

Recent Advances in Green Banking: Systematic Review using PRISMA Protocols

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Abstract— In recent years, advancement of go green initiative by the government of India tends to a substantial trend towards greening the industry. With the increased environmental concern, many businesses, organizations & countries acts sustainably to achieve sustainable goals. A research on green banking and sustainability has grown widely due to increasing the adoption of green banking practices by Indian banks as well. The article is related to review of recent trends and advances in green banking by taking into consideration the “Preferred Reporting Items for Systematic Reviews and Meta-Analyses” (PRISMA) protocols. It examines and reviews the significant green banking initiatives and developments by selected Indian Private Sector Banks. The study highlights the current research on green banking adoption and strategies to attain the sustainable development goals by banks. The review is based on both empirical & theoretical data connected to green banking. Various research articles, amendments in the banking act, book chapters are taken into consideration while preparing the literature review. This study provides number of insights and pinpoints key research avenues essential for advancing sustainability and associated practices in the banking sector.

Keywords— Green Banking, Sustainability, PRISMA Protocols

Introduction

Finance, which is known as the lifeblood of an economy, makes the financial sector of utmost importance. Among all the financial sectors, Banking is the largest part and is termed as country's lifeline. It is also the fastest growing sector in the country and is at the 6th position among the emerging economies.

Green Banking is a banking that provides sustainable financial services which helps to reduce carbon footprints. Green Banking provides these sustainable financial services by using green **finance to promote sustainability in the following areas:**

- Lending and providing loans to companies and individuals who are committed to environmental responsibility;
- providing investment products that holds with investor values, such as renewable energy quotas or carbon offsets;
- Reducing operational emissions and carbon foot printd through its operations.

Green Banking also referred to as ecological banking, paperless banking, and e-banking is replacing the traditional concept of banking.

The PRISMA Protocol i.e. Preferred Reporting Items for Systematic reviews and Meta-Analyses are the rules & regulations to be followed to facilitate transparent & complete reporting of systematic reviews so that recent advances in systematic review methodology and terminology to be reflected .

Here, in this research, author explains & elaborates paper based on the recent published reviews & articles. It leads to more transparent, complete & accurate reporting of systematic reviews.

Research Methodology

The research is restricted to peer reviewed articles and research papers gathered through WoS, which is a database generally used for bibliometric studies for social sciences. Selected articles were from SCI, Google Scholar, Research gate, Academia, UGC Care listed, etc. The data relating to green /sustainable banking, corporate social responsibility, PRISMA Protocols, and so on. This paper is review-based research.

Review of Literature

RBI's amendments (May 2023) suggested that banks should accept green deposits from the customers. Under this new framework, all the banks who accepted green deposits from the customers will have to disclose the information regarding investment of these deposits in the environment-friendly projects. This is the only difference in green deposits that it must be invest

in such projects, which will lead to sustainable finance in the country. Banks should avoid investing these funds in such projects, which are harmful for the environment.

Katti & Jagtap, in the year 2022 examined the customer awareness towards green banking practices of SBI in the north Maharashtra region which had suggested that there is a positive correlation between gender, education & income with green banking awareness and negative correlation between period of account & location status. It had also advocated that to increase awareness among customers, banks should utilize all the option available with them.

The article titled “Impact of Green Banking Initiatives on Customer Satisfaction” by Herath H.M.A.K. (2022) conveyed the impact of customer satisfaction with green banking practices. The study identified four important features of green banking viz. 1. Security & trust, 2. Ease of use, 3. Value Creation & Environmental & social concern. The data collected depicts the customers from public sector commercial banks for which convenience-sampling method was used to collect the data. For making analysis of data regression analysis & descriptive analysis was used. Finding showed that all the features influences the customer satisfaction on green banking & green finance.

According to Chen at al. in the year 2022, the principles of green banking arise from the concept of sustainable development, which seeks to meet the needs of the present without compromising the ability of future generations to meet their own needs. Green banking has been introduced to abide by the environmental & social responsibility, economic viability & stakeholder engagement. Also, it seeks balance between economic, social & environmental considerations in banking sector & decision making. Choubey and Sharma (2022) conducted a study on the commercial banks in north India region to analyse the extent of green banking efforts. The results from the study showed that bank’s eco friendly practices are confined as they are paperless, less emission of carbon footprints is possible, green banking components such as bank size, reputation, age, profitability, and investors’ reaction, are motivating elements for banks’ green performance, lack of awareness of green initiatives amongst bank employees.

Although, adoption of green banking practices can strengthen the image of bank among its customers which is an essential factor to attract clients and sustaining profitability in long term (Mir & Bhat, 2022).

Green banking initiatives: a qualitative study on Indian banking sector by Meenakshi Sharma & Akanksha Choubey (2022) stated that In order to facilitate the market transformation demanded in Paris agreement, green banks has a very important face in meeting the objective of restricting global warming (Ihlen, 2009; Kolk & Pinkse, 2005; Miah et al., 2020). Banks should be ethical in sustainability and responsibility to their business model. If the banks consider the environmental conditions in their lending activities, they shall gain more public trust.

Sangeetha et al., (2021) through their research, stated that green banking practices adopted by banks can result in minimizing the operating costs for banks. They could make use of energy efficient buildings to save cost and energy bills lowering the environmental risks and damages. Banks could also give funding to such projects which are energy efficient & which can lead to sustainable development.

A research on “Green Initiatives of SBI: A Customer-Centric Study” made by Neeraja T S & Dr Raji Joseph in the year 2021 showed an in-depth study about green products which are offered by SBI and their initiatives about sustainable finance. It showed a remarkable success. The study was based upon the customer satisfaction about green banking, which included the awareness level of customers, benefits, & satisfaction about green banking. The data showed that the majority of respondents were aware about mobile & online banking and they were less aware about the green CD’s, green deposits, green bonds & loans, etc. The study stated that it is the need to educate the respondents about the green banking facilities provided by the banks.

