Review on Impact of AI on Green Banking Towards Sustainability with Special Reference to Indian Public and Private Sector Banks

Journal of Development Economics and Management Research Studies (JDMS)
A Peer Reviewed Open Access International Journal
ISSN: 2582 5119 (Online)
Crossref Prefix No: 10.53422
12 (24), 65 - 77, April – June, 2025
@Center for Development Economic Studies (CDES)
Reprints and permissions
https://www.cdes.org.in/
https://www.cdes.org.in/about-journal/

Review on Impact of AI on Green Banking Towards Sustainability with Special Reference to Indian Public and Private Sector Banks

Mr. Lavudi Vijay[1] and Dr. A. Karthigeyan[2]

Abstract

Public and commercial banks in India are leading the way in green banking's use of artificial intelligence (AI), which is changing the way the financial industry views sustainability. This review examines how AI-driven technologies contribute to environmental responsibility, enhance operational efficiency, and promote sustainable practices within banking institutions. AI applications such as predictive analytics, blockchain for secure transactions, and data-driven decision-making are increasingly enabling banks to minimize environmental impact, reduce paper usage, and optimize energy consumption. Public sector banks, driven by governmental mandates, are adopting green banking practices to align with India's sustainability goals, while private banks are leveraging AI innovations to gain competitive advantage and meet consumer demand for eco-friendly services. The paper highlights the comparative impact of AI in green initiatives across both sectors and provides insights into the review underscores the importance of policy support, digital infrastructure, and collaborative efforts for AI-enabled green banking to foster a sustainable future in the Indian banking sector.

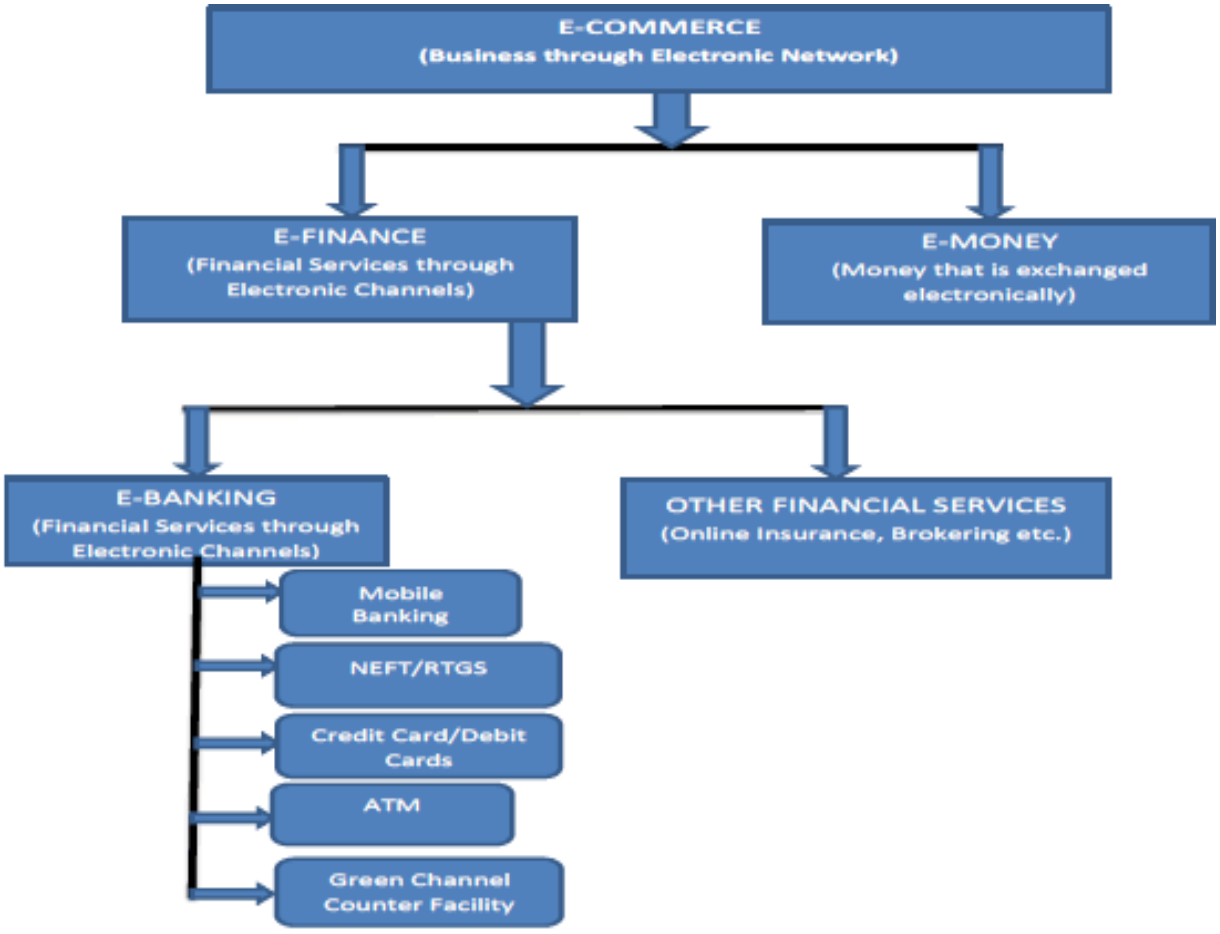
Keywords: Artificial Intelligence, Green Banking, Sustainability, Public Sector Banks, Private Sector Banks, Indian Banking Sector, Environmental Responsibility, Predictive Analytics

