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Environmental commitment and Islamic bank performance: Does management quality matter?

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Abstract

Purpose – This study investigates the impact of Islamic banks' environmental commitment on their financial performance. In addition, the moderating role of management quality is employed to assess whether it affects the nexus of environmental commitment and Islamic banks' financial performance.

Methodology – The sample of the study consists of 32 Islamic banks from 12 countries with sufficient environmental commitment reports from 2016 to 2023. A panel data approach is adopted to estimate the models in this study, namely the random effects model (REM), 2-Stage Least Squares (2SLS), and Least Squares Dummy Variable Corrected (LSDVC).

Findings – The findings reveal that Islamic banks' commitment to environmental activities supports their financial performance. In addition, the management quality of Islamic banks moderates the relationship between environmental commitment and financial performance. The findings of this study are robust after conducting estimations to check the consistency of the results using several econometric scenarios.

Implication – The findings imply the urgency to embrace, practice, and develop environmental commitment in Islamic banking. It can be implemented by policymakers and regulators to spur and demand that Islamic banks have sufficient environmental commitment while operating them.

Originality – This study contributes to the precise examination of inconclusive findings on the nexus between environmental commitment and financial performance in global Islamic banks. Moreover, it highlights the role of management quality in the nexus between environmental commitment and financial performance, which remains understudied in prior literature.

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Introduction

An important pact at the international level was signed by leaders across nations in the Paris Agreement in 2015, emphasizing their commitment to having a more sustainable life in the world (United Nations, 2015). This agreement underscores the pivotal role of sustainability by mitigating and addressing climate change risks that affect the Earth regardless of place, time, and people. Network for Greening Financing System (NGFS) then encourages having an impactful awareness and initiatives to be implemented by the central banks and related parties to address climate change risks in financial systems (Network for Greening Financing System, 2019). This action signifies that the financial system, specifically the banking sector, should consider climate change risks in its operations, such as implementing green financing, recognizing green assets, and issuing green bonds.

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In the Islamic finance industry, the banking sector initiates and implements a typical commitment. In 2018, the Central Bank of Malaysia issued Value-based Intermediation (VBI) for Islamic banks to encourage them to shift their mindset from output to outcome (Central Bank of Malaysia, 2018). This paradigm shift encourages Islamic banks to think beyond the profit-seeking motive and to consider the impact of their financial products on environmental preservation and social development. This initiative also confirms the commitment of the Central Bank of Malaysia to promote a sustainability approach in the banking sector.

The same notion was also initiated by the General Council of Banking and Financial Institutions (CIBAFI) in 2022, promoting Islamic banks to embrace a sustainability framework that concerns environmental issues in their operations (Council of Banking and Financial Institutions, 2022). This is reflected in the structure of Islamic banks, which need a specific department to manage sustainability activities and consider environmental aspects when issuing financial products. At the country level, initiatives and regulations have been issued to build and promote environmental elements in the financial system, such as in the case of Indonesia, through climate risk management and scenario analysis for the Indonesian banking industry by the Indonesian financial service authority (Otoritas Jasa Keuangan, 2024) and in Oman, with a sustainable and green financing practice initiative (Central Bank of Oman, 2024).

The encouragement of Islamic banks to implement environmental concerns is theoretically aligned with the Shariah principle, which posits ethics in a high position. Environmental commitment is also a part of actions to achieve one of the five objectives of Shariah (Maqashid al-Shariah), namely, the preservation of life (Khan & Badjie, 2022). Amid the significant growth of Islamic banks worldwide, the question arises of how Islamic banks' environmental commitment influences their financial performance.

Therefore, this study aims to assess the impact of environmental commitment on Islamic bank financial performance. This study has two research questions: (1) What is the influence of environmental practices on the financial performance of Islamic banks? (2) What is the impact of management quality on moderating the nexus between environmental practices and financial performance of Islamic banks?

