

GREEN BANKING INITIATIVES FOR SUSTAINABLE DEVELOPMENT: PRACTICES AND PERFORMANCE OF COMMERCIAL BANKS



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ARTICLE INFO

Article History:

Received: 20th March 2025

Reviewed & Revised: 20th March to 20th August 2025

Accepted: 25th August 2025

Published: 30th August 2025

Keywords:

Green Banking, Banks' Environmental Performance, Green Banking Practices, Sustainability, Sustainable Development

JEL Classification Codes:

G21, G41, E44

Peer-Review Model:

External peer review was done through double-blind method.

ABSTRACT

Concerns about environmental sustainability and climate change have prompted commercial banks to adopt green initiatives, such as dedicated "Green Funds" and eco-friendly products, to support sustainable development. Regulatory frameworks and stakeholder pressures are driving banks to integrate environmental responsibility and corporate social responsibility into their operations. Green banking is defined as integrating environmentally friendly practices, such as sustainable lending, carbon footprint reduction, and financing for renewable energy, into banking operations. Standard practices include funding eco-friendly projects and minimizing the bank's carbon footprint. These initiatives aim to align financial activities with ecological conservation and long-term economic stability. This study examines green banking practices across 10 commercial banks (5 public, 5 private) in Jaipur, India, focusing on their impact on banks' environmental Performance. A survey using structured questionnaires collected data from 161 bank employees (including branch managers, branch heads, relationship managers, and assistant managers) across all ten banks. Subsequently, correlation and regression analysis were conducted to assess the relationship between green practices and environmental performance indicators. The results reveal a statistically significant and positive impact of green banking on the environmental Performance of both public and private sector banks. Quantitatively, the regression model explains about 71.3% of the Variance in the ecological performance measure ($R^2 = 0.713$), indicating that sustainability-oriented practices substantially improve outcomes. The major finding is that green banking initiatives alone account for roughly 71.3% of the variation in banks' environmental outcomes in this sample. Overall, these results highlight the strong empirical association between banks' green initiatives and their environmental Performance.

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INTRODUCTION

The growing global emphasis on environmental sustainability has prompted commercial banks to adopt green banking initiatives as a strategic approach to support sustainable development (Jeucken, 2010). Green banking refers to integrating environmentally friendly practices into banking operations, including sustainable lending, reducing carbon footprints, and investing in renewable energy projects (Bahl, 2012). These initiatives aim to align financial activities with ecological conservation while promoting long-term economic stability (Scholtens, 2017).

Green banking, an evolving paradigm in the financial sector, has garnered increasing attention for its potential to align banking operations with environmental sustainability (Shaumya & Arulrajah, 2017). It integrates environmental and social considerations into core banking functions to protect the environment and conserve natural resources (Grover & Kaur, 2019). These practices include funding eco-friendly projects, reducing banks' carbon footprint, and raising environmental awareness among customers and employees (Kumar et al., 2021).

This transition is driven by rising concerns about climate change and the growing need for ecological balance, compelling banks to shift from traditional practices to environmentally responsible alternatives (Wijethunga & Dayaratne, 2018). Commercial banks are now launching "Green Funds" for projects addressing social and environmental issues, reflecting a significant shift in priorities (Prabhu & Aithal, 2021). As environmental concerns gain momentum across industries, banks are uniquely positioned to influence economic behaviors and drive sustainable development (Sharma & Choubey, 2022).

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To cite this article: Mathur, S., & Lakhani, S. (2025). GREEN BANKING INITIATIVES FOR SUSTAINABLE DEVELOPMENT: PRACTICES AND PERFORMANCE OF COMMERCIAL BANKS. *Indian Journal of Finance and Banking*, 15(2), 1-11. <https://doi.org/10.46281/ijfb.v15i2.2716>

The role of commercial banks in fostering sustainable development has gained significant attention, particularly due to increasing regulatory pressures and growing stakeholder demands for corporate social responsibility (CSR) (Weber, 2016). By incorporating environmental risk assessments and offering green financial products, banks can significantly contribute to achieving the United Nations' Sustainable Development Goals (SDGs), especially SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action) (Krstić, 2013).

