UNDERSTANDING OF PEOPLE'S PERCEPTION ABOUT GREEN BANKING: A NEW MILLENNIUM APPROACH

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Abstract

The unprecedented Covid-19 pandemic ruined the world economies leading to uncertainty, volatility gripping the whole world and putting question mark on the long term existence of business, environment and people. Sustainability and liquidity becomes the core issues for policy making for supporting lives and livelihood in the post pandemic world. Banking sector ensures liquidity in the economy and promotes growth and development of economy. The changing paradigm of sustainability embraces banks to adopt green banking practices to control the problem of Nonperforming assets (NPA) and to address the issues of sustainability and liquidity in the post pandemic economy. To understand how well Indian banks are adopting green banking practices, a study has been conducted to understand the perception of common people about the green banking practices. The policymakers will get a holistic view about the awareness of green banking practices and identify the areas for further development of green banking in India.

Keywords: Green Banking, Ethical Banking, Digital Banking, Sustainability, Transparency.

I. INTRODUCTION

The recent spate of bad loans and the emergence of Covid pandemic across India have made following green banking practice a necessity to move forward in the volatile and uncertainty gripped economy. The changing paradigm for sustainable development is forcing all industries to adopt such practices which lead to perennial existence of long term triple bottom line 'people, planet and profit'. Profit is the basic element for growth and development of business but human is the fundamental element that provides life, dynamism, creativity and innovation to this otherwise static lifeless business enterprises and Mother Nature is the life blood for human survival and the resource storehouse for growth and survival of business. Excessive focus on profit maximization in short run has led to over emphasis on materialism which ultimately led limitless exploitation of natural resources, disregarding the general principle that human desires are unlimited but resources are limited. The unwarranted exploitation of resources is a product of ill-fated short term decisions. The impact is destruction of both monetary and environmental wealth. Even though the pandemic has brought cataclysmic effect on mankind and economy but has shaken our stereotype decision making practices and made sustainability the epicenter of decision making. The theme of sustainable development got flourished and recognized in every business sector along with financial sector. The need for sustainable financing paved way for development of ethical banks or sustainable banks which are popularly known as green banks.

However green banking is still an evolving concept in India but it has gained momentum worldwide after the Global depression of 2008. The financial crisis made sustainability the core issue for existence of large financial institutions. Ethical banks develop itself as sustainable and responsible institution, keeping in mind the social, human, environmental and governance aspect in decision making to improve their long term performance. USA and European countries along with several developing countries saw the growth of sustainable banks. Ethical banks were seen as an alternative to normal traditional banks after the financial crisis of 2008 throughout the world (Simona, 2010).

Generally it seems that banks have a very little role to play in the growing narrative of sustainability but in reality they are an integral and intrinsic part of every business decision making process. Banks do not get classified under polluting industries but it is their fund which gets pumped into the polluting industries. Banks are the fund houses which chugs the growth engine of the business enterprises and in turn banks need to reorient themselves as ethical and social centric responsible investment houses. Further series of scam has diminished the confidence and trust of general public to put their money in banks as people's money gets financed to dubious industrialists and faulty projects due to poor credit appraisal. Moreover the collusion of top management and the industrialists visible in the several high profile cases like Nirav Modi scam, ICICI bank- Videocon group case has further diminished people's confidence in banking sector. These scams highlighted the need for transparency and accountability in the working of banks.

The nationalization of banks and introduction of priority sector lending was done to augment the economic and social development of the country and enable banks to grow as a socially responsible institution. However in real practice it has been observed banks in pursuance of short term profit maximization goal are reluctant to fund small businesses, small lenders, social institutions and local cottage industries making different handicraft items. The pandemic showed that investment in healthcare and education is to be done in priority basis to ensure sustainability of mankind and knowledge over the years.

II. CONCEPT OF GREEN BANKING

The growing narrative of sustainability, transparency, accountability in banking practices and developing bank as a socially responsible financing institution paves way for development of ethical banks and adoption of ethical banking practices. Ethical banks are also called social, sustainable or green banks. Green banks recognize social and environmental responsibility and adopt such green banking practices which reduce both internal and external carbon emission. It provides eco-friendly banking practices to customers and finances eco-friendly and social projects, thereby reducing carbon footprint. Green banking improves the asset quality of banks by mitigating following types of risks:-

1. **Credit risk:** Credit risk simply means the risk of defaulting a loan taken by borrower. The growing green consumerism may lead to closure of polluting business houses. The closure of such business houses will indirectly affect the credit portfolio of banks as non performing assets will escalate in the books of bank.

2. **Legal risk:** This type of risk arises from non compliance of rules and regulation. It can be faced by bank itself on non compliance of environmental regulations. It can come up indirectly when bank takes possession of polluting assets of borrower and made to pay demurrages and penalties. The enactment of CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act, 1980) type act, like in USA, may entail to payment of remediation cost by banks as it knowingly funded clients responsible for environmental pollution.

