GREEN BANKING PRACTICES: A STUDY ON ENVIRONMENTAL STRATEGIES OF BANKS WITH SPECIAL REFERENCE TO STATE BANK OF INDIA

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ABSTRACT

The world faces a great challenge of environmental degradation during the process of economic development. Banking sector as responsible stakeholders in this regards can do better contribution towards the environment by adopting various green banking practices. Green banking practices mean promoting environment-friendly practices and reducing carbon footprint from day to day banking activities. Green banks or environmentally responsible banks do not only improve their own standards but also affect socially responsible behavior of other business. Banks in India especially the largest commercial bank State Bank of India has developed several green banking initiatives. Recently the bank has introduced various paperless banking practices for their customers. Adopting these practices the customers can contribute a lot towards the environment. This paper aims to highlight the green banking initiatives made by SBI in Assam and attempt has been made to discuss the environmental and other benefits of these practices.

Keywords*: Eco-friendly, GCCs, Green Banking Practices, Sustainable Development*.

Introduction:

Banking sector as one of the major stakeholders in the industrial sector needs to play a proactive role in sustainability. Sustainable banking means using all of the banks resources with responsibility and care, avoiding waste and giving priority to choices that take sustainability into account. Sustainability denotes ensuring continuity of economic progress for the present generation without reducing the possibilities and choices for the posterity. It requires that decisions taken today do not compromise options for the future. Banks themselves are generally environment friendly and do not impact the environment much through their own internal operations. However they are responsible as the major contributors of finance to industries like steel, paper, cement, chemicals, fertilizers, power, textiles, etc. that are responsible for creating huge carbon emission. Therefore, banks are adopting a voluntary set of guidelines for managing social and environmental issues related to the financing of development projects.

Banks as financial institutions are environmentally neutral. They are not directly related with the environment. They are considered to be in the non-polluting sector, and do not impact the environment much through their own internal operations. However, they can still be held responsible because the huge carbon emitted industries are set up with the finance provided by them. These industries harm the fragile environment, present population and the posterity of a nation. Hence, banks have to undertake some green growth initiatives within and outside their organizations for the creation of a strong and successful low carbon economy. However, Banks are now playing a vital role towards the green growth through their green banking practices.

The role of banks in energy saving and cutting emissions is well established in developed economies, but it is still in the infant stage in India. Indian banks are not taking any big initiative towards the direction of environment and they have really a big role to play (Prasad, 2011). None of Indian banks have adopted global environmental and social guidelines at the time

of project finance which are known as 'Equator Principles'. Till date 77 financial institutions of the world have adopted these principles. There is certainly a lack of awareness of the Equator Principles in India.
In-spite of a lot of opportunity in green banking, Indian banks are far behind in the implementation of green banking, only some of banks have initiated towards green banking. None of the Indian Banks have so far adopted green banking as a business model for sustainable banking (Bahl S., 2012). There is more scope for all banks and they can not only save our earth but can transform the whole world towards energy conscious. Banks must literate their customers about green banking and adopt all strategies to save earth and build banks' image (Verma M. K., 2012). It is time now that India takes some major steps to gradually adhere to the equator principles-guidelines that use environment -sensitive parameters, apart from financial, to fund projects (Biswas N., 2011).

Literature Review:

Financial Institutions having Corporate Social Responsibility (CSR) are treating sustainability as a business strategy and opportunity – not as an add-on, feel-good charitable endeavor (Strandberg C. 2005). Banks consume natural resources which add to the pressure on the environment and also because banks enjoy the affiliation of the majority population of any country (Srivatsa H.S., 2011). Therefore, banks should go green and play a pro-active role to take environmental and ecological aspects as a part of their lending principle (Sahoo, P. and Nayak, B.P., 2008). However, banks as the financial intermediaries play a vital role in the economic development of a country. All of the banks either have or are in the process of developing a sustainable strategy; the growing environmental concerns and credit risks are currently the primary drivers of pursuing environmental sustainability (Dlamini T. H., 2010). In order to achieve the goal of sustainable banking, banks such as commercial banks have to adopt proactive strategies for reducing internal operation risks from environmental issues thereby realizing long-term profitability by external financing of environmentally friendly products and services (Guo H., 2005).
Commercial banks, governments, multilateral agencies and company managers are sensitive to environmental impacts when making financial decisions (Pandey V.C., 2003). Sustainable development is defined as the process of development that meets the need of the present generation without compromising the ability of the future generations to meet their need (Panigrahi A. K. & Jena N., 2010). Triodos Bank is a bank with a difference, the bank finances only enterprises which add social, environmental and culture value – in fields such as, renewable energy, social housing, complementary health care, fair trade, organic food and farming and social business (Dash R. N., 2008).

