

RGEC AND GREEN BANKING: THE MODERATING ROLE OF ISLAMIC SOCIAL REPORTING

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Abstract

This research aims to analyze the effect of bank health on Green Banking using the RGEC (Risk Profile, Good Corporate Governance, Earnings, and Capital) method, with Islamic Social Reporting (ISR) as a moderating variable. A quantitative approach was applied, utilizing secondary data from the annual reports and sustainability reports of 11 Islamic Commercial Banks in Indonesia from 2020 to 2024. The analysis was conducted using Partial Least Square-Structural Equation Modeling (PLS-SEM) through SmartPLS 4 software. The results show that, among the RGEC variables, only the Capital Adequacy Ratio (CAR) significantly influences the Green Banking Disclosure Index (GBDI). In contrast, Non Performing Financing (NPF), Financing to Deposit Ratio (FDR), Good Corporate Governance (GCG), Return on Assets (ROA), and BOPO were found to have a non significant impact. Additionally, Islamic Social Reporting (ISR) did not moderate the relationship between the RGEC variables and the GBDI.

Keywords: Bank Health, Green Banking, Islamic Social Reporting

A. INTRODUCTION

As part of the global agenda for sustainable development, all sectors, including banking, must actively contribute to balancing economic growth, social welfare, and environmental sustainability (Muchiri et al., 2025). One clear example of applying sustainability principles in the financial sector is green banking, which involves banking practices that support environmentally friendly economic activities and promote sustainable development (Gazi et al., 2024). The success of green banking heavily depends on the internal health of banks, which is evaluated through the RGEC method encompassing Risk Profile, Good Corporate Governance, Earnings, and Capital as outlined in Bank Indonesia Regulation No 13/1/PBI/2011 (Wijayanti et al., 2023).

However, successful green banking implementation relies not only on the bank's health but also on how well the bank can maintain transparency and accountability. In the context of Islamic banking, this aspect is demonstrated through Islamic Social Reporting (ISR), which evolved from traditional Corporate Social Reporting (CSR), but with the added component of adherence to Islamic principles values. Islamic Social Reporting is used as an indicator in Sharia social performance reporting to help Muslims make decisions and assist businesses in fulfilling their duties to Allah and society.

Several studies have examined green banking from various viewpoints. The NPF ratio in Risfika Utami & Anwar, (2025) has an impact on green banking, while the results of a research study by Citraningtyas et al., (2024) show that the Non-Performing Loan (NPL) ratio and the Loan to Deposit Ratio (LDR) have a negative impact. Research by Nisa et al., (2024) Shows that corporate governance has a positive and significant impact on the implementation of green banking. However, findings by Pratistha et al., (2025) found that corporate governance does not significantly impact green banking. Siregar & Haryono, (2023) their study found that the BOPO and CAR ratios do not affect green banking, which differs from the results of a study by Risfika Utami & Anwar, (2025) who found that the CAR ratio does have an effect. Meanwhile, the ISR variable, as a moderating factor, is shown in the research by Jati et al., (2020), where the quality of sharia governance is positively correlated with the level of Islamic Social Reporting disclosure, and research conducted by Aisah et al., (2024) It was found that Islamic Social Reporting (ISR) disclosure strengthens the link between green banking

practices and Maqasid Shariah-based objectives performance. This study aims to evaluate bank health using the RGEK (Risk Profile, Good Corporate Governance, Earnings, and Capital) method, focusing on the implementation of Green Banking with Islamic Social Reporting serving as a moderating factor variable.

B. LITERATURE REVIEW

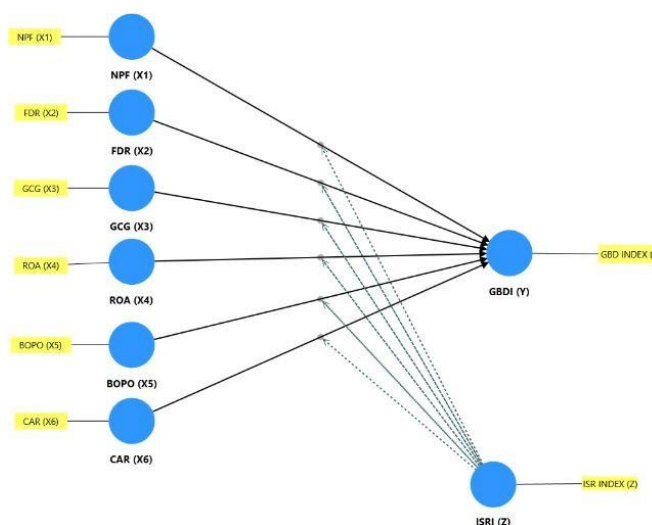
Stakeholder Theory and Legitimacy Theory

According to R. Edward Freeman (1984) stated by Freeman & McVea, (2001) stakeholder theory highlights that organizations should prioritize not just shareholder interests but also the needs and concerns from different stakeholders such as employees, customers, suppliers, communities, and the general public. In Pulino et al., (2022) Suchman (1995) states that legitimacy theory explains that the

sustainability of an organization is highly dependent on how well business actions comply with the norms, values, beliefs, and social definitions constructed by society. In Islamic banking, these two theories are closely related to companies and stakeholders, which can be strengthened through the disclosure of social, economic, and environmental commitments in annual reports. Such disclosure is necessary to demonstrate the alignment of a company's actions with the values and expectations of society. This supports the application of RGEC, green banking, and Islamic Social Reporting in assessing the feasibility and sustainability of a bank.

