Green Banking Awareness, Challenges and Sustainability in Nigeria

[1]Clementina Kanu, [2]Anthony Chukwuma Nwali & [3]Johnson Nwokeiwu

[1]*Department of Accountancy,*
[2]*Department of Business Administration,*
[3]*Department of Banking and Finance,*
Alex Ekwueme Federal University, Ndufu Alike Ikwo, Ebonyi State, Nigeria

Abstract

The meager rate of green banking awareness and sustainability in Nigeria is traceable to a lack of adequate educational, financial, and Information Communication Technology infrastructure in Nigeria. The findings document that banks in Nigeria have various green banking products that they showcase, but they have not given them their correct nomenclature. Poor knowledge of green banking among customers and bank staff is a constraint to its awareness. The study reveals that educational level, age-group, lack of basic ICT knowledge, and illiteracy among rural and urban dwellers have negative effects on green banking awareness and operation in Nigeria. Banks have not contributed to compensating the states, organizations, and individuals that have experienced natural disasters, and the impact on the eco-system has not been beneficial. As a result of these factors, the benefits and sustainability of green banking are not certain. The study concludes that addressing the issue of education and lack of infrastructure will support efforts towards sustainability of green banking activities in the country. Banks should improve on their corporate social responsibility. The collaboration of government and service providers should be on par in order to initiate the policies that will make green banking activities user friendly.

Keywords: *Green banking, Ecosystem, corporate social responsibility, Financial inclusion, sustainability*

Corresponding Author: Clementina Kanu

Background to the Study
Internationally, there is a growing concern about the role of banking for environmentally/socially responsible investment projects that will enhance the sustainability of the sector. Banking and other financial institutions are more effective in achieving this type of goal due to the intermediary role they play in any economy and due to their potential reach to a number of investors. It is estimated that out of the US$50 trillion in banking assets in emerging markets (about a third of the global banking assets), less than 10% is currently directed to "green" loans or credits. This is as a result of poor level of green banking activities that are ongoing in the emerging economies (World Bank Group, 2013).

Green banking customers' awareness levels in Africa and in Nigeria, specifically in direct comparison to developed nations like India, Bangladesh, Brazil, China, Indonesia, South Korea, and the United States is still novel. Green banking materialized in 1980 through the Dutch Triodos Bank's focus on environmental sustainability in the banking sector. In 1990, the "Green fund" was launched by the bank to fund environment friendly projects, and all other projects followed later (Dash, 2008).

Generally, green banking practice focuses on promoting and sustaining an eco-friendly business climate through elimination of the carbon footprint, an increase in electronic banking and transactions, green mortgage purchase, and green credit cards, among others (Masukujjaman and Aktar, 2013). Green banking is also known as ethical banking (Sudhalakshmi and Chinnadorai, 2014). It embraces climatic and environmental sustainability to spur growth and development.

The green banking awareness level and benefits in Nigeria are still very low. Banks still use traditional methods of operation. Recently, some banks have commenced e banking and the use of ATMs and e payment without sufficient energy and infrastructure, and this has stemmed the tide of sustaining green banking operations in the country. More than 75% of the country's population is unbanked. Many towns and villages are situated in the remote areas, with no accessible roads, electricity, or other necessary amenities. As a result, no bank likes to be located in such environments. This is because banking in Nigeria demands that the customers should visit the bank or ATM machine before transactions can be done.

Many customers as well as bankers have lost their lives at the hands of men of the underworld. The activities of Boko-Haram in the country have increased the level of environmental unfriendliness. These have caused instability in the banking sector and beyond and need the type of banking operation where the services are accessible to the service users at any time and place. Financial institutions, especially the deposit money banks in Nigeria, have the opportunity to gain an advantage in the market by creating a difference in their strategy making processes. Banks have not made any donation to the states or people that have suffered from natural disasters.

The need to bridge the gap between the current state of the financial sector and a more sustainable financial system calls for serious adaptation of the green banking system. This study examines green banking awareness, opportunity, and challenges in Nigeria.

Statement of the problem
The banking sector in emerging economies has experienced a lot of setbacks that affect both the sector and the economy at large. This sector involves institutions that cannot survive without their customers and the environment. The issue of a non-conducive, unfriendly environment, a lack of infrastructure, and insecurity threaten the survival and sustainability of the system and customers' interests at large.

The life of every nation's economic activities depends on the soundness of its financial sector. Where there is no conducive environment in areas of security, energy, and infrastructure for operations, sustainability will not be achieved. Going green in the banking sector will aid in eliminating these problems. This background calls for the creation of awareness of green banking and its adoption in the country which will awaken operators on the need to go beyond their normal cooperate social responsibility duties. The poor level of green banking awareness among customers in Nigeria is a dire constraint. Green banking is a means of developing inclusive banking strategies which will ensure substantial economic development and promoting environmental-friendly practices.

Objectives of the Study
This study examines
1. To determine the extent to which financial literacy, education, and poor infrastructure affect the green banking awareness in Nigeria;
2. To determine the extent to which banks invest in green banking;
3. To identify the extent to which Nigeria banks practice green banking;
4. To examine the sustainability of green banking activities in Nigeria.

Review of the Related Literature
Conceptual Framework
Green Banking universally refers to eco-friendly or environment-friendly business and economic climate protection against environmental degradation, global warming, natural calamities, and disasters in various forms (Masukujjaman and Aktar, 2013). It is an ethical banking and social banking system connected to Corporate Social Responsibility (CSR) through the incorporation of eco-friendly or environment-friendly protection against environmental degradation. According to Benedikter (2011), it is a "*bank with a conscience*". Green Banking is also regarded as a sustainable banking system that aims to achieve sustainable economic growth, development, and eco-system protection from environmental degradation (Sohel, 2017). Green banking may also be classified as a carbon-free print banking system based upon its electronic business and operational activities and transactions made online, with zero or minimal impact on the environment.

Islam and Hasan, (2015) noted that the new concept of Green banking derives from the attention of intellectuals, researchers, bankers, and entrepreneurs, who contemplated the fate of humankind with respect to practice development, saving the nations from an excruciating, un-solid environment with natural catastrophes and calamities. The author added that humankind is the best creation of the world which needs to survive with nobility.

Ahmad, Zayed, and Harun (2013) argued that green banking has been conceptualized to implement broader concepts like sustainable development. Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Smith, Rees, and Gareth 1998). The only tool that ensures sustainable development, as accepted by the world environmentalist groups, is the idea of green banking. As a result, today's environmental stakeholders are encouraging the financial sector to incorporate the policies of green banking, as they will help to protect the environment.