3. **Reputation risk:** The growing green consumerism may lead to reputation risk for banks. The reputation risk arises when banks are involved in funding of socially and environmentally objectionable projects. The loss of reputation is difficult to ascertain as it cannot be quantified in metric terms accurately.

The different risks cumulatively amplify the cost structure of banks as legal costs; provision for contingent liabilities and provisioning for bad loans escalate. The development of environment management system to detect, assess and rectify the environmental threats emerging directly and indirectly within the banking system will help to reduce cost structure, improve asset quality, better operating margin and sound image buildup of banks nationally and globally.

III. LITERATURE REVIEW

Choudhary (2019) claimed that the production of information and communication technology (ICT) goods and services influenced the qualities of services rendered in the financial sector. Emergence of digitization led to innovation and growth in the economy. The securities markets are achieving the state of modernization and maturity due to progress in the business, economic, social and technological (BEST) environment in our country.

John et.al (2018) emphasized the need to recognize ethics as the core of banking operations. Ethical banking not only reduces credit risk but also reduces non-monetary risks like reputation risk, environmental risk etc. Further ethical banking practices ensure transparency, accountability, trustworthiness of banking entity. Moreover it was concluded that legislation alone cannot ensure credit discipline unless bank follows ethical banking practices. Lastly ethics lead to superior decision making which results in better economic and social development.

Deka (2016) studied the eco-friendly banking practices adopted by State Bank of India and the level of awareness about such green banking practices among bank employees and customers in Assam. The study concluded that several green banking practices adopted in banking operations and customers are using it unknowingly. Moreover the awareness among bank employees are also poor. So it recommended for training programs to be initiated among employees to educate the customers about the benefit of using green banking practices. Further adequate measures need to be taken to prevent hacking to popularize the use of alternative banking channels.

Sahoo, Singh and Jain (2016) analyzed the adoption of green banking products among customers of different age groups. The study revealed that younger generation is more inclined towards green banking products. More awareness program is required among middle and senior age group people to make them adopt green banking products.

Dipika (2015) studied the green banking strategies adopted by Indian banks but fund out that our banks are way behind the global counterparts. The author identified the challenges in implementing green banking strategies. One of the major challenges is lack of concern for environment. Government has not framed any proper environment legislation, lack of environment audit and very poor attention to environmental risk management system. The author concluded that banks need to adopt green banking seriously to transform into sustainable banks and act as a deterrent to polluting industries.

Sharma et.al (2014) studied the level of awareness of people towards green banking with respect to gender. The study concluded that gender difference has no impact on adoption of green banking. Similarly like other studies it also concluded that a lot needs to be done by banks for promoting green banking practices among people.

Doong & Ho (2012) conducted an empirical study by taking 136 countries' data and concluded that most of the countries ICT convergent. Banks are leveraging technology to provide banking services to the door step of rural customers at low cost.

Kumbhar (2010) recognized some of the restraints of mobile banking such as mobile service provides connectivity, IT literacy, refund services, break down of mobile banking application, language used in the application, limited range of services, security &trust to achieve total financial inclusion.

Sahoo and Nayak (2008) conducted a study on green banking in India and found that none of the banks in India are following green banking practices adequately. Further none of the Indian banks were signatories to the UNEP Financial Initiative statement or had adopted equator principle. The author concluded that banks need to play a pro active role by adopting environmental and ecological aspect in lending principles which will force industries to adopt such practices which will help in restoration of environment. This will also act as a deterrent to polluting industries who generally bypass the regulatory institutions.

IV. GLOBAL INITIATIVES ON GREEN BANKING

The work for development of ethical banks started in 1992 with the launching of United Nations Environment Programme(UNEP), now known as UNEP Financial Initiative (UNEPFI) . It consists of 215 members and 41 supporting institutions worldwide. Several banks, investors and insurance companies are its members. It promotes the member financial institutions to adopt sustainability throughout the operational framework and inspires members to adopt Environmental, Social and Governance (ESG) issues in doing business with their customers. The implication of this policy is to consider the ESG impact in regular banking operations, asset management and investment decisions taken by bank. The latest UNEPFI initiative is the ‘Net- Zero Banking Alliance’ which focuses on implementation of decarbonisation strategies, developing an international framework and guidelines for implementation of same through peer learning among founding banking signatories. The initiative is pioneered by 43 banks from 23 countries having an asset size of US$28.5 trillion. It is launched on 21st April, 2021 as part of ‘Race to Zero Campaign’ of United Nations Framework Convention on Climate Change (UNFCCC) to achieve net zero carbon emission by 2050 through the changing of the lending and investment portfolios of bank.

Bank Track, a non-governmental organization set up by a global consortium of Non-government organizations (NGOs), established as a network in 2003 issued a resolution on sustainable finance in commercial sector popularly known as Collevechio Declaration. The declaration consisted of six principles- commitment to sustainability, do no harm, responsibility, accountability, transparency and sustainable markets and governance. In 2015, Banktrack became an independent organization and it urges bank to become intermediaries and act as a check and balance institution between use of natural resources, production and consumption.

