



Green Banking Penetration among Commercial Banks' Customers in Kerala

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ABSTRACT

The main aim of this study is to analyse the level of green banking penetration among bank customers in terms of their awareness and perception. The Green banking is the changing face of banking system all over the world. Kerala is popular owing to its literacy and financial literacy rate and hence it is to study the extent of green banking penetration in such a state. Substituting as well as implementing existing banking products with green banking products, essentially a fruitful mechanism that contributing environment sustainability. Development and sustainability are going hand in hand, where not only the banks but the customers and society as a whole are benefited by green banking. With the use of student t-tests and chi-square test, the study analyses the variations and dependence between and among various factors and determinants of green banking and probable remedies are suggested herewith.

Keywords: Green Banking, Green Banking Penetration, Green Banking Products, Green Cards, Customers Perception, Customers Awareness.

1. INTRODUCTION

Green Banking is considered as the innovative development in the financial world. Green banking services serves multiple purposes, where as a banking it meets the economic needs and the same time as a service provider it fulfils ecological needs. During the course of economic development lot of undesirable effects and disasters are created on the environment like flood, drought, global warming, climate change, tsunami etc. This ferment the basis of sustainability. Banks and financial institutions are successfully contributing environment sustainability either through its direct measures as well as its indirect measures. As responsible organizations banks have a pivotal role for protecting and conserving the environment through well designed environment friendly projects and adopting environment friendly products and services.

The impacts of bank in terms of environment sustainability not only physically correlated but to facilitate environmental conservations by serving an eco-friendly institute. Thus, green banking is an effort to make the industries grow green during the process of renewing and restoring the nature. Environment sustainability is considered to be most complicated and pervasive in nature. The environment concern is rising in all kinds of business. Banking is one among that concern with green product development, Green corporate social responsibility, green brand image and green trust. In nutshell green banking is nothing but incorporating green banking practices in daily operation of banks which directly or indirectly contributes environment sustainability. Green banking measures ensures optimum utilization of resources and substantial reduction in wastage consequently. Adoption of green banking measures is not a simple task as it requires coordinated efforts. A country like India, the need for such measures is alerting and this necessitates improvement of the regulatory framework for its successful implementation.

Green banking is accepted as the finest methodology of environment conservatism without damaging the pace of development. Commercial banks in India have a leading role in achieving the fundamental aim of sustaining green. Thus, all the measures in this regard are considered to be remarkable. SBI is the first Indian bank that inaugurate wind farm project in Coimbatore. Several other measures have brought out by other commercial banks in various parts of the country.

2. REVIEW OF LITERATURE

Many studies have been conducted across the world on the topic of green banking and its impact on the various segments of the society. A snap shot of relevant reviews given here:

Effectively linking green marketing strategies to banking practices will help anticipate and deliver on the services customers and society expect from banks over time (Peattie and Charter, 1994). Irrespective of regions, whether it is developed or not, urban or rural, it is the essential to implement green banking measures (Jeucken, 2001). By supporting this viewpoint (Hopwood, 2002) identified the requirements for the implementation of green banking measures that eventually leads to the well diversified and sustainable banking system. There are *three* important aspects of green banking

strategies such as banks' environment management, banks' lending criteria and development eco-friendly banking products and all the attempts are to be made for increasing goodwill of banks that contributes in to success with environment sustainability (Evangelinos,2009). The green banking practices could be evaluated from three key dimensions namely, the green products development, the green corporate social responsibility and the green internal service processing (Scoltens, 2009).

The implementation of green banking practices in countries like India involves more responsibility and involves difficulties in great extent as where large number of general publics still unaware about green banking and the relevance for such kind of banking for them and their responsibility in this regard (Bosten Consultancy Group, 2009). Green banking adaption is very important in terms of long-term sustainability and profitability and it is the prime requirement for attaining and retaining customers and also viewed it as an innovative approach towards gaining competitive advantage (SudipKarPurkayastha, 2010). Though, the green banking is possible and effective through banking efforts, the conscious effort and support from the part of customers are crucial and while using the fund for the productive purpose one should ensure that there is no harm to the environment sustainability (Amirul, A, 2010). Both green marketing and green banking practices and efforts undertaken by banks and financial institutions have considerable impact on the customers and by meeting their green needs and desires, ultimately leads to the eco-friendly environment (Chang & Fong, 2010). There are many important means and measures to support and promote green banking strategies and its identification and execution is need of the hour (Sarita Bahl, 2012).