According to Sohel (2017), Green Banking may be defined as the practice of in-house green decoration, green lending policies, electronic transactions, promotion of environment-friendly activities with a reduced carbon footprint, and making sure growth is sustainable while safeguarding sustainable development. Green Banking means pollution-free banking that uses operating instruments or products which do not destroy the elements of the environment. Green banking is the term used by banks to make them much more responsible for the environment. The term green banking refers to the development of inclusive banking strategies which ensure sustainable economic development (Ahmad, Zayed, and Harun, 2013). It can also be described as a type of ethical banking which aims to protect the environment and reduce the carbon footprint from banking activities. It encourages banks to carry out environment-friendly investments by combining their operational improvements and technological know-how in banking business activities.

Bai (2011) explained that "Green" in green banking principally indicates banks' environmental accountability and environmental performances in business operation. According to Azam (2012), green banking refers to the use of eco-friendly or environmentally friendly banking to stop environmental degradation to make this planet more habitable. In Nigeria, the attacks of Boko Haram and its counter-insurgency operations and kidnapping saga have heightened the environmental unfriendliness, which is a major challenge to the practices of green banking, because this has wasted both human and capital resources.

Habib (2010), argued that Green banks should use resources with responsibility, avoid waste, and prioritize the environment and society. Therefore, the issues of looting funds, diversifying funds, and even swallowing millions by the snake will be stories of the past. Green banking helps with the overall reduction of external carbon emissions and the internal carbon footprint. Chaurasia (2014) maintains that by going green, banks can reduce their carbon footprint by adopting the following measures: paperless banking,

energy consciousness, the use of mass transportation, green building, online services, saving paper, and the use of solar and wind energy.

Narwal (2007), stated that green banking is not only a CSR activity of a firm; it is about making society habitable without any considerable damage. There will be no room for destroying lives and property and creating another site for internal displaced persons (IDP). On the side of banking professionals, Green Banking involves the tenets of sustainability, ethical lending, conservation, and energy efficiency.

Bihari (2011), stated that green banking includes the promotion of social responsibility where, before financing a project, banks consider whether it is environmentally friendly and has any future environmental implications. Bhardwaj and Maholtra (2013) elucidated that green banking is an effort by the banks to make the industries transform in a green manner and, in the process, restores the natural environment. The bank is known to focus entirely on environmentally friendly banking practices.

Green Banking includes the judicious use of all resources and energy, reduces the carbon footprint, and encourages, finances, and educates customers on environmentally friendly investment (Jayabal and Soudarya (2017). The major handicap of the country is the mismanagement of resources, as the country is endowed with numerous resources. According to the Central Bank of Nigeria's report on green banking, a vast portion of Nigeria, especially the rural dwellers, are still using traditional banking system of over the counter transactions. Therefore, banks should educate their customers about green products and services. It is also the responsibility of the government to encourage the general people to adopt green banking practices.

Figure 1: Green Banking activities of the Banking Sector
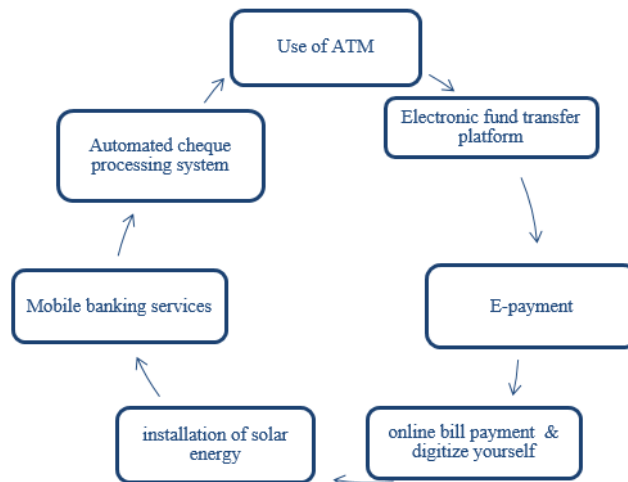
Source: Green Banking Activities 2012, as cited in Masukujjaman and Aktar (2013).

Empirical Literature

Obviously, there are areas lacking in empirical studies undertaken in the Nigeria context regarding the adoption of green banking practices and the level of customer awareness because it has not been adopted in the country. The related activities that are going on in the country are only side attractions. A review of the available literature in Nigeria revealed that green banking awareness in Nigeria is very low, even though implementation is in progress. Several empirical studies have been conducted abroad, but these have focused on developed and developing Western countries: Brazil, China, Indonesia, Mexico, Turkey, and India.

Ahmad, Zayed, and Harun (2013) explored the green banking activities of Bangladeshi commercial banks to elucidate the reasons behind adopting green banking in Bangladesh using 300 respondents drawn probabilistically from ten commercial banks. A factor analysis was used to analyze the data and to draw the findings.

The findings indicated that economic factors, policy guidelines, loan demands, stakeholder pressure, environmental interest, and legal factors are the major influencers with a combined variance of 65.25% in the decision regarding the adoption of green banking by the commercial banks to ensure sustainable economic development.

Afroz (2017) conducted a study on the green banking initiatives of Islamic Bank Bangladesh Limited and documented that the response from the business sector has been very slow and the consumers are not fully aware of green banking products.

Another study was conducted by Rahman et al. (2017) on the problems and prospects of electronic banking in Bangladesh; this was a case study on Dutch-Bangla Bank Limited. They argued that customers do not have enough knowledge regarding the advantages of electronic banking which is offered by Dutch-Bangla Bank Limited. However, green banking practice is a matter of additional grind in the banking sector in Bangladesh (Afroz, 2017).

Yi-Hui Ho and Chieh-Yu Lin, Jung (2014) conducted a study on the factors that affect the organizational infusion of green practices in Chinese logistics companies. A questionnaire survey was conducted on logistics companies in China. The regression analysis was used to test proposed research hypotheses, and the findings revealed that the complexity, compatibility, and relative advantage of green practices; the quality of human resources; organizational support; governmental support; and regulatory pressure exhibit significant influences on green practice infusion for the logistics companies in China. The results also show that the influences of adoption cost, company size, environmental uncertainty, and customer pressure on the logistics of companies' green behaviors are not significant. BrotoRauth Bhardwaj and Aarushi Malhotra (2013) reported on how Green Banking sustainability strategies influence the performance of Indian companies' and their managerial and operational activities.

Sudhalakshmi and Chinnadorai (2014) noted that not many initiatives have been taken by banks in India as far as green banking is concerned. Sahoo and Singh (2013) observed that the younger generations are more inclined towards green banking products than the middle-aged and senior age groups. There is no significant difference in the mean usage of green banking products among customers with different educational qualifications. Educational qualifications have no significant impact on the usage of green banking products, whereas more awareness needs to be created among the middle-aged and senior individuals.