Environmental Performance in the banking sector is intricately linked to the adoption of green banking practices. These initiatives are now key performance indicators as banks are evaluated not just on financial metrics but also on environmental stewardship (Sharma & Choubey, 2022; Prabhu & Aithal, 2021). Green banking encompasses a wide range of strategies, including eco-friendly operations, green product development, and environmental risk management, all aimed at reducing the sector's ecological footprint (Muchiri et al., 2025).

By strategically integrating these green practices into their operational frameworks, commercial banks can mitigate their environmental impact while fostering a culture of sustainability throughout the value chain. Increasingly, banks are reforming their core functions to align with global sustainability standards, reducing carbon emissions and actively contributing to climate solutions.

This research has significant value in promoting sustainable development within the banking sector. It seeks to explore the variety of green banking practices adopted by selected public and private-sector commercial banks and to assess their impact on the banks' environmental Performance. The primary objective is to evaluate the extent to which green principles are integrated into day-to-day banking operations and whether these efforts translate into measurable improvements in environmental outcomes.

By evaluating and comparing the adoption of green banking practices across public and private banks, the study provides critical insights into how financial institutions can contribute to environmental sustainability. The findings emphasize the dual role of banks as both financial intermediaries and change agents capable of encouraging eco-friendly behaviors among customers and employees. Additionally, the research highlights the need to institutionalize sustainability in banking operations, policy frameworks, and employee engagement. It serves as a valuable reference for policymakers, banking professionals, and regulatory authorities in designing systems that incentivize green practices and foster environmentally responsible banking.

The study aims to examine the green banking initiatives implemented by banks and assess how these initiatives enhance their environmental Performance.

LITERATURE REVIEW

Green banking, also referred to as ethical or sustainable banking, integrates environmental considerations into financial operations to minimize ecological footprints while fostering economic growth (Ullah, 2020). The concept has gained traction as banks play a pivotal role in promoting sustainability through specialized financial products like green loans and ethical investments (Prabhu & Aithal, 2021). Krstić (2013) provides global benchmarks. Research conducted by Wang, Sun, and Yu (2023) emphasizes that robust corporate governance enhances firm value when supported by green banking disclosures.

Several studies have examined the theoretical underpinnings of green banking. Bihari and Pandey (2015) outlined a conceptual framework for green banking adoption and identified essential implementation steps. Bihari and Pandey (2015), Cholasseri (2016), and Risal and Joshi (2018) establish the foundational components: conceptual frameworks, SWOT analyses of green banking products, and empirical links to environmental Performance. A systematic bibliometric review (Goswami, 2024) underscores the need for clear theoretical underpinnings beyond legitimacy and stakeholder theories to strengthen future research.

Similarly, Kala, and Vidyalaya (2020) discussed banking regulations that ensure sustainability across economic, environmental, and social dimensions. Kalra (2016) emphasized the banking sector's role in supporting environmentally responsible projects in other industries, reinforcing the link between finance and sustainable development.

Research on the effectiveness of green banking yields mixed findings. Some studies highlight its positive environmental impact, while others note implementation challenges. Risal and Joshi (2018) found a statistically significant positive relationship between green banking initiatives and banks' environmental Performance in Nepal. Similarly, Shaumya and Arulrajah (2017) concluded that sustainable banking practices enhance environmental outcomes. Chen et al. (2022) empirically demonstrated that banks' operational policies and green financing significantly improve environmental Performance, though employee and customer-related practices had limited effects. The financial impact of green banking remains debated. Khanna et al. (2013) found no significant correlation between environmental and financial Performance. However, Karim et al. (2020) and Jain and Sharma (2023) reported that green investments enhance profitability and brand reputation. Chowdhury (2018) observed that sustainability improves sectoral Performance without necessarily boosting individual bank profitability. Sahoo et al. (2016) found younger generations more receptive to green banking. Varghese (2018) observed that Indian banks primarily treat green initiatives as CSR rather than core operations. Brar (2016) highlighted continued reliance on paper-based promotions despite green commitments. Meena (2013) advocated for stronger RBI regulations and incentives, while Jayabal and Soundarya (2016) recommended awareness campaigns to drive adoption. Zhang et al. (2022) found that green financing mediates the relationship between banking activities and environmental Performance in Bangladesh's private commercial banks. However, low awareness and high operational costs remain barriers. Rahal et al. (2023) stressed the need for government-led awareness campaigns in Bangladesh and India. Risal and Joshi (2018) confirmed the positive impact of green banking on environmental sustainability, reinforcing the need for policy support. Han, Zhang, and Yang (2022) explored how China's green finance reform policies foster green innovation, emphasizing the role of regulatory frameworks. Tu and Dung (2017) found low awareness and slow adoption of green