Introduction

A key actor in the movement to promote ecologically responsible behaviours, the financial industry is actively pursuing a sustainable future. A revolutionary strategy in the banking sector, "green banking" seeks to reduce the negative effects of banking on the environment while simultaneously bolstering eco-friendly projects and long-term economic development.

[1] Research Scholar, Department of Management, Studies School of Management, Pondicherry University, Puducherry 605 014.
[2]Assistant Professor, Department of Management Studies, School of Management, Pondicherry University, Puducherry 605 014.

Artificial Intelligence (AI), with its potential to drive digital innovation and operational efficiency, is increasingly being utilized by banks to enhance green banking practices. India, as a rapidly developing nation with a significant banking sector, faces unique challenges and opportunities in adopting AI-enabled green banking. Both public and private sector banks play critical roles in aligning their strategies with the nation's sustainability goals. Public sector banks, often guided by governmental mandates and regulations, emphasize compliance with environmental standards. Meanwhile, private sector banks are adopting AI-based green initiatives to strengthen their competitive edge, attract environmentally conscious customers, and contribute to the global sustainability agenda. It examines the role of AI in reducing carbon footprints, optimizing energy usage, enhancing customer service through digital channels, and promoting green financing. Additionally, the paper addresses the challenges of AI implementation, including data privacy concerns, resource allocation, and regulatory compliance, while highlighting the importance of policy support and inter-sector collaboration. These regulations aim to integrate environmental risk assessments into the credit appraisal process, promote green financing, and enhance transparency in reporting environmental impacts.



Source: Created by the author

FIGURE 1

ROADMAP OF GREEN BANKING PRACTICES

In this paper, we explore the regulatory framework governing green banking in India

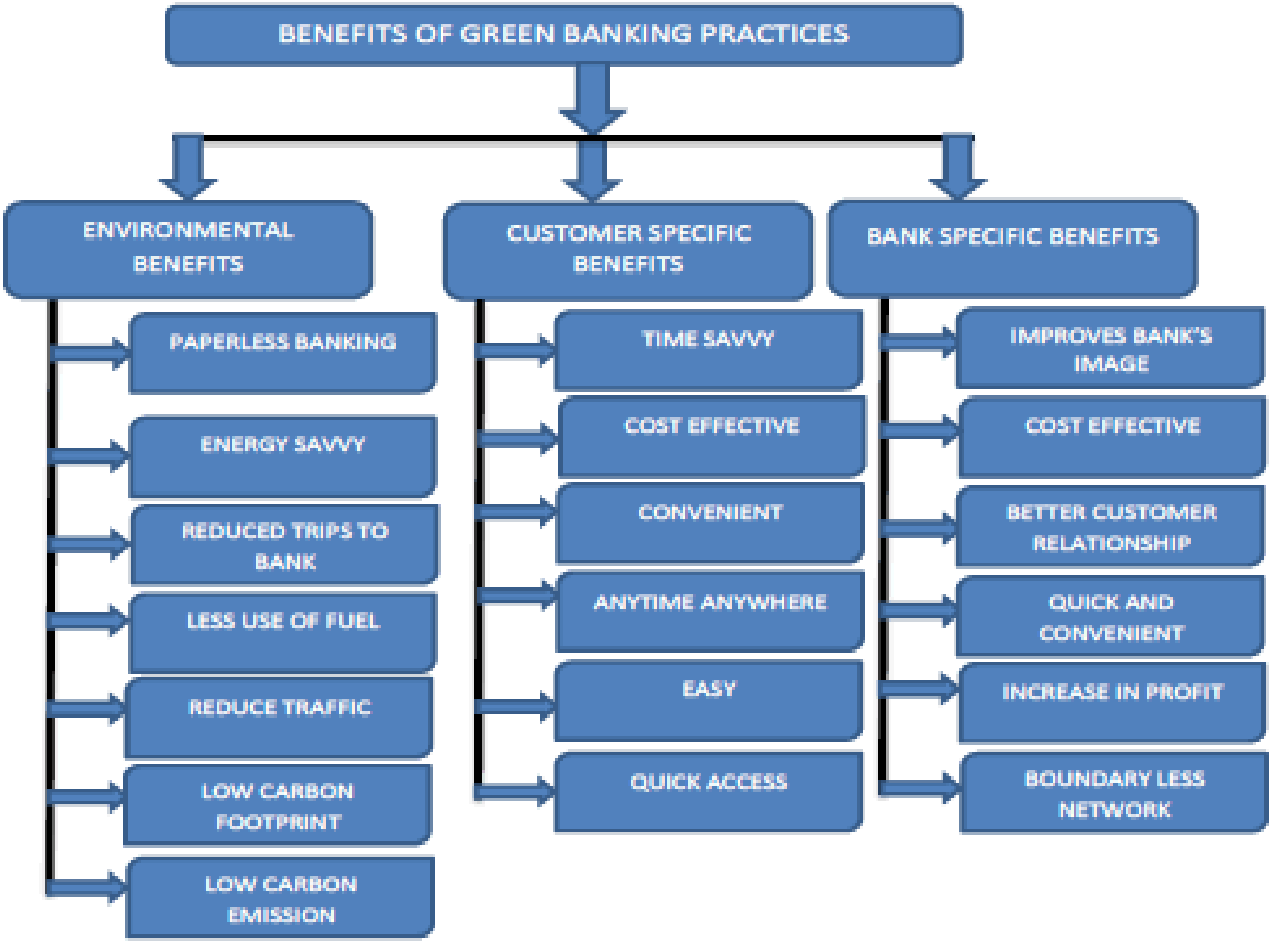
and examine the contributions of financial institutions in implementing eco-friendly initiatives. By analyzing the current state of green banking practices, we aim to highlight the progress made so far and the challenges that lie ahead. The study also seeks to provide insights into the potential pathways for furthering the development of a green financial ecosystem in India, emphasizing the need for a collaborative approach between regulators and financial institutions. Green banking, an innovative approach to sustainable development in the financial sector, is gaining traction globally as the urgency to address environmental challenges intensifies. In India, the concept is being progressively embraced by financial regulators and institutions aiming to incorporate environmental banking lies in the integration of eco-friendly practices, promoting environmentally responsible investments, and supporting sustainable projects through financial instruments. Their policies and frameworks are designed to guide financial institutions in adopting green practices and to encourage the flow of capital towards sustainable and environmentally beneficial ventures. Indian banks and financial institutions, in response, are developing and implementing green financial products and services, ranging from green bonds to sustainable lending practices. This paper delves into the regulatory framework established by Indian financial authorities and examines the contributions of financial institutions towards green banking. It highlights key initiatives, evaluates current practices, and identifies challenges faced in the transition towards a greener financial ecosystem. By understanding the dynamics between regulatory directives and institutional responses, this potential journey towards green banking in India is not without its challenges. However, with concerted efforts from regulators and financial institutions, there is a significant opportunity ensures environmental sustainability.