Objectives of the paper:

Keeping in mind, the most important concern about corporate social responsibility, this paper is an attempt to highlight the eco-friendly banking practices undertaken by the SBI in India. The study also aims to investigate the awareness and adoption level of these practices in the state of Assam. The main objectives of the paper are:

i) To highlight the green banking practices introduced by the SBI in the country.
ii) To discuss the impact of green banking practices on sustainability by evaluating their benefits.
iii) To investigate the customers' awareness about green banking practices and their adoption level in Assam.

Methodology:

The present study has incorporated with the collection of both primary and secondary data. The study has been conducted in Assam. For collecting primary data, structured questionnaires have been designed with the mixture of close ended and open ended questions and 486 customers of State Bank of India have surveyed using convenience method of sampling. Some questions have also been designed on five points Likert Scale with 'Strongly Agree' dictating the highest level of believe, and 'Strongly Disagree' as the highest level of disbelieve. Primary data have also been collected by visiting the local head offices and bank branches. The data so collected have been processed using statistical package SPSS-16 version. Secondary information have been collected from different relevant books, journals, newspapers and published reports of the State Bank of India and Reserve Bank of India. Information also has been collected from different websites for the study.

Duration of collection of data:

The data have been collected for this study in between March 2012 to July 2013.

Population of the study:

There are 287 numbers of SBI branches all over Assam as on 17th September, 2012 (RBI Branch locator). The number of customers of State bank of India in Assam has mentioned below in tabular form.

Table 1: Number of customers of SBI of various Accounts in Assam as on March 2011

Types of Accounts	Number of Customers
Savings Bank Accounts	37,21,250
Current Deposit Accounts	60,743
Fixed Deposit Accounts	4,86,061
Total	**42,68,054**

Source: Basic Statistical Returns of Scheduled Commercial Banks in India

Size of the Sample:

As per the 'Sample Size Table' available at research-advisors.com the size of the sample for our study has to be 384. However, in response to our distributed questionnaires, 486 respondents have responded and all these respondents have been included in the study. Since the green practices that are adopted by different branches of the SBI are as per the specific directions of the authority as well as the Government, our respondents can be regarded as homogenous in nature. So the selected sample has clearly represented the population.

Technique of analysis of data:

The collected data has been processed and analyzed by applying the SPSS (Statistical Package for Social Sciences) Version-16. Descriptive analysis techniques like average, percentage, frequencies etc. were performed on the data for getting an overall structure of the sample. Tabulation and creation of pictorial presentation has been done wherever found appropriate.

Meaning of Green practices of Banks:

