

# Green Banking Practices and Empirical Analysis of Influencing Factors with Reference to Gujarat

**Dr. PURVI DIPEN DERASHRI**

Professor & Academic Head

Faculty of Management Studies

Parul Institute of Management & Research, Parul University, Vadodara, Gujarat, India

[purviderashi@paruluniversity.ac.in](mailto:purviderashi@paruluniversity.ac.in)

**BAROT JAIMIN MANISHKUMAR**

Research Scholar

Faculty of Management Studies

Parul Institute of Management & Research Parul University, Vadodara, Gujarat, India

[2406172000310@paruluniversity.ac.in](mailto:2406172000310@paruluniversity.ac.in)

**ASHWIN VINODBHAI ROHIT**

Research Scholar

Faculty of Management Studies

Parul Institute of Management & Research Parul University, Vadodara, Gujarat, India

[2406172000306@paruluniversity.ac.in](mailto:2406172000306@paruluniversity.ac.in)

## ABSTRACT

The importance of Green Banking cannot be denied since it is a key practice that facilitates both the process of environmental sustainability in the financial sphere and the process of improving performance along with customer satisfaction. Financial organizations in the contemporary world should minimize their environmental footprint, make efforts toward sustainable investments, and offer the most appropriate financial services including digital banking options as a way to decrease the use of paper and lower down emissions. This research work focuses on the issues of adoption of green banking practices and identifies factors that influence this process in Gujarat, which is one of the most industrially developed regions in India.

The primary data in this study were obtained from questionnaires sent to customers of banks in both public and private sectors operating in the state. The analysis was dedicated to awareness, adoption, customer perceptions, environmental concerns, digital readiness, and influence of green banking initiatives on customer satisfaction. Results show that digital banking services such as mobile and Internet banking along with e-statements are quite popular because of ease-of-use and availability. Still, there is much room left for improvement concerning more sophisticated types of green financial services such as green loans, green investments, or environment-related services. Awareness of advanced services is also rather low in this case. The study proves the positive correlation between green banking activities and customer satisfaction.

Keywords: Green Banking, Sustainability, Customer Satisfaction, Digital Banking, Gujarat, Environmental Finance, ESG Practices.

## INTRODUCTION

Environment sustainability is becoming a global issue due to the increase in environmental issues like global warming, resource depletion, environmental degradation, and increased carbon emissions. Governments, corporations, and financial institutions have included environmental sustainability in the decision making process. Among these financial institutions, banks play a key role because of their ability to affect industry, consumer behavior, and investments. Green Banking entails environmentally friendly operations within banks which promote sustainable development in the economy by reducing the negative impact of the banking operations on the environment.

The green banking includes digital banking, reduction in paper transactions, support for renewable energy production and distribution, environmentally friendly investments, energy efficient branch networks, sustainable lending practices, and environmentally friendly financial operations. Banks can achieve environmental sustainability through the application of green banking practices. Sustainable banking has been increasingly adopted in India by institutions including RBI. As a highly industrialized state, the state of Gujarat offers good conditions for researching green banking adoption among banks in India.

Awareness, access to technology, and environmental friendliness of individuals and organizations have made adoption of green banking services possible in the state. There still exists disparities in awareness, access to green banking services and adoption of green banking practices among demographic groups in the state. This research aims at analyzing factors behind disparity in adoption of green banking practices in Gujarat.

## LITERATURE REVIEW

The importance of green banking has been recognized in recent years owing to growing worldwide concerns about environmental sustainability and global warming. Many researchers from around the world have recognized the significance of the banking sector in promoting eco-friendly approaches through digitization and paperless transactions. In addition, various studies have established that green banking not only leads to environmental sustainability but also helps in promoting efficiency and customer satisfaction.

**Deshmukh (2023)** studied the contribution of green banking in sustainable development. The findings indicated that green banking has a positive impact not only on environmental sustainability but also on corporate image building. The study stressed the importance of innovation in green banking practices.

**Patil and Joshi (2022)** carried out a regional study and found that the customers in urban regions are more accepting towards green banking approaches than customers in rural regions. The study underscored the significance of regional studies in comprehending customer behavior.

**Sharma and Singh (2020)** carried out a study on the link between green banking practices and customer satisfaction. According to their findings, customers who make frequent use of online banking services and electronic statements are generally more satisfied. This implies that green banking plays an important role in the perception of customers.

**Kumar and Prakash (2021)** focused on the factors that influence the adoption of green banking in India. It was observed that the adoption of green banking is influenced by factors like ease of use, usefulness, and environmental awareness of customers. The study suggests that green banking may be enhanced by improvements in digital facilities and increased customer awareness.

