
GREEN FINANCING AND PROFITABILITY IN ASEAN ISLAMIC BANKS: THE ROLE OF CREDIT RISK AND CORPORATE GOVERNANCE

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Abstract

This study aims to analyze the impact of green financing on the profitability of Islamic banks in the ASEAN region, as well as to examine the role of credit risk and good corporate governance (GCG) as moderating variables, taking into account control variables such as the Financing to Deposit Ratio (FDR), Capital Adequacy Ratio (CAR), and operational efficiency (BOPO). The research method employed is a quantitative approach using secondary data in the form of financial statements and sustainability reports from 28 Islamic banks in ASEAN for the period 2020–2024. The analysis techniques utilize panel data regression and Moderating Regression Analysis (MRA) with the assistance of Eviews 12 software. The results indicate that green financing has a significant positive effect on profitability, as proxied by ROA. Meanwhile, credit risk does not have a significant effect on profitability, whereas GCG demonstrates a significant positive effect on profitability. In its moderating role, credit risk is not proven to moderate the relationship between green financing and profitability, whereas GCG is statistically significant but exhibits a negative direction potentially weakening the relationship. The findings of this study suggest that green financing activities aimed at improving profitability may actually be hindered by the implementation of overly strict and layered corporate governance (CG) practices, which burden banks with additional operational costs. Meanwhile, credit risk levels were found not to affect the success of such green financing. Therefore, Islamic banks in the ASEAN region need to design a more efficient and adaptive GCG system so that compliance procedures and risk management can ensure long-term sustainability without unduly sacrificing potential financial gains.

Keywords: ASEAN Islamic banks, good corporate governance (GCG), green financing, non-performing financing (NPF), return on assets (ROA)

Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh green financing terhadap profitabilitas bank syariah di kawasan ASEAN, serta menguji peran credit risk dan good corporate governance (GCG) sebagai variabel moderasi dengan mempertimbangkan variabel kontrol berupa Financing to Deposit Ratio (FDR), Capital Adequacy Ratio (CAR), efisiensi operasional (BOPO). Metode penelitian yang digunakan adalah pendekatan kuantitatif dengan data sekunder berupa laporan keuangan dan laporan keberlanjutan dari 28 bank syariah di ASEAN periode 2020–2024. Teknik analisis menggunakan regresi data panel dan Moderating Regression Analysis (MRA) dengan bantuan software Eviews 12. Hasil penelitian menunjukkan bahwa green financing berpengaruh positif signifikan terhadap profitabilitas yang diprosikan dengan ROA. Sementara itu, credit risk tidak berpengaruh signifikan terhadap profitabilitas, sedangkan GCG menunjukkan pengaruh positif signifikan terhadap profitabilitas. Dalam peran moderasi, credit risk tidak terbukti mampu memoderasi hubungan antara green financing dan profitabilitas, sedangkan GCG signifikansi secara statistik, tetapi menunjukkan arah yang negatif atau dapat memperlemah hubungan tersebut. Implikasi penelitian ini menunjukkan bahwa aktivitas pembiayaan hijau dalam meningkatkan profitabilitas justru dapat terhambat oleh penerapan tata kelola perusahaan (GCG) yang terlalu ketat dan berlapis, yang membebani bank dengan biaya operasional ekstra. Sementara itu, tingkat risiko kredit terbukti tidak memengaruhi keberhasilan pembiayaan hijau tersebut. Oleh karena itu, perbankan syariah di kawasan ASEAN perlu merancang sistem GCG yang lebih efisien dan adaptif agar prosedur kepatuhan dan manajemen risiko dapat menjaga keberlanjutan jangka panjang, tanpa harus mengorbankan potensi keuntungan finansial secara berlebihan.

