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# Perception and Willingness of Customers to Adapt Green Banking in Kerala

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## Abstract

One of the pressing concerns facing the globe today is environmental conservation. It puts pressure on all sectors of the economy, including financial services, to implement "green" projects that offer environmentally friendly services. Banking and financial institutions can take proactive measures, such as minimising their extensive use of paper and establishing the notion of "green banking" at their multi-branch institutions. This study examines how consumers regarding these practises. This study focuses on the expanding environmental issues surrounding green banking initiatives, the environment's perspective on green banking, and the types of banking activities started to safeguard the environment. In 2002, the banking industry adopted the ground-breaking idea of "green banking." A new idea in our economy is green banking. This essay's goal is to chart the development of green banking practises in the banking industry. It aims to investigate how individuals perceive and react to the green practises used by banks. This involves promoting banking services that are ecologically sustainable. The cause-and-effect relationship between customers' perceptions of using green banking is included in the research work. We therefore make use of explanatory research. The questionnaire was created by the researcher and completed by a sample size of 75 people. This study uses chi square analysis and Graphical diagram to examine variations across the various groups, with a focus on the elements, products, conceptual framework, and perception of green banking as well as the willingness of customers to adopt it.

**Keywords:** Green Banking, Perception, Green Products, Conceptual Model, Willingness, Sustainability.

## Introduction

The growing concern over environmental protection brought on by global warming is now having a direct influence on human health, biodiversity, agriculture, forestry, dry land, and water supplies. ((Sharma and Choubey)). Because we are the only thing, we are protecting at a distance besides ourselves, protecting the environment is a concern shared by all of humanity. Environmental degradation results in global warming and climate change, which cause lake bursting, sea level rise, melting of the Himalayan glaciers, and other natural calamities such as floods, landslides, cyclones, and so on. (Ankit Mehrotra) It has been determined that the banking industry plays a very important role in growth and development activities, so the banks must play a substantial part in reducing environmental damage. (Zhixia) As a result, banks and other financial institutions support "green" programmes to cut the carbon emissions produced by their operations and to actively safeguard the environment. (Sharma & Choubey, 2022).

Although banks and financial institutions' products may not have a direct impact on the environment, their history demonstrates that they are a major user of paper.

Banks and other financial institutions have historically solely concentrated on financial matters, but the public's interest and shifting consumer demands have caused them to become more concerned with ethical standards. (Choudhury) Similar to other institutions, banks and financial institutions are under pressure to encourage environmentally friendly practises, such as the efficient use of all resources and the Waste can be reduced by using the "green banking" idea. This study covered the significance of green banking concepts in addressing customer needs and reining in the newly growing environmental protection challenge. The significance of consumer perception in regards to the acceptance of the notion of green banking is not researched. Therefore, a thorough study is necessary to determine the level of customer understanding and perspective on the concept. Therefore, the focus of this study was on how customers perceived their banks' adoption of the green banking concept.(Rai *et al.*)

## Review of Literature

Green banking aims to make internal bank procedures, physical infrastructure, and IT infrastructure as effective and efficient as possible, with little or little influence on the environment (Anand Sinha and K Ramakrishnan) They have established "Green Coin Ratings," or green rating criteria, for Indian banks. In accordance with this rating system, banks are assessed based on their operations' greenhouse gases as well as the quantity of materials recycled, renovated, and utilized in their buildings' furnishings and the systems they employ, such as processors, computers, printers, connections, etc. Companies are also evaluated based on the number of green projects they finance and the accolades or incentives they give borrowers for making their companies more environmentally friendly. Banks are helped by green banking services in their quest to grow sustainably. Several authors shared their perspectives on the historical and contemporary trends and developments in the financial industry related to green banking in this area.

(Choudhury) highlighted that in the current competitive banking climate, every bank must step up and offer a new green product with higher stakeholder involvement and SD.

(Dharwal) He mainly discussed the hazards and discovered that green banking is important for reducing a variety of risks, including legal risk, credit risk, and reputation risk. They also advocated for a number of green practises, including carbon credit companies, green financial products, green mortgages, reducing carbon emissions, promoting energy awareness, using green building methods, and making contributions to society out of a sense of social responsibility.