Previous studies have revealed a nexus between environmental commitment and bank financial performance. However, indecisive findings remained. For instance, Buallay (2019), Shakil et al. (2019), Azmi et al. (2021), and Nizam et al. (2019) find that environmental practices positively affect bank financial performance. These results explain that environmental commitment enables banks to achieve higher financial performance, which creates more bank value. By contrast, Tommaso and Thornton (2020), Khoury et al. (2021), and Yuen et al. (2022) show that the relationship between environmental commitment and banks' financial performance is significant in a negative direction. These results shed light on the fact that implementing environmental practices incurs additional costs for banks, which in turn reduces their value, particularly in terms of profitability. These inconclusive findings are also present in the case of Islamic banks, as studied by Alam et al. (2022), Alghafes et al. (2024), Sendi et al. (2024), and Fakhrunnas et al. (2025).

The contribution of this study is twofold. Firstly, the presence of this paper offers a deeper insight into the nexus of environmental commitment and financial performance in Islamic banks, thereby enriching the empirical work on a related topic. As mentioned, previous studies on Islamic banks have remained inconclusive and have not been sufficiently dedicated to this specific objective. It can be seen from the empirical studies of Alam et al. (2022), Alghafes et al. (2024), Sendi et al. (2024), and Fakhrunnas et al. (2025), which examine more general topics related to Environmental, Social, and Governance (ESG), resulting in an insufficient explanation and discussion of Islamic banks' environmental commitment in relation to their financial performance. Moreover, studies by Tumewang et al. (2024) and Islam et al. (2025) show that empirical research to investigate the relationship between sustainability and Islamic banks' performance remains scarce, and at that time, there was a lack of available data.

Second, this study provides new insights into the relationship between environmental commitment and financial performance by emphasizing the role of Islamic banks' management quality. Previous studies by Alam et al. (2022), Alghafes et al. (2024), Sendi et al. (2024), and

Fakhrunnas et al. (2025) failed to capture the role of Islamic banks' management quality in the relationship between environmental commitment and financial performance. To the best of our knowledge, only Franco et al. (2020) have investigated the role of management quality in the nexus of Corporate Social Responsibility (CSR) and financial performance in the hospitality industry. However, Franco et al. (2020) also admit that "one size does not fit all' by realizing that the differences in specific factors of firms, business operations, and industries yield diverse insights. This indicates that firm characteristics may create different viewpoints on these relationships.

This study is significant for policymakers and regulators to understand the relationship between environmental commitment and financial performance in Islamic banks, including the role of management quality. Sufficient understanding is essential to formulate appropriate policies at the Islamic bank level and regulate banks at the industry level. Finally, the rest of the paper comprises a literature review and method sections. This is followed by the results and discussion section. Subsequently, it ends with implications and conclusions.

Literature Review

Theoretical background

Theoretically, the nexus between environmental commitment and financial performance in Islamic banks can be explained using the Islamic Moral Economy (IME) approach, as proposed by Asutay (2013). IME argues that Islamic economics is an intergenerational economic activity that fulfils current needs and considers future challenges. Therefore, Islamic economics is prone to sustainability initiatives and actions that promote balanced economic activities. It portrays that Islamic economics is implemented beyond the profit-seeking motive and is concerned with the impact of its financial activities. This concern aligns with the objective of Islamic economics: to establish justice and human well-being.

Adopting this logic, Asutay (2013) contextualizes the IME approach in Islamic economic institutions, in which one of the primary institutions is Islamic banks. Based on this theory, Islamic moral screening has become a key factor in how Islamic banks operate their business activities. Thus, Islamic banks must consider generating profits and avoiding activities that may result in negative externalities. In other words, Islamic banks promote social development and environmental preservation in their operations, aligning with Shariah's objectives.

Khan (2019) proposed a similar concern through a sustainability approach in Islamic finance institutions, including Islamic banks. Khan (2019) argues that embracing a Shariah-compliant approach is insufficient in Islamic banks, but remains necessary. This indicates that Islamic banks are designed to commit to the social dimension by closely engaging in Islamic social finance schemes. In addition, Khan and Badjie (2022) underscored that preserving the environment is crucial and needs to be embedded in Islamic banking operations because it is aligned with Maqashid al-Shariah, especially in preserving life.

