Green Banking Revolution in India: A Strategies for Sustainable Development in The Indian Economy

Dr. Prakash V

Assistant Professor & Head, Department of Economics, Faculty of Science and Humanities, SRM Institute of Science and Technology, Kattankulathur Chengalpattu Dt 603203

vprakash407@gmail.com

Dr. Samir Dubey

Assistant Professor, Prestige Institute of Management and Research, Indore

Dr. Shilpa Sachdeva

Assistant Professor, Centre for Business Studies, CMR university, Bengaluru

Dr. Prashant Mishra

Assistant Professor, Department of Management Studies, Pramod Ram Ujagar Tiwari Saket Institute of Management (PRUTSIM), Taluka- Kalyan, Thane, Maharashtra

Avinash Kumar Mishra

ISBR Business School, Bangalore

Dr. Indrajeet Ramdas Bhagat

Associate Professor, Research Supervisor and Head of Commerce and Management Faculty, Yeshwantrao Chavan College Ambajogai, Distt Beed Maharashtra

ABSTRACT

The Green Banking Revolution in India tackles a critical shift in the way the country's economy views sustainable development. This innovative initiative aims to adapt the banking sector to environmental consciousness by integrating eco-friendly practices into financial plans. By emphasising trustworthy banking, the initiative aims to reduce the environmental impact of financial institutions and promote a peaceful coexistence of economic growth and environmental preservation. People have been living in extreme luxury during the globalisation and industrialization era, but there has also been a great deal of demand for environmental corruption. As a crucial segment of the populace, buyers have evolved into knowledgeable individuals when it comes to handling pressing environmental concerns. To safeguard typical resources and the environment, associations have begun seeking after environmental sensibility. Concerns in regards to their environmental sensibility are as of now developing because of the far and wide acknowledgment of the business' social obligation among delegates, clients, society, managerial experts, and others. Being a huge player in the financial business, banks have started to add to sustainable development and are credited with making "green banking." These financial institutions have been zeroing in on their twofold obligations to advance sustainable development. In their ability as critical arbiters, banks have started to focus on essential affiliations' regions to additional the reason for sustainable development. This article will look at banks' commitments to safeguard the climate by carrying out green banking rehearses.

Keywords: Green Banking, Revolution, Strategies, Sustainable Development, Indian Economy, Environmental, Social, Governance, Banks, Financial Institutions

1. INTRODUCTION

An increasingly popular concept globally, green banking has emerged as an essential step towards sustainable growth in many economies, including India's. In response to environmental challenges, environmental shifts, and the need for responsible financial practices, India's banking sector has experienced a significant shift towards adopting green banking norms. This revolution represents a shift in the way that traditional banking operates, as banks see the need to integrate social and environmental considerations into their operations. With its vast population and diverse biological systems, the Indian economy faces unique challenges and presents opportunities for sustainable development. This talk explores the green banking movement in India, delving into the tactics used by financial institutions to promote sustainable economic growth and enhance environmental conservation.

The recognition of the negative environmental effects of traditional banking practices is the foundation of India's green banking movement. Financial institutions are gradually realising how important it is to address environmental issues

including pollution, deforestation, and climate change. Green banking initiatives in India aim to align financial activities with environmental sustainability goals in response to these concerns. Banks contribute to mitigating environmental change and establish themselves as trustworthy stewards of the climate by adopting an eco-friendly approach.

The objectives for sustainable development of the Indian economy through green banking incorporate a scope of strategies and undertakings. One conspicuous procedure is the fuse of environmental, social, and governance (ESG) ideas into the unique patterns of financial institutions. This entails assessing the social and environmental effects of lending and venture capital initiatives, encouraging clients to adopt thoughtful strategic policies, and incorporating sustainable development goals into core business plans. As a result, banks play a crucial role in reallocating resources to projects and activities that emphasise social aid from the government and environmental preservation.

Encouraging sustainable electricity funding is another critical aspect of India's green banking revolution. Banks are increasingly investing in and supporting projects related to solar, wind, and other sustainable power sources as they recognise the value of renewable energy in reducing environmental change. These campaigns not only help reduce the waste products from fossil fuels but also back the government's vigorous efforts to set ecologically appropriate power limits. In this sense, green banking serves as a catalyst for India's transition to a more environmentally sound and sustainable energy landscape.