Krishna and Srinivas (2014) examined the customer awareness level on green banking. Findings revealed that most customers are confused about the concept of green banking; even though they are enjoying the facilities. Ahuja (2015) further buttressed the findings of Krishna and Srinivas (2014) in India and reported that a lack of consumer awareness and education is a major obstacle to green banking practices in India. Sudhalakshmi and Chinnadorai (2014) studied the status of Indian Banks with respect to Green Banking and credit facilities granted to organizations, reporting that banks must include their green aspect in the lending principle. Policy measures should be implemented to promote Green Banking. Indian banks are running behind time in the adoption of this green phenomenon.

Afroz (2017) conducted a study on the green banking initiatives of Islamic Bank Bangladesh Limited and reported that from a business sector perspective, the consumer awareness level of green banking products is poor; hence, most of the customers are ignorant of what green banking is, even though they enjoy the facilities of green banking.Regarding the problems and prospects of electronic banking in Bangladesh, Rahman et al. (2017) conducted a study of Dutch-Bangla Bank Limited. The results of the study revealed that customers lack adequate knowledge regarding the advantages of electronic banking offered by Dutch-Bangla Bank Limited.There has been no contemporary study on green banking in Nigeria, even though the Nigerian financial institutions and their customers enjoy the facilities, products, and services of green banking.

Experience from other Countries
Various countries have experiences with green banking. Each specializes in different green activities. Pennsylvania engages in Energy Investment, and the bank finances it as one of the green banking activities. *Lynn* called it a game changer with respect to access to financing. The focus of their green banking is Energy Investment. Thus, they see green banking as a mechanism that allows both public and private sector entities to deploy capital specifically for clean energy and energy efficiency projects. As lenders dedicated to funding clean energy projects, consumers and businesses have greater access to the capital needed to install solar panels, replace outdated equipment, and upgrade the efficiency of buildings and equipment, all of which lead to long-term savings for energy users that ultimately pay back the initial capital investment.

Brazil has followed a path of combined voluntary and mandatory approaches to sustainable banking driven by the need for stronger efforts in environmental conservation and to foster sustainable development. Facilitated by the banking association FEBRABAN, voluntary Green Protocols were first adopted by five Brazilian state-owned banks in 2008 and then by commercial banks in 2009. In 2014, the Central Bank of Brazil (BCB) published mandatory Resolution 4327 on *Social and Environmental Responsibility for Financial Institutions*. A 2013 study estimated that 11% of banks' lending was directed at "new energy" and low-carbon agriculture.

China: China adopted a policy-based approach to sustainable banking to help tackle profound environmental problems and support the transition to a green, inclusive, and resilient sustainable growth path. The People's Bank of China (PBOC), the China Banking Regulatory Commission (CBRC), and the Ministry of Environmental Protection jointly issued the "Green Credit Policy" in 2007, followed by CBRC's "Green Credit Guidelines" and a monitoring framework to guide its implementation. At the end of 2015, CBRC's green credit statistics for the top 21 Chinese banks (accounting for around 80% of total banking assets) showed that the majorities have adopted E&S risk management practices, and Green Credit now makes up approximately 10% of these banks' portfolios. Building on this experience of greening the banking system, the PBOC is leading efforts to green the whole financial system in China beyond banking (World Bank Group, 2012).

Indonesia: Otoritas Jasa Keuangan (OJK), the Indonesia Financial Services Authority, launched a Sustainable Finance Roadmap in December 2014. The roadmap enlists the financial sector, including banking, capital market, and non-bank financial institutions (insurance, leasing, and pension funds) to contribute to the national commitment to address climate change and support the transition to a competitive, low-carbon economy. An Umbrella Policy is now being designed to provide practical guidance on how to green the whole financial system in Indonesia.

Mexico: The Mexican Banking Association (ABM) has led a voluntary industry approach through the development of a "Sustainability Protocol", which was formally signed by Mexican banks in April 2016. Aligning with national priorities, such as the governmental climate change targets for the next 15 years, and endorsed by relevant Mexico government agencies, the protocol provides guidance on both risk management and sustainable lending, coupled with a plan to provide capacity building and tools for implementation.

Turkey: Turkish banks have followed a market-led route to sustainable banking, aligning with national goals as well as international principles and good practice. In 2014, the Banks Association of Turkey (BAT) issued voluntary Sustainability Guidelines for the banking Sector. The Guidelines were prepared by a BAT working group on the Role of the Financial Sector in Sustainable Growth, with the participation of 18 banks.

Nigeria: The Central Bank introduced a Monitoring and Reporting Mechanism in 2013 to guide and monitor the implementation of the Nigerian Sustainable Banking Principles.

Banks are required to provide preliminary once-off reports on policies and systems as well as baseline data collection, followed by bi-annual reporting on indicators organized according to the nine principles. As of the end of 2015, Nigerian banks had completed the submission of a first batch of reports, which CBN will assess to determine industry baselines and set benchmarks. However, there are some activities of green banking that are going on in the countries with little awareness.

Green Banking in India has two aspects: the promotion of environmental practices through the introduction of Green Banking Financial Products and Services and the reduction of footprints from banking activities on the environment, thus preventing further environmental loss by reducing carbon emissions. The banking sector in Nigeria focuses on what is called the 3Cs and the 3Ps. The three Cs stand for Cost, Control, and Customer Service, while the 3Ps stand for Profit, Planet, and People. Customers can access important information through laptops or even through smartphones, even in their homes. It is also a part of better customer services, and the cost can also be minimized.

Theoretical Framework
**Stakeholder Theory**
The theory of stake holders was first applied by Ansoff (1979), to describe the perception of socially responsible behaviors. According to Smith (2003), stakeholder theory asserts that managers have a duty to meet the needs of both the corporation's shareholders and "individuals and constituencies that contribute, either voluntarily or involuntarily, to a company's wealth-creating capacity and activities, and who are therefore its potential beneficiaries and/or risk bearers."

Stakeholder theory suggests that the purpose of a business is to create as much value as possible for stakeholders. The idea of stakeholder theory is that a corporate entity is an ecosystem of its own. Based on this view, Freeman noted that stakeholders are the group of people without whom the organization would not exist. Although there is some debate regarding whether stakeholders deserve consideration, a widely accepted interpretation refers to shareholders, customers, employees, public interest groups, creditors, suppliers, and the local community. An organization will not survive for a reasonable extent of time without giving attention to the needs of the stakeholders.