Therefore, this study produces the following framework:

Figure 1. Path Diagram



C. METHODOLOGY

This study employs a quantitative approach, analyzing secondary data are obtained from the annual and sustainability reports of 11 Islamic Commercial Banks (BUS) in Indonesia from 2020 to 2024. The research variables include independent factors such as RGEC measured by Non Performing Financing (NPF) and Financing to Deposit Ratio (FDR) for the Risk Profile component, Good Corporate Governance (GCG) for governance, Return on Assets (ROA) and BOPO for earnings, and Capital Adequacy Ratio (CAR) for capital. The dependent variable is Green Banking, with Islamic Social Reporting (ISR) serving as the moderating variable. Data analysis was performed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with SmartPLS 4 software, assessing relationships between variables and examining the moderating effect of Islamic Social Reporting.

D. RESULT AND DISCUSSION

STRUCTURAL MODEL TEST (INNER MODEL)

Table 1. R-Square output

R-SQUARE

	R-square	R-square adjusted
GBDI (Y)	0,614	0,491

The R-Square output shows that the R-Square value for the GBDI variable is 0,614. This result indicates that all independent variables in the model can explain 61.4% of the variance in the Green Banking Disclosure

Index, with the remaining variation due to factors outside this study.

Table 2. Hypothesis Test

HYPOTHESIS TEST			
	Original sample (O)	T statistics (O/STDEV)	P values
NPF (X1) -> GBDI (Y)	-0,327	1,259	0,211
FDR (X2) -> GBDI (Y)	-0,155	0,561	0,576
GCG (X3) -> GBDI (Y)	0,097	0,565	0,573
ROA (X4) -> GBDI (Y)	-0,477	0,733	0,466
BOPO (X5) -> GBDI (Y)	-0,308	0,511	0,610
CAR (X6) -> GBDI (Y)	1,072	2,261	0,026
ISR (Z) x NPF (X1) -> GBDI (Y)	-0,240	0,714	0,477
ISR (Z) x FDR (X2) -> GBDI (Y)	-0,710	1,449	0,151
ISR (Z) x GCG (X3) -> GBDI (Y)	0,269	1,283	0,202
ISR (Z) x ROA (X4) -> GBDI (Y)	-0,230	0,097	0,923
ISR (Z) x BOPO (X5) -> GBDI (Y)	-0,844	0,453	0,651
ISR (Z) x CAR (X6) -> GBDI (Y)	0,479	1,628	0,107

Based on Table 2. the Bootstrapping analysis indicates that NPF (X1), FDR (X2), GCG (X3), ROA (X4), and BOPO (X5) do not significantly influence GBDI, as their p-values exceed 0.05. In contrast, CAR (X6) has a significant impact on GBDI, with a coefficient of 1.072 and p-values of 0.026, suggesting that higher bank capital correlates with better green banking disclosure. Additionally, the moderation test reveals that ISR (Z) does not moderate the relationship between RGEC and GBDI, since all interaction terms between ISR and the independent variables are also non significant. Therefore, only CAR significantly affects GBDI, while other RGEC variables and ISR have no substantial effect.

These findings offer a different perspective compared to earlier research. For instance, Risfika Utami & Anwar (2025) reported that NPF influenced green banking, but this study found no such effect. Additionally, Citraningtyas et al. (2024) identified a negative impact of NPL on green banking, which contrasts with this study's results where shows no significant influence. This suggests that in BUS, green banking disclosure is unaffected by financing risk or liquidity levels. In essence, fluctuations in risk do not prompt banks to enhance the quality of environmental disclosure.

Regarding good corporate governance, Nisa et al. (2024) found that corporate governance positively influences green banking. However, this studys results suggest that GCG does not have a significant impact. This aligns more closely with Pratistha et al., (2025) findings, which indicate that governance is not always linked to sustainability practices. The lack of significance implies that BUS has not prioritized governance structure as a key factor in green banking disclosures.

Performance variables like ROA and BOPO do not show a significant impact, contrasting with the idea that more profitable or efficient banks are better at sustainability disclosure. However, the similarity of these results with Siregar & Haryono (2023) on BOPO highlights that operational efficiency does not necessarily correlate with green banking practices at BUS. This suggests that profitability and efficiency are not yet integrated into Islamic banks' sustainability strategies.

In contrast, CAR is the only variable with a significant impact, aligning with Risfika Utami & Anwar (2025) study emphasizing the role of capital in green banking. A solid capital base enables banks to finance environmental initiatives, create green financing strategies, and enhance transparency via sustainability reports. Therefore, the effectiveness of banks in executing green banking largely depends on the robustness of their capital foundation.

Concerning the moderating variable, the findings indicate that Islamic Social Reporting (ISR) does not strengthen the link between RGEC and GBDI. This is different from Jati et al. (2020), who identified a relationship between sharia governance quality and higher Islamic Social Reporting disclosure, and Aisah et al. (2024), who argue that ISR enhances the connection between green banking and Maqasid Shariah-based performance. These results imply that ISR in Islamic banks remains mainly symbolic and has yet to become a strategic tool for enhancing the bank's legitimacy regarding environmental issues.

E. CONCLUSION

The study shows that among the six RGEC components, only the Capital Adequacy Ratio (CAR) has a

significant positive effect on green banking disclosure. This confirms that capital adequacy is a crucial factor motivating banks to adopt sustainable practices. Conversely, variables such as NPF, FDR, GCG, ROA, and BOPO

did not significantly impact GBDI, indicating that risk, liquidity, governance, profitability, and operational efficiency were not key drivers for green banking adoption during the study period. Additionally, the ISR variable as a moderator did not strengthen the relationship between RGEC and GBDI. These results suggest that sharia social disclosure efforts have not successfully enhanced the influence of internal bank factors on green banking practices. Overall, the findings highlight that capital is the main driver of green banking adoption, while other factors have limited impact. Therefore, Islamic banks should focus on strengthening their capital reserves and integrating sustainability deeper into their business strategies to improve green banking initiatives.

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