Review of Literature

Numerous studies emphasize AI's role in transforming traditional banking practices to align with sustainable development goals. AI-driven blockchain have been recognized for their potential to support green banking initiatives. Studies by Agarwal et al. (2021) and Sharma & Singh (2020) highlight that AI helps banks reduce their carbon footprint, streamline processes, and minimize energy consumption. AI applications allow banks to reduce paper-based transactions, enabling digital alternatives that enhance efficiency and reduce waste. Public sector banks, as explored by Rao (2019), are more inclined toward government-driven green initiatives, aligning with national sustainability policies. In contrast, private sector banks prioritize technological advancements and innovation, adopting AI-based green solutions as part of their competitive strategy to attract environmentally conscious customers (Kumar & Sinha, 2020). Green finance is another crucial area where AI has a transformative impact.

AI technologies are employed to assess environmental, social, and governance (ESG) risks and facilitate green investments. Studies by Tripathi et al. (2022) demonstrate how AI can support banks in identifying sustainable investment opportunities and monitoring ESG metrics, thereby encouraging environmentally responsible lending practices. Implementing AI-based green banking solutions faces numerous challenges, including data privacy concerns, high costs, and regulatory complexities. As per the findings of Patel & Mehta (2021), data protection and cybersecurity issues pose significant risks for banks implementing AI-driven systems. Additionally, Mishra & Kapoor (2021) point out that the need for substantial infrastructure and high resource investment often hinders the adoption of AI in green banking for smaller banks or those in rural regions. Research indicates that supportive policies and regulatory frameworks are critical in enabling green banking transformations. According to Bhattacharya (2020), government regulations and incentives are instrumental in promoting green banking among public sector banks. Meanwhile, Subramanian (2021) notes that private banks benefit from

flexible policies that encourage innovation, allowing them to pilot new AI technologies to achieve sustainability targets. Customer perception and acceptance of green banking have also been widely discussed. Studies indicate that consumers are increasingly drawn to banks that showcase environmental responsibility, especially those using digital channels to offer transparent and eco-friendly services (Desai & Iyer, 2021). AI applications that improve customer experience, such as chatbots and personalized digital services, enhance customer engagement with green banking solutions. In this review, we survey the works written on green banking in India, paying special attention to the existing frameworks of regulation, the function of financial institutions, and the most pressing problems and possibilities. The emergence of "green financing" was a direct result of the rising tide of public concern Incorporating sustainability principles into banking operations, bolstering renewable energy initiatives, and promoting energy-efficient projects are all part of the broader concept. Researchers like Scholtens (2009) and Weber (2016) have emphasized the importance of integrating regulatory landscape in India has been evolving to encourage green banking practices.