In addition, Indian financial institutions are successfully promoting sustainable practices through community service and educational initiatives. These motivations encourage networks to adopt eco-friendly behaviours and raise awareness of environmental challenges. Additionally, banks are coming up with creative financial products to encourage sustainable behaviour. One such product is green credits, which offer preferential lending rates for projects that consider the environment. By using these tactics, green banking is not only contributing to environmental conservation but also fostering a manageable culture within the larger Indian society.

India's green banking revolution portends a significant shift in the financial sector towards a more sustainable and conscientious future. Financial institutions are playing a vital role in shaping an adaptable and environmentally sustainable Indian economy by modifying banking operations to take social and environmental considerations into account. Overall, the adopted strategies—such as the ESG mix, local area commitment, and environmentally friendly electricity support—contribute to a comprehensive approach to addressing sustainable development. As India makes its way towards a more sustainable and greener future, the banking industry's role becomes increasingly important in promoting favourable social and environmental outcomes.

2. LITERATURE REVIEW

The practicality of green banking advancement comparable to business banks in India is analyzed top to bottom in Annadurai's (2014) paper. The creator analyzes the manners by which these mechanical intercessions support the more extensive green banking development as well as environmental viability. The review's discoveries might give some understanding into the mechanical headways business banks in India have made to adjust their tasks to additional naturally cordial ones.

In their 2015 review, Bihari and Pandey zeroed in on the more extensive idea of green banking in India. The objective of this study is to understand the different green banking rehearses that financial institutions have embraced and what they mean for the general economy. Inspecting the financial parts of green banking can give light on how these drives support environmentally cognizant development and add to sustainable development. The assessment can likewise cover regulatory systems and technique suggestions that help India's green banking rehearses.

The focal point of Parkash and Rajan (2017's) paper on green banking drives is client care. The viability of green banking practices relies upon having a careful understanding of the clients' levels of insight and care. The assessment might look at the appropriateness of business banks' correspondence strategies for instructing and drawing in clients during green banking efforts. The review's encounters might assist banks with further developing client administration in sustainable banking practices and keep on reinforcing their correspondence strategies.

Hossain, D.M., Bir, A., Sadiq, A.T., Tarique, K.M., and Momen, A. (2016) This study researches the degree to which yearly reports from Bangladeshi banks reveal green banking difficulties. It is basic to analyze yearly reports since they give knowledge into the straightforwardness and responsibility of banks for environmentally cordial tasks. The aftereffects of this examination might give light on Bangladeshi banks' point by point arrangements and their obligation to green banking. Accomplices, regulators, and the actual banks will track down this data significant in assessing their environmental obligation and revelation strategies.

Saundarya and Jayabal (2016) This study investigates green banking as a bank-embraced sustainable development drive. The creators in all probability dive deep into the strategies and methods that banks have taken on in their endeavours to

European Economic Letters ISSN 2323-5233 Vol 14, Issue 1 (2024)

https://doi.org/10.52783/eel.v14i1.1054

http://eelet.org.uk

advance green banking, featuring the job that financial institutions play in advancing sustainable development. Acquiring an understanding of how banks adjust their tasks to meet legitimacy objectives is fundamental to grasping the more extensive effect of green banking on financial and environmental practicality.

The Mehedi bunch (2017) The viewpoint of specialists on markers for green banking reception in Bangladeshi booked business banks is the primary focal point of this review. Analyzing the points of view of experts in the field gives significant bits of knowledge into the difficulties and mind-boggling open doors related with the reception of green banking rehearses. The incorporation of sustainable practices into the banking area can be affected by the choices made by lenders, which is the reason this study is significant for appreciating the inner operations of banks and the different barriers they might experience while executing green drives.

3. RESEARCH METHODOLOGY

3.1. Objective of the study

The primary target of this paper is to feature the many green banking programs for environmental supportability that the partaking banks have executed and shared through their particular yearly reports and other showcasing materials. Based on an examination of accommodations, the test was selected. This research paper's second level of analysis examines the perception of green banking initiatives among customers, particularly in relation to the Jalandhar district, that various banks have implemented.