(Nath *et al.*) In his study, he argued the point that it is crucial to incorporate environmental criteria into lending and finance practises so that borrowers can focus on lowering their carbon footprint by utilising the necessary technologies. They can choose to use smaller lending rates for hybrid products, follow Equators Principles, use green mortgages and loans, and other green options.

(MozibLalon) In his article, he emphasises that green banking is now a reality in both awareness and practise. All scheduled banks are now expected to not only allocate funds for green financing, green events, or green projects under CSR activities, green marketing, and capacity building, but also to ensure the effective use of such funds. Finally, we may assert that all commercial banks ought to live by the motto "going green." Stakeholders should be made aware of the environment and ecologically responsible business practises, such as using solar technology, ETPs, biogas plants, hybrid Hoffman kilns (HHK), etc

(Biswas) In his study he focused on Asian social groupings and environments that are vulnerable are heavily influenced by Indian banks. They now need to think carefully about how they feel about responsible financing on a national and international level. This demonstrates the lack of knowledge Indian banks have regarding global green banking initiatives. The Equator Principles are undoubtedly under appreciated in India. It is important for India to take some significant actions to gradually follow the equator principles and guidelines, which apply environmental-sensitive criteria in addition to financial ones to support projects

(Jitha Thomas) In his paper, he argued that green banking is a great approach to raise awareness of global warming because each businessman will do a lot to protect the environment and improve living conditions on earth. The banks, businesses, and economy will all profit from this “Green Banking” idea. In addition to ensuring the greening of sectors, “green banking” will make it easier to raise the asset quality of banks in the future.

(Srividya *et al.*) She emphasised that banks are primarily concerned with taking the necessary steps to recover from the pandemic effect and close the financial gap. Green banking practises can be extremely important in assisting clients to stay at home and be safe because the banking industry is one of the affected sectors. Additionally, this study is a modest effort to alert depositors to go green and protect the environment by practising green banking. The pandemic forced us to concentrate on novel approaches to well-known issues, and some of the adjustments we made will now be permanent.

(Praveen and Harina) In their study, the researchers came to the conclusion that banking institutions in Kerala need to take numerous steps to promote green banking awareness and habits among staff members and clients. Customers are substantially benefited by convenient green banking services, quick and easy transactions, and reduced transaction costs. The Indian financial system is changing, and new payment methods including ATMs, debit and credit cards, mobile and internet banking are part of this. The implementation of green banking has positive effects on banks as well, including reduced operating costs, higher income, and improved public perception.

(Ellahi *et al.*) The study examines how each individual gender views sustainability, and the findings show that for female participants, education is not a significant factor. This suggests that women are conscious of the value of the environment regardless of their level of education. Conversely, in the male sample, knowledge of the banks’ green initiatives is linked to a higher level of schooling. The study’s findings indicate that people in Pakistan are aware of the green practises used by the banks. Customers are open to and eager to adopt the changes

brought about by the banks’ green initiatives. The findings show that consumers are cognizant of the environmental impact of traditional banking practises, and as a response, they are eager to adopt and improve their perspective.

### Objective of the Study

- To study customers usage and source of information awareness for Green Banking products in Kerala.
- To analyse the Qualification of customers towards the awareness of green banking
- To access the Income level towards the usage of green banking
- To give suggestions to the bankers to spread green among customers.

### Need for the Study

The concept of “green banking” is relatively new in the world of finance. It is a sort of banking that focuses on social and environmental impact and is primarily intended for environmental preservation. According to the results of the many study studies, foreign banks are implementing green banking practises in a very considerate and courteous manner. Foreign banks are participants in the Equator Principles (EP) as well, and they are making progress with measuring the social and economic effects of funding, as well as the reduction of paper, energy, and even water consumption. According to research conducted in India, Indian banks are still implementing green banking practises slowly and have had setbacks in doing so. Additional efforts the regulatory agencies should take more actions to make banking practises more environmentally friendly. Therefore, research is required to determine user awareness of the current situation and potential improvement areas.

