long–term support that ultimately enhances profitability and ROA.

However, it should be acknowledged that the application of Sharia principles also presents certain challenges, including the limited range of Sharia–compliant financial instruments and the complexity of managing profit–sharing models. Nevertheless, product innovation, service digitalization, and the strengthening of governance frameworks offer viable pathways to optimize profitability without compromising ethical values or sustainability principles.

The relationship between ESG, Sharia compliance, and ROA can be interpreted through the lenses of legitimacy theory and stakeholder theory. Legitimacy theory posits that banks operate under an implicit social contract with society. By demonstrating a commitment to environmental sustainability, social justice, and sound governance, banks can enhance social legitimacy, strengthen their reputation, and attract investors.

Meanwhile, stakeholder theory emphasizes that financial success depends not only on satisfying shareholders' interests but also on addressing the needs of a broader range of stakeholders. Banks that prioritize a balanced consideration of economic, social, and ethical interests are therefore more likely to achieve long−term financial sustainability.

Research by Trisnawati et al. (2023) indicates that Companies that actively engage in ESG initiatives and uphold ethical values can gain a competitive advantage through increased stakeholder trust and loyalty. However, with respect to the effect of firm size on ROA, although a positive trend was observed, the relationship was not statistically significant at the 5% level.

This finding indicates that although larger firms tend to exhibit stronger performance, firm size is not a major determinant of ROA in this study. This finding aligns with the research of Baran et al. (2022), who note that the impact of company size on financial performance is complex and highly contingent upon the industry and operational context of the company. Another study by Xu & Liu (2023) also emphasizes that involvement in ESG can affect a company's profitability, even though company size has a certain contribution to profit management.

Practically, the findings of this study carry important implications for regulators and bank management. Regulators such as Otoritas Jasa Keuangan and Bank Indonesia need to strengthen ESG reporting frameworks and ensure that Islamic banks are provided with clear and measurable compliance guidelines. Greater transparency in sustainability reporting can enhance accountability and increase the attractiveness of ethically oriented investments. For bank management, the integration of ESG and Sharia principles should be viewed not as a regulatory burden but as a source of strategic advantage. By developing risk management systems grounded in sustainability and ethical values, banks can generate long−term value, broaden their customer base, and strengthen market confidence.

Model II

Based on the finding that the ESG*Sharia interaction coefficient is negative and insignificant in relation to ROA, further analysis needs to look not only at "whether" the relationship exists, but also "why" the combination of ESG and Sharia compliance has not been able to drive short−term performance (ROA) as expected. Within the frameworks of legitimacy theory and stakeholder theory, these results point to a misalignment between the implementation of ESG and Shariah policies in banks and the way markets and stakeholders assess financial performance. In other words, both Islamic and conventional banks appear to be in a transitional phase, seeking to integrate ESG and/or Shariah practices, but have not yet succeeded in transforming this integration into efficiency gains that are reflected in ROA.

From the perspective of legitimacy theory, organizations seek to align their practices with prevailing social norms in order to gain public acceptance and secure a “license to operate.” Empirical evidence further suggests that strong Sharia governance can enhance ESG performance in Islamic banks. (Boudawara et al., 2023), thereby strengthening legitimacy in a society that is becoming increasingly sensitive to sustainability issues. However, when the synergy between ESG and Sharia principles is not clearly reflected in practice for instance, because ESG policies remain general or generic and are not explicitly aligned with Sharia objectives (maqṣid al−sharīʿah)—the anticipated legitimacy gains do not automatically translate into accounting profitability. From this perspective, a negative and insignificant interaction coefficient may be interpreted as a condition of “legitimacy without efficiency,” where efforts to enhance legitimacy are already underway but have yet to generate sufficient cost savings, revenue growth, or risk reduction to be captured by ROA within the observation period.

Stakeholder theory broadens the analytical focus beyond shareholders to include all parties with a vested interest in the organization. Empirical evidence indicates that external commitments and assurance mechanisms in sustainability reporting can significantly influence ESG performance (Tumewang et al., 2025), but the negative interaction findings imply that stakeholder expectations customers, investors, regulators, and the community have not yet been fully translated into product design, business processes, and bank performance metrics.

In Islamic banks, the coexistence of two demands Sharia compliance and ESG excellence can increase compliance costs and implementation complexity. In contrast, the greater flexibility enjoyed by conventional banks may create incentives for opportunistic ESG implementation, such as greenwashing, which is often associated with weaker financial performance. (Cerciello et al., 2022). Both provide the same lesson: without material integration and risk—based prioritization, ESG does not automatically improve ROA.