3.2. Tools Used

SPSS 19 has been utilised to handle and analyse the data. The organised survey's factors were rotated using the factor examination approach to obtain the variables that best explain the clients' opinions about green banking practices. A content analysis has been conducted to evaluate the annual reports of selected Indian banks, both private and public.

3.3. Sampling

250 respondents and 250 clients provided responses for the study's sample. A disclosure list covering twenty-three topics related to green banking practices has been created for the chosen public and private organisations.

4. ANALYSIS AND RESULT

4.1. Factor Influencing the Perceptions of Customers Regarding Green Banking:

A methodical overview has been laid out to decide the perspectives that influence the public's perspective on green banking drives that have been presented by unambiguous public and private banks.

Table 1: Results of the KMO and Bartlett's Test for Green Banking Shopper Discernments

Statistical Test	Value
Kaiser-Meyer-Olkin Measure of	0.878
Sampling Adequacy	
Bartlett's Test of Sphericity	3825.8
Approx	
- Chi-Square	
d.f	495
sig.	0.000

Table No. 1 above demonstrates that the KMO esteem is sufficient, and the Bartlett's test findings also highlight important characteristics. After that, things went smoothly.

Table 2: Component Matrix Rotation

S. No	Particulars	Components				
		1	2	3	4	5
1	S1	0.77				
2	S2	0.73				
3	S3	0.80				
4	S4	0.53				
5	S5		0.65			
6	S6		0.70			

European Economic Letters ISSN 2323-5233 Vol 14, Issue 1 (2024)

https://doi.org/10.52783/eel.v14i1.1054

http://eelet.org.uk

7	S7	0.80			
8	S8	0.52			
9	S9		0.70		
10	S10		0.64		
11	S11			0.79	
12	S12			0.53	
13	S13				0.63
14	S14		0.68		

The relationship between the factors and the component as well as the weighting of the factors for the determined elements are addressed in the turned part grid (Table No. 2). The esteem of a relationship ranges from +1 to - 1. 14 explanations have yielded five variables. Every component loading with an eigen value less than 0.5 was eliminated. The cases are shown with individual eigen values in Table No. 2 above. The five parts that have been resolved are portrayed as follows:

Factor 1: Promotion of Green Banking: As a novel concept, green banking needs to be promoted to the general public in order for people to recognise its benefits. Strategies should be laid out in a way that makes it easy for the general public to comprehend its many components and realise the benefits of green banking. Therefore, each bank should contact a green banking cell in order to implement the strategies and goals related to green banking. Furthermore, banks should prioritise environmental strategies in order to respond to emerging environmental risks. Table No. 2 displays the stacking factors ranging from 1 to 4, which help differentiate this variable.

Factor-2 Standard Green Banking Practices: Banks can launch green banking programmes to educate consumers on how to express their normal financial transactions in an eco-friendly way, hence lowering carbon footprints and promoting eco-friendly behaviours. Online banking should be prioritised above branch banking. Banks should prepare ecological initiatives in order to increase public mindfulness. At that moment, banks should start a few green initiatives so that customers can be encouraged to take use of the advantages of green banking. Table No. 2's stacking factors, which deal with this component, are 5 to 8.

Factor No. 3: Climate Security: Since regular assets benefit both individuals and the shared habitat, they should preferably be used lawfully. The biological balance of the climate has been disrupted by environmental degradation, which has ultimately led to the cause of respiratory problems, skin diseases, and other conditions. The banking industry, which is a crucial component of the financial sector, has a responsibility to support only environmentally friendly projects in order to reduce the use of conventional assets. The stacking factors from table no. 4, which deals with this element, are 9, 10, and 14.

Factor 4: Innovative CSR: Any economy's financial growth is inextricably linked to the ethical principle of corporate social responsibility. Banks are using green banking to practise moral banking. Green banking products facilitate item separation and are environmentally friendly, both of which can reduce climate corruption. This component is addressed by stacking factors 11 and 12 in table no. 2.