banking, despite its inclusion in national growth strategies. Sutrisno et al. (2024) highlight how green credit positively influences profitability and stability, offering fresh insights into institutional impacts. Han et al. (2022) attribute green innovation in banks to robust regulatory frameworks, reinforcing the policy's pivotal role. Studies in Nepal, Bangladesh, India, and Vietnam document the uptake of green banking, noting common barriers such as low awareness, high costs, and technical constraints (Risal & Joshi, 2018; Zhang et al., 2022; Tu & Dung, 2017).

Mir and Bhat (2022) observed that there is no universally accepted green banking framework, with adoption varying widely across countries. Thomas and Linson (2018) noted a disparity in customer awareness: while digital banking is well known, green financial products (e.g., solar ATMs, eco-friendly loans) remain underutilized. Chen et al. (2022) confirm that green policies and project financing bolster environmental Performance, whereas Bimha and Nhamo (2017) caution against expecting rapid sustainability gains. A global meta-analysis by Goswami (2024) finds a small but positive (though statistically insignificant) link between green banking and profitability, with effects influenced by regional context. Investigating emerging markets, Mahmud and Lee (2025) show that ATM deployment increases ROE, while board-level risk governance enhances net interest margins. In India, employee perspectives significantly shape the implementation of green banking (Kumar et al., 2021).

Cholasseri (2016) conducted a SWOC analysis of green banking products, identifying strengths (e.g., sustainability benefits) and challenges (e.g., high costs). Wisetsri et al. (2022) found digital banking tools (mobile banking, e-statements) to be the most popular green products, while SMS banking saw minimal usage. Digital tools such as mobile banking and e-statements are popular eco-practices (Wisetsri et al., 2022), while SMS banking remains underpenetrated. Psychological factors (Ahuja, 2015; Habibullah & Natalwala, 2023) and information asymmetry (Mir & Bhat, 2022) strongly affect adoption.

Habibullah and Natalwala (2023) emphasized affective, behavioral, and cognitive dimensions in green banking adoption. Mathur and Chaturvedi (2022) found that awareness and perceived benefits significantly influence investor willingness to engage with green financial products. Trehan (2015) highlighted the importance of regulatory enforcement and government policies in promoting green banking. Zhang (2021) found that environmentally sustainable firms benefit from easier access to credit with lower collateral requirements, reinforcing financial incentives for green practices. Customer loyalty studies (Dewi & Indudewi, 2024) reveal that green image and trust mediate the relationship between green practices and loyalty.

Climate/environmental risks pose systemic threats: African stress tests reveal fragility in banking systems linked to ecosystem loss. Zheng et al. (2024) show that monetary policy's effects on green and traditional financial markets are evolving and increasingly interdependent. The surge in fossil-fuel financing by central global banks highlights the critical need for policy oversight to ensure green commitments are meaningful.

Collectively, these studies underscore the multifaceted nature of green banking, its potential to drive sustainability, the barriers to widespread adoption, and the evolving strategies to align financial systems with environmental goals. While progress is evident, coordinated efforts among governments, banks, and consumers remain crucial for achieving meaningful impact.

The literature review reveals a need for more comprehensive frameworks and standardized practices in green banking, especially in developing countries. Additionally, there is limited research on the long-term financial impacts of green banking practices and the effectiveness of government and regulatory interventions in promoting green banking initiatives. While numerous studies have examined Green Banking initiatives, particularly from the customer's perspective, there remains a significant gap in understanding bankers' viewpoints. It is essential to explore how banking professionals perceive and implement Green Banking practices and to assess the impact of these initiatives on overall bank performance.