Kata-kata kunci: Pembiayaan hijau, laba atas aset (ROA), pembiayaan bermasalah (NPF), tata kelola perusahaan yang baik (GCG), perbankan syariah ASEAN

INTRODUCTION

Climate change has become one of the most critical global issues in recent decades due to its increasingly evident impacts on human life, the environment, and the global economy (Riyanti et al., 2025). Phenomena such as rising global temperatures, floods, droughts, extreme storms, and rising sea levels indicate that climate change has evolved into a major threat requiring serious attention from various nations (Kalkuhl & Wenz, 2020). The ASEAN region is one of the areas most vulnerable to the impacts of climate change due to its high population, industrial activities, and economic dependence on natural resources (Ding & Beh, 2022 & Handayani et al., 2022). According to a report by Krungsri research, the impacts of climate change in Asia have caused approximately 815,000 deaths and economic losses amounting to 1.654 trillion U.S. dollars (Sirichaichingkun, 2024).

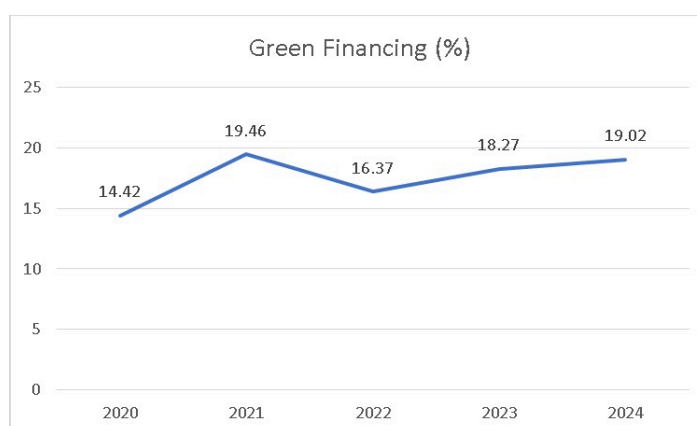


Figure 1. Average Growth in Green Financing

Based on the graph of average green financing growth for the 2020–2024 period, it is evident that green financing has fluctuated but generally shows an upward trend. From 2020 to 2021, the average green financing rate increased significantly to 19.46%. Subsequently, in 2022, it declined to 16.37%, likely influenced by economic conditions and adjustments to financing policies. Nevertheless, the value of green financing continued to rise again in the following year, reaching 19.02% in 2024. Overall, these developments indicate that the implementation of green financing continues to grow and reflects the increasing commitment of financial institutions to supporting sustainable financing.

Profitability, which is generally measured by Return on Assets (ROA), reflects a bank’s ability to efficiently utilize its assets to generate revenue and sustain long-term growth (Azad et al., 2023). Theoretically, green financing is expected to improve financial performance through reputational benefits, risk mitigation, and operational efficiency; however, previous studies have shown inconsistent results (Kurniawan et al., 2025). Several previous studies have reported a positive relationship between green financing and profitability (Alkindi & Utami, 2025; Rahma & Wedari, 2024; Sutrisno et al., 2024), while other studies have instead found negative or insignificant effects due to high initial costs, long payback periods, and uncertainties associated with green projects (Zhang et al., 2022; Widodo et al., 2023). This inconsistency in findings suggests that the relationship between green financing and profitability is indirect, rather than being influenced by mechanisms of other factors outside of a direct relationship.

This study addresses this research gap by examining the moderating roles of credit risk and good corporate governance (GCG). Credit risk, which describes the potential for a borrower to default on its obligations, can undermine the financial benefits of green financing (Muchiri et al., 2025). Meanwhile, GCG plays a crucial role in ensuring transparency, accountability, and effective decision-making, thereby

potentially strengthening the impact of green financing on profitability (Candera et al., 2024; Mardhiah & Risman, 2026). Based on the Triple Bottom Line Theory and Agency Theory (Sadek et al., 2025), this study argues that the success of sustainable finance strategies depends not only on environmental considerations but also on risk management and the quality of governance. Therefore, this study aims to analyze the impact of green financing on the profitability of Islamic banks in the ASEAN region and to investigate whether credit risk and good corporate governance (GCG) act as moderating variables in this relationship.