According to congruency theory, environmental commitment increases and amplifies the perceived value of Islamic banks through their value proposition (Bukhari et al., 2019). It attracts more stakeholder attention in the banking sector to engage in Islamic banks' operations in many ways. For instance, more investors and customers with ethical considerations are interested in participating in Islamic banks' business activities. In summary, the proposed theoretical approaches of Asutay (2013), Khan (2019), Khan and Badjie (2022), and Bukhari et al. (2019) have the same notion of prioritizing stakeholders' interests in Islamic banks' operations, which has conceptual similarities to the stakeholder theory proposed by Freeman (1984).

Prior empirical studies and hypothesis development

Empirically, a growing number of studies attempt to investigate the relationship between environmental practices and financial performance in Islamic banks. Alam et al. (2022) find that environmental commitment has a positive and significant relationship with bank performance, as reflected by Islamic bank efficiency. Moreover, Fakhrunnas et al. (2025) have a similar finding, explaining that environmental practices significantly influence return on equity and return on assets

for banks in emerging and developing markets. Specifically, Islamic banks are found to be better in return on equity performance than conventional banks while committing to environmental activities (Fakhrunnas et al., 2025). The findings also reveal that Islamic banks gain a more positive perception of stakeholders while committing to environmental activities. It increases Islamic banks' performance in the market, as banks have adequate commitment to environmental innovation, possess green buildings, and efficiently use resources, manage waste, and other related environmentally friendly activities (Fakhrunnas et al., 2025).

In contrast, Alghafes et al. (2024) reveal that environmental commitment does not have a significant relationship with Islamic banks' financial performance, as reflected by the return on assets. Sendi et al. (2024) also find that environmental pillars do not have a significant effect on Islamic bank performance. These findings indicate that Islamic banks do not have sufficient involvement in environmental practices, which are prioritized less than other bank activities (Sendi et al., 2024). This confirms that Islamic banks may not be fully concerned with achieving Maqashid al-Shariah, which places significant emphasis on preserving life. In addition, Alghafes et al. (2024) stated that environmental commitment requires a longer time horizon to obtain obvious results. Consequently, it may not directly impact Islamic banks' financial performance, and stakeholders may not notice the impact of environmental practices within a short period of time.

H_1: Environmental commitment has a positive influence on financial performance in Islamic banks

Management quality plays a crucial role in determining banks' financial performance. Prior studies conducted by Banna et al. (2018) explain that bank management quality corroborates the supervisory role of managing banks' lending activities, increases banks' competitiveness in the market, and optimizes banks to generate returns on their investments. In the context of sustainability actions, Agnese et al. (2023) elucidate that bank management plays a significant role in how banks follow the best corporate governance practices. It includes banks' commitment to implement environmentally friendly business activities and prevent the bank from falling into business controversy, such as greenwashing. Hence, a higher management quality indicates that banks can operate their businesses well.

Danlami et al. (2022) and Hidayat et al. (2021) underscore the management quality effect from an efficiency viewpoint. On one hand, efficiency enables banks to achieve an optimal resource utilization level. However, on the other hand, being too efficient in resource use may not be effective for banking operations, as it fails to achieve the bank's financial objectives. Therefore, bank management plays a pivotal role in ensuring the efficient and effective use of resources. Franco et al. (2020) demonstrate that management quality can moderate the relationship between ESG commitment and financial performance in the hospitality industry. However, the results indicate that the effect is negative and significant, suggesting that concurrently implementing management quality and ESG in the hospitality industry negatively impacts firms' financial performance.