Differences in business architecture and governance between Islamic and conventional banks also influence performance outcomes. Islamic banks operate under profit—sharing arrangements, prohibit riba and gharar, and apply sectoral filters, resulting in a distinct product space and risk profile compared to conventional banks. In addition, the quality of Islamic governance particularly the role of the Sharia Supervisory Board (SSB), the fatwa issuance process, and internal review mechanisms constitutes an additional governance layer beyond that found in conventional banking. (Boudawara et al., 2023). This additional layer can provide a legitimacy advantage; however, in the short term it may also increase product design costs, audit and assurance expenses, and delays in time to market. When reputational gains and risk reduction have not yet become substantial or fully realized given that many ESG benefits are long term, such as reductions in the cost of capital ROA, as a short—term performance metric, may not show significant improvement.

Conversely, conventional banks enjoy greater discretion in selecting both the ESG framework and the intensity of its implementation. While this flexibility can enhance efficiency by allowing banks to focus on the most material issues in line with their risk profiles, it also carries the risk of encouraging symbolic or superficial practices. Cerciello et al. (2022) demonstrate that the adoption of sustainability practices opportunistically is associated with a negative impact on accounting performance measures.

This indicates that flexibility alone does not automatically translate into higher ROA; rather, the quality of implementation particularly the depth of integration into products, pricing strategies, risk appetite, and managerial incentives is the decisive factor. From the perspective of bank—company relationship dynamics, Khan et al. (2021) demonstrate a positive effect on performance in both types of banks; however, Islamic banks tend to be more resilient to persistent policy changes.

Such resistance may reflect prudent caution in managing long—term risks, yet it can also impede rapid adaptation to emerging ESG opportunities. In the absence of strong synergy, the potential benefits of the bank—debtor relationship are difficult to realize, as reflected in the negative and insignificant interaction coefficient. (Khan et al., 2021), which hinders the improvement of ROA.

Risk and regulation also play a critical role. Several studies suggest that Islamic banks face higher ESG implementation risks because they must comply with stricter regulatory requirements and adhere to deeper social and ethical norms. (Boudawara et al., 2023; Smaoui et al., 2025). Dual compliance—to financial regulators and Sharia authorities—can increase fixed costs, narrow asset choices, and require investment decisions to undergo additional scrutiny. Meanwhile, conventional banks are able to design ESG policies that are more fit for purpose by selecting emission targets, green credit policies, or sectoral exposures in line with their specific risk profiles and profit opportunities. However, Smaoui et al. (2025) highlight that Islamic banks often face greater challenges in integrating ESG factors with financial performance compared to conventional banks. This disparity helps explain why the interaction between ESG and Sharia compliance has not generated a clear positive impact on ROA. It is also necessary to examine methodological aspects that are often obscured by regression coefficients.

First, ESG measurement heterogeneity. ESG scores can vary substantially across rating providers, and Islamic banks operating in different jurisdictions with differing disclosure standards may receive ESG ratings that are not directly comparable.

Second, the time horizon. Many ESG benefits—lower funding costs, reduced credit losses due to climate/social risks—are medium− to long−term in nature and often show up more quickly in market metrics (e.g., cost of equity) than in short−term accrual metrics such as ROA.

Third, non−linearity may be present in the ESG−Sharia integration process. There may be an "initial cost" phase that produces an inverted U−shaped relationship, whereby costs exceed benefits in the early stages of integration. Only after a certain threshold is reached do the benefits such as enhanced reputation, increased customer loyalty, and reduced credit risk begin to outweigh the associated costs.

Fourth, endogeneity.

Banks with lower ROA may be more aggressive in adopting ESG initiatives as a means of seeking legitimacy, thereby complicating the direction of causality. These dynamics can, in turn, weaken the statistical significance of the interaction coefficient.

Turning to managerial implications, for sharia banks, the key is to link ESG to maqṣid al−sharīʿah operationally, rather than running parallel without any connection. This includes:

(i) Mapping ESG materiality in alignment with Sharia prohibitions and objectives for example, prioritizing profit−sharing−based MSME financial inclusion and supporting energy transition initiatives that comply with Sharia sectoral filters can enhance the strategic coherence of ESG implementation.

(ii) Strengthening Sharia governance to function as a driver of product innovation, rather than merely a compliance gateway, can enhance the strategic role of Islamic banking institutions. (Boudawara et al., 2023), and

(iii) Improving external assurance mechanisms and strengthening public commitments can help clarify stakeholder expectations and enhance institutional credibility. (Tumewang et al., 2025).

