DRIVING ENVIRONMENTAL SUSTAINABILITY: A COMPREHENSIVE REVIEW OF GREEN BANKING IN THE INDIAN FINANCIAL LANDSCAPE

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Abstract

The aim of the current study is to review the existing literature available on the concept of contemporary application of "Green Banking" as a sustainable approach in Indian context. The study indicates that the consumers as well as banks along with environment can be benefitted as it is approaching environmental sustainability which is requirement of the current era. Although the development of green banking, there is requirement of the development on part of cultivation of bankers, incentive systems must be established and a supportive external environment must be created. The study focuses on challenges and strength of "Green Banking" along with future scope of adoption of Green Banking also suggest further research areas for research also reviewed.

JEL CATEGORIES: K, O and M

Key Words: Environment, Green Banking, Sustainability, Indian Banking, Consumers and Review

1. Introduction

In today's era sustainability has become "an emerging trend" (Lubin & Esty, 2010) & a critical business goal for driving "Green Business Innovation" as the year 2003 has been recognized as a remarkable year for the India because of G 20, which was established in 1999. To address the global economic challenges, it serves as a vital platform for cooperation among major economies, which are representing "80% of global economic output and two thirds of the world's population cantered towards agenda sustainable development with particular emphasis on promoting environment friendly practices in the financial sector", known as "Green Banking" or "Ethical Banking". "Green Banking" integrates environmental and social consideration into banking operations, investments and decision-making processes. After recognizing the financial sector's private role in transforming to a sustainable low carbon economy, the G-20 countries collaborate to establish guidelines and regulatory frameworks for reinventing this involves encouraging "Responsible Lending Investments" in renewable energy and the adoption of eco-friendly practices. The G-20 fosters a dialogue among member nations to exchange ideas and share experiences and promote innovation in sustainable financial practices. The G-20 commitment to "Green Banking" underscores its dedication "to aligning financial practices with environmental goals contributing to a more resilient and environmentally conscious global financial system as the G-20 continues to addressing the challenges like climate change, Green Banking remains integral to collective effort towards sustainability".

"Green Banking" promotes "environment friendly practices" in the banking sector through reduction of carbon footprints. It involves online banking services in place of visiting branches, payment of bills online and choosing local banks support to green initiatives. It focuses on utilization of IT and Banking system to minimize the economy's adverse impact through the practice of online account opening, payment, e-commerce and money transfer.

2. Objective of Research

This research paper main objective is to review consumers and brands response to adoption of green banking in Indian context as well as to discuss the challenges faced by the events in implementation to achieve sustainable development.

3. Green Banking

The motto behind the "Green Bank" was to protect the environment along with sustainable development. The same idea was induced by United States by Reed Hundt and Ken Berlin as part of the Obama-Biden Transition Team's efforts "to facilitate clean energy development in 2008" (Wikipedia). It aims was to reduce the adverse impact of polluting industries and contribution to the United Nations Development Goals (UN-SDGs) by 2030 (Bukhari *et al.*, 2023; Kaur & Grover, 2019). Banks also recognized the importance of promoting environmental sustainability and played crucial role in advancement of environment friendly practices and embraced various green initiatives (Bhatnagar, 2022). It has emerged as a dynamic approach to enhance environment quality (Bhalla, 2023) and conservation of energy and to provide market-based solutions for environmental challenges.

The existing available literature also high lightened the contribution of adoption of Green Banking Practices to attain "Green banking Sustainable Development Goals (SDGs)" by 2030 (Su, 2023). "Commercial banks innovation of the core competitiveness system has a profound impact on stimulating the motivation of implementation of", "Green

Credit" (Mir & Bhat, 2022). It is important of an individual, businesses and industries along with protection, risk coverage and economic activity support which has become prominent after post-pandemic. It can also help in improvement of "Green Total Factor Productivity (GTFP) of enterprises" which leads to the enhancement of enterprise development and addressing climate change collectively (Li, Chen, & Umair, 2023) and can have positive impact on bank's environment performance and sources of green finances (Marhaeni, et al., 2023). The green loans as part of banks' portfolio can help in moderating the influence of liquidity on bank's profitability which can be calculated by "Return on Assets (ROA)" and "Return on Equity (ROE)" (Mirovic, Kalas, Djokic, & Milicevic, 2023). This concept also helps in reduction in administrative burden attracting and retention of the staff, improvement in the service standards, drive customer loyalty, automation of manual tasks and reduction in costs of service and selling.