Therefore, the research aims to examine environmentally friendly practices implemented through green banking and to assess how these practices influence banks' environmental Performance. The following hypotheses are proposed for this study:

H₀: There is no significant impact of Green banking practices of the banks on their environmental Performance.

Theoretical Framework of the Study

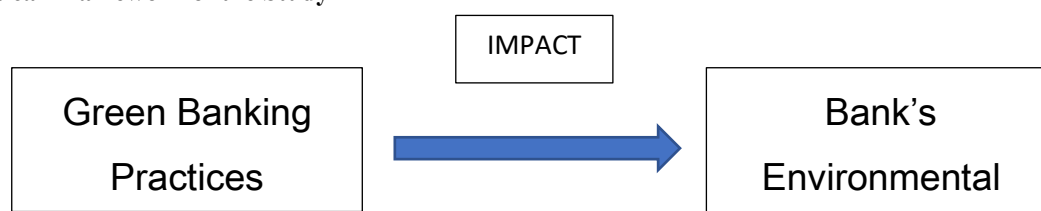


Figure 1. Theoretical framework of the study, created by the author

The study's theoretical framework suggests that green banking practices significantly affect a bank's environmental Performance. It highlights the cause-and-effect relationship, suggesting that implementing sustainable banking practices enhances environmental outcomes and promotes environmentally responsible financial practices, thereby augmenting the bank's environmental Performance.

MATERIALS AND METHODS

The present study is empirical and aims to examine the perspectives of bankers working in public and private sector banks on green banking practices within Jaipur District, Rajasthan. The research seeks to identify and analyze the key factors that influence the adoption and implementation of green banking initiatives.

Sample Selection and Size

A purposive sampling method was adopted to select respondents who hold Officer Grade positions in both public and private sector banks. The sample comprises 161 banking professionals, including Branch Managers, Branch Heads, Relationship Managers, Assistant Managers, and Probationary Officers, ensuring representation across multiple hierarchical levels and departments involved in decision-making for banking operations.

Scope and Coverage

The study covers 10 leading banks in Jaipur District: 5 private-sector and five public-sector. The selected private sector banks include:

- HDFC Bank
- ICICI Bank
- Kotak Mahindra Bank
- Axis Bank
- IndusInd Bank

The selected public sector banks are:

- State Bank of India (SBI)
- Punjab National Bank (PNB)
- Indian Overseas Bank (IOB)
- Bank of Baroda (BOB)
- IDBI Bank

These banks were chosen based on their operational presence, service outreach, and involvement in environmental sustainability initiatives.

Data Collection Method

Primary data was collected through a structured questionnaire administered to targeted banking professionals. The survey instrument was specifically designed to assess three key dimensions: (1) Demographic data of the respondents, (2) respondents' awareness, perception, and implementation of green banking practices in their respective institutions, and (3) the Banks' environmental Performance. The identified green banking practices were categorized into five distinct dimensions: (1) Changing Client's Habits, (2) Technological Changes, (3) Operational Changes, (4) Innovation in Products and Services, and (5) Green Engagements. This enables a systematic examination of how each dimension contributes to the banks' overall environmental Performance. The study measured banks' environmental Performance using four key indicators: (1) minimization of carbon emissions from operations, (2) adoption of green banking policies, (3) reduction in energy consumption, and (4) provision of staff training on environmental protection and energy efficiency. To evaluate the impact of green banking practices, the mean values of these parameters were aggregated, offering a quantifiable metric of sustainability effectiveness.

Statistical Tools and Techniques

To ensure the instrument's reliability and internal consistency, Cronbach's Alpha was computed. To uncover latent constructs and reduce the data into meaningful factors influencing green banking practices, an Exploratory Factor Analysis (EFA) was employed. Additionally, Regression Analysis was applied to examine the relationship between the identified factors and the extent of green banking practices followed in the banks.