In the research, “Factors Affecting Customer Satisfaction Level for Green Banking Practices in Banks of Bangladesh” by Mohinur Akter & Jarin Tasnim by 2021 stated that more importance is given to sustainable banking in developed countries because it helps to minimize the carbo footprints and increases environmental sustainability. The study spotlighted many factors which influenced customer satisfaction about green banking. The data found that some factors like security, trustworthiness, and user-friendly factors influenced customer satisfaction level the most. Further, loyalty & trust had positive correlation with consumer satisfaction. The researcher also suggested some measures & guidelines regarding application of green banking practices to enhance customer satisfaction in future. According to Rehman et al., (2021), the green banking gained popularity in 2000s as banks were adopting green banking practices & policies. The author

stated that green banking is defined as the practice of promoting sustainable development through financial services, products & operations.

Hasan et al., in the year 2021 stated in their research that green banking involves wide range of activities namely financing renewable energy projects, promoting energy efficiency, encouraging sustainable business & minimizing environmental risk assessment. It showed that being green is beneficial for an organization as well as for stakeholders of bank as well.

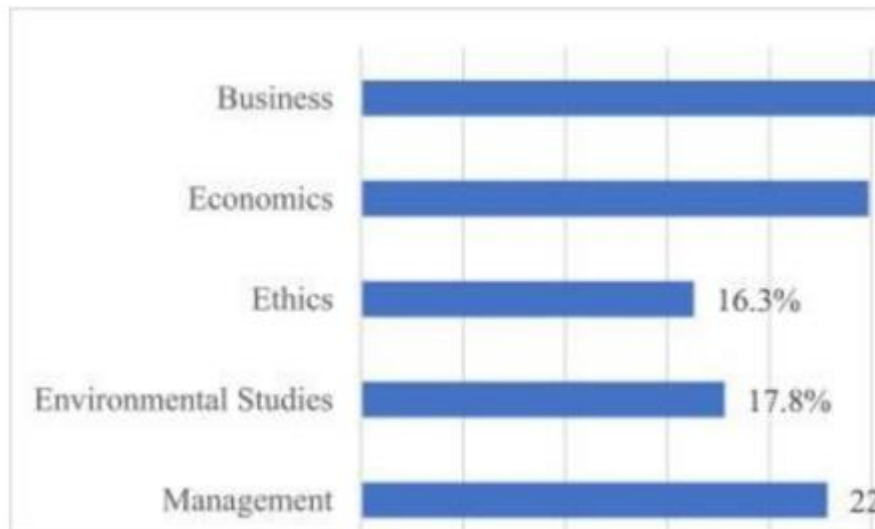
In a study conducted by European Banking Federation, it revealed that allocation of funds to eco friendly projects can influence positively on bank's financial performance which enhance efficiency, curtail expenses & bolster risk management. The green banking shows profitable implications in both long run & short run. Research showed that green banking initiatives can yield significant benefits in the long run (Park & Kim, 2020).

Trott in the year 2020, conducted a study on customers of public & private sector banks to know the impact of green banking initiatives on green brand equity of India. Results have showed that green processes have positive impact on green brand equity of banks but green infrastructure does not have much impact on green brand equity of the banks in India.

The table below shows the most active journals and their associated WoS categories in green banking research over the period from 2009 to 2019.

Table 1. Publications in sustainable banking across Journals (2009–2019).

Publication	Freq.	% over total sample	Rank-normalized IF	WoS categories (2019 JCR quartile)
Journal of Business Ethics	80	13.45%	0.981	Business (Q2); Ethics (Q1)
Sustainability	44	7.39%	0.667	Green & Sustainable Science & Technology (Q3); Environmental Sciences (Q2); Environmental Studies (Q2)
Corporate Social Responsibility and Environmental Management	26	4.37%	0.912	Business (Q1); Environmental Studies (Q1); Management (Q1)
International Journal of Bank Marketing	13	2.18%	0.497	Business (Q2)
World Development	12	2.02%	0.951	Development Studies (Q1); Economics (Q1)
Journal of Cleaner Production	11	1.85%	0.932	Green & Sustainable Science & Technology (Q1); Engineering, Environmental (Q1); Environmental Sciences (Q1)
Journal of Business Research	10	1.68%	0.803	Business (Q1)
Journal of Banking & Finance	10	1.68%	0.785	Business, Finance (Q2); Economics (Q1)
Business Strategy and The Environment	10	1.68%	0.940	Business (Q1); Environmental Studies (Q1); Management (Q1)



The graph depicts that the publications in each WoS category as below:

In business it is shown that 40.8% of total publications have made followed by Economics which is 24.9%. The lowest publications was made in others (11.3%) & business finance (13.9%). Management, Environmental studies & Ethics shows moderate level of percentage which are 22.9%, 17.8% & 16.3% respectively.

Conclusion

Green banking practices can yield great advantages for financial institutions which encompasses the potential to minimize the carbon footprints, reduces operational expenses, enhances customer loyalty and trust which increases business prospects. Green banking aims to foster combating climate change & sustainable development which will results in contribution to global efforts to face environmental challenges & fortify own financial performance and long term viability. To maintain competitive edge & navigate evolving landscape application of green banking practices is must. Summarising the research, the advantages of green banking are manifold, bolstered customer relationship, reduction in environmental damage, & explore emerging markets. The bank must adopt green banking practices to ensure sustainable & prosperous future.

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