

# Green Banking Initiative on Customer Perception: A Conceptual Model of Customer Knowledge on Green Banking System Towards Public Sector and Private Sector Banks in Southern Districts of Tamilnadu

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**Abstract:-** The concept of green banking initiatives with customer perception has motivated banking institutions to introduce paperless, technology driven services and to perform their role as a banking sector in the customer awareness and knowledge in recent banking services. It is important for banks to understand the demand side of green banking initiatives since the ultimate success or failures of such investments are influenced by perceived knowledge of the end-user of the customer. An impact will be created by customer perception on features of green banking initiatives, on overall customer knowledge on green banking in the public and private sector banks in southern districts of Tamilnadu. Purpose of this study is to propose a conceptual model which perfectly features of green banking initiatives and their relationship with overall customer knowledge on green banking initiatives. This study found out overall perception and knowledge of green banking initiatives and recent change of traditional banking services.

**Key words:** Preferred usage of green banking channels, customer perception of green banking initiatives or services, awareness of green banking services, etc.,

## 1. INTRODUCTION

Green Banking is a term referring to practices and guidelines that make banks sustainable in economic, environment, and social dimensions. It is intended to develop sustainable banking with insignificant or zero impact on the people, societies and environment. Sustainable development is a global agenda in order to save our world from the depredations caused by human beings. Global warming, ozone depletion and climate change are alarming us every second. Reduce, Reuse and Recycle are the popular green strategies adopted by manufacturing and service industry. The banks and other financial institutions are connecting enterprises, clients and regulators on one platform. Penalties and incentives both are required to initiate green banking in a delimited mode therefore, banking sector is establishing some of the important metrics for measuring the performance of green practices i.e., energy usage, carbon usages, paper usage, water usage, solar power generation, green taxes, efficiency and productivity.

Green banking is emerging concept for environment sustainability it means promoting environment friendly practices for sustainable growth and reduces the carbon footprint from the banking industry. Using online banking instead of branch banking, paying bills online instead of mailing them, opening online bank account are now added advance to the banking technology contribution of banking sector.

## II. REVIEW OF LITERATURE

Abdul Razaque and Niranjana Nayak (2017), in this paper entitled on “Sustainable Development through Green Banking – the Way Ahead for Banking Sector” stated that attempts to discuss the different practices relating to green banking practices. In addition, that it is observed that both the public and private sector banks are aggressively working towards a paperless banking system. Few of the banks like SBI, PNB and ICICI have started dedicated programs related to specific business section, to reduce their carbon footprints. With regards to paperless banking activities like mobile banking and electronic fund transfer (RBI, 2015), private sector banks have shown a lot of aggression which is showcased by the higher rate of growth in the above mentioned systems. Finally, they have concluded that Indian banks have a long way to go, before they can become completely green organization. One of the important strategies which they need to follow is the adoption of LEED certification for green building. Under this certification, the offices of the banks will be using non-renewable sources of energy to power their offices, the lighting system of their offices will be energy-star rated, sewage and waste disposal system will be installed and rainwater harvesting will be followed. Banks can have a major impact on the environment, if they get cooperation from their clients. Banks should implement strict environment systems, before financing any project. Some of the systems are Environment Audit Management (EAM), Environmental Impact Assessment (EIM) and Annual Reporting System (ARS). They should provide

incentives to green projects, and make it tough for polluting projects, to be sanctioned. Green banking can be used as an opportunity to reduce pollution and save the environment, which will lead to a sustainable growth.

**Deepa and Karpagam (2018)**, in this study entitled on “A study on customer’s awareness on green banking in selected public and private sector banks with reference to Tirupur” has carried the awareness on green banking among the customers are selected different banks. Also, it aims to find the customers usage relating to green banking service. It is necessary to identify various initiatives taken by bank on the concept of green banking in order to customer and make then user friendly. Researcher will study the impact of different age group of customers with regard to green initiatives taken by public and private sector banks. They presents that India’s growth account and obligation to cut its carbon intensity by 20-25 percent from 2005 levels by 2020 provides tremendous opportunities for Indian banks from funding sustainable projects to offering innovative products and service in the areas of green banking. The survival of the banking industry is inversely proportional to the level of global warming. Therefore, for sustainable banking, Indian bank should adopt green banking as a business model without any additional postponement. Finally, she concludes this study green banking will be mutually beneficial to the banks, industries and the economy. Not only green banking will ensure the greening of the industries but it will also facilitate in improving the asset quality of banks in future.

