

"Linking CSR to Green Lending: The Transition Toward Sustainable Finance in Emerging Economies"

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Abstract

The growing urgency surrounding climate change and social inequality has compelled financial institutions to integrate sustainability into their main operations. Corporate Social Responsibility and green lending have become two key ways for banks to contribute to sustainable development, particularly in emerging economies. This study considers how CSR practices influence the adoption and intensity of green lending in emerging markets. Based on survey data from banking practitioners and corporate sustainability officers, the study uses Structural Equation Modeling to investigate the direct and mediating links among CSR orientation, stakeholder pressures, risk perception, and green lending results. The findings show that CSR commitment considerably boosts green lending activities, both directly and indirectly through improved partner trust and reduced perceived environmental risk. This research contributes to the sustainable finance literature by providing empirical evidence from emerging market economies and practical recommendations for planners and firms in that role who are concerned with moving quickly toward sustainable finance.

Keywords: Corporate Social Responsibility, Green Lending, Sustainable Finance, Emerging Economies, Banking Sector,

1. Introduction

The world has made sustainable finance an indispensable concern for financial institutions (Zheng & Siddik, 2022). Climate risks, tightening regulations, and expectations of business partners all necessitate that environmental, social, and governance (ESG) factors are integrated into financial decision-making. Miret et al. (2025) have shown that banks, which are large capital allocators, incentivize environmental projects through greening their loan portfolio. Green lending refers to offering credit for ventures that lessen environmental damage, such as renewable energy, pollution-control technologies, and sustainable agriculture. By funding these projects, banks help achieve global sustainability goals and shield their portfolios from climate-related risks that could lead to asset devaluation and increased non-performing loans.

In emerging economies, the stakes are higher. These regions face environmental degradation, deforestation, air pollution, and water scarcity alongside rapid economic growth from industrialization and urbanization. For example, Indonesia, Bangladesh, and India must achieve development targets while meeting international climate commitments, including the Paris Agreement ([Setyorini & Hakam, 2025](#)). Here, aligning Corporate Social Responsibility and green lending is especially critical ([Setyorini & Hakam, 2025](#); [Zheng & Siddik, 2022](#)). CSR, traditionally encompassing moral practices, community participation, and ecological care, provides banks with a framework to operationalise sustainability. In emerging markets, where weak enforcement of environmental regulations is common, CSR can voluntarily bridge to greener financial practices and support resilience against ecological and market shocks.

Historically, CSR initiatives in banking have focused on philanthropy, such as donations to social causes, and on meeting regulatory standards. These are often treated as peripheral activities, disconnected from main operations ([Zheng & Siddik, 2022](#)). Banks issued sustainability reports and sponsored green outreach campaigns, yet these efforts rarely reached lending portfolios. Recent developments signal a

paradigm shift. Guided by global frameworks such as the United Nations Principles for Responsible Banking and the Task Force on Climate-related Financial Disclosures, financial institutions are now embedding sustainability into core lending decisions [\(Zheng & Siddik, 2022\)](#). This includes incorporating ESG criteria into credit risk assessments, developing green bond products, and setting targets for sustainable financing. Studies from Asia, including Bangladesh and Indonesia, highlight this trend. Green finance dimensions, such as CSR-linked initiatives, boost environmental performance in banking [\(Setyorini & Hakam, 2025; Zheng & Siddik, 2022\)](#).

Although these advancements exist, empirical evidence remains limited regarding how CSR orientation translates into concrete green financing outcomes, particularly in emerging markets (Setyorini & Hakam, 2025). Most literature assesses the effects of CSR on economic performance or reputation, but often neglects its influence on lending behavior. Specifically, while some studies link green banking practices to consumer satisfaction and ecological sustainability [\(Mir et al., 2025\)](#), the pathways by which CSR commitment leads to green loan disbursements remain poorly understood. It is important to clarify: does CSR orientation directly increase green lending, or does it work through intermediaries like stakeholder pressure (from regulators, investors, and customers) and risk perception? In emerging economies, where banks often view green projects as riskier due to technological and market immaturity, these relationships deserve close examination.