H_2: Management quality moderates the nexus of environmental commitment and financial performance in Islamic banks

Method

In this study, we use 32 Islamic banks from 12 countries: Saudi Arabia (4 Islamic banks), Turkey (2 Islamic banks), the United Arab Emirates (5 Islamic banks), Kuwait (4 Islamic banks), Oman (1 Islamic bank), Pakistan (1 Islamic bank), Qatar (4 Islamic banks), Egypt (2 Islamic banks), Bahrain (4 Islamic banks), Jordan (1 Islamic bank), Indonesia (3 Islamic banks), and Malaysia (1 Islamic bank). The study period is from 2016 to 2023, considering data availability, especially for the environmental performance of Islamic banks. All bank-level data were retrieved from FitchConnect and LSEG, while country-level data were obtained from the World Bank Database.

To examine the direct impact of environmental commitment on Islamic bank performance, we refer to Bukhari et al. (2019), Alghafes et al. (2024), and Fakhrunnas et al. (2025), as explained in equation 1.

$$\pi_{it} = a_0 + a_1 env_{it} + a_2 B_{it} + a_3 C_{ij} + \varepsilon_{ijt} \quad (1)$$

where *i* and *t* represent cross-sectional data at the bank and time levels, respectively, and *j* represents cross-sectional data at the country level. a_0 is a constant, $a_1 - a_3$ are the coefficients of the variable, and ε is the error term. Furthermore, π is the financial performance of Islamic banks from the equity holders' perspective, calculated as net income divided by total equity (roe), which is treated as a dependent variable.

The main independent variable is env, which explains the environmental commitment obtained from the environmental pillar scores of Islamic banks using Environmental, Social, and Governance (ESG) metrics. B represents control variables at the bank level comprising liquid (total liquid assets divided by total assets), npl (asset quality calculated from non-performing financing divided by gross financing), and lnasset (log of total assets). From the country-level variables, C represents GDP (economic growth), covid (a dummy variable of the Covid-19 Pandemic period, where 1= for the period 2020 to 2021 and 0= for the rest of the study periods), and govern (representing institutional development, the average score of political stability and absence of violence, rule of law, control of corruption, government effectiveness, regulatory quality, and voice and accountability).

$$\pi_{it} = a_0 + a_1 env_{it} + a_2 env * mgt_{it} + a_3 mgt_{it} + a_4 B_{it} + a_5 C_{ij} + \varepsilon_{ijt} \quad (2)$$

To answer the second hypothetical question, we interact environmental commitment with Islamic banks' management quality (mgt), as formulated in Equation 2. We adopted management quality measurement using management score performance in the governance pillar of the ESG metric (Agnese et al., 2023). A higher management score indicates that Islamic banks have higher management qualities. Second, management quality is measured by Islamic banks' management efficiency, obtained by dividing the total cost by the total income (Danlami et al., 2022; Hidayat et al., 2021). If the efficiency score is lower, it indicates that Islamic banks' management performs well; conversely, if the efficiency score is higher, it suggests that management is underperforming.

$$\frac{\partial \pi_{it}}{\partial env_{it}} = a_1 + a_2 mgt_{it} \quad (3)$$

The marginal effect approach was utilized to analyze the interaction variables in Equation 2, as suggested by Brambor et al. (2006) and Ibrahim and Arundina (2022). Hence, it is explained by assessing the impact of these variables when the mgt score is in the lowest condition (env+interact*min=0) and the highest condition (env+interact*max=0). This study employs static panel data analysis, namely the random effects model (REM), considering that the selected estimation is consistent and efficient after applying preliminary estimations (Ibrahim & Arundina, 2022). To address the issue of endogeneity, this study also adopts robustness tests using 2-Stage Least Squares (2SLS) and Least Squares Dummy Variable Corrected (LSDVC) estimations, as suggested by Bruno (2005) and Dang et al. (2015). Another robustness test was also applied using a different measurement of π to ensure the consistency of the results.