3.1 Developments in Green Banking

Green Banking has gained significant attention and development as this has become a social responsible model of banking with aim to reduce anthropogenic load on ecosystems and improvement in social image of banks (Zhang, Liu, Liu, & Zhou, 2022) and long term sustainability and environment protection (Kondyukova, Shershneva, & Savchenko, 2018). There are various kinds of initiatives including green banking channels, use of solar power and digitalization of branches (Bania & Biswas, 2023), green banking products, green lending and charity projects (Bhatnagar, 2022). Though there is need for progressive cultivation of green bankers, establishment of incentive mechanisms and creation of an external environment conducive to their development (Khan & Szegedi, 2019). These green and sustainable banking practices might help the banking industry as a significant economic player and reduction in environmental problems. Overall, green banking is seen as a beneficial trend that not only improves the quality of assets in banks but also contributes to the greening of industries and the economy as a whole.

3.2 Challenges for Green Banking

Despite of evident benefits of green banking, there are some barriers in implementation of green banking practices. One of the major challenges reported that the reluctance of banks to finance innovation those are aimed to reduce polluting activities as also it risks devaluing their legacy positions with incumbent clients (Bhatnagar, 2022). Due to lack of information and knowledge and clarity of green banking practices among customers influence its implementation of green bank practices and lead to the increase in cost (Al Mulla & Nobanee, 2020). Its successful implementation requires significant investments and changes in infrastructure which can be proved as expensive for banks (Degryse, Roukny, & Tielens, 2020) as well as it may create dilemma for banks as they have to make a choice between supporting innovative and green firms in polluting industries or to maintain their relationships with incumbent clients (Bhalla, 2023).

3.3 Products of Green Banking

The products & services associated with green banking aim to support environmentally friendly initiatives and contribute to a more sustainable future. Some common products of green banking include as shown in Fig. 1.

Fig:1 Products of Green Banking

Green Loans: Green Mortgages: These loans support the purchase or renovation of energy-efficient homes or buildings.

Energy-Efficient Vehicle Loans:

Environmental Insurance: Insurance products designed to cover risks associated with environmental factors, such as climate-related events or damage to sustainable properties.

Sustainable Investment Products: Green banks may offer investment options that focus on environmentally sustainable companies or industries, such as green bonds, socially Renewable Energy Financing: Loans or financial products specifically designed to support the development and installation of renewable energy projects, such as solar or wind farms.

Eco-Friendly Savings Accounts: Accounts that allocate funds to support environmentally friendly projects or initiatives. The interest earned may be used to fund green initiatives

Electronic Statements and Transactions: Encouraging digital banking to reduce paper usage and promote a more environmentally friendly approach to banking Green Credit Cards: Credit cards that offer rewards or cashback for environmentally friendly purchases, such as those made at sustainable businesses or on eco-friendly products

Carbon Offset Programs: Banks may provide opportunities for customers to offset their carbon footprint by investing in projects that reduce or capture greenhouse gas emissions

Green Certification Support: Financial products that support businesses or projects seeking green certifications, such as LEED (Leadership in Energy and Environmental Design) for buildings.

Educational Programs and Workshops: Green banks may offer educational resources, workshops, or seminars to inform customers about sustainable financial practices and investments.

Green Business Loans: Financing options for businesses that adopt environmentally sustainable practices or develop green products and services

Source: Author's study

These existing products are not only fulfilling the requirement of environment conscious individuals and business also contributing in the attainment of sustainable economy through directing financial resources towards initiative those have positive environmental impacts.

4. Green Banking Contribution in Environment Sustainability

Green banking practices helps in promoting energy-efficient buildings, financing sustainable projects and adopting electronic banking services to promote sustainable development (Murshudli, 2023). Its aim concern towards the use of green loans, green investments and green bonds to stimulate the growth of industries and technologies (Sharma D. K., 2023). While discussion of sustainable banking, it incorporates the environmental, social and governance in the delivery of banking services aimed to prioritize environmental sustainability and social responsibility (Sharma R, 2023). This area of further investigation is attracting the attention of researchers also to analyze the impact of international green banking on the environmental sustainability of developing countries (Sulaksana, 2023) and also to explore Indian banks initiatives for sustainable development and challenges they are facing in implementation of green banking practices (Abor et al., 2023) overtime.

5. Indian Banks Perspective Towards Green Banking

Indian banks adopted green banking practices to promote sustainable development with concern of environment also leads to operational efficiencies, reduction in errors and frauds also cost reduction in banking activities reported by "Indian Banks Sustainability Reports". They concentrated on initiatives like green products & services, implementation of green internal processes and engagement of green corporate social responsibility as these have reported positive impact on the "Green Brand Image" and "Green Trust of Banks". The previous studies have reported that majority of Indian banks involvement in the development of green banking products & services, incorporation of green internal processes and has undertaken green corporate social responsibility initiatives. All these initiatives leading towards "Green Economy in India" (Sharma & Choubey, 2022; Chitra & Gokilavani, 2020; Sun, et al., 2020). India's regulatory pressure, consumer interest, and public awareness drive banks toward eco-friendly approaches.