LITERATURE REVIEW

Profitability

Profitability is a key indicator in assessing banking financial performance, particularly in measuring and determining sustainability and growth by evaluating a company's ability to generate profits from its assets. Profitability reflects a bank's ability to generate optimal returns through effective and efficient management of revenue and the utilization of business opportunities (Fatmawati & Hakim, 2020; Rahmah et al., 2022). Additionally, profitability plays a role in influencing capital structure and serves as the foundation for evaluating a bank's financial performance (Wardana & Noer Aisyah Barlian, 2022). In Islamic banking, profitability levels are largely influenced by cost-based income, which contributes to long-term stability and sustainability (Azad et al., 2023).

Green Financing

Green financing is a form of financing allocated to projects that support environmental sustainability, such as renewable energy, energy efficiency, and waste management. This concept has evolved alongside growing global awareness of climate change and the importance of sustainable development. Generally, green financing aims to promote economic growth that remains aligned with environmental conservation, including efforts to reduce greenhouse gas emissions, air pollution, and various other forms of environmental degradation (Febriani Irma, 2024). In the banking context, green financing reflects the financial sector's contribution to supporting economic activities that are directed not only toward profit generation but also toward environmental preservation. This aligns with the Triple Bottom Line concept, where companies focus not only on profit but also on social (people) and environmental (planet) aspects (Chowdhury, 2023).

Credit Risk (Non-Performing Financing/NPF)

Credit risk is the risk arising from a borrower's inability to meet their financing obligations, which has the potential to result in losses for the bank (Agustin et al.,

2025). In Islamic banking, this risk is generally measured using the Non-Performing Financing (NPF) ratio, which indicates the level of non-performing financing that can be caused by both internal and external factors (Fahrezi & Tristiarto, 2026). A high NPF reflects poor financing quality and has the potential to reduce bank profitability due to increased loss risk and provisioning costs (Rambe, 2021). Empirically, credit risk has a negative relationship with profitability; the higher the level of non-performing financing, the lower the bank's ability to generate profits. Furthermore, high credit risk can also undermine the effectiveness of financing strategies, including green financing.

Good Corporate Governance (GCG)

Good Corporate Governance (GCG) is a system that regulates and controls a company to ensure it operates while upholding the principles of transparency, accountability, responsibility, and independence (Putri et al., 2023). The effective implementation of GCG can enhance investor confidence, operational efficiency, and the quality of decision-making within a company (Baarsyah & Welkom, 2025). In the banking context, GCG also helps reduce conflicts of interest and improve financial performance. GCG is measured using the ASEAN Corporate Governance Scorecard (ACGS) regional standard, developed by the ASEAN Capital Markets Forum based on OECD principles.

Triple Bottom Line (TBL) Theory

The Triple Bottom Line (TBL) theory, introduced by Elkington (1997) in his seminal work *Cannibals with Forks: The Triple Bottom Line of 21st Century Business* (Yanti & Rasmini, 2015), serves as the foundational framework binding the variables within this study. TBL asserts that organizational success is measured through three inseparable pillars: people, planet, and profit (Mushowiroton, 2020). The application of this concept dictates that corporate achievement is evaluated not merely by financial accumulation (profit), but comprehensively through its active contributions to social welfare (people) and environmental preservation (planet) (Gutiérrez-Ponce & Wibowo, 2023). Eccles et al. (2014) reinforced this by establishing that integrating economic, social, and environmental dimensions into a unified corporate strategy fundamentally drives long-term financial performance and competitiveness. Consequently, TBL functions not merely as a complementary philosophy, but as the binding structural logic that compels institutions to account for their socio-environmental impacts as an absolute prerequisite for generating sustainable financial returns (Yanti & Rasmini, 2015).