Result

Table 1. Data description

Variable	Obs	Mean	Std. dev.	Min	Max
roe	133	11.798	7.564	-21.052	32.876
env	133	37.753	21.782	16.26	93.93
liquid	133	13.437	8.599	2.63	38.12
npl	131	4.829	6.833	0.17	38.96
Asset (USD Million)	133	35,400	37,600	791	215,000
gdp	130	2.184	3.642	-5.274	11.439
govern	122	0.056	0.429	-0.958	0.650

A description of the data is provided in Table 1. This shows that Islamic banks experienced a positive return on equity during the observation period, which can be seen from the mean value of roe amounting to 11.798 percentage points. This explains why equity holders in Islamic banks benefit from their performance, which may attract more shareholders to invest in Islamic banks. However, Islamic banks' environmental pillar performance is not impressive. It can be seen from the mean

value of env that it only has 37.753. According to the LSEG indicators, the environmental pillar score ranged from 0 to 100. A score of 0-25, it means a poor level, >25-50 is a satisfactory level, >50-75 portrays a good level, and >75-100 represents an excellent level (Fakhrunnas et al., 2025).

Moreover, for bank-specific variables, the liquidity condition of Islamic banks is 13.437 percentage points on average compared to their total assets. Islamic banks' asset quality level is represented by the npl's score, which has a mean value of 4.829 percentage points. The difference in the npl value is higher across Islamic banks in the sample, as seen from the standard deviation score, which is higher than their mean value, amounting to 6.833 percentage points. The large difference in bank-level conditions is also present in Islamic banks' assets. This is indicated by the standard deviation score being higher than the mean value. This indicates that Islamic banks worldwide still have a high disparity in terms of Islamic banks' size. The high differences in economic conditions and institutional development across countries can also be seen in the mean and standard deviation values.

In terms of the results of the correlation analysis, multicollinearity was not present in this study. This can be explained by the correlation score between variables that do not exceed 0.8 (See Table 2). This is in line with Ullah et al. (2019), who stated that multicollinearity is absent when the correlation score between variables is less than 0.8.

Table 2. Correlation results between variables

	roe	env	liquid	npl	asset	gdp	covid	govern
roe	1.000							
env	0.2870***	1.000						
liquid	-0.2127	-0.0111	1.000					
npl	-0.3218***	-0.0225	0.4666***	1.000				
asset	0.3250***	0.4352***	-0.2624***	-0.2592***	1.000			
gdp	0.1929**	0.2370***	-0.0026	0.0283	0.0367	1.000		
covid	-0.1348	0.0600	0.1072	0.0940	-0.1332	-0.3020***	1.000	
govern	-0.2456***	-0.2222**	-0.1196	0.2542***	-0.0555	-0.1041	-0.0437	1.000

Baseline result

Table 3. Baseline result

Variables	(1)	(2)	(3)	(4)	(5)
env	0.094***	0.077**	0.079**	0.079**	0.062*
	(2.673)	(2.163)	(2.224)	(2.224)	(1.737)
liquid		0.031	0.003	0.003	0.047
		(0.332)	(0.027)	(0.027)	(0.516)
npl		-0.488***	-0.458**	-0.458**	-0.259
		(-2.637)	(-2.554)	(-2.554)	(-1.451)
lnasset		0.665	0.573	0.573	1.124
		(0.616)	(0.554)	(0.554)	(1.114)
gdp			0.078	0.078	0.109
			(0.345)	(0.345)	(0.490)
covid				-1.129	-0.668
				(-0.591)	(-0.372)
govern					-4.688*
					(-1.645)
cons	9.093***	-4.343	-2.286	-2.286	-16.405
	(4.138)	(-0.172)	(-0.094)	(-0.094)	(-0.695)
Year Dummy	Yes	Yes	Yes	Yes	Yes
No of Obs.	133	131	128	128	120
No of Bank	33	32	32	32	32
R^2_within	0.174	0.263	0.255	0.255	0.241
R^2_between	0.057	0.084	0.119	0.119	0.195
R^2_overall	0.122	0.203	0.219	0.219	0.228

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3 presents the baseline results of the study. It consists of five scenarios that estimate the regression with and without including control variables of bank-level variables, economic growth variables, financial turmoil variables during the pandemic, and institutional development. Generally, the findings of the study reveal that the environmental pillar has a significant relationship with ROE in estimation scenarios 1 to 5. When only the primary independent variable was included in the model (See Model 1), it was significant at the 1% level, with a coefficient value of 0.094. This indicates that an increase of one standard deviation enhances the percentage points of Islamic banks' return on equity by 2.047 (21.782 × 0.094).