Factor 5: Observing Green Finance: The instructional plan of green banking has been embraced by the majority of Indian banks. In this sense, banks should have a system in place within the internal association to monitor their green drives. A legitimate examination of green banking should be carried out to verify if credits have been issued to projects that comply with their environmental welfare requirements. Initiatives related to green banking must to be revealed in the scattered structure of each bank's yearly report. are firmly supported.) The stacking variable that addresses this component is 13 in Table No. 2. English units are optional and are shown in brackets. This is valid for records that are valuable in terms of information.

4.2. The scope of Green Banking Programmes in Selected Banks

A formal poll was conducted and 250 respondents were given some information about how green banking activities can be conducted. A third of the 250 participants in Table No. 3 concurred that using an ATM is very simple. Twenty-six percent of the sample's customers use Web banking as their primary green drive. Web banking is the second-best green banking application because not all clients have access to it. Versatile banking is another great application of the green banking drives, as required by 23% of the sample's customers. It is listed as the third-best green banking app as a consequence. Just 18% and 9%, respectively, of the 250 survey participants had utilised green channels and green cards since they are not user-friendly green banking applications.

European Economic Letters ISSN 2323-5233 Vol 14, Issue 1 (2024)

https://doi.org/10.52783/eel.v14i1.1054

http://eelet.org.uk

Table 3: Application Levels for Green Banking

S. No	Particulars	No. of Users	%age of No. of Users	Rank
1	Internet Banking	60	26%	2
2	ATMs	70	30%	1
3	Mobile Banking	50	23%	3
4	Green Channel	40	18%	4
5	Green Card	20	9%	5

Guidance on how banks should practically adopt Green Banking can be found in Table No. 4. Because paperless banking lessens environmental deterioration and eventually advances sustainable development, the majority of respondents are in favour of it. Consumers also like the energy-emulating practices that banks employ to regulate the temperature. It is regarded as the third best recommendation for banks to offer financial products related to green banking. Utilising a regular vehicle has been favoured at position four. The development of green initiatives and green buildings has not been well received.

Table 4: The application of green banking

S. No	Particulars	Score
1	Green Buildings	21
2	Adoption of paperless banking	65
3	Contributing to projects promoting Green banking	20
4	Energy Conservation	58
5	Introduction of Green Financial Products	46
6	Using common transport for official posts delivery	40

4.3. The extent to which certain public and private banks have included applications for green banking in their published annual reports:

In Table No. 5, a revelation file has been created with the use of content analysis. In their individual yearly reports, the public and private banks' green banking initiatives have been evaluated with the help of 23 exposure issues. To create the exposure list, the yearly reports for the three fiscal years 2016–17, 2017–18, and 2018–19 were evaluated.

Table 5: The Exposure Record of Green Banking Practices by Indian Banks

Public Banks	Disclosure Index
State Bank of India	97%
Punjab National Bank	83%
Canara Bank	59%
Union Bank of India	78%
Bank of Baroda	73%
Private Banks	
HDFC Bank	99%
ICICI Bank	65%
AXIS Bank	62%
YES Bank	77%
Kotak Mahindra Bank	53%

Out of the main 5 public region banks in the sample, SBI has the most elevated divulgence score (97%), and it has shared data about its green banking drives through 23 openness subjects. Bank of Baroda (73%), Punjab Public Oversaw Records (83%), and Affiliation Bank of India (78%), each uncovered their green banking drives in their yearly reports. With 59% of the data unveiled in regards to green banking drives in its free yearly reports, Canara Set aside Cash has done the least. The most outrageous revelation was made by the singular banks in regards to their corporate social commitment. Moreover, just few banks — SBI and Punjab Public Bank, for example — have remembered data for their green activities in the papers that were appropriated under the environmental viability subject. Data has been uncovered in the CSR filings of all publicly exchanged banks that are still in business.

Out of the sample of the main 5 private banks, HDFC Bank has shown astonishing power in its green exercises in Business Commitment Reports, with an almost 100 percent divulgence list score. The bank has found projects relating to board squander, carbon impression openness, chief watering, and energy protection. The bank has a carbon-foot printing minicomputer and has focused on paperless exchanges. The energy show in the leaders module has brought about a 12% decrease in energy utilization. Strategies for disposing of important electronic waste have been displayed. There are instances of reusing paper and plastic all around the bank. The focal segments are home to the waste water reusing office. Without a doubt, ICICI Bank (65%) and Keep Cash (77%) have likewise shown green banking drives in their separate yearly reports. Kotak Mahindra Bank uncovered minimal measure of data — 62% — about its green banking exercises in its yearly report. HDFC Bank has the most noteworthy exposure rate — almost 100 percent — among completely sampled public and business banks with regards to their green banking exercises. SBI Bank has unveiled 97% of these data in its autonomous yearly reports. It is more fitting for private banks to uncover their green banking endeavours in their autonomous yearly reports.