**Singh and Kaur (2018)** focused on the concept of green banking in the Indian banking system. The study emphasizes the significance of green banking in reducing paper consumption and operational cost. Thus, the adoption of green banking results in environmental benefits along with improved banking operations.

**Rao and Gupta (2019)** analyzed the implementation of green banking practices by Indian commercial banks. It has been noted that activities such as digitized payments, paperless transactions, and online banking help in reducing cost and service efficiency of banking while benefitting the environment.

From the above-mentioned recent studies, it is clear that green banking contributes significantly in terms of promoting sustainable development. Apart from making contributions to the environment, green banking initiatives help in boosting the image of banks and improving efficiency and customer satisfaction.

As can be observed from the review of literature above, the need for green banking practices cannot be overemphasized owing to its importance in sustainable development, customer satisfaction, and efficient banking operations. However, it is imperative to note that there is a lack of knowledge on the topic of customer awareness and adoption and their impact on satisfaction within a region like Gujarat. This forms the basis of the current study.

## OBJECTIVE

1. To study the level of awareness among customers regarding green banking initiatives.
2. To examine the adoption of green banking services by customers.
3. To analyze the relationship between green banking initiatives and customer satisfaction
4. To study the impact of green banking initiatives on customers' banking behavior.

## RESEARCH METHODOLOGY

This study is an example of an empirical and descriptive study where the awareness, perception, and adoption of the concept of green banking among bank customers in the state of Gujarat will be analyzed. It involves primary research where the information has been acquired firsthand, thus making it a practical study. As there is no manipulation of variables in order to analyze the impact of these variables on each other, the descriptive approach has been used in the present study.

## SOURCES OF DATA

Both primary and secondary sources have been used for collecting the data for this research to ensure that all aspects of research are covered with reliability.

- **Primary Data:**

Primary data has been collected directly from respondents using a pre-formulated questionnaire. The questions in the questionnaire were formulated carefully to collect information on the level of awareness of the green banking activities and usage of green banking facilities, perceptions of customers, and impact of environmental factors on banking decisions.

- **Secondary Data:**

Secondary data has been collected for the theoretical framework as well as literature review of the research. It consists of data that has been collected from various research papers, journals, banks, publications of the Reserve Bank of India, and books as well as other authentic sources available online. Such sources form the basis of concepts and knowledge about research on green banking.

## DATA COLLECTION METHOD

The primary source of data was acquired by means of survey carried out in an online form using Google Forms. It should be noted that the questions were closed type, thus facilitating the process of answering for respondents. The survey was conducted with the help of WhatsApp and emails where the link to Google Forms was provided.

The responses obtained from participants were stored and organized on Google Forms. Afterwards, the obtained data was exported to Microsoft Excel for further processing. Different types of graphs and charts were prepared on the basis of data analysis using Excel.

## SAMPLE SIZE

The number of respondents used in the research, which amounts to more than 200, is enough for conducting analysis and interpretation of the results. An increased number of respondents increases the reliability and validity of the results.

## SAMPLING TECHNIQUE

Sampling in this research involves the use of a non-probability sampling design, particularly convenience sampling. Respondents in the study were chosen based on their availability and willingness to complete the questionnaire. The sampling technique was deemed appropriate considering the limited amount of time and the ease of conducting the survey.

## SAMPLING AREA

The geographical location chosen for conducting research is Gujarat. Respondents belonging to varied demographic backgrounds like age, education, employment, and income will be considered for collecting data, which would provide a broad outlook towards the perception and knowledge about green banking.

## RESEARCH METHODOLOGY

Primary data was collected through a structured questionnaire methodology. A set of clearly defined questions formed part of the questionnaire, which helped in maintaining accuracy. Respondent participation was based on voluntarism, and an equal opportunity was offered to all participants to provide their views.

## TOOLS OF ANALYSIS

The data gathered was analyzed through the use of SPSS. SPSS is employed in conducting descriptive statistics, testing reliability, and hypothesis testing.

