

# A STUDY ON PROBLEMS FACED BY THE BANKERS WHILE SANCTIONING GREEN BANKING SERVICES IN COMMERCIAL BANKS WITH SPECIAL REFERENCE TO CHENNAI

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## **Abstract:**

*Green banking functions in a manner similar to conventional banking, but with a strong emphasis on social and environmental responsibility; hence, it is often referred to as ethical banking. The primary objective of ethical or green banks is to protect and promote environmental sustainability while delivering regular banking services. Although green banks operate under the same regulatory authorities as traditional banks, they differ significantly in their approach. Unlike conventional banking, green banks give greater importance to environmental considerations and responsible business practices. Before sanctioning loans, these banks carefully evaluate whether the proposed projects are environmentally friendly and assess their potential long-term environmental and social impacts. Financial assistance is granted only when borrowers comply with prescribed environmental safety standards, thereby ensuring sustainable development alongside economic growth. The sample size for the study is 385. The findings of the study shows that Procedural Issues is the most important problem faced by the bankers while providing green banking services.*

**Keywords:** *Green Banking, Commercial banks, Services, Problems.*

## **1.1 Introduction:**

The banking sector in India serves as the lifeline of the nation and stands as its largest financial industry. Indian banks have played a significant role in the country's economic development by turning the aspirations of people into reality. With immense growth potential, the sector was projected to become the fifth largest in the world by 2020 and the third largest by 2025. Over the years, Indian banks have experienced rapid transformation driven by evolving consumer behavior, technological advancements, and regulatory changes. Despite facing several challenges, the sector has adapted well to the changing environment.

As the excessive use of natural resources continues, the concept of Green Banking has gained prominence. Unlike traditional banking, Green Banking focuses on promoting sustainable development. It emphasizes environmental and socially responsible investments, especially at a time when global warming has become a major global concern affecting natural resources and human life. With growing public awareness about environmental degradation, organizations are increasingly fulfilling their corporate social responsibilities by adopting eco-friendly practices.

Green Banking, often referred to as ethical banking, aims to protect the environment and reduce the carbon footprint of banking operations. It encourages banks to integrate technological advancements and operational improvements to support environmentally

friendly investments. Many banks now prioritize lending to industries that are either already green or actively working toward sustainability. The objective is to enhance energy efficiency and promote the use of biodegradable products. Since the performance of banks is closely linked to the performance of their clients, banks must carefully ensure that customer projects comply with environmental and legal standards. Any deviation could lead to non-performing assets, highlighting the importance of responsible financing in Green Banking.

## **1.2 Review of Literature:**

**Dr. G. Jayabal and M. Soundarya (2016)** highlight that there is a growing global shift toward adopting green banking practices. Although green banks may not generate substantial profits in the initial stages, they hold significant potential for long-term market growth and profitability. To enhance the effectiveness of green banking initiatives, the proactive involvement of the RBI and the Government of India in developing green policy guidelines and providing financial incentives is crucial. Green banking plays an important role in reducing pollution, protecting the environment, and supporting sustainable economic development. Since the sustainability of the banking industry is closely tied to the impact of global warming, Indian banks must prioritize the implementation of green banking models without delay to ensure long-term, eco-friendly banking practices.

**Anantha Shayana (2017)**, in their article on the “Problems and Prospects of Green Banking,” aimed to examine the issues and challenges associated with adopting green banking practices. The study’s findings and suggestions indicate that green banking can serve as a catalyst for banks and financial institutions, encouraging them to intensify their efforts to reduce energy consumption and contribute meaningfully to global initiatives for sustainable development. In conclusion, given the available opportunities, options, and technological advancements, banks should establish both short-term and long-term green goals, formulate appropriate green strategies, and implement their greening activities in a phased and systematic manner.

## **1.3 Objective of the Study:**

The Main objective of the study is to analyze the problems faced by the bankers while sanctioning green banking services in Chennai.

## **1.4 Research Methodology:**

### **1.4.1 Sampling Frame:**

Sampling frame refers to a complete enumeration of population elements from where a sample may be drawn. In the present study multi stage cluster sampling technique is used. The sample was selected through different stages. In the process of selecting the sample frame, the researcher at first stage chosen the banks. The researcher has sorted five commercial banks such as State Bank of India, Indian Overseas Bank, Canara Bank, Indian Bank and HDFC. The above banks were selected on the basis more number of branches in the Chennai than other banks.