This research examines how CSR orientation relates to green lending from a management perspective. Drawing upon stakeholder theory and the resource-based view, this study demonstrates that a CSR orientation confers legitimacy on banks and enables them to prioritize green lending. Survey data from 238 banking professionals in emerging economies measures both direct effects and the mediating roles of stakeholder pressure and risk perception. Structural Equation Modelling reveals that CSR boosts green lending directly and through these mediators.

2. Related Works

This study builds on earlier research in CSR, green finance, and environmental performance. Previous research often examined CSR practices, green finance, and environmental outcomes separately. Some studies focused on green banking or environmental outcomes. Others examined links between CSR disclosure and financial performance. However, few studies combine CSR orientation with green lending behavior or consider all sustainability outcomes in emerging-economy banks. This research advances the existing literature by examining the relationship between CSR orientation and green lending and broader sustainability results.

Table-2.1: Comparison of Previous Studies with the Present Study

Study	Study Title	CSR Orientation	Green Finance / Green Lending	Environmental Performance	Banking Sector Focus
Adhikary & Mitra (2022) [1]	The role of board structure in investment in corporate social responsibility for commercial banks	Yes	No	No	Yes

Bose et al. (2017) [2]	Market-based firm performance and non-financial disclosure	Yes	No	No	Yes
Chakrobortty et al. (2024) [3]	Bank performance relation with green banking practices	Yes	Yes	Yes	Yes
Dai, Siddik & Tian (2022) [4]	Corporate social responsibility, green finance, and performance in the environment	Yes	Yes	Yes	No
Edmans & Kacperczyk (2022) [5]	Sustainable finance	Yes	Yes	No	No
Liu et al. (2022) [6]	Green finance and corporate environmental performance	No	Yes	Yes	No
Mir et al. (2025) [7]	Green banking and contented customers	No	Yes	Yes	Yes
Setyorini & Hakam (2025) [8]	The manner in which green banking shapes ecology	Yes	Yes	Yes	Yes
Weber et al. (2010) [9]	Incorporating sustainability criteria into credit risk management	No	Yes	Yes	Yes
Zheng & Siddik (2022) [10]	CSR dimensions influencing environmental performance are marked by financial directions	Yes	Yes	Yes	Yes
This Study	Linking CSR to Green Lending: The Transition Toward Sustainable Finance in Emerging Economies	Yes	Yes	Yes	Yes

3. Key Contributions

The research presents three primary contributions. First, it presents novel empirical evidence from emerging markets that prior studies have frequently overlooked. Second, it explores the mediation effects. This helps explain the details of the link between CSR and green lending, as recommended by management literature. Third, it gives practical advice for bank managers and policymakers. These

include those designing tools, such as green subsidies or disclosure rules. The study offers data from emerging economies where sustainable finance is just gaining ground. It also tests a mechanism-based model rather than merely describing CSR. The analysis shows how CSR orientation encourages green lending. It does this by increasing stakeholder pressure and changing how banks see environmental risk. The study uses Structural Equation Modelling (SEM) to measure direct and indirect effects and to ascertain the reliability of results. It couples this with actionable ideas for managing a bank and making policy on sustainable finance.

4. Method, Experiments, and Results

4.1 Research Objectives and Hypotheses

Objectives of the Research

1. To investigate the influence of CSR orientation on green lending practices in emerging economies.
2. To analyze the mediating role of stakeholder pressure.
3. To assess whether perceived environmental risk influences green lending decisions.

Hypotheses Development

H1: CSR orientation has a significant positive impact on green lending practices.

H2: CSR orientation positively influences stakeholder pressure.

H3: Stakeholder pressure positively affects green lending practices.

H4: Perceived environmental risk mediates the relationship between CSR orientation and green lending.