Exploratory Factor Analysis

To explore the environmentally friendly practices adopted by various banks under the green banking approach, EFA is applied. Exploratory Factor Analysis (EFA) is a method used to simplify the complexity of a study. Its purpose is to condense many dimensions or questions into a few labeled components, known as Principal Components. These components capture most of the variances present in the study's variables. Another key goal of exploratory factor analysis is to identify distinct factors, each comprising questions with similar meanings. These factors represent specific aspects of the study. The technique ensures that these factors are not correlated, preventing redundancy and repetition in the analysis.

Measurement of Sample Adequacy and Strength of the relationship among factors

Table 1. KMO and Bartlett tests

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		
		.717
Bartlett's Test of Sphericity	Approx. Chi-Square	3267.568
	df	160
	Sig.	.000

Source: Generated using primary data with the help of SPSS 22.0 software

The KMO measure assesses whether the data are suitable for factor analysis. It ranges from 0 to 1, and values above 0.5 are generally considered acceptable. In this case, Table 1 shows that the KMO value of 0.717, which exceeds 0.05, is considered sufficient for sample adequacy and subsequent factor analysis, indicating that there are underlying relationships among the variables that could be explored. The p-value for Bartlett's Test is very close to 0 (0.000), indicating the test is significant. In simpler terms, it suggests that meaningful relationships exist among the variables and that factor analysis may be appropriate.

Table 2. Total Variance Explained

Eigenvalues and Total Variance Explained										
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	9.234	41.974	41.974	9.234	41.974	41.974	4.971	22.596	22.596	
2	2.817	12.804	54.778	2.817	12.804	54.778	3.460	15.728	38.324	
3	1.925	8.748	63.526	1.925	8.748	63.526	3.459	15.724	54.049	
4	1.230	5.591	69.117	1.230	5.591	69.117	2.539	11.540	65.589	
5	1.141	5.185	74.302	1.141	5.185	74.302	1.917	8.713	74.302	
6	1.004	4.563	78.865							
7	.865	3.932	82.797							
8	.613	2.785	85.582							
9	.516	2.345	87.927							
10	.486	2.207	90.134							
11	.408	1.855	91.989							
12	.336	1.528	93.516							
13	.283	1.285	94.801							
14	.255	1.160	95.962							
15	.201	.912	96.874							
16	.192	.871	97.744							
17	.157	.712	98.456							
18	.119	.540	98.997							
19	.084	.380	99.377							
20	.065	.296	99.673							
21	.043	.194	99.867							
22	.029	.133	100.000							

Extraction Method: Principal Component Analysis.

Source: Generated using primary data with the help of SPSS 22.0 software

Table 2 data represents the results of a Principal Component Analysis (PCA), which helps in understanding the underlying patterns in data. Table 2 displays initial eigenvalues, Variance explained, and cumulative Variance at each component. It can also be noted that the first factor accounts for 22.596% of the Variance, the second 38.324% cumulative, the third 54.049%, the fourth factor 66.589%, and the fifth factor accounts for 74.302% cumulative variance, i.e., cumulative Variance explained by all five factors having Eigen value of more than one is 74.302%. Figure 1 and Table 1.1 suggest that, before extraction, 22 linear components are identified within the dataset. After extraction, there are 5 distinct linear components within the dataset.

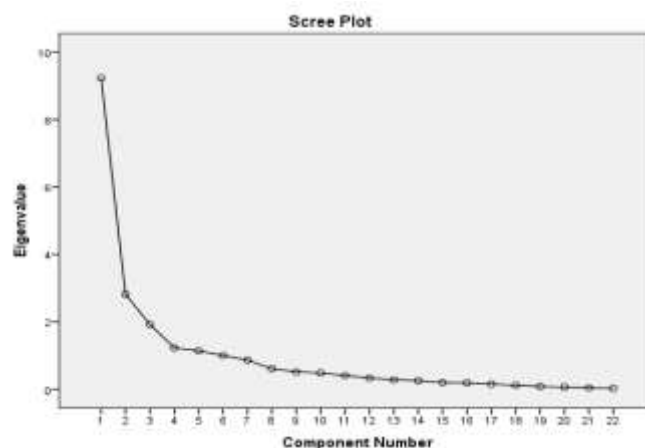


Figure 2. Scree Plot

Source: Scree Plot of Eigenvalues, Created by SPSS 22

The scree plot, Figure 2 displays the eigenvalues of 22 variables, where each eigenvalue represents the Variance explained by a corresponding principal component. The plot helps identify the optimal number of components to retain in a principal component analysis (PCA). Based on the Scree Plot, it is appropriate to retain the first 5 components, as they account for the major Variance in the dataset.