**1.4.2 Sources of Data:**

For the purpose of the study the researcher collected both primary as well as secondary data.

**1.4.2.1 Primary Data:**

The Primary data are required to analyze the Problems faced by the bankers while sanctioning Green banking services in Commercial banks. The data were collected from bankers by using well-structured questionnaire in the Chennai.

**1.4.4.2 Secondary Data:**

The secondary data were collected from the reports of collected from Journals, Magazines, Books and RBI Reports, Statistical Handbook of India, Government of India; NABARD and State level bankers committee in Tamil Nadu.

**1.4.3 Sample Size:**

The Sample Size for the study is 385 by using row software calculator.

**1.5 Data Analysis and Interpretation:**

**1.5.1 Problems faced by the bankers while sanctioning Green banking services - Rank Analysis:**

Descriptive statistics were used to analyze the problems faced by the bankers while providing Green banking services.

**Table 1.1 Problems faced by the bankers while providing Green banking services - Rank Analysis**

Problems	Mean	Standard Deviation	Rank
Lack of education by the customers	4.145	0.852	4
Technical Issues	3.546	0.632	9
Privacy or security of data	4.154	0.596	3
Procedural Issues	4.542	0.452	1
Higher Transaction Cost	3.892	0.876	5
Customers are not using the debit cards properly	3.585	0.784	8
Frequently forgetting the PIN Numbers while using Mobile banking/ Internet banking/Debit/ Credit card.	3.829	0.851	7
Not Maintaining the proper balance	3.852	1.652	6
Cards get blocked because not using properly	4.251	0.892	2
Customers are not accepting the todays technology	3.378	0.751	10

**Source: Primary Data**

The rank analysis was performed by using the overall mean score on factors. The following problems faced by bankers were identified while availing green banking services; it is inferred from the Table that out of 10 variables the mean score value is more than 4.00, for four variables namely, 'Procedural Issues' (4.542), 'Cards get blocked because not using properly' (4.251), 'Privacy or security of data' (4.154) and 'Lack of education by the customers' (4.151). It is identified that all the above four variables are considered as the most important problems faced by the bankers while providing green banking services. It is concluded that Procedural Issues is the most important problem faced by the bankers while providing green banking services.

### **1.5.2 Problems faced by bankers while providing Green banking services - Factor Analysis:**

Financial Institutions play a major role in providing financial services to customers. In any business activity, there may be some problem in financial services such as Lack of education by the customers, Technical Issues, Privacy or security of data, Procedural Issues, Higher Transaction Cost, Customers are not using the debit cards properly, Frequently forgetting the PIN Numbers while using Mobile banking/ Internet banking/Debit/Credit card, Not Maintaining the proper balance, Cards get blocked because not using properly and Customers are not accepting the today's technology. Banks face many problems while providing financial services. The researcher has identified twelve factors which are the problems faced by bankers while providing financial services. The respondents were asked to offer their opinion in the five-point scaling Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. The researcher has used the multivariate technique namely the factor analysis to classify the related variables. This test can be applied only after finding the suitability of the data. Hence, Kaiser - Mayer - Olkin (KMO) is used to check the adequacy and suitability of the data for factor analysis. The test measures sampling adequacy for each variable in the analysis. Be sample size is always more the data is appropriate for the factor analysis.

Ten factors are the problems faced by the bankers while providing financial services. All those variables are correlated with each other. To group the related variables, the researcher has decided to use the factor analysis. Before grouping the variable, the normality has to be ascertained. Hence for ascertaining the normality, KMO has been used. The (KMO) measures of sampling adequacy index are used to examine whether the data are appropriate to examine the factor analysis. The values range between 0.5 and 1.0 indicate that the factor analysis is appropriate. The value below 0.5 implies that the factor analysis is not appropriate, either to collect more data or to rethink which variables to include. If the KMO value lies between .7 and .8, it is good for factoring. Bartlett's test of sphericity is a test statistic used to examine the shape of normal distribution and also verify the smoothness of the curve. Table 4.5.1 explains two tests are Kaiser - Mayer - Olkin (KMO) measures of sampling adequacy and Bartlett's test of sphericity. It gives the statistics of KMO, Bartlett's Test of Sphericity, and chi-square analysis of association, degrees of freedom, and the probability value.

