



CUSTOMERS SATISFACTION REGARDING GREEN BANKING IN PUBLIC SECTOR BANKS IN SIVAGANGAI DISTRICT

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ABSTRACT

A bank is a financial institution and financial intermediaries that accepts deposits and channelize them into lending activities, either directly or through capital markets. Banking in India originated in the last decades of the 18th century. Green banking refers to making the banking transactions easily and to avoid paper transactions instead of papers using through the electronic devices using in the day to day activities in the banking sector. This concept of “Green Banking” will be mutually beneficial to the banks, industries and the economy. This paper mainly focuses on Customers perception & satisfaction regarding green banking in public sector banks in Sivagangai district.

Keywords: Green banking, Financial Institutions, deposits, customers.

INTRODUCTION

The concept of green banking emerged in 2009 in Mt. Dora, Florida, United states. In India the first green bank is the State Bank of India(SBI), India’s largest commercial bank, which took initiative in setting high sustainability standards and completed the first step in “green banking” with shri O.P. Bhatt, chairman, SBI Inaugurate the bank’s first wind farm project in Coimbatore. The green bank initiative which includes ATMs, paperless banking for customers and building of wind mills in rural India. Green Banking means ensuring environment friendly practices in banking sector and thereby reducing internal and external carbon footprints. It makes technological improvements, operational improvements and changing client habits in the banking sector.

The recent developments in Indian banking technology have transformed banking from the traditional system towards a more inclusive one incorporating the interests of customers, the bank and the environment. Nowadays, banking operations can be carried out through various banking delivery channels away from the bank branches. ATM is the most popular banking delivery channel and the extraordinary success of ATMs had made the banking sector courageous to develop more innovative alternative delivery channels such as Internet banking, mobile banking, Green channel counters, kiosk banking, credit card, debit card, online bill payment services etc. In the environment friendly society, Green Banking has become relevant in each and every aspect of business. Green banking plays an important role in our country. Adopting of greener banking practices will not only be useful for

environment, but also beneficial for greater operational efficiencies, a lower vulnerability to manual errors and fraud and cost reduction in banking activities. Green banking refers to making the banking transactions easily and to avoid paper transactions instead of papers using through the electronic devices using in the day to day activities in the banking sector. This concept of “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 the banks in future. In the environment friendly society “Go Green” mantra has become relevant in each and every aspect of business.

So there is a need for banks to adopt green strategies into their operations, buildings, investments and financing strategies. Green banking can help a lot in attaining sustainable development. Green banking avoids as much paper work as possible and rely on online/electronic transactions for processing. Green Banking has become relevant in each and every aspect of business. Green Banking covers two aspects. The first one being judicious use of all resources, energy and reducing carbon footprints and second being encouraging and financing only environment friendly investment. So Green Banking is not only about making sustainable use of resources but also about environment friendly dispensation of credit. Customers always expect higher quality services from banks .But still Indian banks haven't accepted the principle equator policy to keep a record of their clients. Now it's time that India should take some strict steps to harness these banks and financial institution to adopt the principle equator guideline so that they can contribute in the protection of environment in future. There is definitely a huge opportunity in clean, renewable energy technologies, emissions reduction and reduced-carbon transportation which can be slowly and steadily be achieved if we get cooperation from all sectors of the economy and banks being an integral part of our economy must lead from the front. There are some reasons for not using green banking fully in our country. In India most of the people live in villages they are illiterate and they do not aware about green banking services. Even though some people aware about green banking services, they do not know the benefits of green banking. Most of the people are using traditional banking only. Therefore it is the need of the hours, the banks should educate their customers about green products and services. It is also the responsibility of the government to encourage the general people to adopt green banking practices.

REVIEW OF LITERATURE

Malu, Agrawal, & Jajoo (2014), in their study deals with banks can play an important role in reducing the carbon footprint in the society. Earlier economic development means reducing poverty, inequality and unemployment in the society, but the concept of Economic development had changed to Sustainable development which means “development that meets the needs of the present without compromising the ability of future generation to meet their own needs (World Commission Environment and Development 1987). The study suggested that sustainability in the banking sector can take two forms- Banks can change their routine operations through recycling programs, paperless banking, using energy efficient resources, and support for community events for reducing pollution and so on. They can adopt lending and investment strategies to promote environmentally responsible projects and can also develop green products to ensure the sustainability in their core business.