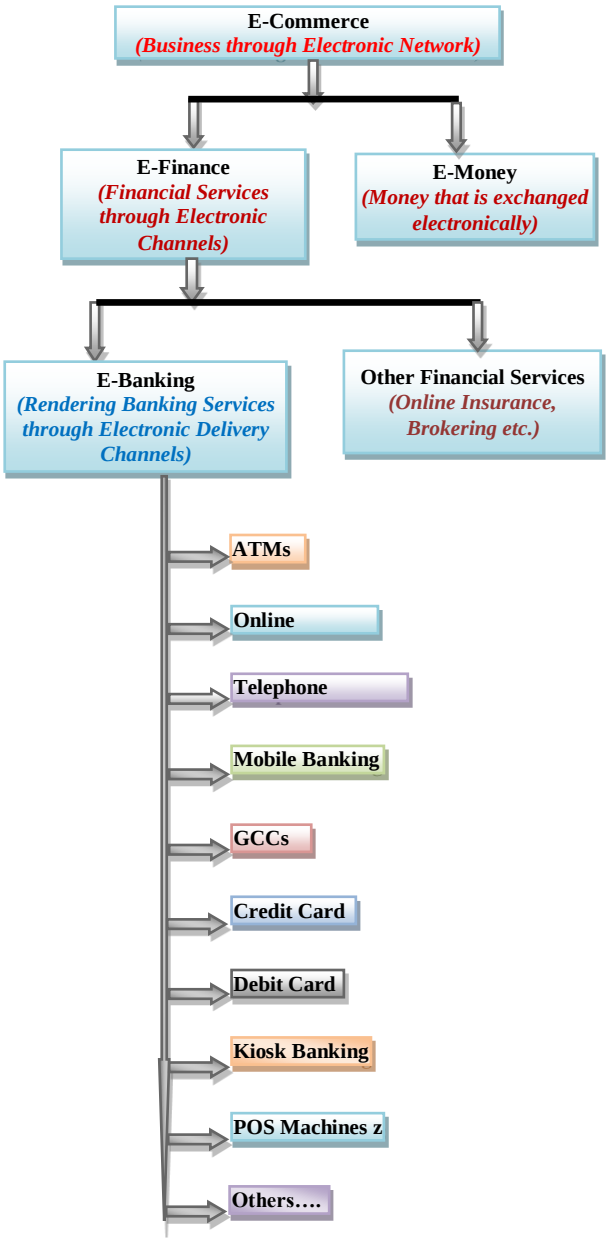
Green practices of banks popularly known as 'green banking' refers to the environment-friendly initiatives taken by the banks to reduce the carbon footprint from their day to day banking activities and also to minimize the external carbon emission. Green practices of banks are the efforts of the banking sector to keep the environment green and to minimize greenhouse effects through rationalizing their strategies, policy, decisions and activities pertaining to banking service, business and in-house operational activities. It strategically promotes green industry, including environmental pollution prevention projects and renewable energy development projects. Green projects which produce green products are healthier for the planet and everyone living on it. Production and use of such products help in conserving natural resources, energy etc. for future generation.

Sustainable Green Banking:

Sustainable bank is a bank concerned with the social and environmental impacts of its investments and loans. It refers to the initiative taken by banks to encourage environment friendly investments, to give lending priority to those industries which have already turned green or are trying to grow green and thereby help to restore the natural environment. The green banking is rewarding! It is not only beneficial for the banks and the economy but for the normal customers. This initiative of green banking is mutually beneficial to the banks, industries and the economy (Harris K A and Sahitha Abdulla).

Green practices of banks are the practices adopted by the banks as well as the customers aim to achieve the goal of a low-carbon economy. Green banking is a win-win situation for all participants. Fig-1 shows the road map of the various green banking practices adopted by the banks in India. Adopting these green banking practices the customers can help the environment by reducing carbon emission and they would also get benefited by saving their valuable time.