Corporate social responsibility (CSR) in the banking sectors have increases the recognition that the green banking is not an isolated strategy and it must be incorporated with other mechanisms of banking practices and the customers, employees, regulatory authorities etc. are much benefited through the adoption of green banking measures and this could ensure the means towards right and perfect corporate social responsibility (Lympopoulos, 2012). In an empirical study carried out to explore the awareness level of customers, general public and employees on various green banking products and services (Jha and Bhome, 2013) observed that the most part of general public is unaware of green banking practices and they are much unfamiliar about such green banking products. Green banking is one of the most effective tools which enhance pace of growth of the country like India and it is at present start-up mode in India and it will facilitate credit expansion and investment decisions at all (Nath, V et al.,2014).

Green Banking is like a normal banking, which take into consideration of all the social, environmental and ecological factors for the purpose of protecting the environment and natural resources conservation (Indian Banks Association, 2014). It is also generally termed as the ethical banking/sustainable banking (IBA, 2014). Green banking can benefit the environment either by reducing the carbon footprint of consumers or banks (Dipika, 2015).

Green banking products include green loans and advances granted for carrying out eco-friendly projects, projects dealing renewable energy sources, funding organic products, arranging green mutual funds, installing photo voltaic system, investment in eco-friendly startups etc. There are available green mortgages/green bonds and climate bond/fund which are essentially come under the heads of mostly strategic and innovative products (Camblio, 2016). The utilization of green banking service products by the banking customers were seems to be different as the information and awareness regarding green banking services/initiatives are not much accurate and insufficient (Bihuprasad Saho, 2016).

The sustainable economic and environment growth and development is attained if there is highly developed and robust banking system in a country and India has to go long way in this regard. It is crucial to have a complete and unified efforts from the part of various stakeholders: customers, employees, governments and other institutional mechanisms and arrangements (UNEP, 2011; Kumar & Prakash, 2018). The green banking initiatives have long term impact on the banking organizations as it is highly strategic in nature which constitutes the key factor for organization's success and competitive sustainability (Nuryakin&Maryati, 2020).

Research Gap

The extensive review of relevant literature gives an insight regarding 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 this area, 'Vadakara taluk of Kozhikode district in Kerala'.

Green banking penetration means in this study the extent of spread of green banking habit and culture among bank customers and here attempted to examine it through the analysis of customers' perception and awareness level.

3. METHODOLOGY OF THE STUDY

3.1 Scope of the Study

Now the customers are become rationale and demands an advanced and modernized strategies and policies that will serve both customers perception and ecological balances. Thus, green banking is not only a choice of banking business but an increasing realization, Hence, here, the samples are drawn from two big commercial banks branches namely SBI and CANARA bank which is concentrated on Vadakara taluk in Calicut district. From these bank branches, thirty customers each were selected as samples which constituted total sixty samples.

3.2 Objectives

- [1] To examine the awareness levels of customers towards the green banking services.
- [2] To compare the green banking practices between SBI bank and CANARA bank.
- [3] To analyse customer's perception towards the benefits of green banking.
- [4] To explore the problems in penetration of green banking

3.3 Hypotheses

H0₁: There is no significant differences in perceived benefits of green banking services among customers of SBI and Canara bank.

H0₂: There is no significant variation in level of customers' awareness on green banking practices between SBI and Canara bank.

H0₃: There is no significant relation between educational qualification and mode of operation of green banking.

3.4. Research Design

In this study both exploratory research design and descriptive research design has been used.

3.5 Sources of Data

Both primary data and secondary data are required for accomplishing the objectives of the study. Primary data were collected with the help of structured questionnaire served to customers of banks which is considered to be a significant part of the study. Secondary data were collected with the help of various websites, books, published research articles, research papers.

3.6 Sampling Design

Samples size: Thirty customers from both SBI and Canara bank are taken which constituting to total sixty customers.

Sampling technique: The respondent was selected using convenience sampling technique.

3.7 Tools and Techniques

Tools for data analysis: For the purposes of analysis of primary data various statistical tools such as percentage, mean, t-test, chi-square test were used.

Tools for presentation: Suitable tables and charts, diagrams are used in right place to present the data in an easy, attractive and understandable manner.

Scaling technique: In order to identify the perception and views of customers towards green banking, Likert's rating scale are used to which convert qualitative data in to quantitative data.

