



A Study on Factors Affecting the Usage of Green Banking In Indore City

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ABSTRACT

Green banking is an emerging trend in the banking industry. After the implementation of green banking the functioning of banking system has smoothed that has enhanced the quality of banking in every aspect. But still customers have a hitch in using it. Thus, the study aims to determine the factors that affect the usage of green banking products and services. With the help of survey on the opinion on green banking products and services usage factors are determined using exploratory factor analysis. The study revealed that factors like accessibility and utility of green banking products and services, availability of bank's help desk affect the intention to use green banking products and services. The issues like procedure of using green banking products and services, security of account and performance of green banking products and services and duress to use them are of major concern. In order to convert this duress to agreement banks need to create more awareness among its customers and gain their trust so that their customers feel secure to use green banking products and services usage.

Keyword: Accessibility, Account, Green banking, Intention, KMO, Security

I. INTRODUCTION

Banks are the major financial institution of any country that deal with mass. Bank is a place where people keep their money safely, when needed they withdraw it from that place. In, India the culture is as old as the Vedic age where people used to save their money and keep it safely at a place and used to save their money and keep it safely at a place and used the money as and when required.

In today's competitive era bank has a very significant role to play. For the economic growth of a country it is necessary that the bank of the country is also growing and has a sound system for functioning. But with the increase in competition among countries economic growth of the world has risen like a shooting star. As said shooting star that has bright light on its tail but when falls on earth makes the place useless, by destroying the flora and fauna of nature. Similarly, the economic development does have brightness in it but as it is falling on earth it is also destroying the flora and fauna of nature. Thus, it become necessary that the

goal of economic development should get merged with the ecological development too and focus on the combination of two i.e. sustainable development.

For sustainable development it became necessity that everyone come together for achieving it and for this reason bank play an important role as it is a place where everyone come together. Thus, banks introduced the 'Go Green' mantra and for following it produced the 'Green Banking System'.

Green banking is a kind of banking that functions like a traditional banking system but does not harm the environment. Green Banking may be called as ethical banking as it takes care of both economic growth and ecological growth.

Considering banks customers people do know about the system but have a hitch in their mind due to which green banking is not becoming successful. Green banking includes internet banking, mobile banking, e-wallets, plastic money, ATMs, etc. with its help paper work of bank has been reduced, transparency between the bank and the customers has increased, carbon footprint is reducing, banks are able to counter their customers problem more easily means due to this customer relationship management of banks has improved but still there is a long way to go for the banks.

Within India, the Green Banking concept is new, and it is gaining its momentum with time. The apex bank of the country has also formulated policies for using and promoting the usage of green banking. After the announcement of demonetization in November 2016, people were forced to use green banking application due to which people are becoming friendly with the emerging technology but still the country has a long way to cover up and stand in the competition with other countries as others are much ahead of India at present.

II. LITERATURE REVIEW

Vijai (2018) has made a study on customers' awareness on green banking initiatives in public and private sector banks and found that green banking is an emerging trend in the banking sector, and it will gain its momentum with time. For this purpose, Indian banks are very committed as green banking not only helps reducing carbon economy but also brings more monetary benefit, reputation of bank, increase in number of customers, retention of customers, environmental sustainability, ease in procedure of banking. Hence, the banks are adopting more effective strategies for implementing green banking in their banks.

Nath et al (2017) have made a study on adoption of green banking within Indian banking sector and found that people are adopting the green banking and banks are able to successfully curtail all the problems of them due to which customers perception regarding green banking has changed as proved by the developed model of technology acceptance model that leads towards environment sustainability.

Shanaya et al (2017) have tried to understand the problems and prospects of green banking and found that there are various opportunities available for banks for implementing green banking for which they only need to do is to formulate sound policies for their short term and long-term goals.

Jayadutta and Nitin (2017) have studied about the opportunities, challenges, initiatives and the avenues for green banking and found that the customers of banks are aware about the green banking and are trying to accept it readily. Banks are trying to put the economy on the same platform in the world where others are standing and for green banking is acting like a tool for them. However, there is a lot of opportunities left for Indian banks to attend and use them.

Shankar (2016) has tried to assess the factors that affects the adoption of mobile banking and found that usefulness is the major impacting factor following the compatibility, awareness, security and privacy risk, self-efficacy, ease of use, financial cost and social influence. These variables drive the mind set of customers that affects their usage of green banking positively or negatively.

Kishore and Sequeria (2016) have made a study on adoption of mobile banking in the rural area of Karnataka and found that mobile banking is considered as the future way of transaction and people of that area have positive attitude for its adoption.