### Methodology

Both primary and secondary data are used in the course of research. Primary data is information that has been gathered directly from sources using questionnaires. Secondary data are ones that are second hand and have been gathered from a variety of sources, such as search engines, newspapers, magazines, and journals.

## Theoretical Framework

### Aspects of Green Banking

In order to determine the benefits of financing environmentally friendly activities, green banking must take into account the ethical, social, and sustainability components. According to Ethical Banking, profitability should be measured in social as well as financial terms. Consider a special savings account for consumers who can donate a portion of their interest to NGOs or environmental causes.

Social banking is described as banking that aims to positively affect people and the environment via the practise of banking. Such social banks aim for top investment in a society that takes into account environmental responsibility as well as overall human development. For instance, a social bank might offer services like advice to affluent individuals who desire to support non-profit organisations to ascertain the political and social shift, look at s or social commercial activity.

According to sustainable banking, commercial activities of the banking industry should not only be favourable to owners or staff but also to clients and the overall economy. Additionally, it ensures that the environment is not harmed. (Chandran and Sathiyabama)

### Green Banking Products

The old strategy used by banks and financial institutions has been replaced with a green approach today. Given the widespread acceptance of green banking, Indian banks are eagerly anticipating initiatives in this area. India also wants to elevate itself to the level of nations like the United States, Japan, Australia, etc. in terms of green banking. Generally speaking, green banking products are ones whose main goal is to reduce energy use in order to assist environmental sustainability. (Anmol Kumar)

The following is a comprehensive list of green banking and financial products available worldwide.

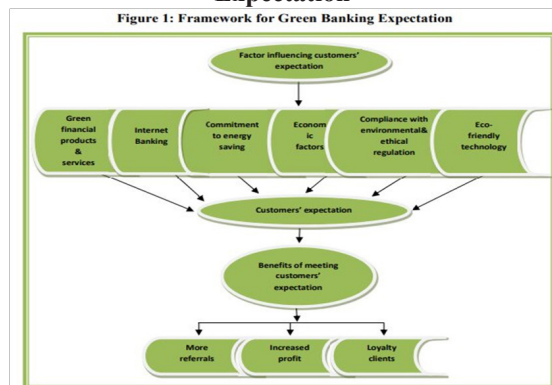
1. Online Banking
2. Solar ATM / ATM
3. Tree Plantation assignment
4. Mobile banking
5. Canvas bag

6. Green Mortgages & Loans
7. Green Car Loans
8. Green Commercial Building Loans
9. Green Cards
10. Green Project Finance
11. Green Indices
12. Green Fiscal Funds
13. Green Insurance
14. Green Securitization
15. Green Reward Checking A/c
16. Green Marketing

### Conceptual Model on Green Banking

The study makes the assumption that this is necessary in order to comprehend the variables that affect the adoption of green banking practises. Important studies have been conducted to identify the driving factors behind the adoption of green banking practises, including (Islam *et al.* 2014; Biswas, 2011) and (Ahmad) (Nath *et al.*) Customer expectations and satisfaction will vary depending on how they feel about the company and how they feel about the products. (Ankit Mehrotra) Parasuraman (1991) claims that because customers constantly compare the performance of services and customer perception, understanding customer expectations is essential for all organisations.

**Fig No: 1 Framework for Green Banking Expectation**



(Source : Chandran and Sathiyabama)

The organisation must understand what customers actually desire in terms of products and services if it is to comprehend customer expectations. Customers won't be satisfied if the

service falls short of their minimum expectations, but they will be happy if it exceeds their expectations. Zeithaml (2013). Green banking provides e-cards, internet banking, and ATMs since clients today demand cashless transactions and 24-hour access to electronic banking (Shampa & Jobaid, 2017). Customers appreciate the idea of saving energy as a way to combat global warming, therefore one bank made their infrastructure ecologically friendly by utilising laptops, desktop computers, and resource-conscious, environmentally responsible green buildings to satisfy customers' expectations. (Issues and Challenges of Banking Sector-An Economic Analysis) Clients anticipate their banks and financial institutions will employ environmentally friendly technology. When a bank uses environmentally friendly technologies for energy efficiency and resource utilisation, such as solar-powered branches, eco-friendly ATMs, and the usage of power-saving devices, it will lessen its carbon footprint and give off a positive impression of its green banking initiatives. (Chen *et al.*)

### Analysis and Interpretation

The cause-and-effect relationship between customer impressions of using green banking is included in the research work. Explanatory research is what we are utilising. We created a questionnaire that was completed by a sample size of 75 customers from various banks.