Employees must receive fair working conditions and wages. The suppliers must receive equitable payment, but they must also run their own businesses in accordance with moral and ethical guidelines. The concerns of the government must be met, the media must receive transparency from the corporation as far as is reasonable, and the needs of the local community must be taken into account, including paying compensation for any damage to the community or the local environment. Customers should receive goods and services that are up to the mark and are not liable to cause them any harm. Ethics and corporate responsibility should not be separate from each other. This is achievable as long as companies practice Stakeholder theory. It is not a perfect solution, but it is a starting

point. Stakeholder theory can ensure accountability and transparency from big businesses and improve customer safety. It is also a route to good public relations. In order for the business to gain and maintain momentum, the manager must ensure that the interests of the stockholders and all of the shareholders are aligned. This work contributed in the general finding and factual evidence on the low level of green banking awareness in the country, the need for the awareness; as it will enhance financial inclusion even among rural dwellers. The study equally proposed model that will sustain the practice of green banking in the country. This study may have political implications for the government that deemed it fit to achieve best practices through adoption of proper policies to encourage banking at convenient for customer' satisfaction, encourage economic activities, and improve sustainable rural development.

Figure 2: Diagram/schematic of theory
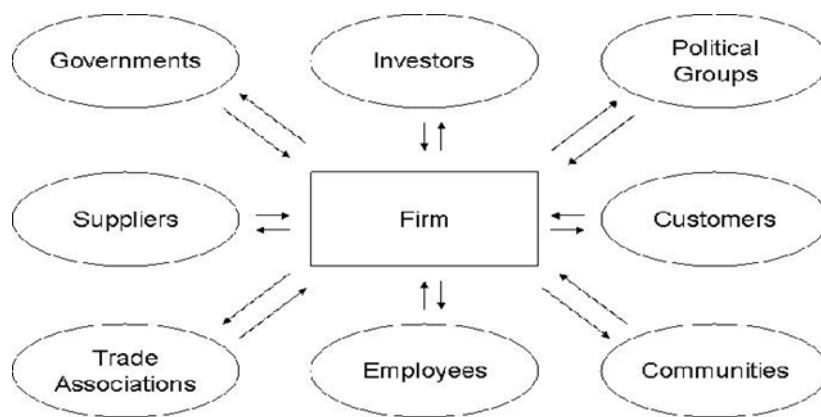
Source Donaldson and Preston, 1995

Customer Awareness
Customer awareness on green banking implementation and benefits constitutes financial institutions' advertising and infrastructural plans. It is a process through which the banks educate their esteemed customers on the products, services, and benefits of each product to the eco-and biological systems. A well-designed awareness program ensures better customer engagement and protects consumer welfare (Cleverism, 2015).

Green Banking Initiative in Nigeria
The adverse effects of carbon-print, energy consumption, chemicals, pesticides, petrochemicals, iron and steel production, coal, oil, natural gas, diesel, petrol, and octane on the eco-and biological systems along with universal progressive action on eco-and biological system protection, the efforts of the Nigerian financial institution, the Central Bank of Nigeria (CBN), and the government have shown a deep pledge towards the vision of the green world through green initiatives. The financial and economic policies of the CBN convey a strong message to financial institutions on the seriousness of CBN in its green movement.

The CBN's green activities focus on in-house activities. "*In-house activities*" refer to domestic financial activities limited to office buildings embracing network expansion, office automation (Head office to branch offices automation) through networks (LAN/WAN), and daily green operation of the financial institution. The introduction of e-commerce provides customers with online banking facilities covering payments of utility bills, money transfer, and transactions in local currency through the internet.

The Nigerian manufacturing industries face the challenges of controlling the environmental impacts of their businesses to reduce pollution and emissions. Though the government has been trying to address this issue by framing environmental legislations and encouraging industries to follow environmental technologies and practices, these efforts will not be enough, given the poor track records of enforcement and public awareness and the inability to derive a competitive advantage by producing eco-friendly products.

In House Green Activities of the Nigerian Financial System
Olaoluwa, Titilope and Olutoye, (2016) describe the in house green activities as follows;
Meticulous Operational Initiatives
1. Installation of a solar power system at the head office building roof top;
2. Environmentally harmful incineration of non-issuable damaged bank notes is being phased out, resorting instead to shredding;
3. Time bound targets set for carbon emission reduction within the internal operation.

Network Expansion Initiatives
1. Connecting the bank's head office and branches through the computer (LAN/WAN)
2. Brought; out branch under the influence of e-commerce;
3. Web based e-tendering system;
4. Online salary and necessary advice, office orders, etc.

Office Automation
1. Implementation of an Automated Cheque Processing System
2. Electronic Fund Transfer platform
3. Online Credit Information Bureau facilities
4. Mobile Banking Service
5. Mobile Banking
6. Online Banking
7. Banking through ATMs

Green Banking — A SWOC Analysis
An analysis of strengths, weaknesses, opportunities, and challenges:
Strengths
1. The green banking system saves transaction time and ensures efficient customer services delivery;

2. Reduces the cost and increases the ease of doing business;
3. Transitions can be done at any time and at any place.

By financing solar energy and wind energy programs, the bank reduces its carbon footprint on the environment.

Weaknesses
1. Quality customer service in green banking practice takes time.
2. A lack of knowledge among the employees has been noticed
3. There are some geographical barriers to the implementations of green banking practices
4. All banks are not contributing equally to the practice of green banking
5. The problem of security is always there with green banking practices.

Opportunities
1. Increase in ICT literacy increase green banking opportunities and eco-system protection
2. An increase in ATM card usage increases the need to implement other green banking practices initiatives such as mobile banking and internet banking among other green banking practices
3. This will enhance financial inclusion, especially in the rural areas of the country.

Benefits of Green Banking in the Competitive Financial Sector
1. Reduces the Transaction Costs of the Bank
Green banking avoids paperwork as much as possible and follows electronic media for various transactions, the functioning of banks, and customer management through providing e-statements to customers, opening online accounts, making all internal circulars within the banks online, etc. Thus, paperless banking reduces transaction costs.

2. Competitive Edge
Green banking helps banks to get a competitive edge over their competitors through innovation in their products and services.

3. Better Risk Management
It provides the benefit of better risk management to the banks. Better risk management helps in building a good image of the banks and therefore reducing the reputational risk.

4. Reduces the Credit Risk
Green banking makes recovery of the financed loans easy and thus reduces the credit risk of the bank. Green banking encourages the development of a peaceful environment.

5. Cost Conscious Process
The transaction costs incurred by the bank through green banking products like ATMs, mobile banking, and online banking are significantly minimized compared to the costs incurred through customers visiting the branch and performing transactions.

6. Convenient Process

Green Banking provides convenience to banks and also to the banks' customers. Due to various green banking initiatives like the use of ATMs, online banking, mobile banking, etc., the foot fall of the customers in the branches of the banks reduces to a larger extent, and this leads to reduced cost and effort in the management of the banks' activities. These banking activities also provide convenience to the consumers in terms of time management, energy, and fuel conservation as they do not need to visit the branch for every transaction.