Agency Theory

Rooted in Jensen & Meckling (1976) agency theory, the principal-agent dynamic inherently risks conflicts of interest, as management may prioritize personal or short-term gains over shareholders' long-term objectives. Hamdani (2016) and Claessens and Yurtoglu (2012) assert that Good Corporate Governance (GCG) serves as the structural control mechanism essential to minimize these conflicts, reduce information asymmetry, and enforce accountability. Within the context of Islamic banking, this theory functions not merely as a descriptive background but strictly binds the research variables. Because Green Financing (GF) requires substantial initial investments and yields delayed, long-term returns, management might rationally avoid it without rigorous oversight (Amore & Bennedsen, 2016). Ultimately, only when agency conflicts are neutralized through these strict governance and risk mechanisms can GF successfully align environmental sustainability with increased profitability (Miralles-Quirós et al., 2019). Based on the explanation above, the conceptual framework and research hypothesis for this study are as follows:

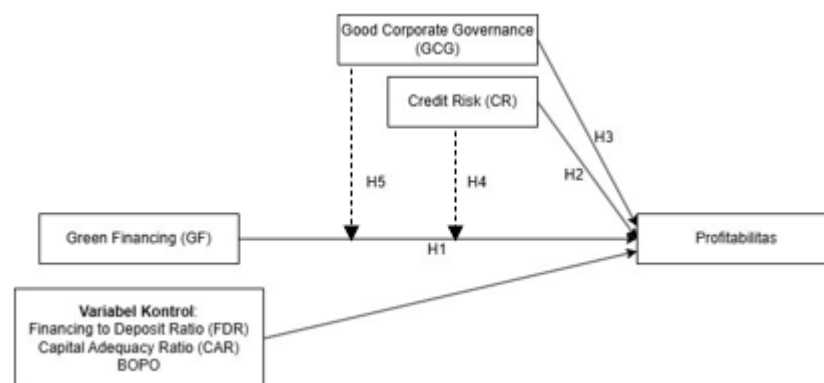


Figure 2. Research Framework

H1: Green financing affects profitability

H2: Credit risk affects profitability

H3: Good corporate governance affects profitability

H4: Credit risk moderates the relationship between green financing and profitability

H5: Good corporate governance moderates the relationship between green financing and profitability

RESEARCH METHOD

Type of Research

This research belongs to the type of descriptive quantitative research. Descriptive quantitative research is a method that aims to describe a phenomenon

objectively using numerical data, starting from data collection, data processing, interpretation, and conclusion drawing (Sugiyono, 2020). This study adopts a causal associative approach to examine the relationship between green financing and profitability, as well as the moderating roles of credit risk and good corporate governance (GCG) in Islamic banks across the ASEAN region.

Data and Sampel

This study uses secondary data obtained from the annual reports and sustainability reports of Islamic banks in the ASEAN region during the period 2020–2024. The sampling technique employed is purposive sampling, resulting in 28 Islamic banks as the research sample with a total of 140 panel observations. In this study, the dependent variable is profitability, measured using Return on Assets (ROA) in percentage units. Meanwhile, the independent variable is green financing, measured based on the proportion of environmentally sustainable financing disclosed in the banks' annual and sustainability reports. In addition, the mediating variables are Non-Performing Financing (NPF), measured in percentage units, and Good Corporate Governance (GCG), measured using the composite governance score disclosed by each bank. Furthermore, the control variables consist of Financing to Deposit Ratio (FDR), Capital Adequacy Ratio (CAR), and Operational Efficiency Ratio (BOPO), all measured in percentage units.

Table 1. Islamic Banking Sampel

Country	Islamic Banking
Indonesia	PT Bank Aceh Syariah
	PT BPD Riau Kepri Syariah
	PT BPD Nusa Tenggara Barat Syariah
	PT Bank Muamalat Indonesia
	PT Bank Victoria Syariah
	PT Bank Jabar Banten Syariah
	PT Bank Mega Syariah
	PT Bank Panin Dubai Syariah
	PT Bank Bukopin Syariah
	PT BCA Syariah
	PT Bank Tabungan Pensiunan Nasional
	PT Bank Aladin Syariah
Malaysia	Bank Islam Malaysia
	Affin Islamic Bank Berhad
	Alliance Islamic Berhad