Yunwen Bai, Michael Faure & Jing Liu (2014), in their study deals with China is still in an initial stage of green financing. There has, however, been an interesting development in this “greening” process during the last four years. The Green Credit Policy of 2007, a policy instrument issued by three governmental agencies, has essentially created a series of effective tools for Chinese banks, such as the environmental information sharing database, which is basically a “blacklist” for environmentally non-complying enterprises. This policy also made some individual banks start developing their own internal policies and procedures for their transactions. However, the best practice would be that the policy could induce banks to develop an internal system that reflects priorities concerning environmental and social sustainability, particularly to enhance environmental risk management on the whole, only a few smaller-sized Chinese banks have been proactively adopting international green financing principles such as the EPs, UNEP FI, but it is unclear whether they are taking these stringent principles seriously. Comparing the good practices with other international peers, Chinese banks still fall behind in some areas, such as developing comprehensive systems for environmental risk management, transparency in the disclosure of environmental information, monitoring their environmental conduct abroad, and capacity building of banking employees. These gaps and weaknesses will be addressed not only by banks themselves, but also by collective efforts by governments, NGOs, media, banks’ clients, and other stakeholders. In order to step further in green financing, some suggestions can be made to improve the performance of Chinese banks.

Sreesha ch (2014), in his paper entitled A Study of Green Banking Initiatives of Selected Private and Public Sector Banks in India, in her paper entitled banking with technology green banking the various models or channels of green banking which are taken by the banking sector in the banking activities. This study also focuses on environment sustainability concept adopted by various private and public sector banks in India. According to the study, bank is not taking interest in green banking completely. Public sector banks are more interested in green banking as compare to private sector bank. For maintaining sustainability, bank should expand the use of environmental information in the banking operation, lending and investment decision. This will help them to improve environment sustainability and create long term value for the business.

STATEMENT OF THE PROBLEM

Green Banking is comparatively a new development in the financial world. It is a form of banking taking into account the social and environmental impacts and its main motive is to protect and preserve environment. Green banks give more importance to environmental friendly factors like ecological gains thus interest on loan is comparatively less. Majority of the people are using bank accounts in Sivagangai district and they are using the green banking services provided by the bank.

NEED FOR THE STUDY

The need for moving towards green banking in the banking sector in this fast changing environment provides competitive benefit to both the banker and customer. Customers’ are much interested in environment friendly goods and services such as green loans, ATMs, Mobile banking, online banking, Green savings accounts, Green credit cards etc. The primary

objective of the study is to assess the customers' satisfaction level towards green banking in Sivagangai District.

OBJECTIVES OF THE STUDY

- ❖ To understand the concept of green banking.
- ❖ To know the customers' satisfaction level towards green banking products.
- ❖ To identify the factors motivating the customers to use the green banking services.
- ❖ To offer suggestions for improved customer's satisfaction on green banking services in the study area.

METHODOLOGY ADOPTED

The present study was carried out with the objective to find out whether the customers satisfaction about green banking in public sector banks. The researcher reviewed the related literature on green banking to identify the research gap .Both primary and secondary data have been used in the study. The primary data were collected from the bank customers at Sivagangai District. The Sivagangai District is divided into 8 taluks. In Eight taluks, there are 19 nationalized banks which are working with 127 branches. The study was conducted only in 3 taluks such as Devakottai, Tirupathur, and Karaikudi. The researcher selected those taluks which have more number of bank branches. Ten customers were selected randomly from each bank for the collection of data. The primary data were collected through a questionnaire which was prepared and the respondents were required to provide necessary details when they visited the bank branches. Required secondary data for the study were collected from Journals, Magazines, Books, and RBI Reports.

SAMPLE SIZE

- The population frame for the study
- Indian Bank
- Canara Bank
- Corporation Bank ; and
- UCO Bank

These banks have more number of bank branches in three taluks such as Tirupathur, Karaikudi and Devakottai. The ultimate sample size for the study is 130, which has been determined by the following formula.

Systematic Random Sampling

$$n = [Z^2 * (p * q) / d^2]$$

where n = s.s; p = expected precision

q = 1-p (expected non -precision); d = relative desired precision

SAMPLING TECHNIQUE USED

Multi - stage random sampling method is used to draw required samples for the study.