A similar relationship is also present in the complete model (See Model 5), in which the primary independent variable and all control variables are included in the regression estimation. An increase of one standard deviation in environmental commitment raises 1.350 (21.782 × 0.062) percentage points of Islamic banks' ROE. The findings of the baseline result highlight that committing to environmental practices in Islamic banks increases their financial performance, indicating that it benefits equity holders.

The role of Islamic banks' management performance

Table 4. The Impact of management quality on environmental commitment and bank performance

Variables	(1)	(2)
env	0.001	0.110
	(0.011)	(1.526)
env*mgt	0.001	-0.002
	(0.968)	(-0.916)
mgt	-0.042	-0.049
	(-0.841)	(-0.638)
liquid	0.039	0.076
	(0.417)	(0.837)
npl	-0.256	-0.247
	(-1.401)	(-1.502)
lnasset	1.096	0.683
	(1.065)	(0.735)
gdp	0.158	0.158
	(0.687)	(0.691)
covid	-0.554	-0.753
	(-0.308)	(-0.407)
govern	-5.119*	-4.566*
	(-1.721)	(-1.859)
cons	-13.526	-3.362
	(-0.560)	(-0.148)
Marginal Effect		
env+interact*min=0	0.005	0.087*
	0.08	1.69
env+interact *max=0	0.112*	-0.158
	1.79	0.496
Year Dummy	Yes	Yes
No of Obs.	120	120
No of Bank	32	32
R^2_within	0.243	0.215
R^2_between	0.208	0.469
R^2_overall	0.234	0.370

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

To examine the conditions under which the relationship between environmental commitment and Islamic banks' return on equity exists, focusing on the role of management quality, we interact management quality with env in relation to Islamic banks' performance. In

Table 4, we present two regression models differentiated based on the use of a proxy for Islamic banks' management quality. Model 1 employs management score performance in the governance pillar of the ESG metric, whereas Model 2 utilizes Islamic banks' management efficiency, calculated as the total cost divided by the total income.

In Model 1, the findings reveal that Islamic bank management quality affects the relationship between environmental commitment and banks' ROE. The marginal effect result shows that a lower management score is not significant; however, the relationship becomes positive and significant at the 10 percent level when the management score is high. This shows that when Islamic banks have a high management score, their return on equity increases by 0.122 percentage points when there is a change in environmental commitment performance.

Similarly, in Model 2, the findings of the marginal effect reveal that a significant relationship exists in a positive direction when banks' total cost to total income is low; however, it is not statistically significant when the score is high. It sheds light on the fact that an increase in Islamic banks' management efficiency (indicated by a low score of mgt) positively affects the increase in return on equity when there is a change in environmental commitment performance. More precisely, that increase results in an additional score of return on equity amounting to 0.087 percentage points.

Robustness tests

To check the consistency of the findings, we adopt robustness tests with three strategies: (1) the 2SLS regression estimation (see Table 5), (2) the LSDVC regression estimation (see Table 6), and (3) replacing return on equity as an independent variable with return on assets (see Table 7). Despite the fact that there is an insignificant relationship between environmental commitment and the performance of Islamic banks in a few scenarios, most models show that environmental commitment and the relationship between Islamic banks are positive and significant. These findings underscore the robustness of the study results.