The concerns for green finance led to the formulation of a voluntary risk management framework for determination, assessment and management of environmental and social risk associated with project financing. International Finance Corporation (IFC) alongwith small group of banks established this risk management framework known as ‘Equator Principles’ on 4th June, 2003. It is continuously revised and the fourth revised Equator principles published on July, 2020. These principles apply to all industrial sectors and four financial products – project finance advisory services, project finance, project related corporate loans and bridge loans. It is adopted by 118 financial institutions in 37 countries. The performances of the financial institutions are continuously reviewed by the NGOs worldwide and necessary reporting is made as and when required.

The adoption of global initiatives are voluntary in nature but have the potentiality to transform the financial system and the business houses to align their business policies in terms of sustainability that it works for the development of a greener planet in future. The voluntary commitment towards noble initiatives will fall apart in the face of commercial interest unless the people of the country are fully aware of the green banking system and sustainable financial system (Sahoo and Nayak, 2008). Moreover the regulatory bodies and Government also need to bring out necessary legislations to make the financial institutions fully accountable for financing such commercial ventures which creates irreversible damage to the nature, society and mankind.

V. GREEN BANKING: THE INDIAN SCENARIO

The growth and development of green banking in India is happening in a miniscule manner as none of the major banks accepted the concept in totality. Further none of the major Indian public and private sector banks are signatories of the global initiatives on green banking. IDFC First Bank is the only signatory from India to make reporting under Equator Principles. Yes Bank is the only bank to have adopted Principles of Responsible Banking of UNEPFI in India. BankTrack keeps a record of ecologically harmful projects financed by financial institutions all over the world. The Indian banks have come under the scanner of BankTrack for not acting as responsible financial institutions.

Refer Table A1 about here

Several big Indian banks like Axis bank, State Bank of India, ICICI bank , HDFC banks and Bank of India came under the scanner of Banktrack and was reported for financing eco-unfriendly deals of Adani Group, Tata Group and Asia Pacific Resources International Holdings Limited (APRIL) , Indonesia. The financing were done mostly in thermal power generation sector of Adani and Tata Group, running into huge sum of money. Adani Group was financed by all the banks mentioned above except ICICI bank. Tata Group was financed by Axis Bank and State Bank of India. APRIL, Indonesia is engaged in paper and pulp sector and it was financed by ICICI Bank and State Bank of India amounting to USD 835 million each.

The US and western economies defines green banking as promoting investment that are environment friendly or reduces carbon footprint but in asian economies like India, Pakistan and Bangladesh defines green banking as environment friendly day to day banking operations(Shetty and Unnikrishnan,2017). India houses thirty five of the forty most polluted cities in the world. Some of them are Ghaziabad, Navi Mumbai, Bhiwadi, Noida, Greater Noida, Kanpur, Lucknow, Ahemadabad etc. India is the third most polluted country in the world and Delhi is the most polluted capital in the world (2020 World Air Quality report released by IQAir). Interestingly India is also world’s third largest emitter of carbon dioxide with an estimated emission of 2.65 metric gigatons (International Energy Agency, 2018). According to Ministry of Environment and Forests, Government of India, sixty four industrials sectors are classified as most polluting industries. These include sugar, fertilizer, paper and pulp, dyes, pesticides, tanneries, thermal power plants etc. Going by the grim statistics it indicates that financial institutions need to play a key role in reducing pollution by initiating environmental impact assessment for every major loan sanctioned to the industries. Moreover banks need to play a pro active role as banks are the major financier of the industrial houses.

In India green banking is restricted to adoption of paperless banking in day to day banking operations by promoting net banking, app banking and usage of credit and debit cards. However western economies including US, the pioneer of green banking, defined green banking as promoting cleaner investment that reduces carbon footprint. In countries like India, Pakistan and Bangladesh green banking means promoting regular banking operations as environment friendly, conservation of electricity etc. Basically green banking has two dimensions. The basic one is the knowhow where the banks are investing the public money, whether the banks are ethically and responsibly making investment decisions. Banks should promote financing in those industries which are adopting such technologies which transform them into green industries thereby aids in restoration and preservation of natural resources. The applied or by product of the basic notion of green banking results in paperless banking or e-banking. This entails to digitization of normal banking practices thereby reducing usage of paper and providing banking services at the fingertips of customer. RBI over the years has not developed any clear cut policy or guidelines for adoption of green banking by banks. This lack of proper guidelines enabled banks to adopt green banking in the form of paperless banking (Shetty and Unnikrishnan, 2017). Adoption of e-banking is more convenient for banks as it requires a technological investment. Further e-banking helps in minimization of cost in daily operations and reduced manpower requirement. However to adopt ethical and responsible investment decisions requires a change in lending policy of banks, which requires commitment of top management towards ethical banking principles and then implementing it at all levels of management so as to develop a credit culture based on green banking principles.