### III. OBJECTIVES OF THE STUDY

The study has the following objectives.

- ☆ To study the level of perception of customers of green banking initiatives
- ☆ To know the customer knowledge for using green banking services
- ☆ To identify the motivating factors in green banking initiatives about the customers

### IV. RESEARCH METHODOLOGY

The primary objective of this empirical study was to observe the perception of customers towards Green Banking initiatives. The study also intended to know the most used channel of green banking initiatives. The study included various demographic factors and also envisaged to see the association if any between demographic factors and various green banking channels. Descriptive research design was used in the study. Data for the study was primary in nature which was collected from respondents from southern districts of Tamilnadu structured questionnaire. The study made use of non-probability sampling and convenience and judgment sampling techniques were deployed to collect the primary data. Both online and offline mode of distribution was used to collect the data and finally the data was obtained from 100 respondents which was also the final sample size of the study.

#### 4.1 Hypothesis

**Ho -** There is no significant difference among different monthly income of customers usage Green banking Initiatives or services

### V. DISCUSSION AND RESULTS

#### 5.1 Gender of the Respondents

In the study the data are collected from both the male and female respondents. So, gender factor has been considered important for the present study and the consolidated data is presented in Table- 1.

Table - 1  
Gender of the Respondents

S. No	Gender	No. of Respondents	Percentage
1	Male	43	43
2	Female	57	57
3	Transgender	0	0
	<b>Total</b>	<b>100</b>	<b>100%</b>

#### Sources: Primary Data

The above table shows that, about the gender of the respondents among the 100 respondents, 43 respondents are male (43 %), 57 respondents are female (57%) and nil respondents of transgender (0 %).

In other words 43 % of the respondents are in the gender of male, 57 % of the respondents are in the gender of female.

**It is inferred that the majority of the respondents 57 (57 %) are female.**

#### 5.2 Educational Status of the Respondents

Educational is a precious asset for every individual. Education makes people think wiser and decide matters with clear – headedness. The following table presents the educational status of the respondents.

Table 2  
Educational Status of the Respondents

S.No	Educational Status	No. of Respondents	Percentage
1	Primary education	12	12
2	Higher education	13	13
3	Under graduate	51	51
4	Post graduate	24	24
	<b>Total</b>	<b>100</b>	<b>100%</b>

#### Sources: Primary Data

The above table shows the educational status of the respondents. The educational status of the respondents is divided into four groups. They are primary education, higher education, under graduate, and post graduate.

Among 100 respondents, 12 respondents have completed primary education, 13 of respondents are have completed higher education, 51 respondents are have completed under graduate, and 24 respondents have completed post graduate.

It describe that, 12% of the respondents have completed at primary education, 13 % of the respondents have completed higher education, 51 % of the respondents have completed under graduate, and 24 % of the respondents have completed post graduate.

**It is inferred that the majority of the respondents 51 (51%) are having the educational status of under graduate.**

### 5. 3 Type of Banking Channel Preferred by the Respondents

The following table shows what type of banking channels using the customers of public and private sector bank given below.

Table 3  
Type of Banking Channels Preferred by the Respondents

S. No	Type of banking channels	No. of respondents	Percentage
1	ATM Services	54	54
2	Internet Banking Services	28	28
3	Telephone Banking Services	7	7
4	Mobile Banking Services	11	11
	<b>Total</b>	<b>100</b>	<b>100%</b>

#### Sources: Primary Data

The above table shows what type of banking channel prefer of the respondents. The type banking channels are divided by four groups. They are: internet banking services, ATM services, mobile banking services, and telephone banking services.

Among the 100 respondents, 54 respondents are prefer of ATM services, 28 respondents are prefer of Internet banking services, 7 respondents are prefer telephone banking, and 11 respondents are prefer of Mobile banking services.

In other words, 54 % of the respondents are prefer of ATM services, 28 % of the respondents are prefer of Internet banking services, 7% of the respondents are prefer of telephone banking services, and 11% of the respondents are prefer of mobile banking services.