Table 3. Rotated Component Matrix

Components	1	2	3	4	5
E statements	0.831				
Awareness programs	0.733				
Solar ATMs	0.89				
Training and services	0.699				
Due diligence	0.662				
Solar-powered ATMs		0.782			
LEDs CFLs		0.502			
Latest technology		0.823			
Organization communication		0.748			
Waste recycling		0.605			
Sustainable reporting			0.689		
Reduce paper wastage			0.821		
E-waste management			0.712		
Recycling sewage water			0.744		
Sustainability lending			0.669		
Green loans				0.545	
Green ATMs installed				0.874	
Paperless banking				0.659	
Green savings, bonds, and investments					0.655
5 June World Environment Day					0.789
Swachta drives					0.631
No plastic days, Carpool days					0.574
Extraction Method: Principal Component Analysis.					
Rotation Method: Varimax with Kaiser Normalization.					
Source: Generated using primary data with the help of SPSS 22.0 software					

The rotation in Table 3 above is used to decrease the number of factors on which the variable under investigation has high loading. The data represent the results of factor analysis in the context of environmental initiatives within an organization. Each row corresponds to a specific environmental variable, with its factor loading (the correlation between the variable and the underlying factor).

The first extracted factor, labeled Changing Client's Habits, includes variables such as E-statements, Awareness programs, and Solar ATMs, which exhibit high communality and factor loadings. This suggests that these initiatives are closely linked to a common underlying factor, likely reflecting efforts aimed at enhancing client awareness and promoting technological adoption.

The second factor, Technological Changes, shows that Solar-powered ATMs and the Latest technology have strong correlations with the underlying factor, indicating their importance in technological advancements within the organization. LEDs and CFLs, while having a relatively lower factor loading, are still somewhat related.

The third factor, Operational Changes, is characterized by strong loadings from variables such as reducing paper wastage, recycling sewage water, and sustainable lending, highlighting their central role in enhancing operational sustainability. Sustainable reporting also contributes to this factor, though with a relatively lower loading, suggesting it supports these efforts while playing a secondary role. Collectively, these variables reflect a focus on eco-friendly operational practices and long-term sustainability initiatives within the organization.

The fourth Factor Innovation in Products and Services displays that Green ATMs installed strongly align with the underlying factor, emphasizing the significance of this innovation. Green loans, Paperless banking, and Green savings, bonds, and investments also contribute to the factor with comparatively lower but significant factor loadings.

Finally, under the fifth factor, that is Green Engagements, 5 June World Environment Day, and Swachta drives show a strong association with the underlying factor, suggesting their pivotal role in the organization's environmental engagement efforts. While No Plastic Days and Carpool Days show somewhat weaker statistical associations, they remain relevant components of this sustainability framework. Their inclusion reinforces the organization's holistic approach to ecological responsibility, signifying how even smaller-scale initiatives contribute to building a culture of environmental consciousness and participatory action among stakeholders. This pattern reflects a strategic multi-tiered engagement model, where flagship programs anchor the effort while supplementary activities broaden its reach and impact. After factor extraction, Reliability analysis is conducted.

Table 4. Reliability Analysis

Reliability Statistics	
Cronbach's Alpha	N of Items
.917	22

Source: Generated using primary data with the help of SPSS 22.0 software

To measure internal consistency, that is, how closely related a set of extracted items is, as a group, Reliability analysis is done. The Cronbach's alpha is 0.917, which indicates a high level of internal consistency for our scale with this specific sample.

Hypothesis:

H_0 = There is no significant impact of Green banking practices of the banks on their environmental Performance.

The multiple regression analysis is performed to accomplish the study's objective and test the hypothesis under study. Various assumptions of regression analysis have been checked. The normality test has been conducted, the data are found to be normally distributed, and there is a linear relation between the variables.