To make banks environmentally conscious the change in environmental regulations is required. The environmental regulations are of two types: command and control regulations and liability law. The former one is ex ante in nature and is framed to prevent ecologically harmful projects by devising industry specific pollution standards, clearances for commissioning of projects. The latter one is ex post which imposes fines, closure of defaulting industries etc by enforcement agencies. Regulations focusing on scrutinizing the projects before financing and assessment of potential damage to be caused by the project to environment is yet to be framed which can make banks accountable and refrain from financing such harmful ecological projects (Sahoo and Nayak, 2008). Moreover the impact of ex post regulatory measures lead to erratic cash flow /no cash flow from project which in turn leads to piling up of bad assets in the books of bank.

The whole world is now embracing for a safer and greener planet and the same has been accepted by all major nations including India. So in near future the industries which are creating pollution may be prevented from doing business in the world, thereby losing competitive advantage in the world market. Sanctions and curbs may be imposed on the industries exporting from India as they may fail to adhere to environment safety standards and protocols. Further as none of our major banks are signatories to global initiatives of green banking this may lead to difficulty for our banks to do business worldwide. Indian banks will lose competitive edge to their global peers. Large industries have enough fund availability and it always operate under the eyes of regulatory agencies, so if required they can install and accommodate the new systems to curb pollution and remain world standard. However bulk of the exports made up from MSME units, which will be hit severely with such safety protocols due to their poor awareness and lack of funds. These MSME sector will become a potential source of NPA for banks as most of them will be shut down or operating under a tight liquidity condition. This turbulent future can be avoided if banks undertake awareness program to aware themselves and the MSME sector and recognizes environmental risk in project financing. Banks need to embrace for green banking in holistic manner to retain competitive edge of themselves and Indian industries in the world.

VI. NEED OF THE STUDY

Green financing was recognized in India as early as 2007. In December 2007, the Reserve Bank issued a notification on "Corporate Social Responsibility, Sustainable Development and Nonfinancial Reporting – Role of Banks" and mentioned the relevance of global warming and climate change in the context of sustainable economic development. Recently in an article published in RBI Bulletin, January, 2021 further stressed that green finance need to be adopted in policy making and in formulation of financial and operational strategies post covid period for long term sustainable growth. It was also observed that lack of proper information flow among all the stakeholders is the major hindrance in adopting green financing strategies. The movement towards knowledge based economy is making quality of the product more important than quantity. Knowledge based economy is giving importance to green consumerism i.e customers want such goods and services which are generated through an eco friendly process or are recyclable and helps in safeguarding natural resources. Green consumerism, green banking, green governance are the novel innovative ideas emanating from the minds of people as sustainable development is recognized as a necessity to survive and prosper in this post pandemic world. In this context it becomes necessary to understand the perception of people about green banking as it will aid in gauging the pace of adaptability of people towards new change and help in fine tuning the national policy making in banking in coming future.

VII. OBJECTIVE OF THE STUDY

The people of the country are the main driving force to invoke a change in the system. The pace of ushering a change depends on the knowledge and consciousness of the people about such change. Thus to reap the benefits of green banking, people of the country need to be made aware and conscious about sustainable banking. The overall objective is to understand the level of perception among general public about green banking and green banking practices as general public is the largest beneficiary of all banking services.

The different sub goals set to understand the overall objective is enumerated below:-

1. To study the perception level about green banking concept among general public.
2. To study the adoption level about green banking delivery channels among general public.
3. To identify the areas of further improvement for better penetration of green banking among general public.

VIII. RESEARCH METHODOLOGY

The research design is exploratory in nature and involves the usage of primary and secondary data. The primary data collection is done through non-probabilistic convenient sampling technique. The sample size comprises of 103 respondents located in and around Kolkata region. Likert scaling technique is used to obtain data in a scale of 1 to 5. The mean score of the responses are calculated by dividing the total score obtained by total number of respondents. The mean scores describe the whole data which is then ranked accordingly from highest to lowest. Rank comparison is used for further analysis of data.

IX. ANALYSIS OF DATA

1. Perception of general public about green banking concept

[Refer Figure B1 and B2 about here]

The data clearly indicates that people are well aware of the green banking concept. It shows that 77.7% of the total 103 respondents are well apprehended with the concept of green banking. Again 26.2% of the total samples are in favour of fully technology driven banking services. 72 samples are in favour of combination of both services.

[Refer Figure B3 about here]

99 people i.e 96.1% of the people consider that green banking practices are a better option to move forward in the post pandemic world. Thus it can be easily concluded that the people are more inclined towards adopting digitized banking services compared to the traditional brick and mortar banking services.

To study the awareness level of people about green banking, the perceptions levels of people about the green banking practices are studied.