Source: Created by the author

FIGURE 2
BENEFITS OF GREEN BANKING PRACTICES

This includes encouraging banks to adopt comprehensive environmental and social risk

management frameworks and developing green financial products. Studies by Bhattacharya and Londhe (2014) have highlighted the RBI's efforts in setting the stage for green banking by encouraging transparency and accountability in environmental performance. The literature points to the importance of these regulatory measures in providing a clear and supportive environment for green banking initiatives. They are instrumental in channeling funds towards environmentally friendly projects and sustainable businesses. Research by Bahl (2012) and Malhotra (2016) suggests that Indian banks have been increasingly involved in financing renewable energy projects and adopting green which have been pivotal in raising funds for sustainable projects. The work of Sharma and Singh (2018) points out that these products not only help in environmental conservation but also offer banks new business opportunities and enhance their market reputation. Studies by Kumar and Shetty (2017) and Gupta (2019) emphasize the need for capacity building and better regulatory support to overcome these barriers. On the opportunity front, the literature suggests that the growing global focus on sustainability and climate change presents significant potential for Indian banks to expand their green banking initiatives. The rising demand for green financing solutions, coupled with technological advancements, offers a fertile ground for innovation and growth in this sector. The regulatory framework, though supportive, requires further refinement to provide stronger incentives for green investments. Financial institutions have started to recognize the potential of green banking, but broader adoption and more robust implementation are needed. Continued research and policy support will be crucial in ensuring that green banking becomes a central component of India's financial landscape, contributing to sustainable development and environmental conservation.

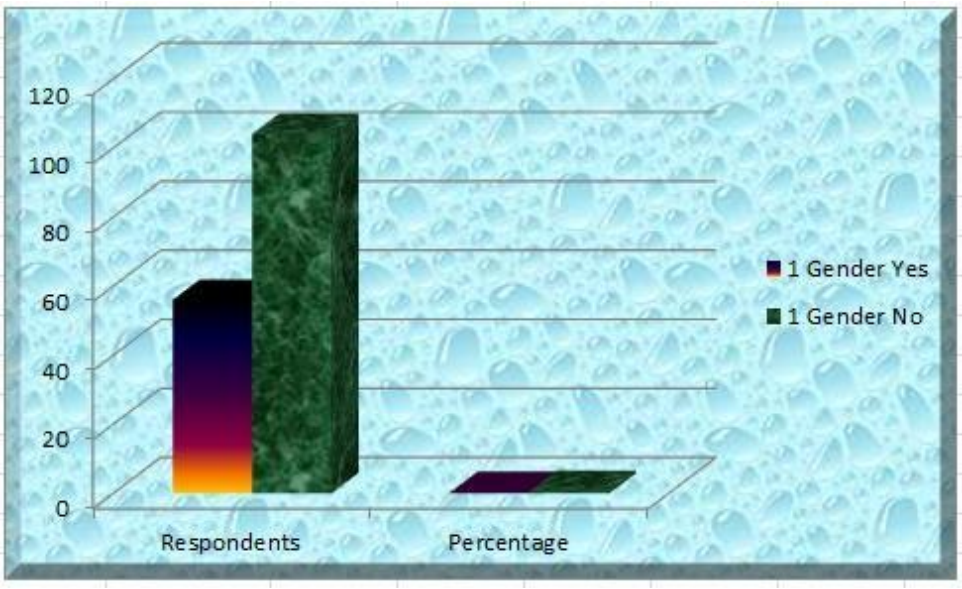
Study of Objectives

- Investigate India's Green Banking Standards and Regulations.
- Assess the Function of Banks in Fostering Eco-Friendly Banking Practices.
- Determine the Obstacles and Difficulties in Implementing Green Banking. Evaluate
- Green Banking's Effect on Ecologically Sound Progress.