Bahl (2012) had tried to understand the green banking as a new strategy an important step in sustainable development and found that Indian banks are fully aware about the need of the hour that demands them to focus on the green banking as an important strategy for making our nation stand amongst other developed, developing nations in the global market.

OBJECTIVE OF THE STUDY

The main objective of the study is to identify the determining factors that affects the green banking products and services usage by the banks' customers.

The paper is organised as follows- Section 1 deals with introduction, Section 2 contains literature review, Section 3- discusses about research methodology, Section 4- data analysis followed conclusion and policy implications in Section 5.

III. RESEARCH METHODOLOGY

The study was conducted in Indore city and total 300 respondents were chosen via convenient sampling method 75 respondents from each corner of the city. They were given a self-structured questionnaire that contained a set of 23 questions. These respondents were asked to answer based on Likert scale where 5 means strongly agree, 4 means agree, 3 means neutral, 2 means disagree and 1 means strongly disagree.

Statistical tool used for the study

Exploratory Factor Analysis is used to know the factors that is becoming a hitch in using green banking products and services by the customers of banks. The factor extraction method chosen for the study is Principal component analysis as it explains the total variance and the minimum number of determining factor. Principal component analysis is a set of tests used for analysing the data and search out the fewer number of variables than many numbers of variables.

KMO test- it is a test used to measure the sample adequacy that infers the data collected is appropriate to carry out the factor analysis. If value of the test is high, then 0.5 then it indicates that data is adequate for carrying out the factor analysis tool is appropriate on the data set.

Bartlett's test of Sphericity- test carried out on data proves that there is correlation among the variables. If p-value is lower than 0.05 then it shows that there is a correlation among the variables and factor analysis can be conducted on the data set provided.

Rotation method- the rotation method used for the study is varimax rotation as it minimizes the number of variables with high loading on a factor that helps in the interpretation of factors.

Communalities- it unveils the amount of variance a variable share with other variables or in other words it tells the amount of variance in each variable that is accounted for.

For Principal component extraction the correlation is always equals to 1.

IV. DATA ANALYSIS

KMO and Bartlett's test of sphericity

Table 1- KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.901
Bartlett's Test of Sphericity	Approx. Chi-Square	1818.830
	Df	253
	Sig.	.000

The test tests the reliability and validity of the obtained dimension reduction. The value of KMO statistics is greater than 0.5 i.e. 0.901 that proves that factor analysis can be used for given set of data.

The Bartlett's test of sphericity shows the significance of p-value that should be less than 0.05 and the value obtained in the test is 0.000 that indicates that there is correlation among the variables and factor analysis can be used for analysing the data.

There are total six factors who have their eigen values greater than one. The whole model explains 63.938% of the variation for the data set under study.

Construction of Green banking usage factor (GBUF) scale by factor analysis

Table 2- Communalities

	Initial	Extraction
GBUF- 1	1.000	.585
GBUF- 2	1.000	.656
GBUF- 3	1.000	.569
GBUF- 4	1.000	.633
GBUF- 5	1.000	.636
GBUF- 6	1.000	.519

GBUF- 7	1.000	.607
GBUF- 8	1.000	.494
GBUF- 9	1.000	.690
GBUF- 10	1.000	.646
GBUF- 11	1.000	.671
GBUF- 12	1.000	.680
GBUF- 13	1.000	.731
GBUF- 14	1.000	.655
GBUF- 15	1.000	.678
GBUF- 16	1.000	.582
GBUF-17	1.000	.739
GBUF- 18	1.000	.633
GBUF- 19	1.000	.672
GBUF- 20	1.000	.603
GBUF- 21	1.000	.700
GBUF- 22	1.000	.637
GBUF-23	1.000	.701
Extraction Method: Principal Component Analysis.		

Naming of the factors

The last step of factor analysis is naming of the factors. The labelling is intuitively developed by the factor's analysis depending on the appropriateness for representing the underlying dimensions of a factor. The process of naming factors is not systematic and scientific in nature. It reflects only the factor loading and the correlations among the variables. The signs are interpreted similarly like any other correlation coefficient where positive sign means that variables are positively correlated to each other and opposite sign means they are negatively correlated to each other. The varimax rotation method provides orthogonal solution that are independent of each other which means that signs for factor loading relates only to that factor that does not appear with other factors in the solution. All six factors extracted have been given appropriate names. The naming of the factors, the statement label and factor loading has been summarized in the following table. The six factors shown in table have been discussed below.