**It is inferred that the majority of the respondents 54 (54 %) prefer the ATM Services.**

### 5.4 Category of Banking Services Preferred the Respondents

The green banking initiatives are usage of the customers in public and private sector banks. The following use often in Green banking services given below table 5

Table – 4

S. No	Category of banking sector	No. of respondent	Percentage
1	Public sector bank	39	39
2	Private sector bank	47	47
3	Both	14	14
	<b>Total</b>	<b>100</b>	<b>100 %</b>

#### Sources: Primary Data

The above table shows the category of banking sector preferred the respondents. The E – banking services usage the customers divided the three categories. They are: public sector, private sector and both.

Among the 100 respondents, 39 of the respondents are preferred the banking sector of public sector, 47 of the respondents are preferred the banking sector of private sector bank and 14 of the respondents are preferred the banking sector of both in public and private sector bank.

It is derived, 39 % of the respondents are preferred the banking sector of public sector, 47 % of the respondents are preferred the banking sector of private sector bank and 14 % of the respondents are preferred the banking sector of both in public and private sector bank.

**It is inferred that the majority of the respondents 47 (47 %) are have preferred the Banking sector of private sector banks.**

### 5.5 Usage of Green Banking Services of Customers

The Green banking services are often use of the customers in public and private sector banks. The following use often in Green banking services given the classified and detailed given below table 5.

Table – 5

S. No	Banks	No. of respondents	Percentage
1	State Bank of India	16	16
2	Indian Overseas Bank	16	16
3	Tamilnadu Mercantile Bank	33	33
4	City Union Bank	15	15
	<b>TOTAL</b>	<b>100</b>	<b>100 %</b>

#### Sources: Primary Data

The above table shows the banking sector preferred the respondents. The green banking services usage the customers divided the four categories. They are: state bank of India, Indian overseas bank, Tamilnadu mercantile bank and city union bank.

Among the 100 respondents, 16 of the respondents are using the green banking services of state bank of India, 16 of the respondents are using the green banking services of indian overseas bank, 33 of the respondents are using green banking services of Tamilnadu mercantile bank and 15 of the respondents are using green banking services of city union bank.

It is derived, 16 % of the respondents are using the green banking services of state bank of India, 16 % of the respondents are using the green banking services of indian overseas bank, 33 % of the respondents are using green banking services of Tamilnadu mercantile bank and 15 % of the respondents are using green banking services of city union bank.

**It is inferred that the majority of the respondents 33 (33 %) are having use of E – Banking services of Tamilnadu mercantile bank.**

#### 5.6 Customers Usage Green Banking Services Among Different Monthly Income – Factor Analysis

The customer's usage of Green banking services at the study area. In order to the customer's usage of Green banking services among different monthly income. Factor analysis test is attempt that null hypothesis as,

**“There is no significant difference among different monthly income of customers usage Green banking Initiatives or services”**

Factor Analysis  
Table 6  
Descriptive Statistics

	Mean	Std. Deviation	Analysis N
Use of Green banking services	1.0000	.00000	100
Monthly income	3.0100	<b>1.56021</b>	100

#### Sources: Primary Data

The researcher make an analysis of factors in different banking services at different monthly income of respondents. The factor analysis at highly factor of usage of banking services at standard deviation of **1.56021**. The factor analysis are usage of banking channels at influences about the monthly incomes.

Table 7  
Correlation Matrix

	Use of green banking services	Monthly income
Correlation Use of Green banking services	1.000	.
Monthly income	.	1.000

#### Sources: Primary Data

At 5% of significance difference between the use of banking services among different monthly income of public and private sector banks in study area. The factor analysis of findings with the use of green banking services are monthly income difference very high standard deviation of descriptive analysis.

Since P value at 0.005 of significance level of customer usage of green banking services, the null hypothesis is accepted.