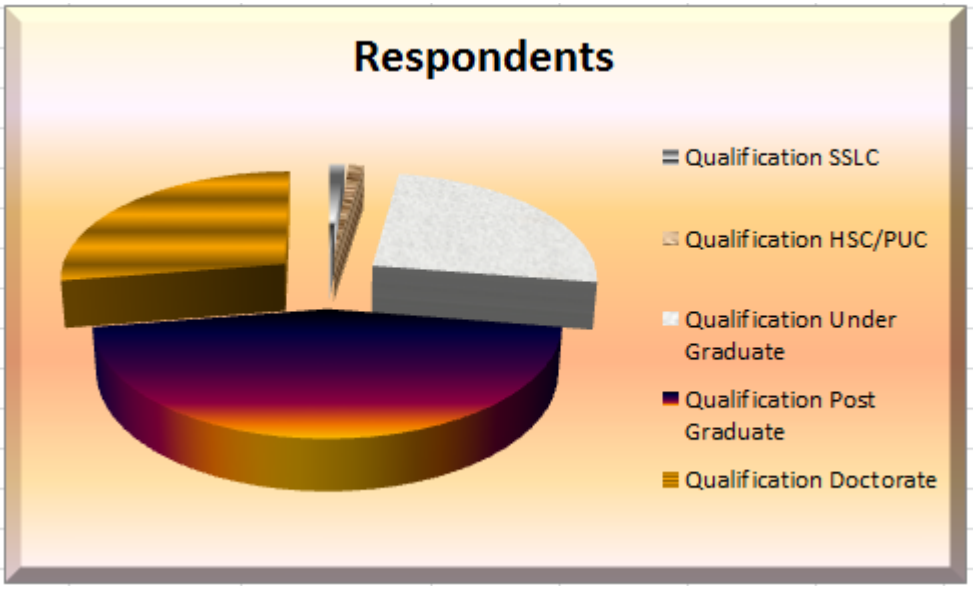
Research and Methodology

Systematically describing the current regulatory frameworks and institutional contributions towards green banking in India, the study adopts a descriptive research approach. We opted for this layout because it accurately portrays the present status of green banking policies and procedures.

S.No.	Profile	Option	Respondents	Percentage
1	Gender	Yes	56	35%
		No	104	65%



Profile	Option	Respondents	Percentage
Qualification	SSLC	2	1.25%
	HSC/PUC	2	1.25%
	Under Graduate	40	25%
	Post Graduate	72	45%
	Doctorate	44	27.50%



Profile	Option	Respondents	Percentage
Occupation	Govt. employee	12	7.50%
	Pvt. employee	112	70%
	Agriculture/Self Employed	12	7.50%
	Home maker	2	1.25%
	Student	16	10%
	Unemployed	6	3.75%

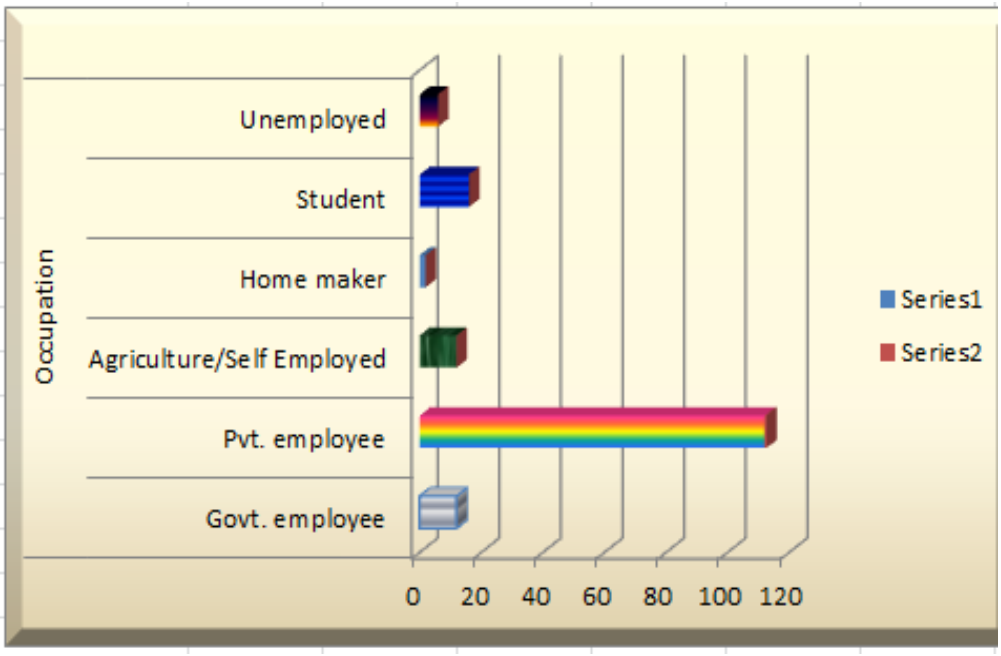


Figure 3: Cross Tabulation of Green Banking Service Users and Their Frequency of Use

Table 4 Indian private bank details

Sr. No	Name of the Bank	Branches	Revenue (Cr)	ATM	Customer Base (Mn)
1	Axis Bank	4528	56,044.00	12000	28.00
2	Bandhan Bank	670+	7,208.00	481	17.27
3	CSB Bank	417	599.24	310	1.50
4	City Union Bank	700+	1,209.95	1762	NA
5	DCB Bank	334	96.21	112	0.60
6	Dhanlaxmi Bank	270+	65.78	112	NA
7	Federal Bank	1284	11,635.00	1606	9.70
8	HDFC Bank	5430	1,05,161.00	15292	49.00
9	ICICI Bank	5288	84,353.00	15158	NA
10	IDBI Bank	1892	135.39	3394	NA
11	IDFC FIRST Bank	260	9,098.00	199	4.00
12	IndusInd Bank	2000	24,154.00	2605	9.00
13	J&K Bank	1038	6.50	1382	NA
14	Karnataka Bank	857	315.73	1026	10.21
15	Karur Vysya Bank	779	1,07,591.00	1685	NA
16	Kotak Mahindra Bank	1500+	31,346.00	2352	17.00
17	Nainital Bank	150	11,797.46	1685	NA
18	RBL Bank	398	147.10	412	8.76
19	South Indian Bank	876	7,117.00	1400	NA
20	Tamilnad Mercantile Bank	509	408.00	11151	NA
21	YES Bank	1000+	20,269.00	1450	NA