**Table 1.2**  
**Problems faced by bankers while providing Green banking services**  
**Kaiser - Mayer - Olkin (KMO) Bartlett's Test**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.789
Bartlett's Test of Sphericity	Approx. Chi-Square	1452.846
	Df	56
	Sig.	.000

**Source: Primary Data**

Table 1.2 shows the KMO Value of 0.789, which indicates that the degree of common variance among the variables is quite high, and hence factor analysis can be conducted.

### 1.5.3 Problems faced by bankers while providing Green banking services - Principal Component Analysis:

The principal component analysis has been administered for grouping the factor of various problems faced by the bankers while providing green banking services. It is a method of data reduction. The proportion of the variance of a particular item due to a common factor is called communality. The initial value of the communality in a principal component analysis is 1. The problems involved in the financial services are presented in the component column. The extraction communalities estimate the variance in each variable accounted for the factors in the factor solution. The value is less than .5 which indicates the variables that do not fit well with the factor solution and should possibly be dropped from the analysis. Table 5.16 shows the extraction value of the respondents which are the problems faced by the bankers while providing green banking services.

**Table 1.3**  
**Problems faced by bankers while providing Green banking services -Communalities**

Components	Initial	Extraction
Lack of education by the customers	1.000	.784
Technical Issues	1.000	.842
Privacy or security of data	1.000	.891
Procedural Issues	1.000	.854
Higher Transaction Cost	1.000	.764
Customers are not using the debit cards properly	1.000	.825
Frequently forgetting the PIN Numbers while using Mobile banking/ Internet banking/Debit/ Credit card.	1.000	.796
Not Maintaining the proper balance	1.000	.791
Cards get blocked because not using properly	1.000	.854
Customers are not accepting the todays technology	1.000	.732

**Source: Primary Data**

Table 5.16 explains the variance of the ten variables ranging from .700 to 0.891. It shows that ten variables exhibit a considerable variance from 70 percent to 80 percent. Hence it can be concluded that all these variables are capable of segmenting themselves concerning the problems faced by bankers while availing green banking services to form the predominant factors.

### 1.5.4 Problems faced by bankers while providing Green banking services - Total Variance

The total variance analysis is important to know the rotated sum of square value. The rotated four factors are determined based on the total Eigen value if the factor should be greater than one. The total cumulative variance is explained by the total percentage of variance by each retained four factors. Table 1.4 gives the individual variance of the predominant factors which have emerged out of 10 factors.

**Table 1.4**  
**Problems faced by bankers while providing Green banking services - Total Variance**

Total Variance Explained									
S. No	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	2.089	20.582	20.582	3.075	20.582	21.586	2.010	12.412	56.078
2	2.368	15.787	36.369	2.368	15.787	34.349	1.684	10.248	64.276
3	1.789	11.840	48.209	1.745	11.840	48.229	1.065	7.124	72.347
4	1.548	10.281	58.490	1.542	10.287	56.480			
5	1.236	8.064	66.554	1.210	8.064	64.554			
6	1.047	6.842	73.397	1.026	6.842	72.397			
7	.936	6.054	79.451						
8	.678	4.656	84.107						
9	.654	4.352	88.459						
10	.545	3.451	91.910						

Extraction Method: Principal Component Analysis.

Source: Primary Data

Table 1.4 discloses that Eigen values are greater than one for four factors. From this one, it is confirmed that the fifteen problem factors are grouped into four predominant factors. The rotated sum of squared loading should be greater than 50 percent. The ten variables are

reduced into three predominant factors with the individual variances of 56.078, 64.276, and 72.347. It is also found that the total variance of 10 variables is found to be 72.347 percent which is greater than the benchmark of 60 percent. Moreover, it confirms that the factor segment is the meaningful one.

**1.5.5 Problems faced by bankers while providing Green banking services - Rotated Component Matrix:**

The rotated sum of the square value indicates the cumulative percentage of variances is 72.347. Hence the factorization is more suitable for the problems faced by bankers while providing financial services. Table 4.20 explains the value of the rotated component matrix for the problems faced by bankers while providing financial services.