Out of the main 5 public region banks in the sample, SBI has the most elevated divulgence score (97%), and it has shared data about its green banking drives through 23 openness subjects. Bank of Baroda (73%), Punjab Public Oversaw Records (83%), and Affiliation Bank of India (78%), each uncovered their green banking drives in their yearly reports. With 59% of the data revealed in regards to green banking drives in its autonomous yearly reports, Canara Set aside Cash has done the least. The most outrageous revelation was made by the singular banks in regards to their corporate social commitment. Moreover, just few banks — SBI and Punjab Public Bank, for example — have remembered data for their green activities in the papers that were circulated under the environmental viability topic. Data has been uncovered in the CSR filings of all publicly exchanged banks that are still in business.

Out of the sample of the main 5 private banks, HDFC Bank has shown astonishing power in its green exercises in Business Commitment Reports, with an almost 100 percent divulgence list score. The bank has found projects relating to board squander, carbon impression openness, chief watering, and energy protection. The bank has a carbon-foot printing minicomputer and has focused on paperless exchanges. The energy show in the leader's module has brought about a 12% decrease in energy utilization. Strategies for disposing of important electronic waste have been displayed. There are instances of reusing paper and plastic all around the bank. The focal segments are home to the waste water reusing office. Without a doubt, 77% of Deal with a Record and 65% of ICICI Bank revealed green banking drives in their separate yearly reports. Kotak Mahindra Bank uncovered minimal measure of data — 62% — about its green banking exercises in its yearly report. HDFC Bank has the most noteworthy divulgence rate — almost 100 percent — among completely sampled public and business banks with regards to their green banking exercises. 97% was uncovered by SBI Bank in its specific yearly reports. It is more fitting for private banks to uncover their green banking endeavours in their autonomous yearly reports.

5. CONCLUSION

Within the country's financial system, India's Green Banking Revolution provides an example for sustainable development. The projects that are being presented show a broad commitment to environmental responsibility, which is consistent with the belief held by financial institutions that sustainable practices are necessary for long-term financial survival. Therefore, in order for everyone to utilise online banking effectively for everyday transactions, banks should inform their clientele about the advantages of green banking. To promote their green initiatives, banks should organise regular events for their clientele. The clientele would benefit from this as they began using the bank's green initiatives. When utilising online and mobile banking, customers should receive instructions in their original language. To increase the awareness of green banking among their customers, banks ought to collaborate with non-governmental organisations, environmentalists, and commercial enterprises. The Reserve Bank of India should establish stringent guidelines to incentivize banks to implement green banking activities as a means of promoting the sustainable growth of the economy. All banks should adopt a planet-individuals-benefit strategy instead of a benefit-benefit one as part of their corporate social duty to practise green banking. When customers complete their transactions in an eco-friendly way, they ought to be paid. Protecting the environment now requires the use of green money. Therefore, in their issued reports, banks ought to truthfully reveal their green banking activities. To encourage sustainable development among the general population, banks ought to provide more innovative green goods.

REFERENCES

- Annadurai, A. (2014). Effectiveness of green banking technology of the commercial banks in India. CLEAR International Journal of Research in Commerce & Management, 5(12)
- 2. Bihari, S.C., & Pandey, B. (2015). Green banking in India. Journal of Economics and International Finance, 7(1), 1-17