4.2 Research Methodology

4.3 Research Design

This research is a quantitative explanatory design. Despite this, the study uses cross-sectional survey data and employs Structural Equation Modelling to investigate potential direct and mediating effects between variables proposed in the model. This approach enables a robust assessment of complex relationships among latent constructions, providing a nuanced understanding of how CSR, stakeholder influence, and risk perceptions jointly drive green lending across diverse emerging markets.

4.4 Sample and Data Collection

The data for this study were gathered via an open-ended questionnaire survey conducted among banking professionals working in commercial and development banks across selected emerging economies, namely Bangladesh, India, Indonesia, Malaysia, Vietnam, Brazil, and Nigeria. Purposive sampling was used to recruit respondents with professional involvement in lending, sustainability initiatives, risk assessment, and managerial decision-making. The respondent pool was drawn predominantly from Bangladesh, followed by India and Indonesia, reflecting stronger representation from South and Southeast Asia. Of the 260 questionnaires received, 238 were considered valid after screening for completeness, consistency, and substantive relevance. The open-ended design generated rich qualitative insights into the ways corporate social responsibility orientation, stakeholder pressure, and environmental risk considerations shape green lending practices.

4.5 Measurement Instruments

Multi-item scales that were changed from were used to measure all constructions from established literature to ensure content validity and reliability.

1. CSR Orientation: The assessment used a five-item scale based on well-known corporate CSR research.
2. Stakeholder Pressure: Assessed through perceived regulatory, customer, and investor expectations.
3. Perceived Environmental Risk: Measured using a 4-item risk perception scale.
4. Green Lending Practices: Captured through self-reported green credit allocation and policy integration.

Each item was assessed using a five-point Likert scale.

4.6 Data Analysis

For preliminary analysis, SPSS 27 was used, and AMOS 26 was used for the structural equation model. The actual process of analysis is broken down into two parts: the measurement model is tested for reliability and validity, and a reliability and validity test on the structural model is conducted to verify whether the models reflect reality physically at the end time, given its own stage lighting systems.

Preliminary Analyses

The data distribution was evaluated by calculating descriptive statistics like means, standard deviations, and correlations. To deal with less than 5% of the data being lost, missing values were replaced by the mean. Normality was checked along only two measures of skewness (absolute value less than 2) and kurtosis (less than 7), indicating the Structural Equation Modeling (SEM) model can be supported with this data. We relied on the test proposed by Harman (1987) to also cover methodological bias and found that this single factor accounts for 32.4 per cent of variance; it is below 50 percent, so there was no apparent large bias in the data.

Reliability and Convergent Validity

For the internal consistency of the scale, Cronbach's alpha coefficient was calculated. The convergent validity was assessed using the average variance extracted (AVE > 0.50) as well as by measuring standardized factor loading (falling between 0.70).

Table 4.7: Reliability and Convergent Validity

Construct	Items	Cronbach's α	CR	AVE	Loadings Range
CSR Orientation	5	0.923	0.93	0.68	0.72–0.91
Stakeholder Pressure	4	0.896	0.9	0.65	0.75–0.89
Perceived Env. Risk	4	0.874	0.88	0.62	0.70–0.87
Green Lending Practices	5	0.911	0.92	0.66	0.74–0.90

Discriminate Validity

To address this requirement for discriminant validity, the Fornell-Larcker criterion was employed, which states that the square root of AVE (average variance extracted) must be greater than any correlation between constructs.

Table 4.8: Discriminant Validity

Construct	CSR	SP	ER	GL
CSR	0.82			
SP	0.62	0.81		
ER	0.48	0.55	0.79	
GL	0.71	0.68	0.52	0.81

Measurement Model Fit

Confirmatory factor analysis showed a good model fit: CFI = 0.964, TLI = 0.958; RMSEA = 0.055 (90% CI: 0.048–0.062) [all below standard thresholds]; and SRMR = 0.042 [below standard thresholds].