**Table 1.5  
Problems faced by bankers while providing Green banking services -  
Rotated Component Matrix:**

Variables	1	2	3
Lack of education by the customers	.825		
Customers are not using the debit cards properly	.784		
Customers are not accepting the todays technology	.732		
Technical Issues		.842	
Procedural Issues		.854	
Higher Transaction Cost		.659	
Frequently forgetting the PIN Numbers while using Mobile banking/ Internet banking/Debit/Credit card.			.796
Not Maintaining the proper balance			.791
Cards get blocked because not using properly			.854
Privacy or security of data			.891

Source: Primary Data

**1. Lack of Education:**

The first factor consists of three variables namely; Lack of education by the customers (.825) customers are not using the debit cards properly (.784) customers are not accepting the todays technology (.732), all these factors are considered as **“Lack of Education”**. Among these three factors lack of education has been the most important problems faced by the bankers while providing green banking services.

**2. Technological Issues:**

The second factor consists of three variables namely, Technical Issues (.842), Procedural Issues (.854) and Higher transaction Cost (.659) and all these factors are considered as

“Technological Issues”. Among these three factors procedural Issues has been the most important problems faced by the bankers while providing green banking services.

### 3. Operational Issues:

The third factor consists of four variables namely, Frequently forgetting the PIN Numbers while using Mobile banking/ Internet banking/Debit/Credit card (.796), Not Maintaining the proper balance (.791) Cards get blocked because not using properly (.854) and Privacy or security of data (.891). Among these three factors privacy or security of data has been the most important problems faced by the bankers while providing green banking services.

### 1.6 Relationship between type of banks and Problems faced by bankers while providing Green banking Services - ANOVA

Through the factor analysis, it is identified that Lack of Education, Operational Problems, Technological Issues and Operational Issues are considered the dependent variables. Type of bank is considered an independent variable. The types of bank are State Bank of India, Indian Bank, Indian Overseas Bank, Canara Bank and HDFC bank. To know the level of significant relationship between the type of bank and problems faced by the bankers, ANOVA was used.

*H<sub>0</sub>: There is no significant difference between the type of bank and problems faced by bankers while providing Green banking services.*

**Table 1.6 Relationship between the type of the bank and the problems faced by the bankers while providing Green banking services**

S. No	Preference Factors	Sum of Squares	Df	Mean Square	F	Sig.	
1	Lack of Education	Between Groups	0.87251	3	0.36	0.521	.001*
		Within Groups	143.596	102	0.528		
		Total		105			
2	Technological Issues	Between Groups	5.168	3	3.526	5.894	.001*
		Within Groups	123.537	102	0.389		
		Total		105			
3	Operational Issues	Between Groups	46.415	3	12.612	20.972	.000*
		Within Groups	301.565	102	0.782		
		Total		105			

\* Significant at 0.05 % level

Source: Primary Data

The Table 1.6 reveals the ANOVA test results. Based on the result, the significant value is found to be lower than 0.05 for Lack of education, Technological Issues and Operational

Issues. So, the null hypothesis is rejected and it is concluded that there is a significant relationships between the type of bank and the Problems faced by bankers while providing green banking services.

**Table 1.7 Type of bank and Problems faced by bankers while providing Green banking services – Post Hoc Analysis**

Problems	Mean Score		
	1	2	3
Lack of Education	2.7750	3.15841	3.5912
Technological Issues	2.6186		
Operational Issues	2.8762		

**Source: Primary Data**

The Table 1.7 shows the results of Duncan post hoc- analysis by examining the relationship between type of bank and problems faced by the bankers while providing green banking services. It is observed that lack of education is the major problems faced by bankers while providing green banking services. However compared to technological issues, other problems such as operational issues are at the lower level

**1.7 Conclusion:**

It is concluded that bankers face several significant challenges while providing green banking services. Among the ten identified problem variables, four issues recorded mean scores above 4.00, indicating a high level of concern. These include *Procedural Issues*, *Cards getting blocked due to improper usage*, *Privacy and security of data*, and *Lack of customer education*. Among these, *Procedural Issues* emerged as the most critical problem faced by bankers. This highlights that complexities in procedures, along with customer-related and security-related issues, substantially hinder the effective implementation of green banking services. Therefore, simplifying procedures, strengthening data security measures, and improving customer awareness and education are essential to enhance the successful delivery of green banking initiatives.

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