In this investigation, a few hypotheses will be assumed, including:

#### First Test

**H0:** There is no association between Qualification and awareness of green banking

**H1:** There is an association between knowledge of green banking and qualification.

#### Second Test

**H0:** There is no association between Income and Usage of Green banking

**H1:** There is association between Income and Usage of Green banking

#### Analysis

The data collected for the study have been edited by the researcher and analysed with the help

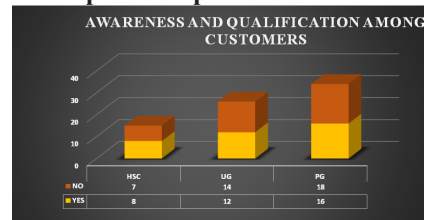
of Chi Square. For the purpose of analysis suitable mathematical and statistical technique such as percentage Method and Chi-Square been used.

**Table No. 1 Awareness and Qualification Among Customers**

**Analysis:** For analysing the awareness and qualification among customers here chi-square test been used.

Awareness/ Qualification	HSC	UG	PG	Total
YES	8	12	16	36
NO	7	14	18	39
Total	15	26	34	75

**Graphical Representation No. 1**



**Table of Expected Value**

Awareness/ Qualification	HSC	UG	PG	Total
Yes	7.2	12.48	16.32	36
No	7.8	13.58	17.68	39
Total	15	26	34	75

(Source: Primary Data)

**Calculation of Chi-Square test  $\chi^2$**

O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
8	7.2	0.8	6.24	0.86
12	12.48	0.48	0.230	0.018
16	16.32	0.32	0.102	0.006
7	7.8	0.8	6.24	0.8
14	13.52	0.52	0.27	0.02
18	17.68	0.68	0.46	0.026
Total		1.73		

(Source: Calculated by Researcher)

**Chi-Square Formula:**  $\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$

**Degree of Freedom:** (4-1) (2-1)  
= 3x1 = 3



Significance Value:0.05

$\chi^2$  Tabular Value = 1.73

$\chi^2$  Calculated Value=7.81

no association between Education and awareness of Green Banking.

### Interpretation

So here Calculated  $\chi^2$  Value is > Tabular Value, so here we accept the null hypothesis and Reject the Alternative Hypothesis. So here there is

### Table No: 2-Income and Usage of Green Banking

**Analysis:** For analysing the awareness and qualification among customers here chi-square test been used.

Table of Observed Frequency

Usage/Income	Daily	Weekly	Monthly	Occasionally	Total
10000-15000	9	3	4	4	20
15000-2000	8	4	3	2	17
20000-25000	11	5	3	2	21
Above 25000	10	3	2	2	17
Total	38	15	12	10	75

Graphical Representation Chart No:2

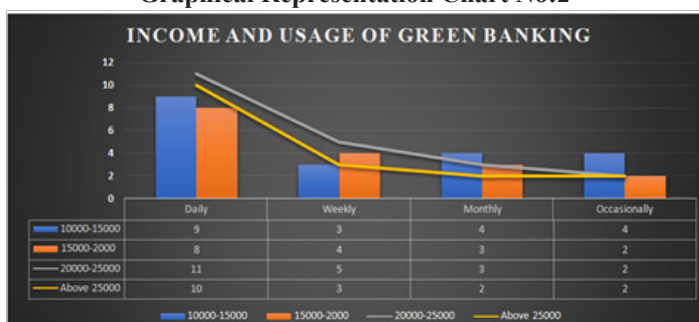


Table of Expected Frequency

Usage/Income	Daily	Weekly	Monthly	Occasionally
10000-15000	10.1	4	3.2	2.67
15000-2000	8.61	3.4	2.72	2.27
20000-25000	10.64	4.2	3.36	2.8
Above 25000	8.61	3.4	2.72	2.27
Total		10.01		