Green banking initiatives have gained popularity among Indian banks, with both public & private sector banks implementing sustainable practices. The Indian financial sector including banks, stock brokerage firms, credit card companies, and financial institutions has embraced the concept of green banking which has gained recognition from regulatory authorities, NGOs, societies and customers (Rani et al., 2023). "ICICI Bank", one of the leading financial institutions in India which has been actively reporting on sustainability and implementing ESG (environmental, social and governance) initiatives. "State Bank of India (SBI)", the largest public sector bank in India has also taken steps to reduce its carbon footprint through measures such as paperless transactions, solar power systems and promoting green initiatives through loans (Bania & Biswas, 2023). These green banking initiatives aim to enhance customer satisfaction and retention, as well as contribute to an eco-friendlier banking sector (Narayanan & Chandrasekaran, 2023).

One of the barriers for Indian banks towards "Going Green" include the requirement of creating more awareness as well as to make customers to understand the green banking practices (Musthaq & Jegadeeshwaran, 2023). The green banking practices not only beneficial for environment but also in terms of operational efficiencies and cost reduction (Bania & Biswas, 2023). But due to lack of clarity of the concept of the green banking practices on banks itself and lack of willingness to bear the increased coast related with these practices (Bhalla, 2023). Even there is dearth on the part of banks to identify errors, frauds and operational efficiencies and reduction in cost of banking activities (Chitra & Gokilavani, 2020). The regulator "Reserve Bank of India" has played important role in formulation of policies on green banking to promote green growth in the banking sector (Giramkar, 2018).

6. Indian Consumers perception towards Green Banking

The existing literature review reported that the Indian consumers have a favorable view towards green banking although there is a lack of awareness and understanding of the concept. They are less amenable to an increase in costs due to green banking practices. These practices have a positive impact on the environment and result in savings of energy, fuel, paper, water, time and money. Green banking practices are considered feasible and essential for addressing environmental degradation (Bhalla, 2023; Charan, Dahiya, & Kaur, 2019; Deka, 2018). Prior researches have indicated that banks ought to be proactive in the integration of ecological and environmental considerations into their lending policies. In addition to this bank should be more outspoken about the green value proposition as this this would encourage industries to invest in environmental management, appropriate technologies and management systems (Chaurasia, 2014).

7. Findings and Discussion

In spite of green banking has evident advantages still a careful inspection of challenges associated with green banking while promoting its successful implantation for sustainability. The reluctance of banks to finance innovative solutions aimed at reducing pollution due to potential risks to existing client relationships presents a formidable obstacle (Bhatnagar, 2022). Overcoming this challenge requires a paradigm shift in banks' perspectives, emphasizing the long-

term benefits of supporting environmentally friendly initiatives and fostering innovation. But the lack of clarity and understanding among banking customers regarding the impact of green banking practices and potential cost implications poses a communication hurdle (Al Mulla & Nobanee, 2020). This issue demands comprehensive awareness campaigns and educational initiatives to elucidate the positive effects of green banking on both the environment and the financial sector.

Moreover, the substantial investments and infrastructural changes required for the implementation of green banking practices present financial hurdles for banks (Degryse et al., 2020). Policymakers and regulatory bodies can play a pivotal role in incentivizing green investments and offering financial support to ease the transition. Collaborative efforts between financial institutions and government entities can create a conducive environment for sustainable banking practices.

Furthermore, the ethical dilemma faced by banks in choosing between supporting innovative green firms and maintaining relationships with polluting industries necessitates strategic decision-making (Bhalla, 2023). Encouraging a gradual shift towards sustainability through policy frameworks that reward eco-friendly practices can help banks navigate this ethical quandary. In addressing these challenges head-on, the transformative potential of green banking can be fully realized. The ongoing commitment to overcoming these hurdles will be essential in establishing green banking as a cornerstone for sustainable development ensuring a harmonious balance between economic prosperity and environmental well-being.

8. Conclusion

The objective of the study to review the existing literature that Green Banking as an approach to attain environment sustainability through the use of green banking practices. Indian banks are moving towards more sustainable banking practices by using IT for online services to address the consumer demand as well as regulatory pressure. This long-term initiative seeks to promote sustainable development, improvement in bank's reputation and help the environment. In this research areas, many studies have been conducted but still there is scope of further research on green banking and its relationship with urban Indian retail banking customers. There is potential for more study on different facets of green banking as a step to achieve sustainability in long term.

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