Source: Private Bank Data (2023)

The scale used in the previous study served as the basis for the questionnaire, and the bank managers were notified via email with a link to the survey. Given the poor response rate using the internet technique, an offline survey was also carried out. Following the arranging of a meeting, the bank management were contacted individually. From June 2023 to January 2024, the survey was carried out. Around 416 out of 1300 bank managers that were surveyed (both online and off) filled out the survey. The study was limited to 380 replies once they were reviewed. To find out how the online and offline techniques differed in response, a T-test was also used. Since the stated significant value was more than 0.05, there was no variance in the sample. Part one of the questionnaire asks basic personal information about the respondents, including their age, gender, level of education, profession, and the name of the bank they work for. The second section addresses the study's aims via the use of targeted questions covering topics including the Bank's green policy, green project financing, and day-to-day operations. A five-point Likert scale was used for each item, with 5 representing strong agreement and 1 representing extreme disagreement. In Table 5 we can see the sample's demographic breakdown. Professors with backgrounds in sustainable development, banking, and finance were also asked to review the questionnaire for their professional opinions.

How frequently do you use the technology	Options		Total
	Yes	No	
Internet Banking/ Mobile Banking	48	4	52
	92.30%	7.70%	
Credit card facility	28	8	36
	77.80%	22.20%	
ATM	58	10	68
	85.30%	14.70%	
Green Channel Counter Facility	24	0	24
	100%	0.00%	
NEFT/RTGS	40	2	42
	95.20%	4.80%	
Total	198	24	222

Results show that almost all (92.3% to be exact) of those who regularly use green banking services also make heavy use of the Internet banking facility. A whopping 77.8% of eco-conscious bank customers regularly use their credit cards. A whopping 85.3% of green bank customers use ATMs on a regular basis. When it comes to green banking services, every single one of the regular customers uses the Green Channel Counter Facility. NEFT/RTGS is used regularly by 95.2% of green banking service users. Green banking service users are the most likely to utilize ATMs, according to Table 2. Online and mobile banking is the second most popular service. Following this service in terms of popularity is NEFT/RTGS. The Green Channel counter is the least popular service, followed closely by the Credit Card facility.

Analysis of Reliability

Results from a reliability test were entered into the SPSS database. The six-item green banking policy variable yielded a Cronbach Alpha score of.944 in the reliability tests. Another variable with a Cronbach Alpha of.701 is the seven-item day-to-day operations variable. Thirdly and lastly, there is the issue of providing financial support for environmentally responsible projects. Table 4 displays the 8-item survey's Cronbach Alpha value, which is.942. The four-item environmental performance assessment exam that the bank gave also had a strong Cronbach alpha of 0.814. Additionally, Cronbach's alpha for the four metrics used to assess the profitability of the institutions is 0.804. Every variable in the questionnaire has a Cronbach alpha value of more than 0.7, indicating its high level of accuracy and consistency. After that, the data might be subjected to further analysis.

Table 5. Reliability analysis

Variables	Cronbach's Alpha (Non-Users)	Comparable Value	Explanation	Number of Statements
Green banking policy	0.944	0.7	Reliable and consistent	6
Day To Day Operations	0.701	0.7	Reliable and consistent	7
Funding or Investing in Green Projects	0.942	0.7	Reliable and consistent	8
Bank Environmental Performance	0.814	0.7	Reliable and consistent	4
Profitability	0.804	0.7	Reliable and consistent	4

Data analysis made use of both smart PLS and the PLS-SEM technique. This study opted to use PLS-SEM instead of Regression due to its comparable merits. For example, PLS-

SEM excels in complex models with several latent variables and observable indicators. Also, PLS-SEM is more reliable than other methods since it doesn't have to assess the assumptions.