Table 3- Factor Name of Dimension Label Statement (Factor Loading)

Factor 1-Accessibility and Utility of Green Banking Products and Services		
Q.7	Usage of green products and services has brought more transparency between the bank and its customers	.464
Q.19	Using green products and services has cut down the cost of travelling to bank	.725
Q.20	Using green products and services has reduced paperwork	.693
Q.21	Using green products and services has saved my time for other works	.779
Q.22	Using green products and services means promotion low carbon footprint (less use of ink, fuel, print) in the environment	.744
Q.23	Organizing my bank account and its activities has become easy with the help of green products and services	.773

Q.6	Green products and services provided by my bank can be accessed from any place	.445
Factor 2- Availability of Bank's Help Desk		
Q.12	With the help of green products and services my bank is available to me 24 by 7	.599
Q.13	My bank provides information regarding the green products and services	.760
Q.14	My bank's employees are well equipped with information regarding their green products and services	.647
Q.15	My bank's website is interactive to introduce green products and services to its customers	.654
Factor 3-Intention to Use		
Q.1	I am a tech friendly person therefore I readily accept new Green products and services introduced by my bank	.625
Q.2	Green products and services introduced by banks are easy to use.	.660
Q.3	My bank assists me in using its Green products and services at every step.	.593
Factor 4-Procedure of Using		
Q.16	System failure during a transaction is very rare	.686
Q.17	My bank keeps its website up to date	.811
Q.18	Procedure for using green products and services is easy	.504
Factor 5- Security of Account		
Q.9	Transactions done through green products and services are more secure than manual procedures	.660
Q.10	Green products and services take the responsibility of not sharing the bank account details to any other person	.617
Q.11	Bank's green products and services are efficient in handling the problem of phishing and hacking	.665
Factor 6- Performance of GBPS and duress to use them		
Q.4	I use green products and services only when it is compulsory for me	.721
Q.5	I will use the green products and services when I have taken feedback on its performance from other customers	.696
Q.8	Safety of my hard earn money is my priority, thus I am reluctant to use green products and services	.633

Factor 1- Accessibility and Utility of Green Banking products and services

The above table reflects that accessibility and utility of green banking products and services is the most prominent factor as it explains 18.114% of total variance. Seven variables were loaded on this factor and they are highly correlated. The factor is named like Accessibility and Utility of GBPS because it includes the benefit of green banking products and services usage and its accessibility to people like transparency between banks and customers, cutting down of travel cost, reduction in carbon footprint, organisation of bank accounts in proper manner, time savvy due to usage of Green Banking products and services.

Factor 2- Availability of bank's help desk

The next factor that explains the model is named as Availability of Banks' Help Desk. The total variance explained by the factor is 11.116 percent. As the variable includes availability

of bank to the customer for 24 by 7, information regarding Green Banking products and services, interactive website for using Green Banking products and services, bank employees can resolve the customers issue regarding the usage of Green Banking products and services.

Factor 3- Intention to use

The third factor is named as Intention to Use. This factor explains 10.501 percent of total variance. It includes tech friendliness of the customers, bank's assistance to use GBPS and ease of using the Green Banking products and services.

Factor 4- Procedure of using Green banking products and services

This factor explains the variance 9.858 percent of the whole model and it is named as Procedure of Using Green Banking products and services. It includes updating of website, number of system failure during transaction and easy procedures for using Green Banking products and services.

Factor 5- Security of Account

Three statements are loaded into this factor explaining 7.315 percent of variance. This factor is coined as Security of Account. This includes secure transaction from green banking products and services, confidentiality of the customer's accounts and efficiently handling the problem of phishing and hacking by the banks.

Factor 6- Performance of Green Banking products and services and duress to use them

The last factor is named as Performance of green banking products and services and duress to use them This factor includes three statements which are significantly loaded in the context of compulsion to use green banking products and services, feedback for the performance of green banking products and services and safety of hard earn money. This factor explains 7.084 percent of variance.

V. CONCLUSION AND POLICY IMPLICATION

The result shows that people are more concerned with the accessibility and utility of using the green banking products and services. The customers may use the green banking products and services if banks' help is available to them either via print or electronic media or by employees. The intention to use green banking products and services is majorly determined by the bank policy and strategies to implement green banking products and services and make customer look over the risk factor associated with it by its easy procedures to use green banking products and services. This can be achieved by improving the performance of green banking products and services and the duress will become approval for using green banking products and services by the customers.

The banks need to understand the urge of creating more and more awareness programme for its customers for using green banking products and services. The risk associated should be



tackled more tactfully with their strategies. The problem of accessing the green banking products and services should be checked so that people are not forced to use traditional and conventional manner of banking. In simple words, banks have a long way to ride which is only possible if they have good strategies and policies to implement from their end.

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