4. RESULTS AND DISCUSSION

4.1 Demographic Profile of the respondents

Table 1: Demographic Profile of Respondents

Q. No.	Criteria	Category	No. of respondents	%
1	Gender	Male	24	40.00
		Female	36	60.00
2	Age	Up to 20	2	3.33
		21-40	51	85.00
		41-60	7	11.67
		Above 60	0	0.00
3	Educational Qualification	SSLC & below	2	3.33
		Graduate	15	25.00
		Higher secondary	3	5.00

		Others	24	40.00
		Post graduate	16	26.67
4	Occupation	Business	3	5.00
		Coolie	1	1.67
		Govt. employees	3	5.00
		Others	9	15.00
		Students	13	21.67
		Private employees	31	51.67
		5	Region	Rural
Semi-urban	48			80.00
Urban	6			10.00

(Source: Primary data)

The above depicted table evinced that 60 per cent of the respondents are female and 40 per cent respondents are male and out of which 85 per cent are belongs to the age group of 21-40. Most of the respondents' educational status are belongs to the category of 'others' and with regarding to occupation, majority of the respondents are private employees (51.67 per cent). Also, the most of the respondents (80 per cent) are came from semi-urban region.

4.2 Perceived Benefits of Green Banking

Table 2: Benefits of Green Banking

Benefits of green banking	SA	A	N	D	SD	Total	Mean
<i>It is possible to avoid frequent visit in the banks by using online banking</i>	22	35	2	0	1	60	4.3
<i>It enables to open a green account</i>	1	4	55	0	0	60	3.1
<i>It enables to get loans and advances at concessional rates</i>	0	22	34	3	1	60	3.25
<i>It significantly serves for the well-being of the whole nature</i>	1	43	16	0	0	60	3.75

(Source: Primary data)

The table No.2 depicted that most of the respondents are benefited by avoiding frequent visit in the banks through the adoption of online banking with highest mean value of 4.3. The respondents are not much benefited by the opening a green bank account which have the least mean value of 3.1. Most of the respondent customers have the perception that through green banking they can contribute environment sustainability. Although majority of bank customers prefers online banking rather than traditional banking and most of the respondents are opined and agreed that they are much benefited by online banking by avoiding frequent visit of bank branches. But most of the respondents didn't perceives it as a part of green banking initiatives.

4.3 Testing of Hypothesis-1: Difference in Perceived benefits of green banking.

Table 3: Student t-test

Benefits	SBI			CANARA Bank		
	Mean Value	Deviation	Squired deviation	Mean Value	Deviation	Squired deviation
Avoid frequent visit in the banks	4.4	0.71	0.5	4.12	0.61	0.37
open a green account	3.17	-0.52	0.27	3.03	-0.48	0.23
loans and advances at concessional rates	3.37	-0.32	0.1	3.17	-0.34	0.12
well-being of the society	3.83	0.14	0.02	3.73	0.22	0.05

(Source: own estimate)

The result of t-test is 0.48 and the p-value arrived at 0.322929, where the p-value is greater than 0.05 level of significance at 3 degrees of freedom. Here, we accept null hypothesis and reject alternative hypothesis. Hence there is no significant difference in perceived benefits of green banking among customers of SBI and Canara bank.

4.4. Green Banking Awareness level

Table 4: Level of awareness

Awareness levels on green banking	SA	A	N	D	SD	Total	Mean
Banks have an important role in maintaining environment sustainability	6	52	2	0	0	60	4.067
Banks are now introducing innovative products or services	3	43	14	0	0	60	3.817
Bank is a responsible institution who have to protect the environment	10	44	6	0	0	60	4.067
Banking activities significantly contributing in reducing pollution	1	30	29	0	0	60	3.533

(Source: own estimates)

The above given data shows the awareness level of respondents on green banking. The respondents are well aware that green banking have an important role in maintaining environment sustainability with mean value of 4.067 also they hold same mean value with an awareness that bank is a responsible institution which have to protect the environment. The success and effectiveness of green banking initiatives depends on the awareness levels of bank customers with regard to green banking products and services and it is ultimately lead to create socially and environmentally responsible customers as well as citizen.

4.5 Testing of Hypothesis-2: Differences in awareness level

Table 5: student t-test

Awareness level	SBI			CANARA Bank		
	Mean	Deviation	squired deviation	Mean	Deviation	squired deviation
Bank maintaining environment sustainability	4.1	0.19	0.04	4.03	0.2	0.04
Bank introducing innovative products or services	3.78	-0.12	0.02	3.88	0.04	0
Bank is a responsible institution	4.07	0.17	0.03	4.07	0.24	0.06
Reducing pollution	3.67	-0.23	0.06	3.36	-0.48	0.23

(Source: own estimates)

The result of t-test is 0.38587. The p-value would be 0.366052. The degree of confidence is 3. Level of significance is at 5%. The p-vale is greater than 0.05, therefor, null hypothesis is accepted and reject alternative hypothesis. Thus, concluded that there is no significant variation in the customers awareness on green banking between SBI and Canara bank.