7. Future of Green Banking

Nigeria's economy is an emerging economy, and there is a huge potential for the growth of banks by the adoption of innovative approaches in their decision-making process. There is a need for a paradigm shift by setting up a business model that considers all three aspects of the triple bottom line approach, i.e., the people, the planet, and the profit. The future of green banking seems to be very promising in India, as lots of green products and services are expected in the future. Green excellence awards and recognition, Green rating agencies, Green investment funds, Green insurance, and Green accounting and disclosure are some of the things that will be heard and seen in operations in the near future. Proper green banking implementation will act as a check to the polluting industries. Banks can act like a guideline to economic transformation and create a platform that creates many opportunities for financing and investment policy and contributes towards the creation of a low-carbon economy.

Figure 3: It is good to be green

It is good for the banking sector to go green, because its failure to meet its obligations to the environment will also eliminate the image of the banks, which will be costly to repair, as today's customers are very much concerned about the environment, and these customers want visible attempts from the banks regarding environmental protection. The awareness of green banking will attract more customers due to the level of convenience it gives to the service users and its enhancement of financial inclusion.

Challenges

Without a healthy banking system, it is not possible to maintain sustainable development and stability in the countries of the universe (Sahin, Aydin and Abaci, 2014). Banking

activities in emerging countries, especially Nigeria and Kenya, are costly, time-consuming, and energy-demanding. Sharma (2013) argued that the major issue of traditional banking is that the customers have to visit banks to carry out their banking activities within the specified working hours only. This involves a lot of the customers' time, as it not only includes travelling but also requires them to stand in long queues to perform their transactions.

In this era of globalization, countries need to be interconnected, interrelated, and driven by information technology. The impact of this globalization is an issue across the globe. The effects of global warming have been found to be responsible for the destruction of the ozone layer, which has impacted the land, water, and human resources of the world with a greater impact on the countries under study. According to Odebayo and Olaf (2015), banks have not shown a big interest in proactive strategies with regard to the environment and sustainability, because they consider themselves to be in a more environmentally-friendly industry, especially concerning emissions and pollution when compared to the other sectors, such as oil and gas and energy. However, the sector has left behind the idea that financing companies with environmental hazard are opposed to eco-centric practices.

Hence, in Nigeria and other emerging countries, inadequate infrastructure, a lack of power, good roads, information technology, and the issue of insecurity have caused more harm to the banking business environment. Customers go to banks with fear that either their money will be taken away from them or they will be kidnapped. Some authors have observed that the activities of traditional banking impact negatively on people and resources. Although Kern (2014) argued that the key performance indicators of banks are not traditionally designed to monitor environmental, social, and governance (ESG) issues connected with financial products and services but rather the economic performance and the financial risks without concern for the cost to the environment. This occurs as a result of lack of sustainability or green policies, particularly for the banking sector, in some countries. Nigeria is confronted with several peculiar challenges which make a green agenda appear unattainable. These include the solutions that have been adopted because of the inefficiencies in the energy and transportation systems as well as waste management.

Figure 4: Lack of green environment

According to Gupta, (2015), banks face several challenges and issues as far as green banking is concerned. The challenges are

(1) It is a new concept and customer will take time to adopt it, but there is a need to let customers know that there is something called "green banking";
(2) Due to the rural nature of most of the areas in the country, customers are computer illiterate;
(3) The high cost of green banking technology;
(4) The high cost of renewable and recycling techniques;
(5) Data protection;
(6) Bank employees need training for all green practices;
(7) Nigeria has been ranked one of the "Least Peaceful Countries" On Earth. This is as a result of the activities of Boko Haram, the Herdsmen, and kidnapers. The environment is a threat to life, and the ecosystem is unfriendly. According to Cynthia, the country is battling with banditry, economic stagnation, insurgency, kidnapping, and an increasing rate of suicides and is ranked 148 out of 163 countries in the world;

Figure 5: Boko Haram attacked policemen and some good citizens of the country.

(8) Poor management of the nation's resources is another challenge that stunts the growth of green banking in the country.

Proposed model for the Banking Sector
This study is developing a model that will help the banking sector to combat the infrastructural problems, especially those regarding power, because more than 70% of the geographical area in Nigeria is undeveloped. Therefore, where the issue of power is resolved, the rural areas will be positively impacted. This is not limited to the financial sector.

The policy makers and users of banking services know how to generate energy. Most of the towns and villages of the country are in the rural areas. There is no basic infrastructure. As a result, the environment is not conducive for traditional banking. The greatest need of

these rural dwellers is electricity, which can be produced with what they have, i.e., waste to energy. Energy-from-waste is the process of generating energy in the form of electricity and/or heat from the primary treatment of waste or the processing of waste into a fuel source. The most common technology for waste to energy conversion is incineration. In this process, the organic substances collected from waste are burnt at a high temperature. This method is called thermal treatment. The heat generated is used to create energy. Carbonaceous substances can be converted into carbon dioxide, carbon monoxide, and a small amount of hydrogen at a high temperature in the presence of oxygen. The outcome of this is called synthesis gas, and it is an alternative to energy. It can be used to produce electricity and heat.

Methodology
Design
The research took place in 2019, i.e., within the period that the green banking awareness in Nigeria was below expectations with the financial institutions combating the challenges associated with green banking in Nigeria. The research population consisted of 600 banking staff, regulators, and bank customers of the First Bank of Nigeria PLC, Zenith Bank, and Guarantee Bank. The choice of these banks is justified by the intense use of Information Communication Technology by the experienced workers and the number of customers. To ensure high reliability, the Krejcie and Morgan (1970) sample size table was adopted to determine the sample size of 234 from a population of 600. Eighty percent of bank staff and bank customers sampled answered the questionnaire. Thus, this work is based on 224 properly answered and returned questionnaires along with an appropriate statistical analysis of the responses of the banks' ICT experts and customers.

Data Presentation
Table 1: Criteria for Percentage Scores

Range of % score	Category
0%–20%	Unfair
21%–40%	Fair
41%–60%	Good
61%–80%	Agreed
81%–100%	Strongly agreed

Table 2: Criteria for Percentage Scores

Range of % score	Category
0%–20%	No extent
21%–40%	Little extent
41% - 60%	Moderate extent
61%–80%	Great extent
81%–100%	Very great extent

Table 3: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	95	42.4	42.4	42.4
	Female	129	57.6	57.6	100.0
	Total	224	100.0	100.0	

Sources: Researchers' computations (2019)

Table 1 reports the demographic data of the respondents. The descriptive data indicate that female bank staff and customer respondents stood at 57.6%, while males accounted for 42.4% of responses. Thus, the majority of the respondents were females.