Table 5. Robustness test with the 2SLS regression

Variables	(1)	(2)	(3)	(4)	(5)
env	0.152**	0.129*	0.113*	0.113*	0.066
	(2.287)	(1.884)	(1.708)	(1.703)	(0.915)
liquid		0.018	-0.005	-0.005	0.038
		(0.197)	(-0.053)	(-0.057)	(0.411)
npl		-0.421**	-0.430**	-0.428**	-0.239
		(-2.419)	(-2.482)	(-2.477)	(-1.374)
lnasset		0.319	0.345	0.351	1.109
		(0.292)	(0.321)	(0.327)	(1.012)
gdp			0.079	0.080	0.114
			(0.341)	(0.345)	(0.504)
covid				-1.653	-0.764
				(-0.783)	(-0.377)
govern					-4.736*
					(-1.706)
cons	7.768***	2.408	2.199	2.070	-16.082
	(3.047)	(0.096)	(0.089)	(0.084)	(-0.642)
Year Dummy	Yes	Yes	Yes	Yes	Yes
No of Obs.	133	131	128	128	120
No of Bank	33.000	32.000	32.000	32.000	32.000
R^2_within	0.161	0.233	0.241	0.241	0.238
R^2_between	0.068	0.092	0.123	0.123	0.201
R^2_overall	0.127	0.209	0.220	0.221	0.228

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6. Robustness test with the LSDVC regression

Variables	(1)	(2)	(3)	(4)	(5)
l.roe	0.154	-0.044	0.007	-0.105	-0.100
	(1.400)	(-0.470)	(0.079)	(-1.115)	(-1.071)
env	0.042	0.084**	0.091**	0.099***	0.128***
	(1.154)	(2.230)	(2.401)	(2.745)	(3.194)
liquid		-0.091	-0.124	-0.070	0.034
		(-0.726)	(-1.153)	(-0.671)	(0.314)
npl		-1.811***	-1.818***	-1.871***	-1.397***
		(-4.741)	(-5.209)	(-5.595)	(-4.227)
lnasset		-1.491	-3.588	-1.883	-1.386
		(-0.614)	(-1.361)	(-0.721)	(-0.420)
gdp			0.266**	0.162	0.204*
			(2.552)	(1.447)	(1.646)
covid				-1.889**	-2.054**
				(-2.290)	(-2.256)
govern					-5.456
					(-0.735)
No of Obs.	98	98	95	95	87
No of Bank	29.000	29.000	29.000	29.000	29.000

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7. Robustness test with return on assets as independent variable

Variables	(1)	(2)	(3)	(4)	(5)
env	0.012**	0.010*	0.010**	0.010**	0.009*
	(2.541)	(1.956)	(2.032)	(2.032)	(1.687)
liquid		-0.002	-0.004	-0.004	0.001
		(-0.139)	(-0.347)	(-0.347)	(0.096)
npl		-0.031	-0.031	-0.031	-0.017
		(-1.201)	(-1.193)	(-1.193)	(-0.642)
lnasset		0.177	0.171	0.171	0.200
		(1.183)	(1.147)	(1.147)	(1.313)
gdp			-0.007	-0.007	-0.006
			(-0.227)	(-0.227)	(-0.195)
covid				-0.443*	-0.424*
				(-1.724)	(-1.671)
govern					0.058
					(0.135)
cons	1.084***	-2.784	-2.613	-2.613	-3.409
	(3.531)	(-0.795)	(-0.748)	(-0.748)	(-0.958)
Year Dummy	Yes	Yes	Yes	Yes	Yes
No of Obs.	133	131	128	128	120
No of Bank	33.000	32.000	32.000	32.000	32.000
R^2_within	0.202	0.229	0.228	0.228	0.227
R^2_between	0.049	0.101	0.130	0.130	0.113
R^2_overall	0.097	0.191	0.210	0.210	0.179

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Discussion

The study's findings generally show that environmental commitment adds value to Islamic banks by increasing their return on equity. A significant positive relationship between env and roe was observed in the baseline results. This finding is in line with Alam et al. (2022) and Fakhrunnas et al. (2025), but differs from Alghafes et al. (2024) and Sendi et al. (2024), indicating that Islamic banks obtain a more positive perception from stakeholders in the banking industry while

committing to environmental practice. This relationship also reveals that environmental commitment through efficiency in resource use, innovation in environmental aspects, promotion of green building, and waste management assists Islamic banks in corroborating their financial performance (Fakhrunnas et al., 2025).