(Source: Calculated by Researcher)

Chi-Square formula:  $\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$

Degree of Freedom: (4-1) (4-1)  
=3x3= 9

Significance Value:0.05

$\chi^2$  Tabular Value = 16.919

$\chi^2$  Calculated Value=10.01

### Interpretation

So here Calculated  $\chi^2$  Value is > Tabular Value, so here we accept the null hypothesis and Reject the Alternative Hypothesis. So here there is no association between income of the customers and usage of Green banking

## Suggestions

The following recommendations are provided to achieve our global goal of successfully implementing green banking:

### a) To the bank employees

- Bank staff should be knowledgeable about green banking principles, products, and services and fill in any knowledge gaps.
- Banks should promote ethical green banking through all available avenues, such as advertising campaigns, social media, educational initiatives, online alerts, publications, newspapers, and magazines.
- The bank should upgrade its current facilities in terms of IT infrastructure and technology, particularly in rural areas. ATMs, cash deposit machines, passbook entry devices, digital services, solar ATMs/power, and energy-saving tools and equipment are some of these facilities.
- Banks should inform their clients about the advantages of using e-banking services like internet, mobile, and telephone banking.

### b) To the customers

Customers should utilise e-services including phone banking, online banking, mobile banking, and other e-services. This would aid in lowering the amount of paper, time, money, and carbon footprint wasted. (Sunil and Durgalashmi) Customers can request chequebooks, demand draughts, open term deposits, demat accounts, mutual fund accounts, make complaints, view account information, send money, inquire about product offers, and apply for new or blocked debit, credit, and gift cards. Everything can be accessed via e-banking services. Customers could switch from regular banking to green banking with the aid of this.

## Discussion

Green banking is regarded as a novel idea in India. As a potential remedy for the serious issue of global warming, which is growing as a result of the rapidly deteriorating global climate changes, it should be carefully assessed. The banks have introduced a number of green banking initiatives, such as a green channel counter, green remittance card, greener PIN, environmentally friendly loan, environmental mortgage, ecological loans, and greener loans.

Southern Kerala was the only area in the current study. It may be predicted that the majority of the selected consumers think that green banking is essential given how important it is in the current climate. Other green services like green credit cards and green insurance, as well as the ATM, Internet or mobile banking, have all endorsed by significant clients. Some customers are still unaware of these services, though. Therefore, banks should evaluate projects and make appropriate loans in order to control environmental issues. To protect the environment, the Indian government and banking sector should implement some mandated green banking activities.

## Research Gap

The widespread review of applicable literature gives an understanding concerning green banking concepts. Its emergence, related terminologies, measures and tools are thoroughly reviewed and of course, it has a pivotal role in the formation of objectives, methodology, design methods of data analysis, contextualize the finding and point out what would be the unaddressed areas regarding the study. Lot of studies have been reviewed for studying customers' perception and awareness levels on green banking. But no serious studies have been found especially in Kerala'. Green banking reach refers to the amount to which green banking practises and cultures have spread among bank customers. This study aimed to analyse this phenomenon by analysing customer perceptions and levels of knowledge.

## Conclusion

Green banking is a new idea in India; while it is widely acknowledged on a worldwide scale, Indian banks still have a long way to go. The essential issue of increasing global warming caused by the rapid deterioration of climatic changes around the world may be addressed by seriously considering green banking. Customers have learned about green banking from bank websites and friends and family, so print advertisements and radio commercials may not be as effective as they once were. The conclusion is that the majority of the chosen customers believe that green banking is necessary given the current environment. (Sunil and Durgalashmi). While many customers now use ATMs, online banking, and mobile banking, fewer people use other environmentally friendly products like green credit cards, green insurance, etc. The causes could be several, such as

its knowledge or branch availability. Overall, it can be said that the idea of “green banking” is urgently needed in light of the current pollution and negative effects of global warming. At the very least, it will aid in environmental preservation, allowing residents to breathe clean air and maintain good health.

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