Fig 1: Roadmap of Green Banking Practices

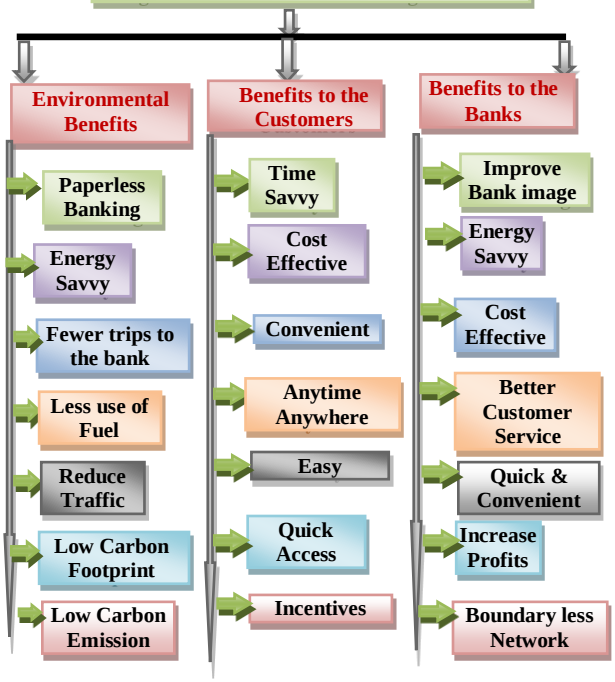


Benefits of green banking practices:

Green Banking is a type of banking in just one click. Green banking is faster, easier and eco-friendly. It helps to reduce our carbon footprint. Adopting these practices we can not only reduce our carbon footprint

but make our lives simpler and more efficient. Choosing the option of online banking available through almost all banks, we can automatically remove the hassle of filing financial paperwork. Green banking is really a good way for people to get more awareness about global warming. It will contribute a lot to the environment and make this earth a better place to live. By adopting green banking practices, businesses will not only be helping the environment, but will also benefit from greater operational efficiencies, a lower vulnerability to manual errors and fraud, and cost reductions (Barry C and Murchie J, 2009). The overall benefits of green/ethical banking can discuss from three angles:

Fig: 2 Benefits of Green Banking Practices



Benefits to the Merchants & Traders

- Ensure assured quick payment and settlement to the various transactions
- Provide a variety of low cost services on par with the international standards
- Cost and risk problems of handling cash are avoided
- Lead to the growth of global and local clientele base
- Other benefits like improved image, improved customer service, eliminating paper work, reduced waiting costs and enhanced flexibility etc.

Benefits of green banking towards the Environmental:

Adoption of green banking practices will benefit the environment in many ways. Banks can do much more to help the environment by just promoting green banking. Use of green banking practices will result savings of energy, fuel, paper as well as water. As for example, use of paperless ATMs, Online Banking, Mobile Banking and Tele-banking will result savings of fuel as well as paper. For green banking operation customers need not go to the bank physically. This will reduce the consumption of fuel and also minimize carbon emission. This will also result less vehicles on the road. Green banking practices are paperless banking practices. Hence, it will save paper.

Benefits of green banking towards the customers:

Green banking practices are very convenient, easy, cost effective and time savvy for the bank customers. Customers need not go to the bank for banking transaction; hence they can save time as well as money. It is a type of anytime-anywhere banking.

Benefits of green banking towards the bankers:

Green banking can reduce the need for expensive branch banks. Green banking practices are also very convenient, cost effecting and time savvy for the bank employees. From a bank's perspective, it can reduce costs, increase the speed of service, expand the market, and improve overall customer service (Du J. 2011). A bank can lower their own costs that result from paper overload and bulk mailing fees as more customers use online banking.

Benefits to the merchants and traders:

Green banking practices through E-banking system also help to the merchants and traders. It ensures assured quick payment and settlement to the various transactions made by the traders. It provides a variety of services to the businessmen at par with the international standards with low transaction cost. Cost and risk problems involved in handling cash which are very high in business transactions are avoided. It leads to the growth of global and local clientele base with the development of e-Banking.

Green Banking Practices of SBI:

SBI has become the first bank in the country to venture into generation of green power by installing windmills for captive use. As part of its green banking initiative, SBI has installed 10 windmills with an aggregate capacity of 15 MW in the states of Tamil Nadu, Maharashtra and Gujarat. As stated by former Chairman O P Bhatt they have planned to install more windmills in near future. The bank also supports the green initiatives of its clients and offers them finance on priority and at concessionary rate of interest. The bank has launched a loan product called 'Carbon Credit Plus' to finance the future Clean Development Mechanism (CDM) projects. The bank launched its 'Green Banking Policy' in the Bengal circle and decided to run 50 ATMs out of 850 ATMs on solar energy in Bengal. The bank will run more and more ATMs by solar energy to reduce their power consumption and planned to introduce five lakh Point of Sale (POS) terminals across the country in the coming years. The recent green banking initiatives also include paperless banking for customers, clean

energy projects and the building of windmills in rural India.