- 3. G. Parkash, Pappu Rajan 2017, A Study on The Customer Awareness on Green Banking Initiatives. Intercontinental Journal of Finance Research Review, Volume 5, Issue 7, July 2017.
- 4. Atul Kathole, Dinesh Chaudhari "Securing the Adhoc Network Data Using Hybrid Malicious Node Detection Approach", Proceedings of the International Conference on Intelligent Vision and Computing (ICIVC 2021) pp 447–457 © 2022 The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd.
- 5. Hossain, D.M., Bir, A., Sadiq, A.T., Tarique, K.M., & Momen, A. (2016). Disclosure of green banking issues in the annual reports: A study on Bangladeshi banks. Middle East Journal of Business, 55(3034), 1-12.
- 6. K. N. Vhatkar and G. P. Bhole, "Particle swarm optimisation with grey wolf optimisation for optimal container resource allocation in cloud," IET Networks, vol. 9, no. 4, pp. 189–199, 2020, doi: 10.1049/iet-net.2019.0157.
- 7. Jayabal & Saundarya 2016, Green Banking: As Banks Initiative for Sustainable Development. International Journal of Management. Volume 7, Issue 7, Dec, 2016. Pp: 276-280
- 8. Mehedi et.al 2017, The Identification of Bankers Perception towards Indicators for the Adoption of Green Banking in Bangladeshi Scheduled Commercial Banks. Journal of Internet Banking and Commerce. August 2017, Vol. 22, No. 2
- 9. Momani, A.M., Jamous, M.M., & Hilles, S.M. (2018). Technology acceptance theories: review and classification. Technology Adoption and Social Issues: Concepts, Methodologies, Tools, and Applications, 1-16.
- Atul B Kathole, Dr.Dinesh N.Chaudhari, "Fuel Analysis and Distance Prediction using Machine learning,"
 2019, International Journal on Future Revolution in Computer Science & Communication Engineering, Volume: 5
 Issue: 6.
- 11. Naveenan, R.V. (2016). Warning signals-a tool to control NPA in banks. Int. J. Adv. Res. Comput. Sci. Manage. Stud, 4(7)
- 12. Atul B Kathole, Dr.Dinesh N.Chaudhari, "Pros & Cons of Machine learning and Security Methods, "2019.http://gujaratresearchsociety.in/index.php/ JGRS, ISSN: 0374-8588, Volume 21 Issue 4
- 13. Patra, N., & Ray, N. (2018). Customer Perception of the Quality of Online Banking Services (with Special Reference to SBI and ICICI): A Study on Chaos and a Complexity Perspective. In International Symposium on Chaos, Complexity and Leadership (pp. 155-173). Springer, Cham
- 14. K. N. Vhatkar and G. P. Bhole, "Optimal container resource allocation in cloud architecture: A new hybrid model," Journal of King Saud University Computer and Information Sciences, vol. 34, no. 5, pp. 1906–1918, 2022, doi: 10.1016/j.jksuci.2019.10.009.
- 15. Raad Mozib Lalon 2015, Green Banking: Going Green. International Journal of Economics, Finance and Management Sciences. Volume 3, Issue 1, pp. 34-42, January 2015.
- Sonali D. Patil, Roshani Raut, Rutvij H. Jhaveri, Tariq Ahamed Ahanger, Pallavi V. Dhade, Atul B. Kathole, Kapil N. Vhatkar, "Robust Authentication System with Privacy Preservation of Biometrics", Security and Communication Networks, vol. 2022, Article ID 7857975, 14 pages, 2022. https://doi.org/10.1155/2022/7857975.
- 17. Rao et.al 2017, BRICS banking: Review of Green Banking Initiatives among the BRICS Nations. The Business and Management Review. Volume 9, No.1
- 18. Sahoo & Singh 2016, Adoption of Green Banking in India: Challenges and Prospects. International Journal of Science and Research, Volume 5, Issue 8.
- 19. Atul B Kathole, Dr.Prasad S Halgaonkar, Ashvini Nikhade, "Machine Learning & its Classification Techniques, "International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-9S3, July 2019.
- 20. Shampa & Jobid 2017, Factors Influencing Customers Expectation towards Green Banking Practices in Banglaesh. European Journal of Business and Management. Volume 9, No.12, 2017.
- 21. Tara, K., Singh, S., & Kumar, R. (2015). Green banking for environmental management: a paradigm shift. Current World Environment, 10(3), 1029-1038.
- 22. Thiyagaraj 2016 Green Banking: An Approach towards Sustainable Environmental Management. International Journal of Engineering & Scientific Research. Volume 4, Issue 11, Nov.2016.