Country	Islamic Banking
	AmBank Islamic Berhad
	Bank Muamalat Malaysia Berhad
	CIMB Islamic Bank Berhad
	HSBC Amanah Malaysia Berhad
	Hong Leong Islamic Bank Berhad
	Maybank Islamic Berhad
	OCBC Al-Amin Bank Berhad
	Public Islamic Bank Berhad
	RHB Islamic Bank Berhad
	Malaysia Building Society Berhad
	Bank Rakyat Malaysia
	Standard Chartered Saadiq Bank Berhad
Brunei Darussalam	Bank Islam Brunei Darussalam (BIBD)

Data Analysis Techniques

Data analysis techniques refer to the methods used to process, analyze, and interpret data to answer research problems. In this study, data were analyzed using panel data regression and Moderated Regression Analysis (MRA) with the help of EViews 12 software. The ratios and formulas used in this study are formulated as follows:

$$ROA = \alpha + \beta_1 GF + \beta_2 CR + \beta_3 GCG + \beta_4 (GF \times CR) + \beta_5 (GF \times GCG) + \varepsilon$$

Where:

ROA : Profitability

GF : Green Financing

CR : Credit Risk

GCG : Good Corporate Governance

E : Error term

RESULTS

Descriptive Statistics Analysis

This study aims to provide a comprehensive understanding of the factors influencing profitability at Islamic commercial banks in the ASEAN region during the study period. The following table presents descriptive statistics for the variables used in this study, including minimum, maximum, mean, and standard deviation values, with a focus on the roles of green financing, credit risk, and good corporate governance. Detailed descriptive results for each variable can be seen in the following table:

Table 2. Descriptive Statistics Results

	Green Financing	ROA	NPF (Z1)	GCG (Z2)	FDR	CAR	BOPO
Mean	17.51	3.01	2.07	1.72	81.57	30.54	70.31
Median	7.31	0.91	1.50	1.68	86.67	20.78	59.33
Min.	0.02	-10.85	0.00	1.00	0.00	14.48	25.80
Max.	100.00	200.00	13.27	2.50	196.73	390.50	428.40
Std. Dev	24.20	17.26	1.86	0.39	23.27	44.89	48.81
Q1	3.58	0.60	0.99	1.50	75.25	18.57	44.93
Q2	19.94	1.70	2.73	1.90	91.81	25.76	81.37

Based on Table 2, the descriptive statistical analysis not only shows the distribution of the data but also reflects the operational dynamics of Islamic commercial banks in the ASEAN region during the 2020–2024 period. The profitability variable (ROA) shows a very sharp disparity, with a minimum value of -10.85 and a maximum of 200.00. This extreme range indicates a disparity in financial resilience among banks in facing macroeconomic fluctuations, particularly during the post-pandemic transition period.

On the other hand, the proportion of Green Financing showed an average value of 17.51%, with the maximum value reaching 100%. This figure reveals an interesting finding: although the green financing portfolio has not yet fully dominated the aggregate credit structure of Islamic banks, there is a strong commitment to acceleration from several specific institutions. Furthermore, the average GCG score of 1.72 (on the ACGS scale, where lower is better) with a very low standard deviation (0.39) confirms that Islamic banks in the ASEAN region have consistently implemented very strict and homogeneous corporate governance. The strictness of these governance regulations has a direct implication on the banks' prudence, which is reflected in the low average non-performing financing (NPF) ratio of 2.07%.

Regression Model Selection Tests

In panel data analysis, model selection is performed using three approaches: CEM, FEM, and REM. The best model is determined using the Chow test (CEM vs. FEM), the Hausman test (FEM vs. REM), and the Lagrange Multiplier test (CEM vs. REM).