Table 4: Age Range

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20–30	87	38.8	38.8	38.8
	31–40	82	36.6	36.6	75.4
	41–50	26	11.6	11.6	87.1
	51–60 and above	29	12.9	12.9	100.0
	Total	224	100.0	100.0	

Sources: Researchers' computations (2019)

The descriptive data illustrate that 38.8% of the respondents fell within the 20–30 year age range and had vast ICT knowledge as it relates to green banking implementations and awareness in Nigeria, while 36.6% were within the 31–40 age range and had relatively sound knowledge of ICT as it relates to green banking implementation and awareness. The older generation fall within the age ranges of 41–50 and 51–60 and above, representing 11.6% and 12.9%, respectively. It can be inferred that the older generation has knowledge of ICT as it relates to green banking implementation and awareness. This can be traceable to environmental factors.

Table 5: Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary School and West African Examination Council	76	33.9	33.9	33.9
	Diploma	34	15.2	15.2	49.1
	HND	38	17.0	17.0	66.1
	B.SC	47	21.0	21.0	87.1
	M.sc	18	8.0	8.0	95.1
	Ph.D	11	4.9	4.9	100.0
	Total	224	100.0	100.0	

Sources: Researchers' computations (2019)

The descriptive data illustrate that 33.9% of the respondents were first school leavers' certificate and West Examination Council   holders, while 15.3% had Higher National Diploma 17.0% had B.Sc, 8.0% had M.Sc and 4.9% had Ph.D qualifications. From the results, it can be inferred that a vast percentage of the respondents with basic education were not aware of, and had not been exposed to, a certain level of ICT application in relation to green banking, while HND holders and those with B.Sc, M.Sc., and Ph.D qualifications had been exposed to a certain level of ICT application in relation to green banking.

Table 6: Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Banker and Bank Staff	55	24.6	24.6	24.6
	Customer	140	62.5	62.5	87.1
	Regulator	29	12.9	12.9	100.0
	Total	224	100.0	100.0	

Sources: Researchers' computations (2019)

The descriptive data illustrate that 24.6% of the respondents were bankers and bank staff, 62.5% were bank customers, and 12.9% were supervisors or regulators of a bank.

Table 7: Results of Validity and Reliability Statistics

Cronbach's Alpha	No. of Items
0.972	14

Sources: Researchers' computations (2019)

The Cronbach's alpha score of Green Banking Awareness, opportunity, and challenges in Nigeria is 0.972, indicating a high level of internal consistency and an acceptable level of reliability.

To achieve the objectives and hypotheses of this study, the Classical Linear Regression Model was adapted to test for cause–effect, and the Pearson Correlation was used to test for relationships.

Tested Hypotheses
H_0: There is a positive and significant association between financial literacy and the educational level of customers on green banking products in Nigeria.

Table 8.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin–Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.911[a]	0.830	0.829	0.46153	0.830	541.389	2	221	0.000	0.188

Source: Researchers' computations (2019)
   a. Predictors (Constant): The mismanagement of resources is a challenge to the awareness and sustainability of g green banking in Nigeria.
   b. Dependent Variable: To what extent does financial literacy and the educational level of customers affect the awareness of green banking products in Nigeria?

Source: Researchers' computations (2019)

ANOVA[a]
Table 9.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	230.640	2	115.320	541.389	0.000[b]
	Residual	47.075	221	0.213		
	Total	277.714	223			

Sources: Researchers' computations (2019)
   a. Dependent Variable: To what extent do financial literacy and the educational level of customers affect the awareness of green banking products in Nigeria?
   b. Predictors (Constant): poor educational background and financial literacy is a challenge to green banking awareness and sustainability

The model summary table reports the fitness of the regression model. According to Samontaray (2010), the higher the value of the R^2, the more robust the regression model. An R^2 value of 0.83 (83%) is the coefficient determinant that explains the variation in the dependent variable as accounted for by the independent variables with an unexplained variation of 17%.

The F-statistic value of 541.389 and the corresponding probability value of 0.000 shows that the overall result is statistically significant for a robust analysis. The financial literacy and educational level of the customers positively and significantly impact the awareness level of green banking products in Nigeria at the 5% significance level.

The ANOVA results report that the independent variables statistically and significantly predict an impact on the dependent variable (F = (2,221) = 541.389, P < 0.000). The ANOVA result further validates the robustness of the regression analysis. The financial literacy and educational level of the customers positively and significantly impact the awareness level of green banking products in Nigeria.

Table 10.

Coefficients [a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	–0.369	0.132		–2.801	0.006					
Lack of, or poor, infrastructure is a challenge to the awareness sustainability of banking sector of green banking in Nigeria	1.099	0.040	.952	27.290	0.000	0.910	0.878	0.756	0.630	1.588
The mismanagement of resources is a challenge to the awareness sustainability of the banking sector of green banking in Nigeria (f resource)	0.083	0.041	.070	2.017	0.045	–0.509	0.134	0.056	0.630	1.588

Sources: Researchers' computations (2019)

a. Dependent Variable: To what extent has the financial literacy and educational level of customers affected the awareness of green banking products in Nigeria?

From the coefficient results, it can be inferred that a 1% decrease in infrastructural development poses a 36% challenge to the green banking implementation and awareness level in Nigeria. A 1% increase in infrastructural development increases green banking implementation, awareness, and also the sustainability of the banking sector in Nigeria by 1.09%.

To ensure increasing levels of implementation, awareness, and sustainability of the banking sector, there is need for financial and educational infrastructural development in Nigeria, especially in the rural areas, to increase by 83%.

H_0: There is no significant effect of poor infrastructure on the awareness of green banking products in Nigeria

Table 11.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin–Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.971[a]	0.943	0.943	0.22668	0.943	1835.645	2	221	0.000	0.612

Sources: Researchers' computations (2019)

a. Predictors (Constant): A lack of, or poor, infrastructure is a challenge to the awareness sustainability of the banking sector regarding green banking in Nigeria. The lack of an adequate power supply is a challenge to the awareness/sustainability of the banking sector regarding green banking in Nigeria

b. Dependent Variable: The mismanagement of resources is a challenge to the awareness sustainability of the banking sector regarding green banking in Nigeria (f resource)

Table 12.

ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	188.644	2	94.322	1835.645	0.000b
	Residual	11.356	221	0.051		
	Total	200.000	223			

Sources: Researchers' computations (2019)

a. Dependent Variable: The mismanagement of resources is a challenge to the awareness sustainability of the banking sector regarding green banking in Nigeria (f resource)

b. Predictors (Constant): The lack of, or poor, infrastructure is a challenge to the awareness sustainability of the banking sector regarding green banking in Nigeria. The lack of an adequate power supply is a challenge to the awareness/sustainability of the banking sector regarding green banking in Nigeria

The model summary table reports the fitness of the regression model. The R^2 value of 0.94 (94%) is the coefficient determinant that explains the variation in the dependent variable as accounted for by the independent variables with an unexplained variation of 6%.