Table 6. Construct reliability and validity

Constructs	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
Banks Environmental Performance	0.814	0.922	0.776	0.595
Day to day operation	0.701	0.749	0.757	0.514
Funding or Investing in Green Projects	0.942	0.943	0.953	0.743
Green Banking Policy	0.944	0.945	0.956	0.783
Profitability	0.804	0.849	0.869	0.626

To assess the connections between the two sets of data, the PLS-SEM technique is used. Table 6 shows that, at the 1% significance level, "there is a positive and statistically significant correlation between environmental performance and profitability for banks. Also, with path coefficient values of 0.158 and 0.763, respectively, green banking policy has a substantial impact on green project financing and investment as well as day-to-day operations. The environmental performance of banks is also greatly affected by their day-to-day operations, financing, and investments in green initiatives (path coefficient values of 0.232 and 0.938, respectively"). At 1% threshold of relevance, all of the pathways are noteworthy. Furthermore, at the 1% level of significance (correlation coefficient = 0.359). Consequently, in order to boost profitability and enhance environmental performance, a solid green banking strategy is necessary.

Findings:

- **AI-Driven Efficiency in Green Banking:** The integration of AI in Indian banks has significantly optimized operational efficiency and contributed to sustainability goals allowing banks to reduce energy consumption, streamline processes, and move towards paperless operations. This shift supports carbon reduction efforts and aligns with green banking practices.
- **Distinct Approaches:** Public sector banks driven by government mandates and policies, focusing on compliance and regulatory alignment. In contrast, private sector banks leverage AI-based green innovations as part of a competitive strategy to attract eco-conscious customers, invest in green technologies, and lead digital transformation.
- **Enhanced Green Financing and ESG Management:** AI applications have enabled banks to better assess environmental, social, and governance (ESG) risks, supporting the transition towards green finance. Banks use AI tools to identify sustainable investment opportunities, monitor ESG metrics, and promote green lending practices, fostering environmentally responsible banking.
- **Challenges in AI Implementation:** Despite the benefits, banks face challenges in adopting AI for green banking need for substantial infrastructure investments limits AI implementation, particularly for smaller banks and those in rural areas.
- **Positive Customer Response:** Customer interest in eco-friendly banking services is on the rise. AI- driven digital channels like chatbots and personalized platforms improve customer experience and enhance engagement with green banking, attracting environmentally conscious customers who value transparency and sustainability.

Suggestions:

- **Enhance Regulatory and Policy Support:** To facilitate AI adoption in green banking, the government should develop flexible and supportive policies that encourage innovation while ensuring data privacy and security. Public sector banks could benefit from incentives for green banking initiatives, while regulatory frameworks should allow private banks to experiment with AI solutions for sustainability.
- **Investment in Digital Infrastructure:** Banks, especially in rural areas, should focus on investing in the necessary digital infrastructure to support AI technologies for green banking. Collaborative investments among financial institutions, technology providers, and government bodies can help overcome the resource limitations that small banks face in adopting AI.
- **Promote Awareness and Training:** Banks should conduct awareness campaigns and training programs to educate both Customer education on sustainable banking services could increase adoption, while employee training on AI technologies can boost internal efficiency and support green banking efforts.
- **Focus on Data Security and Privacy:** Given the data privacy challenges associated with AI, banks must prioritize robust cybersecurity measures and transparent data management practices. Establishing strict data governance policies and leveraging blockchain technology can help banks build trust with customers and mitigate privacy concerns.
- **Encourage Collaboration for Green Innovation:** Collaboration among banks, fintech companies, and technology providers can accelerate the development of AI-based green solutions. Partnerships can enable the sharing of resources, reduce costs, and foster a collaborative ecosystem that drives sustainable innovation across the banking sector.
- **Strengthen ESG Reporting and Monitoring:** To improve transparency and accountability, banks should enhance their ESG reporting and monitoring systems using AI tools. Advanced AI applications can help banks measure the environmental impact of their operations more effectively.

Conclusion

By incorporating AI into green banking, India's banking sector may take a major stride toward more ecologically conscious economic practices. In this analysis, we look at how AI may help banks achieve their sustainability objectives by increasing operational efficiency while decreasing their environmental impact. Public sector banks are largely guided by regulatory mandates, focusing on compliance-driven green initiatives. On the other hand, private sector banks utilize AI for competitive advantage, innovating in eco-friendly services to appeal to environmentally conscious customers. Addressing these issues requires coordinated efforts from banks, policymakers, and technology providers to create supportive policies, strengthen infrastructure, and invest in security measures. The use of artificial intelligence (AI) in green banking might be a powerful tool to encourage eco-friendly practices, lower carbon emissions, and foster long-term economic growth. Customers are increasingly seeking sustainable banking options. To sum up, AI might be the game-changer for green finance in India, leading both government and commercial institutions to be more eco-conscious in the future.