#### 5.7 Customer Perception of Green Banking Initiatives or Services among different Age Group – ANOVA

The customer of different age group have been perception about the Green Banking Initiatives or services. In order to find out the significant difference between customer perceptions to the Green Banking Initiatives or services among the different age group in public and private sector banks in tirunelveli region. ANOVA test is attempted with the null hypothesis as,

**“There is no significant difference among different age group of customer perception towards Green Banking Initiatives or services”**

**Table 8**  
**ANOVA**

		Sum of Squares	Df	Mean Square	F
Internet banking is less costly	Between Groups	91.046	4	22.761	53.005
	Within Groups	40.794	95	.429	
	<b>Total</b>	<b>131.840</b>	<b>99</b>		
Simple and straight forward	Between Groups	177.798	4	44.450	207.895
	Within Groups	20.312	95	.214	
	<b>Total</b>	<b>198.110</b>	<b>99</b>		
Transaction complex	Between Groups	129.347	4	32.337	209.648
	Within Groups	14.653	95	.154	
	<b>Total</b>	<b>144.000</b>	<b>99</b>		
Internet banking is easy services	Between Groups	186.022	4	46.505	342.793
	Within Groups	12.888	95	.136	
	<b>Total</b>	<b>198.910</b>	<b>99</b>		
Satisfied with internet banking	Between Groups	80.772	4	20.193	36.149
	Within Groups	53.068	95	.559	
	<b>Total</b>	<b>133.840</b>	<b>99</b>		
Enough information	Between Groups	143.277	4	35.819	188.699
	Within Groups	18.033	95	.190	
	<b>Total</b>	<b>161.310</b>	<b>99</b>		
Information about internet banking	Between Groups	157.684	4	39.421	158.515
	Within Groups	23.626	95	.249	
	<b>Total</b>	<b>181.310</b>	<b>99</b>		
Bank offer during process	Between Groups	206.354	4	51.589	231.115
	Within Groups	21.206	95	.223	
	<b>Total</b>	<b>227.560</b>	<b>99</b>		
Personal data protection	Between Groups	151.129	4	37.782	285.287
	Within Groups	12.581	95	.132	
	<b>Total</b>	<b>163.710</b>	<b>99</b>		
More effective internet banking	Between Groups	160.270	4	40.067	267.304
	Within Groups	14.240	95	.150	
	<b>Total</b>	<b>174.510</b>	<b>99</b>		
Convenient eliminates the risk	Between Groups	162.507	4	40.627	223.701
	Within Groups	17.253	95	.182	
	<b>Total</b>	<b>179.760</b>	<b>99</b>		
Website are safe	Between Groups	129.837	4	32.459	197.636
	Within Groups	15.603	95	.164	
	<b>Total</b>	<b>145.440</b>	<b>99</b>		
Problem about internet banking	Between Groups	164.034	4	41.009	260.320
	Within Groups	14.966	95	.158	
	<b>Total</b>	<b>179.000</b>	<b>99</b>		

**Sources: Primary Data**

**Significance level at 5%**

At 5% level of significance the above table telling the relationship between different age group of respondents and customer perception towards on Green Banking. The Green Banking services are high level of perception regarding towards any problems about internet banking services, banks provide support. The medium level of customer perception towards internet banking is convenient because it eliminate the risk of carrying cash. The low level of customer perception towards Green Banking services the banks give enough information about the internet banking services and the very low level perception towards the Green Banking services is less costly than other banking services(branch, ATM, and Mobile banking).

Since P value is more than 0.05, null hypothesis accepted. Hence there is no significant difference among different age group of customers in respect to customer perception towards Green Banking Initiatives or services.

## VI. CONCLUSION

The use of digital tools i.e., e-banking, mobile banking, e- statements, mobile statements, green channel counters, green processing, green loans, mobile vans, solar based automated teller machines or banking devices, installation of LED lamps, waste water management, composting, green toilets, paperless banking, green bins, green loans, clean development mechanism, air/noise/radiation control and many other green activities are initiated by the modern age banks. It is assumed that young, tech savvy and educated customer is comfortably adopting these practices whereas aged customers prefer traditional *modus operandi*. Therefore, this study was conducted on green banking in order to test and understand the perception of customers towards these practices. It have started using or initiating green channel counters, green data center, green rewards, green coin rating and green investments for developing a positive attitude among customers towards green banking initiatives. These activities are helping customers switching from traditional mode to green mode. This study proves a significant relation between perception of the respondents and awareness of green banking system. The study also proves that young respondents are frequently adopting the green banking initiatives whereas senior citizens and middle-aged respondents still prefer traditional practices. Majority of respondents had a positive response towards green banking initiatives and the most reliable sources for green banking related services are the bank employees. The study concluded that three fourth of the population surveyed were using or used automated teller machines and e- banking / internet banking quite frequently as compared to other green banking initiatives of the channels.

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