State Bank of India intends to bring down its carbon footprint and to save energy through several green banking practices. The bank is offering more than 20 green projects throughout the country. Some of the green practices are- Green Channel Counter, Automated Teller Machine, Cash Deposit Machine, Internet Banking, Mobile Banking, Credit Card, Debit Card, Virtual Card, Green Self Service Kiosks, SMS Unhappy Scheme, Green Home Loans, Solar Projects, Wind Mills, Green Projects Loan, Viswayatra Foreign Travel Card, Fruit bearing tree plantation, Rain Water Harvesting Projects in the Bank Offices, Green Banking Practices for the employees, Leader of the Group of Public Sector Banks for Solar Projects, etc. The most important paperless banking introduced by the SBI is Green Channel Counters (GCCs). Three types of transactions namely withdrawal, deposit and transfer of funds up to a limit of Rs. 40,000 per day can be performing through the Point of Sale Machines used in GCCs.

SBI as Leader in the Field of Green Banking Practices in India:

Almost all the banks in India are adopting various green banking practices during the present days. However, India's largest commercial bank the State Bank of India is taking a leading role in the field of green banking in India. State Bank of India has become the country's first bank to venture into generation of green power by installing windmills for captive use. As part of the SBI's ongoing 'Green Banking' initiatives, windmill project has been successfully commissioned and power thus generated is being consumed by their branches/offices in the States of Maharashtra, Gujarat and Tamilnadu. This reduces dependence on polluting thermal power to the extent of renewable power generated by the Bank's windmills. The imperatives of sustainable usage of resources, including energy and efficient disposal of wastes have been effectively propagated amongst the stakeholders, in the form of adopting energy efficiency measures, efficient usage of paper and water, installation of Solar ATMs, introduction of paperless Green Channel Banking and point of sale machines (POS). The bank is also implementing thousands of Green Kiosks to reduce the need for paper. Another green initiative the bank has introduced is 'Green Home Scheme'. Under Green Homes Scheme the bank offers subsidy and interest rates reduction to supports environment friendly housing projects. The recent step towards the green banking of the bank is introduction of Cash Deposit Machines in some selected places.

Table 2: Expanding foot prints of SBI through Alternate Channels

		Mar '11	Mar '12	Mar' 13
Branches	No. of Group Branches	18,266	19,193	20,325
	No. of SBI Domestic Branches	13,542	14,097	14,816
	No. of Overseas Offices	156	173	186
ATMs	No. of ATMs of the Group	25,005	27,286	32,752
	No. of ATMs of SBI	20,084	22,141	27,175
	Average hits per day	285	285	262
Debit Cards	No. of Debit Cards (in lakh)	728	910	1,104
Internet Banking	No. of Customers (in lakh)	62.57	89.63	100.3
	No. of transactions during the FY (in lakh)	1,437.46	2,610.32	4,205.00
Mobile Banking	Registered Mobile users (in lakh)	10.13	36.45	66.2
	No. of successful financial transactions (in lakh)	49.30	190.65	358.9
	No. of Non-financial transactions (in lakh)	95.23	317.72	NA
Merchant Acquiring	No. of POS Terminals	5078	10,673	65,514
	No. of Transactions (in lakh)	2.6	10.2	90.4
Contact Centre	No. of registered customers (in lakh)	9.96	15.31	NA
Alternate Channels	Percentage of total transactions on alternate channels	27.7	33.3	35.7

Source: SBI Annual Report 2011-2012/Analyst Presentation FY 2012-13 p 51

The Bank has been encouraging customers by extending project loans on concessionary interest rates to reduce Green House gases (GHGs) emissions; by adopting efficient manufacturing practices through acquisition of latest technology. The Bank also arranges consultancy services by roping in the services of empanelled CDM consultants in CDM (Clean Development Mechanism) registration process. The Bank has also launched a loan product to facilitate upfront finance to the project developers by way of securitization of Carbon Emission Reduction (CER) receivables.