Table 3. Results of the Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.191314	(27,106)	0.2605

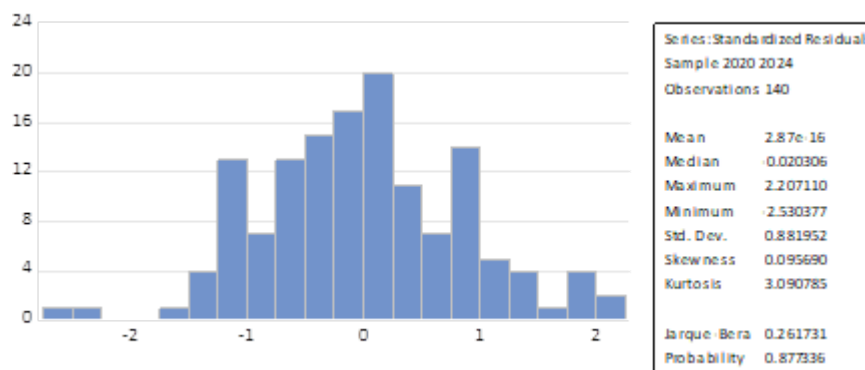
Based on the findings of the Chow test, a p-value of 0.2605 was obtained, which is greater than 0.05; therefore, the Common Effect Model (CEM) is more appropriate for this study. Consequently, the next step is to conduct an LM test to determine the appropriate model between CEM and REM.

Table 4. Results of the Lagrange Multiplier (LM) Test

Breusch-Pagan	0.429989
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Based on the findings of the Lagrange Multiplier test, a p-value of 0.429989 > 0.05 was obtained, indicating that the most appropriate model is the Common Effect Model (CEM). Therefore, the panel regression analysis in this study uses CEM as the final model for hypothesis testing. The selection of the CEM indicates that there are no significant individual or time effects, so the relationship between variables is homogeneous. Nevertheless, A panel data approach is applied in this study as the data represents a combination of cross-section and time series, and the use of the CEM (pooled regression) remains methodologically valid when the assumption of homogeneity is met (Gujarati & Porter, 2009; Baltagi, 2005).

Test of Classical Assumptions



Source: Processing Results with Eviews 12 (2026)

Figure 3. Results of the Normality Test

Based on the results of the normality test, the p-value was found to be 0.877336. This indicates that the data follow a normal distribution, as this value is significantly larger than the significance level of 0.05.

Table 5. Results of the Multicollinearity Test

	X	Z1	Z2	C1	C2	C3
X	1.000000	-0.12602	-0.10438	0.124662	0.421401	0.324232
Z1	-0.12602	1.000000	0.036188	0.210052	-0.14216	-0.04671
Z2	-0.10438	0.036188	1.000000	0.095839	-0.16717	-0.03166
C1	0.124662	0.210052	0.095839	1.000000	-0.25636	0.041313
C2	0.421401	-0.14216	-0.16717	-0.25636	1.000000	0.628666
C3	0.324232	-0.04671	-0.03166	0.041313	0.628666	1.000000

Source: Processing Results with Eviews 12 (2026)

Based on the results of the multicollinearity test, as shown in the correlation matrix among the independent variables (X, Z1, Z2, C1, C2, and C3), it can be seen that all correlation values are below the general threshold of 0.80. The highest correlation value is between variables C2 and C3 at 0.628666, which is still considered moderate and does not indicate a very strong relationship. This indicates that there are no serious signs of multicollinearity, so indicating that the model is suitable for subsequent analysis.

Table 6. Results of the Heteroscedasticity Test

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
X	-4.309158	5.612904	-0.767723	0.4440
Z1	-0.017653	0.025923	-0.680989	0.4971
Z2	4.396530	2.496531	1.761056	0.0805
C1	-1.97E-05	0.296666	-6.65E-05	0.9999
C2	-0.025328	0.026323	-0.962200	0.3377
C3	-0.007229	0.018287	-0.395310	0.6933

Source: Processing Results with Eviews 12 (2026)

Based on the results of the heteroscedasticity test using the Glejser method with ABS(RESID) as the dependent variable, it appears that all independent variables have probability values above 0.05, indicating that they do not have a significant effect on the residuals. Thus, the model does not exhibit heteroscedasticity and satisfies the assumption of homoscedasticity.