TOOLS USED FOR THE ANALYSIS OF DATA

Statistical tools such as: Descriptive statistics, chi-square test, simple correlation, Factor analysis, and percentage analysis were used to analyze the primary data collected from the respondents. The validity of the instrument was tested. All items were assessed on likert's five point scale 5 to 1 with very high satisfaction to very low satisfaction. The questionnaire

was tested with cronbach’s alpha reliability test. From the reliability test using SPSS, the instrument was found to be reliable for the purpose of the research with alpha value = 0.965. All of the reliability test for the various variable factors showed the cronbach’s alpha exceeding 0.7 , being the convention recommend by Nunnally and Bernstein (1994).

DATA ANALYSIS AND INTERPRETATION

CUSTOMERS’ SATISFACTION ON GREEN BANKING PRODUCTS -FACTOR ANALYSIS

Factor analysis is a technique that is used to reduce a large number of variables into fewer numbers of factors. Factor analysis extracts maximum common variance from all variables and puts them into a common score.

Table 1.1: Customers’ Satisfaction On Green Banking Products -Factor Analysis

The use of KMO and Bartlett’s test of sphericity is primarily essential to measure sample adequacy of using factor analysis. The small value of KMO statistics indicate that the correlation between pair of variables cannot be explained by other variables and the factor analysis may not be appropriate. The KMO measure of sampling adequacy was calculated by using the correlation test, to check whether the variables in the sample are adequate to correlate. The general rule of thumb is that a KMO value should be greater than the 0.5 for a satisfactory analysis to proceed.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.740
Bartlett's Test of Sphericity	Approx. Chi-Square	460.404
	Df	55
	Sig.	.000

Source: Primary data

High value of KMO (0.740 > .05) of indicates that a factor analysis is useful for the present data. The significant value for Bartlett’s test of Sphericity is 0.000 and is less than .05 which indicates that there exist significant relationships among the variables. The resultant value of KMO test and Bartlett’s test indicate that the present data is useful for factor analysis.

Reliability Statistics- Customer Awareness On Green Banking Products

Cronbach's Alpha	N of Items	No of variables
.992	130	9

Source: Primary data

The reliability of scales used in this study was calculated by cronbach’s coefficient alpha and normally it ranges between 0 and 1. All constructs obtained an acceptable level of a co-efficient alpha above. 7, indicating the scales used in this study was reliable.

Total Variance Explained									
Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.743	24.932	24.932	2.743	24.932	24.932	2.544	23.123	23.123
2	2.265	20.586	45.518	2.265	20.586	45.518	2.348	21.347	44.471
3	1.457	13.248	58.766	1.457	13.248	58.766	1.544	14.040	58.510
4	1.088	9.891	68.657	1.088	9.891	68.657	1.116	10.147	68.657
5	.897	8.150	76.808						
6	.713	6.479	83.286						
7	.579	5.264	88.550						
8	.415	3.775	92.325						
9	.382	3.470	95.796						
10	.334	3.037	98.833						
11	.128	1.167	100.000						

Extraction Method: Principal Component Analysis.

Source: Primary data

In the above table explained the rule of thumb is applied to choose the number of factors for which ‘Eigen values’ with greater than unity is taken by using Principal Component Analysis method. The Component matrix so formed is further rotated orthogonally using Varimax rotation algorithm which is the standard rotation method (Kaiser, 1958). All the statements are loaded on the two factors.

The factor analysis result shows that the eleven variables can be grouped into four variables. If the eight variables are reduced into four then the total variance explained is 82 percent which is very significant. This means that the eleven variables can be reduced into four variables. The Rotated component matrix shows that variables V1, V2, V3, and v4 can be grouped into first factor, V5 and V6 is the second factor and V7, V8, are third factor .V9, V10 and V11 are fourth factor This means eleven variables can be grouped into four.

Component Matrix^a					
		Component			
		1	2	3	4
V1	Satisfaction Mobile Banking	-.814			
V2	Satisfaction Of Internet Banking	-.752			
V3	Satisfaction Online Bill Payment	.693			
V4	Satisfaction Online Banking	-.687			
V5	Satisfaction E- Services		.743		
V6	Satisfaction Green Checking Accounts		.652		
V7	Satisfaction Green Cds			-.032	
V8	Satisfaction Cash Deposit System			.072	
V9	Satisfaction Green Credit Cards				.163
V10	Satisfaction Of Green Mortgages				-.101
V11	Satisfaction Atms				.923

Extraction Method: Principal Component Analysis.
A. 4 Components Extracted.