Correlation and Regression Analysis

Regression Equation

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

Where,

Y (dependent variable) = Banks' Environmental Performance

a = constant (intercept)

X_1 = Changing Client's Habit

X_2 = Technological Changes

X_3 = Operational Changes

X_4 = Green Engagements

X_5 = Innovation in Products and Services

e = error term

b_1, b_2, b_3, b_4, b_5 = are the coefficient of regression

Table 5. Correlation Analysis

Correlations		Banks' Environmental Performance	Changing the Client's Habit	Technological Changes	Operational Changes	Green Engagements	Innovation In Products And Services
Pearson Correlation (r)	BANKS' ENVIRONMENTAL PERFORMANCE	1.000	.547	.743	.807	.648	.624
Sig. (1-tailed)	BANKS' ENVIRONMENTAL PERFORMANCE	.	.000	.000	.000	.000	.000

Source: Generated using primary data with the help of SPSS 22.0 software

The result in table 5 shows, the Coefficient of correlation (r) between the Banks' Environmental Performance and Changing Client's Habits is 0.547; the Coefficient of correlation between the Banks' Environmental Performance and Technological Changes in the bank is 0.743; the Coefficient of correlation between Banks' Environmental Performance and Banks' Operational changes is 0.807; Coefficient of correlation between Banks' Environmental Performance and Green Engagements is 0.648 and Coefficient of correlation between Banks' Environmental Performance and Innovation in the Banks' Products and Services is 0.624, indicating a strong positive correlation between all the green banking practices and Banks' environmental Performance with the level of significance at 0.000 ($p < 0.05$) for Changing Client's Habits, Banks' Operational changes, Technological Changes in the bank, Green Engagements and Innovation In Banks' Products and Services respectively.

Table 6. Model Summary^b

Model Summary ^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.844 ^a	.713	.704	.33385	1.506	
a. Predictors: (Constant), Innovation In Products And Services, Green Engagements, Changing Clients' Habits, Operational Changes, Technological Changes						
b. Dependent Variable: BANKS' ENVIRONMENTAL PERFORMANCE						

Source: Generated using primary data with the help of SPSS 22.0 software

Table 6 shows multiple regression model summaries and overall fit statistics. The analysis revealed an adjusted R^2 of 0.704 with $R^2 = 0.713$, implying 71.3% of the variability in the Banks' environmental Performance is accounted for by green banking practices.

To check the fitness of the Model

Table 7. ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.927	5	8.585	77.027	.000 ^b
	Residual	17.276	155	.111		
	Total	60.203	160			
a. Dependent Variable: BANKS' ENVIRONMENTAL PERFORMANCE						
b. Predictors: (Constant), Innovation In Products and Services, Green Engagements, Changing Clients' Habits, Operational Changes, Technological Changes						

Table 7 shows the overall fitness of the Model. The significant value is 0.000, which is less than the 0.05 level of significance. Therefore, the Model is fit for prediction.

Table 8. Coefficients

Model		Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
1	(Constant)	.130			.538	.591	
	Changing the Client's Habit	-.122		-.127	1.905	.059	.419
	Technological Changes	.079		.063	.593	.554	.163
	Operational Changes	.646		.592	7.204	.000	.274
	Innovation in Products and Services	.195		.248	3.662	.000	.404
	Green Engagements	.128		.159	2.612	.010	.502
a. Dependent Variable: BANKS' ENVIRONMENTAL PERFORMANCE							

Table 8 shows multiple linear regression estimates, including intercept and significance levels. By taking all the variables measuring green banking initiatives in multiple linear regression, we find that Operational Changes and innovations in Banking products and services are significant predictors. We can also see that operational changes have a higher impact than innovation in products and services by comparing standardized coefficients.

Regression Equation

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + e$$

Banks' Environmental Performance = 0.130 + (-.127 x Changing Clients habit) + 0.063 x Technological Changes + 0.592x Operational Changes + .248x Innovation in products and services + 0.159 x Green Engagements + 0.33385

The present study revealed several important findings regarding the adoption and impact of green banking practices among public and private sector banks in Jaipur, Rajasthan. Using exploratory factor analysis, the research identified five key dimensions of green banking practices: Changing Clients' Habits, Technological Changes, and Operational Changes, Innovation in Products and Services, and Green Engagements. These dimensions encompass a wide range of eco-friendly banking initiatives such as promoting e-statements, using solar-powered ATMs, reducing paper wastage, offering green loans, and organizing environmental awareness activities.