The SBI effectively propagates and implement sustainable usage of resources including renewable energy by adopting energy efficient measures. The bank is the largest deployer of solar ATMs in the World, Saving more than 2000 tons of CO_2 per year. The bank extends project loans on concessionary interest rates to encourage customers to reduce Green House gases by adopting efficient manufacturing practices (SBI Directors' Report 18 May, 2012).

Besides, it has a scheme (Carbon CreditPlus) for securitising carbon credit receivables. The bank has initiated a pilot project to determine its Carbon footprint levels, which will help in determining the banks resource consumption pattern and enable the bank to take effective steps to implement various measures for sustainable usage in a cost effective way. Special drive for fruit bearing tree plantation during monsoons was taken up across all Circles, which has been very successful and sustained efforts are being made to ensure the survival of the plants as well (SBI Annual Report 2011-12).

The above Table shows the expanding foot prints of the SBI through alternate channels during the last three years. It clearly indicates the increasing trend of various alternative green banking channels namely ATM, Debit Cards, Internet Banking, Mobile Banking etc. This table also shows the increasing trend of percentage of total transactions on alternate channels of the bank. Currently about 36 percent of the transactions done by 200 million customers of the SBI is through non-branch alternate channels such as internet, mobile, ATMs, PoS terminals etc.

Results and Discussion:

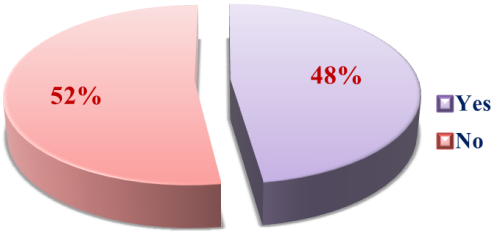
Adoption of various green banking practices is now up to the customers. Every small step taken today by them will have a positive impact on the future of our planet. If they choose various alternative channels for their day to day banking transactions instead of going to the bank branches physically, it will have positive impact on three aspects viz. the customers themselves, the bank and the environment as a whole. However, the use of various necessary infrastructural tools for this purpose namely internet and mobile is dramatically going up during the last few years. The primary data that collected from the respondents have been processed through SPSS Virson-16 and the following observations have been made.

Table 3: Respondents heard about green practices of banks

	Heard about	Percent
Yes	232	47.7
No	254	52.3
Total	**486**	**100.0**

Source: Primary Data

Fig 3: Respondents heard about green practices of banks



Source: Primary Data

It was found from the study that more than 50 percent of the respondents have not even heard about the green banking practices of banks. However, most of them are using various green banking practices unknowingly. Therefore, this study reveals that people are not yet fully aware about green banking practices.

Adoption level of various Green Banking Practices:

Table 4: Users of ATM

User of ATM	Respondents	Percent
User	463	95.3
Non-User	23	4.7
Total	**486**	**100.0**

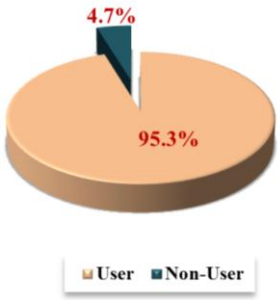
Source: Primary Data

Table 5: Frequency to use the ATM per month by the respondents

No. of times use ATM per month	Respondents	Percent	Cumulative Percent
1-3 times	190	39.1	39.1
3-5 times	141	29.0	68.1
5-10 times	71	14.6	82.7
Over 10 times	60	12.3	95.1
Do not use	24	4.9	100.0
Total	**486**	**100.0**	

Source: Primary Data

Fig 4: Users of ATM



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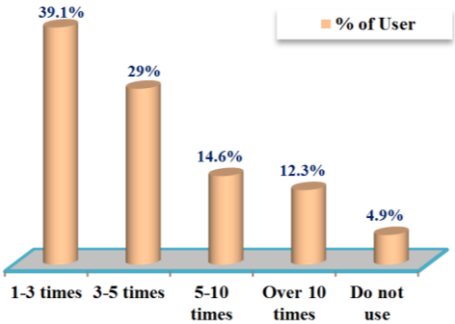


Source: Primary Data

The study also significantly found that as much as 95.3 percent of respondents use ATM. Out of them 68.1 percent visits the ATM maximum of five times per month. 26.9 percent respondents use to visit the ATM more than 5 times in a month.