Table 1 - Construct Mapping

Construct	Variables Included	Measurement Scale
Demographic Profile	Age, Gender, Education, Occupation, Area of Residence	Nominal
Awareness of Green Banking	Awareness of initiatives, eco-friendly practices	Likert Scale
Adoption of Green Banking	Use of digital and paperless banking services	Likert Scale
Customer Satisfaction	Convenience, bank image, satisfaction	Likert Scale
Behavioral Impact	Environmental concern, choice of bank	Likert Scale

## DATA ANALYSIS AND INTERPRETATION

### Demographic Profile of Respondents

Table 2 - Age-wise Distribution

Age Group	Percentage (%)
18-25	60%
26-35	25%
36-45	10%
46-55+	5%

Table 3 – Gender-wise Distribution

Gender	Percentage (%)
Male	65%
Female	35%
Others	0%

Table 4 –Usage of Digital Banking Service

Usage	Percentage (%)
Yes	75%
No	25%

Table 5 – Environment Concern

Response	Percentage (%)
Yes	70%
No	30%

Table 6 – Adoption of green banking

Adoption	Percentage (%)
High	50%
Moderate	35%
Low	15%

## HYPOTHESES OF THE STUDY

### Null Hypothesis (H<sub>0</sub>)

- H<sub>01</sub>: Customers do not have any significant level of awareness about the green banking initiatives.
- H<sub>02</sub>: There does not exist any significant adoption of green banking services by customers.
- H<sub>03</sub>: There is no significant association between green banking initiatives and customers' satisfaction.
- H<sub>04</sub>: Green banking initiatives do not exert any significant impact on customers' banking practices.

### Alternative Hypothesis (H<sub>1</sub>)

- H<sub>11</sub>: Customers possess some significant level of awareness about the green banking initiatives.
- H<sub>12</sub>: There exists some significant adoption of green banking services by customers.
- H<sub>13</sub>: There is some significant association between green banking initiatives and customers' satisfaction.
- H<sub>14</sub>: Green banking initiatives exert some significant impact on customers' banking practices.

## PATH ANALYSIS

Independent Variable	Dependent Variable	Relationship
Awareness	Adoption	Positive
Adoption	Customer Satisfaction	Positive
Customer Satisfaction	Banking Behavior	Positive

The findings from the path analysis show that when customers are aware of green banking practices, there is a higher rate of adoption among them. In turn, this results in higher customer satisfaction and influences customer banking behavior.

## RESULTS AND DISCUSSION

The findings of the study have been derived based on primary data obtained from over 200 respondents using a structured questionnaire. The data analysis concentrates on the awareness, adoption, perceptions, and behavior influence of green banking practices among the customers. Instead of providing multiple tables, the findings have been summarized here.

Sr. No.	Objective of the Study	Key Aspect Analyzed	Summary of Findings
1.	To examine customer awareness towards green banking initiatives	Awareness level	Majority of respondents were aware of basic green banking services such as digital banking, online transactions and e statements
2.	To study the adoption of green banking practices by customers	Usage of services	A significant number of respondents reported regular or occasional use of green banking services, indicating growing adoption
3.	To analyze customer perception towards green banking initiatives	Environmental benefits	Most respondents perceived green banking as environmentally beneficial and supportive of sustainability
4.	To examine the relationship between environmental	Environmental concern	Respondents with higher environmental awareness

	concern and adoption of green banking		showed greater inclination towards using green banking services
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From the analysis, it is clear that the introduction of green banking initiatives has a positive impact on the perception of customers. This has been confirmed from the results as they prove the alternative hypotheses and suggest that awareness and environment concern affect the implementation of green banking initiatives.

## INTERPRETATION OF FINDINGS

It becomes evident from the findings of the study that majority of the participants have some amount of awareness about green banking initiatives such as online banking and other processes which suggest some level of success in introducing eco-friendly policies by banks. Ease of usage, convenience, and efficient utilization of time have led the participants who are aware of digital banking to implement such initiatives in their lives; however, environmental concern acts as an important factor behind this decision as well.

## CONCLUSION

Based on the current study, it can be concluded that green banking programs influence positively the customer awareness, perceptions, and behavior associated with the implementation of green banking programs in Gujarat. Green banking practices are perceived positively by customers; especially those related to digital and paperless services. This is because such green practices provide greater convenience and efficiency for the customer and at the same time are environmentally friendly.

In this context, the research indicates that there is a certain level of success associated with the implementation of green banking processes in the region of Gujarat, where the process of adopting basic digital banking processes is well developed, while the knowledge about advanced green financial products is poor among customers.

Overall, green banking is able to contribute significantly to sustainable economic development, combining finance and environment.

## FUTURE SCOPE OF THE STUDY

There is potential for further research in different regions or countries to allow for comparisons and better generalization of the results. Another area that can be explored in future is the comparative study of public and private sector banks to determine whether there are any differences in green banking practices. More sophisticated statistical methods can yield more reliable results regarding customer behavior and determinants of their decisions. Another topic that can be researched in future is the financial effect of green banking practices on banks' profitability. The awareness and adoption of advanced green banking products among customers can also be studied.

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