Refer Insert Table A2 about here

Green banking has different aspects and it can be deciphered in different manner. The people have given first rank to the creation and adoption of eco friendly practices in tangible banking infrastructure. The mean score of 4.25 is substantially higher than other parameters. Recognition of ethical and social values in decision making process has been ranked second. The ranking pattern shows that people are giving more priority to rainwater harvesting, solar panels, planting trees in and around banking buildings as a part of green banking practices. The scams and pandemic has inclined people to give second rank to importance of social and ethical value in decision making. The lending policy of reducing carbon footprint and promoting social institutions have been ranked third and fourth respectively but the cohesiveness of the mean scores of both the parameters show that people are concerned for both nature and the society in which they live in. The transparency in investment of public funds by bank is given last priority of green banking as the mean score is very low i.e 3.83.

The concern of people for nature is well reflected in their awareness about green banking practices. People are more supporting environment friendly initiatives taken by banks as the most important part of green banking practices which is quite contrary to the basic notion of green banking. Green banking is considered more in the form of green nature rather than the ethical nature of banking. The adoption of ethical principles in banking and changing of lending policy to reflect ethical banking is not so much accepted by people. Disclosure of investment of public funds is considered totally as a utopian concept by the people. Thus it can be concluded that the word 'green banking' is a misnomer and it is diminishing the relevance of ethical banking and proliferating the acceptance of environment friendly banking initiatives as part of green banking.

Refer Insert Table A3 about here

The ranking of the traits that define green banking is the reflection of the VUCA (Volatility, Uncertainty, Complexity and Ambiguity) world we are living in. The banking scams and the pandemic caused so much friction in the economy which is reflected in the ranking framework. Sustainability, transparency and accountability have been identified as the most important parameters which need to be imbibed in the green banking practices. Integrity and importance of social values were considered lesser important traits by the people. Confidentiality ranked lowest with a mean score of 3.98.

The study of traits gives quite astonishing results. Sustainability and accountability were ranked 1st and 3rd respectively but it is quite contrary to people's understanding of green banking practices. The lending policy of banks will play a greater role in achieving sustainability of planet but lending policy was ranked 3rd and 4th while ranking green banking practices. Again accountability in the form of disclosure of investment of public funds collected by bank was ranked lowest. Moreover confidentiality was ranked lowest by people, which is really a serious issue to ponder upon.

2. Benefits of green banking

The benefit of adopting green banking practices in daily banking operations is narrated below.

Refer Table A4 about here

Green banking in the form of digital banking through digitization of banking operations provides banking services at the touch of the finger. The digital banking is well accepted among customers. Customers prefer digital banking due to fast and efficient services, so it is ranked highest. Other features which attract customers are 24*7 services, real time data availability have been ranked 2nd and 3rd respectively. However accountability has been ranked lowest.

The benefits of green banking in lending policy are discussed below.

Refer Table A5 about here

The perception of people that if green banking adopted by banks in lending policy it will lead to development of sustainable and social infrastructure. Moreover the credit policy of banks will be guided by ethical principles as it is ranked 3rd with a mean score of 4.03. These parameters are ranked topmost by people. Better returns from credit ranked fourth and reduction of NPA has been ranked lowest by people. The mean scores of these parameters are quite low compared to other benefits of lending policy. 38 and 31 people have given neutral views regarding green banking practices will lead to better returns for credit and lower NPA.
The perception of people in promoting green banking principles in public fund management by banks is described below.

Refer Table A6 about here

The adoption of green banking will facilitate responsible use of public funds by bank as ranked highest by people. The disclosure of investments of public funds and safeguard against unwarranted use of public funds are ranked second and third respectively.

3. Adoption level of green banking delivery channels

Refer Table A7 about here

The data indicates that internet banking and mobile banking is highly preferred by customers' as it have a mean score of 4.32 and 4.29 respectively. Unified payment interface (UPI) is the third most preferred option. SMS banking is also a preferred option among customers. Point of sales (POS) and use of recyclable cards are still not so much popular as their mean score is on lower side. The least popular delivery channel among customers is the solar ATMs.

4. Areas for further improvement

Refer Table A8 about here

Data security has been rated the most priority area for development as it is directly related to digital banking and directly affects the day to day life of people. Customer awareness and better policy formulation are the next most priority area to be focused upon for better adoption of green banking. The fourth and fifth ranked areas are creation of robust IT infrastructure and special recognition to banks. However the closeness of the mean score clearly indicates that all these areas need to given equal attention for smooth implementation of green banking.

X. CONCLUSION AND RECOMMENDATION

The word 'green banking' is well known among people and the people are well familiar with the green banking concept. However differences and ambiguity observed among people in the understanding of green banking practices, it becomes evident when the ranking pattern on awareness and traits are observed critically. This misconception arises as people are not fully aware of the green banking concept and considers it to be more digital rather than ethical. Further RBI and the Government both are promoting digital banking in large scale manner and as a result banks are adopting digital banking more in the name of green banking rather than ethical banking.

The promotion and adoption of green banking requires a two pronged approach in policy formulation to address the issue of both ethical banking and digital banking embedded within the concept of green banking. Ethical banking will help in transforming the credit culture, the management philosophy, the reporting framework and the working pattern of banks. Digital banking will help in providing timely, user friendly and environment friendly banking operations.