References

1. Ahuja, N. (2015). Green banking in India: A review of literature. International Journal for Research in Management and Pharmacy, 4(1), 11-16.
2. Akhter, I., Yasmin, S., & Faria, N. (2021). Green Banking Practices and Its Implication on Financial Performance of The Commercial Banks in Bangladesh. Journal of Business Administration, 42(1).
3. Amir, M. (2021). Banker Attitudes and perception towards green banking: an empirical study on conventional banks in Bangladesh. International Journal of Finance and Banking Studies, 10(2).
4. Atul, G., Utkarsh, S., & Bhoomi, G. (2018). Sustainable & Green Banking Practices in India: Issues and Challenges. International Journal for Research in Engineering Application and Management, 4(8), 110–113.
5. Aubhi, R. U. (2016). The Evaluation of Green Banking Practices in Bangladesh. Research Journal of Finance and Accounting, 7(7), 97–125.
6. Bina, O. (2013). The green economy and sustainable development: An uneasy balance? Environment and Planning. C, Government & Policy, 31(6), 1023–1047. doi:10.1068/c1310j
7. Bohora, K. B. (2018). Green Banking Practices and Perceived Financial Performance of Nepalese Commercial Banks in Kathamandu District [Doctoral dissertation]. Central Department of Management. Tribhuvan University.
8. Catherin, T. C., & Melvin C. J. (2022). Need of The Hour: Awareness on Green Banking Products. Studies of Applied Economics, 40(2).
9. Chaaben, N., Elleuch, Z., Hamdi, B., & Kahouli, B. (2022). Green economy performance and sustainable development achievement: Empirical evidence from Saudi Arabia. Environment, Development and Sustainability, 1–16. doi:10.1007/s10668-022-02722-8 PMID:36320556
10. Chen, J., Siddik, A. B., Zheng, G. W., Masukujjaman, M., & Bekhzod, S. (2022). The effect of green banking practices on banks' environmental performance and green financing: An empirical study. Energies, 15(4), 1292. doi:10.3390/en15041292
11. Chitra, V., & Gokilavani, R. (2020). Green Banking trends: Customer knowledge and awareness in India. Shanlax International Journal of Management, 8(1), 54–60. doi:10.34293/management.v8i1.2486
12. Dhamanyanthi, A., & Teresa, C. (2018). Factors Determining the Adoption of Green Banking Amongst Commercial Banks in Malasiya. Electronic Journal of Business & Management, 2, 50–62.
13. Dipika. (2015). Green Banking in India: A Study of Various Strategies Adopted by Banks for Sustainable Development. International Journal of Engineering Research & Technology, 3(10), 1-10.
14. Gavrić, O., & Mitrović, D. (2019). Development of Green Economy and competitiveness of EU countries: Macro-level empirical analysis. Ekonomika preduzeća, 67(7-8), 415-425.
15. Gunawan, J., Permatasari, P., & Sharma, U. (2022). Exploring sustainability and green banking disclosures: A study of banking sector. Environment, Development and Sustainability, 24(9), 11153–11194. doi:10.1007/ s10668-021-01901-3
16. Hummel, K., Laun, U., & Krauss, A. (2021). Management of environmental and social risks and topics in the banking sector-An empirical investigation. The British Accounting Review, 53(1), 100921. doi:10.1016/j. bar.2020.100921
17. Iqbal, M., Rifat, A., & Nisha, N. (2021). Evaluating attractiveness and perceived risks: The case of green banking services in Bangladesh. International Journal of Asian

Business and Information Management, 12(1), 1–23. doi:10.4018/IJABIM.20210101.oa1

18. Jain, P., & Agarwal, G. (2019). Factors affecting mobile banking adoption: An empirical study in Gwalior region. The International Journal of Digital Accounting Research, 19, 79–101.
19. Jayabal, G., & Soudarya, M. (2017). Customers Satisfaction Regarding Green Banking in Public Sector Banks in Sivagangai District. International Journal of Management Research and Reviews, 7(8), 822.
20. Kablana, J. (2015). Green banking in India: A study of various strategies adopt by banks for sustainable development. International Journal of Engineering Research & Technology (Ahmedabad), 3(10), 1–10.
21. Kalra, R. (2016). Green banking: A modern approach for sustainable development. International Journal of Business Quantitative Economics and Applied Management Research, 3, 96–107.
22. Kasztelan, A. (2021). On the road to a green economy: How do European Union countries 'do their homework'? Energies, 14(18), 5941. doi:10.3390/en14185941
23. Kumar, K., Sharma, H., Khan, W., & Kumar, R. (2022). Factors influencing adoption of green banking practices: Evidence from commercial banks in India. Journal of Asia Entrepreneurship and Sustainability, 18(1), 41–57.
24. Kushwaha, J., Sharma A., & Singh, P. (2022). Exploration and prioritization of enablers to organization work- family balance planning for working sole Indian mothers integrating Fuzzy- Delphi and AHP. International Journal of Social Economics. 10.1108/IJSE-05-2022-0348
25. Lakstutiene, A., Krusinskas, R., Sineviciene, L., & Melnyk, L. H. (2016). Towards a Green Economy: The Importance of Environment. Energy and Technology in the European Region.
26. Lenin, K. N. (2021). A Study of Bank Employees' Awareness and Perspectives On Green Banking in Nizwa. Scientific Research Journal Of Review Of Public Administration And Management, 1(2), 1–6.
27. Lukas, E. N. (2015). Green economy for sustainable development and poverty eradication. Mediterranean Journal of Social Sciences, 6(S5), 434.

***