The reliability analysis indicated a high level of internal consistency among the survey items, with a Cronbach's Alpha of 0.917. Correlation analysis demonstrated a strong and statistically significant positive relationship between all five green banking dimensions and the environmental Performance of banks. Among these, Operational Changes showed the strongest correlation with environmental Performance, followed by Technological Changes and Green Engagements.

Regression analysis confirmed that Operational Changes ($\beta = 0.592$) and Innovation in Products and Services ($\beta = 0.248$) were the strongest predictors of environmental Performance. Green Engagements also had a positive and statistically significant impact, while Technological Changes and Changing Clients' Habits, although positively correlated, did not significantly contribute to the regression model. The overall regression model was found to be statistically significant, explaining 71.3% of the Variance in banks' environmental Performance, thus confirming the robustness of the Model.

As a result of these findings, the null hypothesis stating that green banking practices have no significant impact on banks' environmental Performance was rejected. The study found that green banking initiatives play a vital role in enhancing the environmental sustainability of banking operations.

CONCLUSIONS

The study seeks to identify the green banking practices adopted by banks and evaluate their effect on improving overall environmental Performance. Green banking revolutionizes the financial sector by aligning banks' roles with economic and environmental sustainability. It embodies a commitment to fostering sustainable development by aligning banking practices with environmental responsibility. Essentially, green banking entails the adoption of inclusive banking strategies geared towards ensuring sustainable economic growth. This paradigm emphasizes environmentally friendly industry practices within the banking sector, resulting in reduced internal and external carbon footprints. Green banking involves implementing eco-conscious measures, such as embracing technological advancements and operational enhancements, and encouraging shifts in client behavior within the banking industry. Recent advancements in Indian banking technology have catalyzed a transformation from conventional banking methods to a more inclusive approach that prioritizes the interests of customers, financial institutions, and the environment.

Consequently, the primary objective of this study is to assess the impact of Green banking practices on the Banks' Environmental Performance. The study involves exploratory factor analysis, Cronbach's alpha, and Regression analysis. The present study has confirmed the statistically significant and positive impact of green banking practices on the environmental Performance of the public and private sector banks of Jaipur city, explaining 71.3% variation in the dependent variable. It can be concluded that Green Banking Initiatives have a significant and positive impact on the Banks' Environmental Performance, and the Null Hypothesis has been rejected. The banking industry is making a significant contribution to sustainable development. Operational Changes in the bank, like reducing paper wastage, keeping in mind environmental sustainability while performing lending activities, and using e-waste management policies, have proved to be the most significant predictors of the bank's environmental Performance.

The research findings highlight the need for policy interventions in the banking sector to enhance environmental sustainability. Policymakers should incentivize green banking practices through tax benefits and reduced regulatory constraints. Awareness campaigns targeting clients, promoting eco-friendly habits, and encouraging innovation through financial incentives are crucial. Furthermore, facilitating knowledge exchange between private and public sector banks via capacity-building programs can ensure uniform adoption of green practices, fostering a more sustainable banking sector.

Author Contributions: Conceptualization, S.M. and S.L.; Methodology, S.M.; Software, S.M.; Validation, S.M.; Formal Analysis, S.M. and S.L.; Investigation, S.M.; Resources, S.M.; Data Curation, S.M.; Writing – Original Draft Preparation, S.M. and S.L.; Writing – Review & Editing, S.M. and S.L.; Visualization, S.M.; Supervision, S.M.; Project Administration, S.M.; Funding Acquisition, S.M. and S.L. Authors have read and agreed to the published version of the manuscript.

Institutional Review Board Statement: Ethical review and approval were waived for this study because the research does not deal with vulnerable groups or sensitive issues.

Funding: The authors received no direct funding for this research.

Acknowledgments: Not applicable.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.

Conflicts of Interest: The authors declare no conflict of interest.

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