Banks in India work under the directives of the Government and RBI, so to incline banks towards the ethical banking principles the prima facie initiative needs to be taken by the Government and RBI. This will help public sector banks to become green in real nature and will in turn force the industries to adopt environment friendly practices which will lead to low carbon emissions. Moreover the directives will ensure banks to be part of global initiatives and get recognition as ethical banks worldwide. Being part of global initiatives will bring more transparency and accountability in the working of banks. The global practices will enable Indian banks and industries to access global markets vividly and sell their products worldwide.

Ethical banking will also facilitate development of medical and educational infrastructure and other social amenities as social development is one of the arenas of green banking practices. The pandemic showed how important is the development of medical infrastructure and immediate scaling up of medical infrastructure is needed. The investment in life saving medical technologies and equipments, vaccination knowhow is required for saving lives of millions and millions of people. However the experience for education is somewhat different as pandemic showed that we need set up a parallel set up of virtual infrastructure along with physical infrastructure for continuing of education in pandemic times. This immediately calls up for huge investment by educational bodies at all levels to develop digital infrastructure. Here banks have a huge role to play as it is the fund house for development of any large scale infrastructural initiatives.

The awareness program for customers and especially for bankers is the need of the hour as bankers play a vital role in making customers aware of the ethical banking concept and practices. Advertisements from RBI and Government needs to be displayed in the media platforms to make people aware of the ethical banking concept and practices. Moreover special incentives and recognition needs to be promoted both for banks and customers for adopting ethical banking principles in lending policy. The growing customer consciousness through sustained awareness initiatives, better policy formulation and special recognition will ensure banks to shy away from conventional banking practices and make ethical banking practices an important aspect of decision making.

Digital banking or using of fintech in normal banking operations is a way forward in the future years to come as it is beneficial both for banks and public. For banks it facilitate cost reduction, diversifying revenue generation avenues and better manpower planning on core activities of bank like credit management, treasury operations, forex activities. Fee based income of banks will increase through automation of banking services. It will help in COVID-19 like pandemic situations as use of digital platforms will facilitate better implementation of lockdown and social distancing measures. However, considering the literacy level and the elderly population of the country, moving fully towards a technological driven banking solution may lead to rampant fraudulent financial activities in the country.

The promotion of digital banking in large scale requires supreme data security and strong IT infrastructure to handle such large pool of data at real time basis. The daily occurrence of cyber frauds is making data security a vital issue to ponder upon. Government is trying to address the issue but the issue of data security needs a multifaceted view to handle with. Creation of robust IT infrastructure by installing highly secured firewall system and locating of servers of companies in India are the basic solution to the problem. To address data security the law enforcement agencies and regulatory agencies need to play a proactive role. The police force of the country needs to be modernized enough to tackle with the cyber frauds. Specific training related to cyber frauds need to be enhanced, special cyber crime cells need to be developed in each and every major cities, business districts and financial centres. Cyber forensic experts need to be hired enough to provide specialized knowledge to police and enforcement agencies to unearth the cyber crimes. The regulatory agency like RBI needs to work with banks to identify the potential loopholes in the system and frame clear cut policies to reduce the rate of cyber frauds. The Government needs to frame such stringent laws which will act as deterrence in committing cyber frauds and ensure speedy redressal system in the form of compensation to citizens who get cheated unknowingly. Government also needs to frame policies for safe disposal of Aadhar data, PAN card data, Voter's ID data etc collected by several government agencies and private agencies for providing services to people. The judiciary system needs to see that government agencies and regulatory bodies are working in time bound manner for smooth implementation of the laws and policies framed to reduce cyber frauds. Multilingual command system may be developed for use of digital platforms in semi-urban and rural areas. Social media and print media can be used as a catalyst in a focussed manner along with predominant use of bankers to spread awareness of fintech based banking services among young and elderly people. Finally Government, RBI and banks need to work in a collective manner more and more for spreading awareness about digital literacy among people in urban, semi- urban and rural areas.

Thus it can be stated that green banking and its practices can usher a new stepping stone to move forward in this pandemic stricken world. Green banking through the mix of ethical and digital connotations can transform the banking sector by checking the emergence of bad assets and providing contactless banking services to the people. The empirical findings explained in the data analysis also substantiate the fact that green banking is the future prospect of banking world.

The issue of global warming can also be addressed as the green banking practices will prevent banks from funding polluting industries or promoting polluting technologies. Moreover ethical principles will prevent banks from giving bad loans and stem out dubious people or companies from the system. It will as a whole will improve the asset quality of banks. The promotion of cleaner industries and cleaner technologies will reduce pollution of all kinds and help to make the planet a sustainable place for life to flourish upon. Thus it can be concluded that green banking and its practices will lead to cleanliness of nature, society, business culture and the people living in the society thereby leading to sustainability of people, planet and profit.