In this way, additional compliance costs can be transformed into product−added value for instance, through green financing structures based on mudharabah or musyarakah contracts that incorporate risk−sharing mechanisms to encourage borrowers' transition toward more sustainable practices.

For conventional banks, the key implication is the need to ensure that ESG initiatives are materially relevant, fully integrated into risk management and pricing policies, and implemented beyond a purely symbolic level. The findings of Cerciello et al. (2022) that The association between opportunistic practices and declining accounting performance serves as a cautionary signal that ESG strategies require robust governance frameworks. Such frameworks should include science−based targets, integration of ESG considerations into sectoral risk limits, management incentives that link sustainability outcomes to credit risk and the cost of capital, and independently audited reporting. Moreover, conventional banks can leverage their greater operational flexibility to develop transition finance portfolios tailored to risk profiles, enabling the financial benefits of ESG initiatives to be reflected more rapidly in profitability.

On the bank−debtor relationship side, the results of Khan et al. (2021) suggest that the strength of the relationship in both types of banks remains important; however, Islamic banks need to manage policy inertia. Faster feedback mechanisms such as data on portfolio emission intensity, social impact indicators, and early warning signals for ESG−related credit risks can help Islamic banks maintain prudence while becoming more responsive and adaptive.

Without such mechanisms, the potential benefits of this relationship may remain "locked in" and fail to translate into improvements in ROA, which is consistent with the negative and insignificant interaction coefficient observed (Khan et al., 2021). Cross−study findings also remind us that organizational structure, risk culture, and jurisdictional context moderate the results.

Islamic banks operating in markets with mature ESG reporting infrastructures, supportive regulatory frameworks, and incentives for Islamic green products are more likely to extract financial value from the integration of ESG and Islamic principles. In contrast, in markets characterized by limited data quality and intense competitive pressure, the costs of ESG implementation may compress net interest margins and constrain ROA. This pattern is consistent with the observation that Islamic banks often face greater challenges in aligning ESG initiatives with financial performance compared to their conventional counterparts (Smaoui et al., 2025).

Ultimately, the finding of a negative and insignificant ESG−Sharia interaction does not diminish the individual benefits of ESG implementation or Sharia compliance. Indeed, both models indicate that Sharia compliance on its own has a positive and significant effect on ROA, These findings are consistent with the view that Sharia compliance functions as a disciplinary framework for risk management by limiting exposure to sectors and products associated with reputational risk and by strengthening customer trust, which ultimately supports profitability. From a practical perspective, Islamic and conventional banks are encouraged to enhance their commitment to ESG principles and Sharia compliance simultaneously through an integrated approach that strengthens governance and avoids purely symbolic adoption. Concrete measures such as risk−based materiality mapping, the integration of ESG metrics into risk−adjusted return on capital (RAROC) and pricing of risk, external assurance, and consistent transparency—are more likely to translate enhanced legitimacy into improved accounting performance.

CONCLUSION

The results show that ESG practices and Sharia compliance have a positive and significant effect on ROA, indicating that the application of sustainability principles and Sharia values can enhance bank profitability and stability. However, the interaction between ESG and Sharia compliance does not have a significant effect on ROA, suggesting that the potential synergy between the two has not yet been fully realized in Indonesian banking practices.

Theoretically, these findings support legitimacy theory and stakeholder theory, which suggest that adherence to ethical and social values enhances organizational legitimacy and public trust. From a practical perspective, the results offer strategic insights for banks to integrate ESG and Sharia principles more effectively in order to strengthen sustainable financial performance. One practical approach to this integration is ensuring that all bank−financed projects are not only environmentally sustainable but also fully compliant with Sharia principles. The bank would ensure that the project adheres to both environmental sustainability standards (e.g., promoting clean energy) and Sharia principles (e.g., avoiding interest−based financing and ensuring the project does not involve prohibited activities, such as the use of harmful chemicals or labor exploitation). By adopting an integrated governance approach, banks can strengthen corporate responsibility through the establishment of dedicated ESG committees or by embedding ESG considerations within existing Sharia Supervisory Boards and risk management practices. This integration involves incorporating ESG metrics such as carbon footprint, social impact, and governance quality into the Sharia governance framework to ensure alignment with both ESG standards and Sharia principles. Ultimately, such an approach enhances organizational sustainability and amplifies the bank's positive contribution to society.

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