The F-statistic value of 1835.645 and the corresponding probability value of 0.000 show that the overall result is statistically significant for a robust analysis. Poor infrastructure development affects green banking awareness in Nigeria at the 5% significant level.

The ANOVA results report that the independent variables statistically and significantly predict an impact on the dependent variable (F = (2,221) = 1835.645, P < 0.000). The ANOVA result further validates the robustness of the regression analysis. Poor infrastructure development affects green banking awareness and sustainability in Nigeria at the 5% significant level.

Table 13.
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	0.258	0.062		4.131	0.000					
The lack of an adequate power supply is a challenge to the awareness/sustain ability of the banking sector regarding green banking in Nigeria	0.858	0.018	0.948	47.223	0.000	0.971	0.954	0.757	0.637	1.570
A lack of, or poor, infrastructure is a challenge to the awareness and sustainability of the banking sector regarding green banking in Nigeria	–0.036	0.020	–0.037	–1.841	0.067	–0.609	–0.123	–0.030	0.637	1.570

Sources: Researchers' computations (2019).

a. Dependent Variable: The mismanagement of resources is a challenge to the awareness sustainability of the banking sector regarding green banking in Nigeria (f resource).

From the coefficient results, it can be inferred that a 1% decrease in the management of infrastructural developmental resources poses a challenge to the implementation and awareness level of green banking in Nigeria. A 1% decrease in infrastructural development resulting from lack of power supply decreases green banking implementation and awareness by 25%. Poor infrastructural development decreases the sustainability of the banking sector by 36%. To ensure increases in the levels of implementation, awareness, and sustainability of the banking sector, there is a need for financial and educational infrastructural development in Nigeria, especially in the rural areas, to be increased by 85%.

H_0: Green banking benefit has no impact on the performance of the financial institutions in Nigeria

Table 14.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin–Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.887a	0.787	0.785	0.37842	0.787	271.669	3	220	0.000	0.273

Sources: Researchers' computations (2019).

   a. Predictors (Constant): Job Creation is one of the prospects of green and sustainable banking. Sustainable Economy is one of the prospects of green and sustainable banking. Poverty Alleviation is one of the prospects of green and sustainable banking.
   b. Dependent Variable: Encouraging investment is one of the prospects of green and sustainable banking.

Table 15.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	116.710	3	38.903	271.669	0.000b
	Residual	31.504	220	0.143		
	Total	148.214	223			

Sources: Researchers' computations (2019).

   a. Dependent Variable: Encouraging investment is one of the prospects of green and sustainable banking
   b. Predictors (Constant): Job Creation is one of the prospects of green and sustainable banking. Sustainable Economy is one of the prospects of green and sustainable banking. Poverty Alleviation is one of the prospects of green and sustainable banking

The model summary table reports the fitness of the regression model. The R^2 value of 0.78 (78%) is the coefficient determinant explaining the variation in the dependent variable as accounted for by the independent variables with an unexplained variation of 22%. The F-statistic value of 271.669 and the corresponding probability value of 0.000 shows that the overall result is statistically significant for a robust analysis. Green banking benefits impact on the performance of the financial institutions in Nigeria at the 5% significant level.

The ANOVA results report that the independent variables statistically and significantly predict an impact on the dependent variable (F = (3,220) = 271.669, P < 0.000). The ANOVA result further validates the robustness of the regression analysis. Green banking benefits impact the performance of the financial institutions in Nigeria at the 5% significant level.

Table 16.

Coefficients [a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
(Constant)	0.509	0.060		8.515	0.000					
Poverty Alleviation is one of the prospects of green and sustainable banking	–.102	0.063	–0.116	–1.603	0.110	0.778	–0.107	–0.050	0.186	5.388
Sustainable Economy is one of the prospects of green and sustainable banking	–0.027	0.028	–0.038	–0.949	0.344	0.542	–0.064	–0.029	0.593	1.685
Job Creation is one of the prospects of green and sustainable banking	0.850	0.064	1.014	13.194	0.000	0.886	0.665	0.410	0.163	6.117

Sources: Researchers' computations (2019).

a. Dependent Variable: Encouraging investment is one of the prospects of green and sustainable banking

From the coefficient results, it can be inferred that a 1% increase in green banking implementation and awareness increases financial and economic development and sustainability through job creation by 85%. From the findings of this study, it can be inferred that poverty alleviation and a sustainable economy have negative and non-significant relationships with green the banking implementation and awareness level in Nigeria at levels of –0.102% and –27%. A 1% increase in infrastructural development and sustainability increases job creation and green banking implementation awareness. The lack of a positive and significant relationship between poverty alleviation and sustainable economy as it relates to green banking implementation and the awareness level in Nigeria is traceable to factors such as poor educational development and age range and poor ICT infrastructure and understanding of the green banking model in Nigeria.

Findings
The meager rate of green banking implementation and awareness in Nigeria is traceable to a lack of adequate educational, financial, and ICT infrastructure in Nigeria. From the

findings, it can be inferred that educational level, age group, lack of basic ICT knowledge, and illiteracy among the rural and urban dwellers are challenges to green banking awareness and sustainability in Nigeria. Poor knowledge of green banking among customers and bank staff affects the level of customer awareness and the impact of green banking on the eco-system. In summary, decreases in educational, financial, and ICT infrastructure decrease the level of customer awareness and the impact of green banking on the eco-system by 36% and the benefits of green banking by -0.102% and -27%, respectively. The value of effective and efficient customer awareness and the impact of green banking implementation on the eco-system are 85% and 83%, respectively.

Conclusion and Recommendations
Green banking products act as an important basis for product differentiation and as environmentally friendly products that aid in the protection of our ecosystem. When compared globally, the awareness level in Nigeria lags behind that of other countries. This study concludes that the successful implementation and customer awareness of the various Green Banking products in Nigeria lies in the creation of customer awareness on the activities of green banking. The provision of basic infrastructure, customer education, and the proper utilization of products will sustain green banking operations in the country. Nigerian banks have some green banking activities without proper nomenclature. Green banking not only boosts banks' profitability through ease of doing business but also reduces the financial institution costs of doing business with customers.