Moreover, Islamic banks' management quality is pivotal in moderating the relationship between environmental practices and return on equity. Islamic banks with better management quality, indicated by a high management score and low total cost-to-total income ratio, have higher return on values. These marginal effect results are supported by the arguments of the previous studies of Banna et al. (2018), Agnese et al. (2023), Danlami et al. (2022), and Hidayat et al. (2021). An increase in Islamic banks' management quality makes banks more competitive in the market and corroborates good corporate governance practices (Banna et al., 2018; Agnese et al., 2023). In addition, Islamic banks are probably more efficient because of cost reductions, while possessing good management quality. This finding contrasts with Franco et al. (2020), who concluded that possessing good management quality is redundant with sustainability practice because it has the same objectives, only creating additional costs in the firm's operation.

Theoretically, this study's findings align with those of Bukhari et al. (2019). Under congruency theory, implementing sustainability practices such as environmental commitment strengthens the value of Islamic banks. This is because stakeholders are more engaged in sustainability practices. Moreover, it also confirms that Islamic banks operate not only to fulfil Shariah-compliant aspects, but also to attain the objective of the Shariah through their commitment to preserving life (Khan & Badjie, 2022). The findings also have the same notion proposed by Asutay (2013), in which the role of Islamic banks extends beyond the profit-seeking motive, and banks commit to contributing to environmental preservation. This condition also portrays how Islamic banks can address the present challenges regarding sustainability concerns, as initiated and implemented by many institutions such as the United Nations (2015), Central Bank of Malaysia (2018), Network for Greening Financing System (2019), and Council of Banking and Financial Institutions (2022).

The implications of these findings are twofold. First, at the banking level, Islamic banks need to adopt, embed, and practice environmental commitment. These commitments can be implemented through the adoption of environmental screening in Islamic bank products, such as during the financing process through green credit screening, as suggested by the Council of Banking and Financial Institutions (2022). In addition, Islamic banks' indicators (KPIs) must be extended to include those that do not depend on output-based performance but focus only on financial performance. It must be enhanced to achieve outcome-based performance, with greater attention paid to how bank products impact social development and environmental preservation (Central Bank of Malaysia, 2018). Environmental commitment also requires a significant investment in Islamic banks' human capital, which shapes the practitioners of Islamic banks to have a sufficient awareness and mindset to promote environmental friendliness.

Second, at the regulatory level, policymakers and regulators must encourage Islamic banks to adopt environmental commitments. Such encouragement may start with voluntary action and progress to obligatory action. This is a step-by-step process that provides specific incentives for Islamic banks to have sufficient environmental commitment. Some policy suggestions by the Network for Greening Financing System (2019) are also essential for Islamic bank authorities to consider, such as acknowledging green assets as collateral and promoting green monetary instruments in the market. These initiatives are believed to boost environmental commitment in the Islamic banking industry significantly.

Conclusion

The objective of this study is to examine the impact of environmental commitments on the return on equity performance of Islamic banks. The findings reveal that environmental commitment has a positive influence on financial performance in Islamic banks and that management quality moderates the relationship between environmental commitment and financial performance in Islamic banks. These findings also confirm that, when Islamic banks take good initiatives and

actions, they enhance their financial performance. The limitation of the study, as well as paving the way forward for future studies, lies in data collection. Only limited observations are currently available in the database, which may have affected the quality of this study. Thus, future studies are required to collect more data for a better analysis, such as country and regional comparisons across Islamic banks. However, more data requires more time to wait. Despite these limitations, this study yields consistent results that have been verified through post-estimation tests. This indicates that the results are robust and precise.

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