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APPENDIX A

Table A1: Eco-Unfriendly Deals Financed by Indian Banks Reported By Banktrack

Bank	Company financed	Project	Type of Financing	Amount	Date of Updation
Axis Bank	Tata Mundra Ultra Mega Power Plant, India	Coal Electric Power Generation	Project Financing	INR 38.6 million	3rd December, 2020
	Adani Group, India	Coal Electric Power Generation, Coal Minining, Oil and Gas Extraction	Corporate loan	USD 196 million	
Bank of India	Adani Group, India	Coal Electric Power Generation, Coal Minining, Oil and Gas Extraction	Corporate loan	USD 258 million	3rd December, 2020
HDFC Bank	Adani Group, India	Coal Electric Power Generation, Coal Minining, Oil and Gas Extraction	Corporate loan	USD 53 million	7th December, 2020
			Share Issue-Underwriter	USD 98 million	
ICICI Bank	Asia Pacific Resources International Holdings Limited (APRIL) , Indonesia	Pulp, Paper and Paperboard mills	Corporate loan	USD 835 million	4th December, 2020
State Bank of India	Tata Mundra Ultra Mega Power Plant, India	Coal Electric Power Generation	Project Financing	USD 397.5 million	3rd March, 2021
				INR 38.6 million	
	Asia Pacific Resources International Holdings Limited (APRIL) , Indonesia	Pulp, Paper and Paperboard mills	Corporate loan	USD 835 million	
	Adani Group, India	Coal Electric Power Generation, Coal Minining, Oil and Gas Extraction	Corporate Loan	USD 1.622 billion	
				EUR 208 million	
			Bond issue-Underwriter	USD 171 million	
			Share Issue-Underwriter	USD 301 million	

Source: https://www.banktrack.org/search#category=banks&country=India

The Table A1 indicates the eco-unfriendly deals financed by Indian banks and which are being reported by Bank Track.

Table A2: Awareness about Green Banking Practices

Parameters	SA	A	N	D	SD	Total	Mean Score	Ranking
Disclosure of investment of public funds	30	39	24	6	4	103	3.83	5
Lending to industries which reduces carbon emission or produces green products	39	39	22	1	2	103	4.09	3
Lending to social institutions viz. healthcare, education etc	35	45	20	2	1	103	4.08	4
Creation and adoption of eco friendly practices in tangible banking infrastructure	47	38	16	1	1	103	4.25	1
Relevance of ethics and social values in decision making	39	44	15	3	2	103	4.12	2

Source: Primary survey

The Table A2 indicates the awareness of people about green banking practices and the mean score is calculated to identify the ranking of each parameters. The ranking of parameters shows how people perceive green banking practices.

Table A3: Traits of Green Banking Practices

Parameters	SA	A	N	D	SD	Total	Mean Score	Ranking
Sustainability	50	38	13	1	1	103	4.31	1
Accountability	40	44	16	2	1	103	4.17	3
Transparency	53	32	16	0	2	103	4.30	2
Integrity	36	42	22	2	1	103	4.07	4
Confidentiality	39	32	25	5	2	103	3.98	6
Importance of Social Values	38	38	24	1	2	103	4.06	5

Source: Primary survey

The table A3 shows the traits which define the green banking practices. The traits of sustainability, transparency and accountability have been ranked higher by people as these traits are considered the need of the hour.

Table A4: Benefits in Day to Day Banking Operations

Parameters	SA	A	N	D	SD	Total	Mean Score	Ranking
Faster and efficient service	65	29	7	1	1	103	4.51	1
Enhanced accountability	44	42	14	2	1	103	4.22	4
Round the clock service availability	52	38	11	1	1	103	4.35	2
Real time data availability	48	44	9	1	1	103	4.33	3

Source: Primary survey

The table A4 highlights the benefits of adopting green banking practices in daily banking operations.

Table A5: Benefits in Lending Policy

Parameters	SA	A	N	D	SD	Total	Mean Score	Ranking
Promotion and development of sustainable infrastructure	44	44	13	1	1	103	4.25	1
Promotion and development of social infrastructure	38	42	21	1	1	103	4.12	2
Reduction of bad loans	26	33	38	4	2	103	3.75	5
Recognition of ethical practices in credit appraisal	34	40	28	0	1	103	4.03	3
Better returns from credit	28	41	31	2	1	103	3.90	4

Source: Primary survey

The table A5 self explains the benefits of adopting green banking practices in lending policy as perceived by people.

Table A6: Benefits in Public Fund Management by Banks

Parameters	SA	A	N	D	SD	Total	Mean Score	Ranking
Disclosure of investment of public funds	42	35	22	2	2	103	4.10	2
Responsible use of public funds	41	40	20	1	1	103	4.16	1
Safeguard against unwarranted use of public funds	37	39	25	1	1	103	4.07	3

Source: Primary survey

Table A6 explains the people’s perception of adopting green banking practices in the public fund management by banks.