The study makes the following recommendations:
1. Financial and educational infrastructure must be put in place to educate customers on green banking products. Banks must organize seminars and conferences to educate the customers, bankers, and bank staff on the benefits of online banking as well as the security and privacy of their customers.
2. Lack of adequate financial infrastructure affect the awareness of green banking in Nigeria. From the findings, it can be inferred that rural communities are still operating under the traditional banking system due to a lack of basic financial infrastructure. Banks must purchase appropriate hardware (solar energy instead of electric power generators and increase the number of ATM booths, among others), system software, and networking infrastructure to spur the awareness level in customers. Banks can organize competitions for customers to increase awareness regarding green banking.
3. The challenges of green banking products regarding the performance of financial institutions in Nigeria cannot be overstressed. The findings show that environmental pollution arising from the operational and business activity partners of the banks, such as heavy and light duty manufacturing firms, affects the biophysical environment through acid rain, landslides, and ozone depletion.
   Thus, the government, organizations, and every individual must take necessary steps in order to reduce the depletion of natural resources and protect the environment to spur banks' financial performance.
4. Banks contribute ethically to economic development. In the current scenario, many organizations' social responsibility strategies are used as a tool to promote

their business, since customers, the public, and investors expect them to sustain the eco-system and act responsibly. Banks must review their current CSR practices as they relate to green banking.

5. To improve and enhance green banking activities, the banks should acquire the support of the Government, Non-Governmental organization business organizations, and consumers through proper education. Banks should not be satisfied with the current green banking products they possess and should give them the correct name. They must continuously be involved in introducing innovative products for both their benefit and that of society. Thus, banks must focus on promoting the awareness and benefits of green banking to their employees who are in direct contact with the customers.

6. For the sustainability of green banking activities in Nigeria, the collaboration of policy makers and service providers is needed in order to put policies in place that are suitable and adaptable to the service users.

The Implications of the study
The awareness of green banking activities to both bankers and customers will notonly boost the profit of banks but will enable customers to operate at their convenience, thereby encouraging and sustaining financial inclusion.

References
Ahmad, F., Zayed, N. M. & Harun, A. (2013). Factors behind the Adoption of Green Banking by Bangladeshi Commercial Bank, ASA University Review, 7, 241-255

Arulrajah, A. A. (2016). Measuring green banking practices: Evidence from Sri Lanka. *13th International Conference on Business Management,* Abuja: Nigeria

Azam, N. (2012). **Green corporate e**nvironment thru' green banking and green financing, The Financial Express, 135-391.

Bahl, S. (2012). Role of green banking in sustainable growth, *International Journal of Marketing Financial Services and Management Research, 1,* 27-35

Bai, Y. (2011). *Financing a green future, Master's thesis, Lund University*, Sweden: Retrieved September15,2016,from http://lup.lub.lu.se/luur/download?func=download File&recordOId=2203222&fileOId=220322

Benedikter, R. (2011). *Answers to the economic crisis: Social banking and social finance*, Spice Digest - New York: Springer.

Bhal, S.(2012). Green banking-the new strategic imperative, *Asian Journal of Research in Business Economics and Management, 2,* 2249-7307.

Bihari, S. C. (2011). Green banking towards socially responsible banking in India, *International Journal of Business Insights and Transformation, 4*, 82-87.

Broto, R. B. & Aarushi, M. (2013). Green banking strategies: Sustainability through corporate entrepreneurship, *Greener Journal of Business and Management Studies,* 3, 180-193.

Central Bank of Sri Lanka (CBSL).(2015). *Annual report*, Central Bank of Sri Lanka.

Chaurasia, A. K. (2014). Green banking practices in Indian banks. *Journal of Management and Social Science,* 1, 41-54**.**

Cleverism, S. (2018). Viewed on 10.10.2015 from https://www.cleverism.com/lexicon/ customer - awareness/

Cynthia, C. (2019**).** *For more news updates visit https://www.financialwatchngr.com/*

Dash, R. N. (2008). Sustainable "green" banking: The story of triodos bank, CAB Calling, 26-29.

Dhamayanthi, A. I. & Teresa, C. (2018). Factors determining the adoption of green banking amongst commercial banks in Malaysia, *Electronic Journal of Business and Management, 2,* 50 – 61.

Guller, S., HalilIbrahim, A. & Burcu, A. (2014). Green banking for a sustainable future: Turkey Application annals - economy series, Constant in Brancusi University, Faculty of Economics, 2, 166-171.

Gupta, R. (2015). Role of green banking in environment sustainability – A study of selected commercial banks in Himachal Pradesh, *International Journal of Multidisciplinary Research and Development, 2*, 349-353 .www.all subject journal.com.

World Bank Group; International financial corporation performance standards and supporting guidance, including the World Bank Group environmental, health and safety (EHS) guidelines www.ifc.org/sustainability and www.ifc.org/performancestandards.

Kern, A. (2014). *Stability and sustainability in Banking reform: Are environmental risks missing in Basel III?,* Cambridge: UNEP Finance Initiative and the University of Cambridge Institute for Sustainability Leadership.

Jeff, S. (2003). *The shareholders vs. stakeholders debate*, Magazine: Summer Research Feature

Lynn, S. (2016). *Chief external affairs officer:* The Nature Conservancy *and former deputy secretary of the interior in the George* W. Bush Administration.

MozibLalon, l. (2015). Green Banking Green going, *International Journal of Economics, Finance and Management Sciences (Science Publishing Group}, 3*, 34-42.

Ochieng, O. (2014). *The influence of green marketing strategies on cost management among commercial Banks in Kenya*, Research Project Report Submitted In Partial Fulfilment of The Requirement For The Award Of Degree of Master of Business Administration (Mba), School of Business, University of Nairobi.

Olaoluwa, P. A., Titilope, F. A. & Olutoye, A. (2016). Sustainable development through green Innovative Banking 3p's, *International Journal of Innovative Research and Development, 5*, 100-112.

Rahman, M., Saha, N. K. & Sarker, M. N. I. (2017). Problems and prospects of electronic banking in Bangladesh: A case study on Dutch-Bangla Bank Limited, *American Journal of Operations Management and Information Systems, 2*, 42-53

Sudhalakshmi, K. & Chinnadorai, K. M. (2014). A study on customer's awareness on green banking initiatives in selected private sector banks with special reference to Coimbatore city, The *International Journal of Business & Management, 2*, 160-163.

Sharma, K. (2013). Green Banking in India: A Roadmap to Success, *IBMRD's Journal of Management and Research*, 2, 1-27

Sohel, M. (2017). Green Banking: A Case Study on Dutch-bangla Bank Ltd. Academy of Accounting and Financial Studies. 21, 1528-2635

Sohel, M. (2017). The identification of bankers' perception toward indicators for the adoption of green banking in Bangladeshi scheduled commercial banks, *Journal of Internet Banking and Commerce, 22*, 1-18.

Yi-Hui, H., Chieh-Yu, L. & Jung- Shun, T. (2014). An empirical study on organizational infusion of green practices in Chinese logistics companies, *Journal of economics and social studies, 4*, 159-189.

Ying, S. & Yanjuan C. (2009). The comparison of opening up in banking industry between U.S. and China, *INT. J. BUS. & MGMT*, July 2009, at 160, 163.