Table 6: Users of GCCs

User of GCCs	Respondents	Percent
User	122	25.1
Non-User	364	74.9
Total	**486**	**100.0**

Source: Primary Data

Table 7: Frequency to use the GCCs per month by the respondents

No. Of times use GCCs per month	Respondents	Percent	Cumulative Percent
1-3 times	102	83.6	83.6
3-5 times	13	10.6	94.2
5-10 times	3	2.5	96.8
Over 10 times	4	3.3	100.0
Total	**122**	**100.0**	

Source: Primary Data

Fig 6: User of GCCs

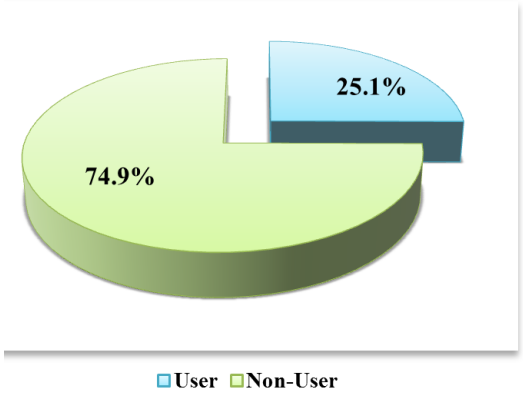
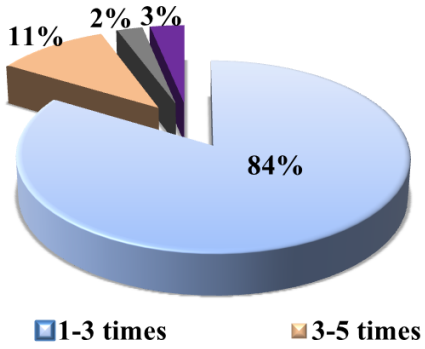


Fig 7: Frequency to use the GCCs per month



Source: Primary Data

The newly introduced eco-friendly Green Channel Counters (GCCs) is still in their infant stage in Assam. Only 25.1 percent of respondents use this facility. Remaining 74.9 percent respondents are either ignorant about the facility or not willing to use this banking practice. On the other hand 84 percent of respondents use it 1 to 3 times per month whereas remaining 16 percent respondents use it more than 3 times per month.

Table 8: User of Online Banking

User of Online Banking	Respondents	Percent
User	95	19.5
Non-User	391	80.5
Total	**486**	**100.0**

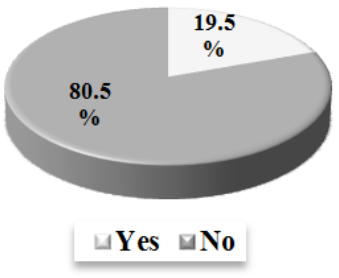
Source: Primary Data

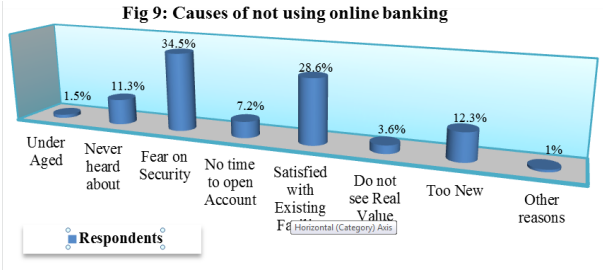
Table 9: Causes of not using online banking

Causes	No. of Respondents	Percent	Cumulative Percent
Under Aged	6	1.5	1.5
Never heard about	44	11.3	12.8
Fear on Security	135	34.5	47.3
No time to open Account	28	7.2	54.5
Satisfied with Existing Facility	112	28.6	83.1
Do not see Real Value	14	3.6	86.7
Too New	48	12.3	99.0
Other reasons	4	1.0	100.0
Total	**391**	**100.0**	