Table 7. Autocorrelation Test Results

Durbin-Watson stat	2.463072
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The Durbin-Watson (DW) statistic of 2.463072 falls within the range of 1.5–2.5, indicating the absence of significant autocorrelation. Although the value suggests a

slight tendency toward negative autocorrelation (since it is greater than 2), it is not strong enough to be considered a problem in the model. Thus, the assumption of residual independence is satisfied, and the model is suitable for further analysis.

Hypothesis Test

Table 8. Results of the T-Test and MRA

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	-14.98341	10.59744	-1.413871	0.1598
X	0.850753	0.445965	2.907668	0.0486
Z1	-0.361499	1.052945	-0.343322	0.7319
Z2	14.62703	5.257921	2.781904	0.0062
XZ1	0.019175	0.042157	0.454856	0.6500
XZ2	-0.541356	0.256343	-2.111844	0.0366
C1	-0.044569	0.070991	-0.627810	0.5312
C2	-0.008072	0.052001	-0.155220	0.8769
C3	-0.033881	0.040044	-0.846096	0.3990

Source: Processing Results with Eviews 12 (2026)

Based on the results of the t-test, the green financing variable (X) has a coefficient of 0.850753 with a p-value of 0.0486 < 0.05, indicating a positive and significant effect on profitability. Thus, H1 is accepted. This implies that an increase in green financing can enhance the profitability of Islamic banks in ASEAN. The regression coefficient of the Green Financing variable (X) was 0.851. The positive value coefficient means a positive relationship between green financing and profitability. In the context of Islamic banking in ASEAN, this proves that allocating funds to environmentally sustainable projects is not just regulatory compliance but a strategic value driver that significantly enhances ethical reputation and boosts long-term financial returns.

The regression coefficient of the *Credit Risk/NPF* variable (Z1) is -0.361. The negative value coefficient means a negative but statistically insignificant relationship with profitability. This indicates that ASEAN Islamic banks successfully mitigate financing risks through strict adherence to sharia contracts and prudent risk-sharing mechanisms, preventing non-performing financing from disrupting the bank's bottom-line profit. The regression coefficient of the *Good Corporate Governance* (GCG) variable (Z2) is 14.627. The positive value coefficient means a positive relationship, showing that superior corporate governance independently drives high operational efficiency and better financial performance.

The regression coefficient of the MRA interaction variable between *Green Financing* and *Credit Risk* (XZ1) was 0.019. The positive value coefficient means a positive but statistically insignificant moderating effect. This proves that the level of credit risk in the market does not alter or interfere with the strength of the relationship between green financing and bank profitability, as Islamic banks maintain stable risk management protocols. Variable between *Green Financing* and GCG (XZ2) was -0.541. The negative value coefficient means that GCG significantly weakens the positive relationship between green financing and profitability. Rooted in *Agency Theory*, this paradoxical finding reveals that a highly disciplined sharia governance framework forces management (agents) to adopt an extremely conservative stance. Due to high information asymmetry and long payback periods of green projects, rigid GCG screening and high compliance costs temporarily hold back short-term ROA maximization to secure long-term asset quality and institutional sustainability.

Table 9. Results of the Coefficient of Determination Test

R-Squared	0.668539
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The results of this test show an R-squared value of 0.668539, which means that the independent, moderating, and control variables account for 66.8% of the variation in profitability, while the remaining 34.2% is influenced by other factors outside the research model.

DISCUSSION

Analysis based on the test results shows that green financing can improve the profitability of Islamic banks in ASEAN through sustainable financing practices. From an economic perspective, green loans are not a cost burden but rather a strategy for banks to mitigate future transition risks, as customers in the green business sector are less likely to face environmental regulatory penalties, thereby reducing the risk of default. This study aligns with previous research findings by Sutrisno et al. (2024) and Alkindi & Utami (2025), which state that green financing has a positive impact on profits due to strengthened ethical reputation and long-term operational cost efficiency. Conversely, the results of this study differ from the findings of (Anggraini et al., 2022), who argued that green financing has not yet had a significant impact due to the high upfront costs and long payback periods of environmental projects in developing countries.