The rotated component matrix shows that variables V1, V2, V3, V4, can be grouped into first factor and variables V5 and V6 can be grouped into second factor. The multidimensional scaling has also given the same result. As the variables within the group are related, the number of variables can be eliminated by taking one from one group. From the group one V11 can be taken which is high value. V11 is very important variable because more customers are satisfaction in using of ATMs.

FACTORS MOTIVATED THE RESPONDENTS TO USE GREEN BANKING SERVICES

REGRESSION

Multiple Regression Analysis is a powerful technique used for predicting the unknown value of a variable from the known value of two or more variables- also called predictors.

More precisely, multiple regression analysis helps us to predict the value of y for given values of x1,x2,x3...

The multiple regression model: Ingenerate the multiple regression equation of y on x1,x2,...xk.is given by $y = b_0 + x_1 + x_2 + \dots + b_k x_k$.

The general purpose of regressions is to learn more about the relationship between one dependent and more than one independent variable.

Table 1.2: Factors motivated the respondents to use green banking services

HYPOTHESIS: There is no significant relationship between variables of factors motivated to use green banking services.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.302 ^a	.091	.084	1.317

Source: Primary data

R is the correlation, its value is 0.302 and R square is degree of determination, its value is 0.91.The degree of determination shows the extent to which the factors motivate to use green banking services. Here the usage of Atms is determined to an extent of 13.17% by convenience, Any time service, easy way of usage , Technology adoption , Time consumption , Lower costs, High penetration of smart phones and availability of Discounts and coupons.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.203	1	22.203	12.810	.000 ^b
	Residual	221.866	128	1.733		
	Total	244.069	129			

Source: Primary data

ANOVA table shows that the significant value is less than 0.01, which means dependent variable that is usage of Atms is significantly predicted by independent variables namely convenience, Anytime service, easy way of usage, Technology adoption, Time consumption, Lower costs, High penetration of smart phones and availability of Discounts and coupons.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.366	.315		13.842	.000
	Easy Way Of Usage	-.307	.086	-.302	-3.579	.000
2	(Constant)	2.390	.666		3.586	.000
	Easy Way Of Usage	-.287	.083	-.282	-3.465	.001
	Motivate Accessibility	.445	.134	.271	3.332	.001
3	(Constant)	2.672	.669		3.992	.000
	Easy Way Of Usage	-.249	.083	-.245	-2.983	.003
	Motivate Accessibility	.484	.133	.295	3.645	.000
	Anytime service	-.176	.080	-.180	-2.185	.031

a. Dependent Variable: USAGE OF ATMS

Source: Primary data

The common regression equation is $y = a + bx$

The effect of convenience , Any time service , easy way of usage , Technology adoption , Time consumption , Lower costs, High penetration of smart phones and availability of Discounts and coupons is given by the regression equation,

Usage of Atms = 4.366 + -.307 (Easy way of usage) -.445 (Motivate Accessibility)+ -.176 (Any time service).

SUGGESTIONS

- ❖ Bankers are supposed to educate the customers about green banking
- ❖ Banks can introduce green funds for customers who would like to invest in environment friendly projects.
- ❖ It is important to adopt environmental standards for the lending and financing principles so that borrowers could direct themselves towards reducing the carbon footprint by using the appropriate technologies. They can go for discounted loan rates for the hybrid products, adoption of Equators Principles, green mortgages, green loans, etc.
- ❖ Banks can introduce green funds for customers who would like to invest in environment friendly projects.
- ❖ Banks can organize competitions for customers to bring out awareness regarding green banking.
- ❖ Bank have to purchase appropriate events / competitions hardware, system software and networking infrastructure.
- ❖ Banks should organize seminars and conferences to educate the customers regarding uses of online banking as well as security and privacy of their customers.

CONCLUSION

It can be concluded that banks must take new initiatives to create awareness about green banking among the customers. Bank should also adopt environment friendly practices which ensure the efficient use of resources. Thus, the banks should play a pro-active role to take environmental and natural aspects as part of their lending principles which would force industries to go for mandated investment for environmental management, use of appropriate technologies and management systems. Majority of the customers are not satisfied of the

green banking initiatives adopted by their banks. Therefore it is very essential on the part of the bankers to give awareness programmes on the green banking practices to their customers. The banking institutions must go green and can fulfil their social responsibilities.

From the analysis it is found that customers satisfaction on green banking among the customers is very low in sivagangai district. In India there has not been much initiative in this regard by banks as compared to foreign countries. For effective adoption of green banking, the RBI and the Indian government should take appropriate steps to formulate green policy guidelines and financial incentives.

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