Source: Primary Data

Fig 8: User of Online Banking





Source: Primary Data

The study significantly observed that only 19.5 percent of the total respondents are using online banking. Out of the remaining 80.5 percent respondents who are not user of online banking, maximum of 34.5 percent of them do afraid of the security problem on the online banking. Remarkable 28.6 percent respondents are satisfied with the existing facilities provided by the bank i.e. traditional banking and ATM. Notable thing is this 11.3 percent respondents have not yet heard about online banking and 3.6 percent respondents do not see any real value on online banking.

Table 10: User of Mobile Banking

User of Mobile Banking	Respondents	Percent
User	96	19.8
Non-user	390	80.2
Total	**486**	**100.0**

Source: Primary Data

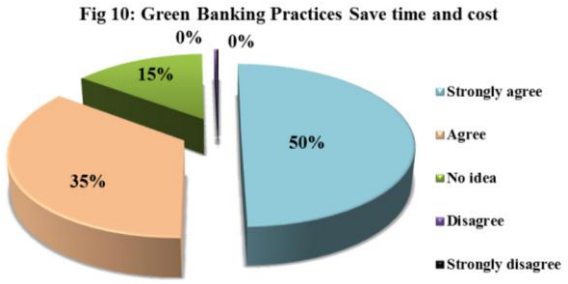
Only 20 percent of the total respondents use mobile banking. However, 26.5 percent respondents belonging to urban area use this banking delivery channel against only 10.9 percent that of respondents from village areas.

Table 11: Level of acceptance of the respondents regarding the effect of green banking practices on environment, cost and time

Level of Acceptance	Green Banking Practices are environment friendly		Green Banking Practices save time and cost	
	Respondents	Percent	Respondents	Percent
Strongly agree	224	46.1	242	49.8
Agree	168	34.6	172	35.4
No idea	84	17.3	70	14.4
Disagree	4	.8	1	.2
Strongly disagree	6	1.2	1	.2
Total	**486**	**100.0**	**486**	**100.0**

Source: Primary Data

The respondents have been asked about their views regarding the impacts of various green banking practices on the environment. It was found that 80.7 percent of respondents feel, by adopting various green banking practices they can contribute some sorts of help towards the environment by saving paper as well as energy. Obviously, they are agreeing that green banking practices are environment friendly. However, 17.3 percent of respondents are having no idea about this and only 2.0 percent respondents disagreed with this statement.



Source: Primary Data

The respondents were also asked, whether the adoption of various green banking can save time as well as cost for the customers or not. As much as 85.2 percent respondents agree that adopting various green banking practices instead of going to the bank physically for banking transactions can save time and cost, and hence, they are beneficial to the customers. However, 14.4 percent respondents do not have any idea and only 0.4 percent respondents disagreed in this regard.

Concluding Remarks:

This paper concluded that green banking clearly has direct and positive impact on sustainability. Because doing these practices customers can save energy, fuel, paper, water, time as well as money. Significantly it results reducing the carbon footprint from their banking practices. Green banking practices are very convenient, easy and cost effective for the bank customers. It saves the customers trips to the bank. They need not to go to the bank for banking transaction; hence they can save time as well as money. It is a type of anytime-anywhere banking. Green banking practices are also beneficial to the banks because they cause less postage cost and also reduce the workload of the bank personnel.

So far as green banking is concerned Indian banks are far behind their counterparts from developed countries. The common people are yet to come forward to adhere these practice due to lack of awareness. Therefore, banks must literate their customers about the using procedures of green banking practices and adopt all strategies to save earth.

Recommendations:

It is recommended that there should be sufficient publications both from the bankers' side and also from the government side to aware about the environmental impacts of various green banking practices. Seminar and workshops regarding this aspect should be organized and public meetings are to be arranged by

the banks to make people familiar about the using procedure of e-banking practices.

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