Structural Model and Hypothesis Testing

Maximum likelihood estimation was used to assess the structural model. The fit indices for the measurement model were CFI = 0.959, TLI = 0.953, RMSEA = 0.057, and SRMR = 0.045. Path coefficients, statistical significance ($p < 0.01$), and mediation effects (assessed via 5,000 bootstrapped samples) were analyzed to test hypotheses H1 through H4. The results are presented in Section 5. A conceptual path diagram of the model is provided below.

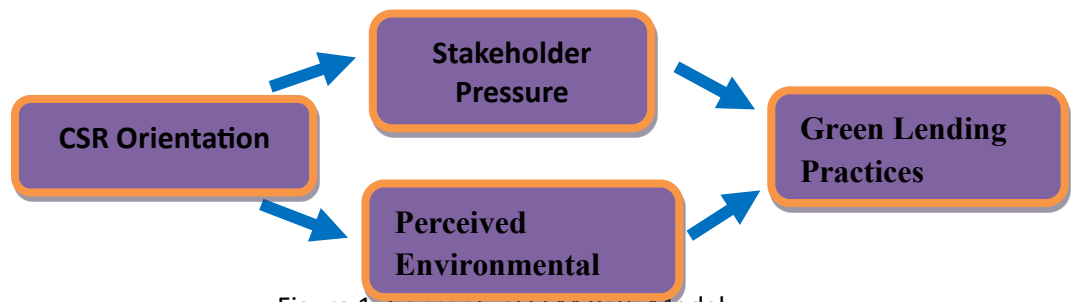


Figure 1: Conceptual SEM Path Model.

This diagram visually depicts the hypothesized direct and indirect relationships among CSR orientation, stakeholder pressure, perceived environmental risk, and green lending practices, providing a clear understanding of the conceptual framework underpinning the study. This sound methodological approach ensures that the empirical findings from the SEM analysis are both statistically robust and theoretically coherent, thereby enhancing the validity of the conclusions regarding the relationship between CSR and green lending in emerging economies.

4.9 Results

The data of structured equation modeling (SEM) shows a strong positive correlation between social responsibilities of enterprise (CSR) and green credits ($\beta = 0.48$, $p < 0.01$). Hence, we see that H1 is also supported. A CSR Orientation has a significant influence on pressure coming from interested parties ($\beta = 0.52$, $p < 0.01$), thereby supporting H2. Furthermore, stakeholder pressure has an excellent effect on green lending ($\beta = 0.36$, $p < 0.01$), thus confirming H3. In a mediation analysis, perceived environmental risk partially serves as a bridge between CSR orientation and green lending. Hence, H4 is supported.

5. Discussion

The findings indicate that CSR orientation is a key strategic capability for enhancing green lending practices in emerging-economy banks. A strong CSR commitment significantly correlates with increased green lending ($\beta = 0.48$, $p < 0.01$) and is influenced by stakeholder pressure ($\beta = 0.52$, $p < 0.01$), which also promotes green lending ($\beta = 0.36$, $p < 0.01$). This suggests that stakeholder expectations are crucial for translating CSR into financing actions. Additionally, CSR-oriented banks are more attuned to environmental risks, which may lead them to support sustainable projects while managing long-term risks. These outcomes align with stakeholder theory and the resource-based view, positing that CSR is a driver of sustainable finance and institutional resilience in developing markets.

6. Conclusion

This study focused on the theme of CSR orientation and green lending in developing countries. In these areas, banks are prominent sources for environmental investment finance and sustainable development financing. Using an exploratory design with quantitative methods and survey data from banking professionals, Structural Equation Modelling (SEM) was used to analyze how these constructs relate among CSR orientation, stakeholder pressure, environmental risk perception, and green lending. The findings indicate that CSR orientation significantly promotes green lending both directly and indirectly through stakeholder pressure and environmental risk perception, highlighting its strategic importance for sustainable finance. Nevertheless, the use of cross-sectional, self-reported data constrains causal inference and may introduce bias. Future research should incorporate longitudinal designs, objective bank-level indicators, and cross-country comparisons to strengthen evidence regarding the sustained impact and practical implications of CSR-driven green lending.

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