4.6 Testing of hypothesis-3: Relationship between Educational status and operation mode.

Table 6: Chi-square test

Observed values	Expected values	$(O-E)^2/E$
6	6.05	0.0004
11	8.8	0.55
5	5.5	0.0454
16	12.65	0.8872
5	5.5	0.4545
5	4.95	0.0005
5	7.2	0.6722
5	4.5	0.0556
7	10.35	1.0843
5	4.5	0.0556
Chi-square value		3.8057

(Source: own estimates)

The table value at 4 degree of freedom and 5% level of significance is 9.488. The calculated Chi-square value is 3.8057. Therefore here, we accept the null hypothesis and reject alternative hypothesis. It infers there is no significant relationship between educational qualification and mode of operation. In other words, the choice of green banking operation mode is independent with banks customers' educational qualification under this study.

4.7 Ranking of usage of Green Banking products

Table 7: Usage of green banking products

Sl.No	Green Banking Products	Mean Score	Rank
1	Green Bank Cards (Debit and Credit Cards)	20	1
2	Green Investments	13.33	2
3	Green Unsecured Loan	10.93	3
4	Green Mortgages	5.4	5
5	Green Car Finance	9.86	4

(Source: Primary Data)

Table 7 reveals among various green banking products and services offered by commercial banks, most popularly used green banking product is green card which consists of ATM cards, debit card, credit card, followed by green investments. Green car finance and green mortgages are seeming to be least used green banking products.

4.8 Problems of Penetration of Green Banking

Though the Kerala state is well known for literacy as well as financial literacy rates, the rate of penetration of green banking is relatively lower. The present study observes various problems faced by bank customers for adopting green banking practices. They are listed and ranked here

Table 8: Problems faced by customers

Sl. No	Problems faced by Customers	Mean Score	Rank
1	Non-availability of green banking services	13.5	3
2	Non-Accessibility of green banking services	11	4
3	Inadequacy of green banking information	18.9	1
4	Difficulties in green banking procedure	16.4	2

(Source: Primary Data)

It is evident from the table 8 that the main obstacle in penetration of green banking habits among customers, is the inadequacy of information relating to green banking products and services. The study also remarks customers facing difficulties in procedure for accessing green banking services. Hence, the banks have to spread maximum information regarding 'what is green banking', 'what are the green banking benefits to the banks, customers, and society' and 'what are the means and procedure of accessing green banking products and services' among customers. Banks should take measures to ease the green banking procedure and transactions to attract more green banking customers. Bank has to provide more incentives to those customers who approaches the bank for financing electric-cars and other e-vehicles.

Banks should promote the investments in low carbon emitting projects and should arrange campaigns and green training programmes to inculcate green banking culture not only among customers but bank staff also. Banks can localize green banking awareness through various groups having grass root contacts such as Haritha karma sena, Kudumbasree units etc.

5. CONCLUSION

Though green banking is not a recent origin across the world, Kerala state is in its infancy stage. There are tremendous benefits of green banking which are obtained by banks, customers and whole nature. The literacy rate of Kerala put forth a proper place of nurturing green banking culture. But the study observes it is not attained at a favourable green outcome. Banking organisations in Kerala have to take lot of measures to spread green banking awareness and habits among bank staff and customers. Customers are greatly benefited by easy and secure services, low transaction cost and time, convenience while using green banking products or services. ATM cards, Debit cards, Credit cards, Mobile banking, Internet banking are constituting changing phase of Indian banking system. The environment is protected by minimizing greenhouse gases by investing in low carbon producing projects. Promotion of renewable energy projects, nil/low carbon emitting projects, solar projects have long term impact on energy conservation. Reduction of paper usage in banks leads to shortening the intensity of deforestation. Banks are also benefited by the adoption of green banking experiencing low cost of operation, increased revenue and enhances the public image of the banks. But the study observes most of the customers are

aware about such banking practices but with inadequate information and accessibility to green banking. As a result of this study, it can conclude that the successful formulation and implementation of green banking practices and initiatives is only possible with continuous as well as coordinated efforts from customers, banks, regulatory authorities.

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