An analysis of the *Credit Risk* (CR) variable indicates that NPF is not the primary determinant of ASEAN Islamic banks' profitability, as management has been able to

implement prudent banking practices and robust mitigation strategies. These findings are supported by Sutrisno & Furqan (2023), who demonstrate that NPF do not significantly affect profitability because Islamic banks in the ASEAN region have implemented very strict risk management oversight and controls, thereby mitigating the impact of non-performing loans at the operational level. Conversely, Cobbinah et al. (2024) and Farassi and Haryono, (2023) present differing results, indicating that credit risk has a negative and significant impact on ROA due to the high accumulation of non-performing loans, which directly impedes the ability of assets to generate net profit

Good Corporate Governance (GCG) variables have a positive and significant effect on profitability, meaning that the better the implementation of corporate governance, the higher the profitability of Islamic banks. These results indicate that good governance can improve operational efficiency, stakeholder trust, and the quality of decision-making, which in turn leads to improved financial performance. These findings are supported by (Rahdian et al., 2023) and (Rohilah & Utami, 2026), who state that GCG has a positive and significant effect on profitability because transparent and accountable governance has proven effective in minimizing conflicts of interest between management and shareholders, thereby driving overall operational efficiency. In contrast, research conducted by Baarsyah & Welkom, (2025) suggests that stringent governance oversight processes can actually increase operational burdens and institutional oversight costs borne by banks.

Based on the results of the Moderated Regression Analysis (MRA), variable XZ1 indicates that the level of financing risk neither strengthens nor weakens the effect of green financing on profitability. This suggests that the level of financing risk in the market does not amplify or diminish the impact of green financing on a bank's ability to generate profits. From an analytical and economic interpretation perspective, the absence of this moderating effect proves that the green financing portfolio in ASEAN Islamic banks has a resilient risk profile and is insulated from macro-credit volatility. From an institutional perspective specific to Islamic banking, this stability is driven by the requirement for tangible underlying assets in murabahah and musharakah contracts, which effectively narrows the scope for fictitious or speculative transactions, thereby mitigating the impact of non-performing loans early on without disrupting the bank's core capital. This finding aligns with Nurfadila et al. (2023) and Kurniawan et al. (2025), who found that NPF does not significantly affect profitability due to the principles of prudential banking and effective risk mitigation.

The interaction variable XZ2 moderates the relationship between green financing and profitability. However, the negative direction of the interaction indicates a dampening effect. This finding is supported by Alamsyah & Amri (2024)

who state that governance oversight does not always linearly strengthen the impact of green initiatives on financial performance. GCG does not always strengthen the relationship between green financing and financial performance.

CONCLUSION

This study provides a comprehensive overview of the integration of sustainable finance instruments in the Islamic banking sector in the ASEAN region for the period 2020–2024. Through an empirical quantitative approach, this study confirms that the allocation of green financing is not merely a form of compliance with environmental regulations, but rather a strategic value driver capable of significantly boosting bank profitability (ROA) through enhanced ethical reputation and long-term cost efficiency. On the other hand, credit risk levels have proven not to be a barrier to the success of this green financing, reflecting the resilience of underlying asset-based risk management in the ASEAN Islamic banking industry.

The key scientific message and the most significant paradoxical finding of this study lies in the moderating role of good corporate governance (GCG). Compliance with governance standards, as measured by the ACGS regional standards, was statistically shown to moderate the relationship between green financing and profitability, though with a negative direction. Contrary to the commonly held linear assumption, layered and rigid governance actually exerts a dampening effect on short-term profitability due to surging compliance costs and an extremely conservative green financing selection process aimed at avoiding the risk of environmental manipulation (greenwashing).

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