Table A7: Adoption Level about Green Banking Delivery Channels

Parameters	SA	A	N	D	SD	Total	Mean Score	Ranking
Internet banking	55	34	9	2	3	103	4.32	1
Mobile banking	53	36	7	5	2	103	4.29	2
SMS banking	43	29	22	7	2	103	4.01	4
Unified payment Interface (UPI)	48	29	20	3	3	103	4.13	3
Point of Sales (POS) terminal	31	30	32	6	4	103	3.76	6
Use of Solar ATMs	33	22	34	8	6	103	3.66	7
Use of Recyclable Debit/ Credit cards	38	37	17	7	4	103	3.95	5

Source: Primary survey

The table A8 shows how people have adopted the different green banking delivery channels and the ranking shows the popularity and awareness of the green banking delivery channels among people.

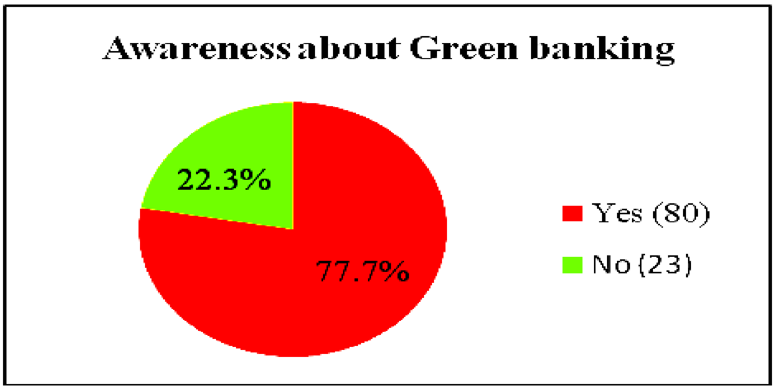
Table A8: Areas to be focused upon for Promotion of Green Banking

Parameters	SA	A	N	D	SD	Total	Mean Score	Ranking
Policy formulation for better implementation	53	42	7	0	1	103	4.42	3
Stringent laws on data security	58	37	7	0	1	103	4.47	1
Creation of robust IT infrastructure	53	40	9	0	1	103	4.40	4
Customer awareness campaign	55	41	6	0	1	103	4.45	2
Special Recognition for banks adopting green banking practices	46	46	10	0	1	103	4.32	5

Source: Primary survey

The table A8 shows the areas perceived by people requires further improvement and ranking indicates the areas which need a priority focus for development of green banking in India.

APPENDIX B



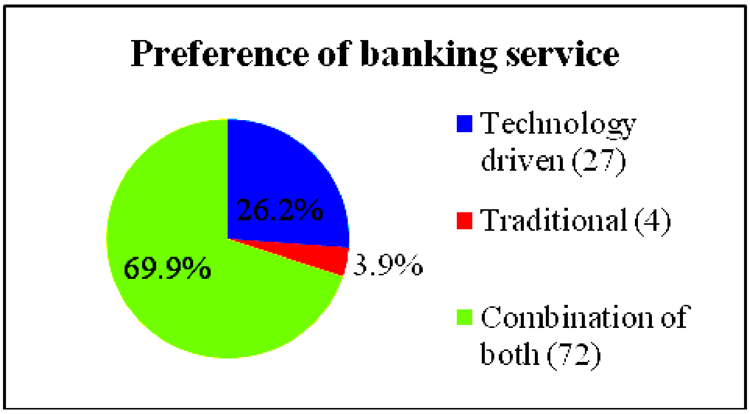


Figure B1 and B2: Awareness about green banking and Preference of banking service. The data shows more than 70% people are aware of green banking concept and nearly 70% people prefer for combined banking services.

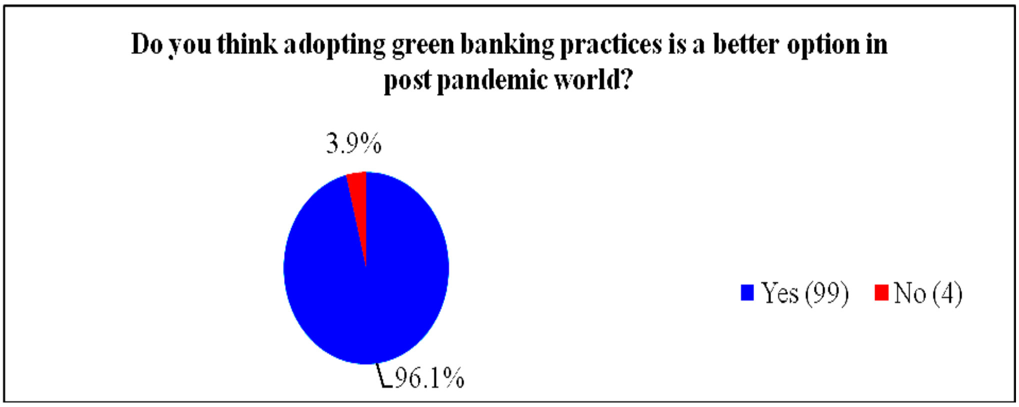


Figure B3: Perception of people about adopting green banking practices in post pandemic world. The data shows 96.1% of the people think green banking a better option to move forward in post pandemic world.