1.1 Overview

The banking sector in India is the lifeline of the nation. It is the largest financial sector in India. Indian banks have the potential to become fifth largest in the world by 2020 and third largest by 2025. Banks have helped in country’s economic development and have transferred the hopes of people into the reality. In recent years Indian banks have witnessed the growing trend and have transformed its operational strategies to a large extent. The banking sector in India has gone through many challenges which include a shift in consumer behaviours, technological changes, regulatory changes, etc. It has faced various ups and downs and has become adaptive to the changing environment.

The Traditional Banking sector in India can be defined as the banks whose primary activity is to receive, keep and lend money. It has acted as the payment agent for its customers. It has provided many facilities to the customers like the opening of an account, transfer of the funds, providing of loans, clearing of cheques, clearing of demand drafts, etc. They are the financial intermediaries who act as the depository institutions of the economy having control on the economy’s money supply. Traditional banks are the major players in the financial market of the economy. They perform the activity of transferring the household saving into the loans for fostering business organisations. The main objective of traditional banking is to increase their financial leverage by making more and more profits without considering the negative impact of its activities on the economy and the environment.

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 time of the customers as it not only includes travelling but also requires them to stand in long queues to perform their transactions. Traditional
banking also involves a lot of paperwork to be done in order to perform its banking functions properly which involves deforestation and has an adverse effect on the environment. In order to expand its business and to increase its operations traditional bank requires a lot of human capital and involves a heavy cost in setting new infrastructure. Nowadays, as people of the country are precipitously using the earth’s natural resources, it has given rise to the concept of **Green Banking**.

Green Banking is different from traditional banking as it is the concept of promoting sustainable development in the country. Green Banking is the new phenomenon in the financial world which concentrates on environmental and socially responsible investing. In the era of Globalisation, global warming is becoming one of the major issues across the world. The effects of Global warming have found to be responsible for the destruction of the climate changes which have impacted the land, water and human resources of the world. As people of the society are becoming more concerned about the depletion of natural resources, organisations have started performing their corporate social responsibilities. They have started modifying their working techniques to maximise the greenery and to reduce the impact of their activities on the environment.

**Green Banking** is also called as the 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 its operational improvements and technology know-how in banking business activities. Green Banking has started priority lending to those industries which are already green or putting its efforts to go green. The aim of going green is to increase the energy efficiency and to use the biodegradable products. The performance of banks largely depends upon the performance of its clients. The banks have to diligently check that the customer’s projects are meeting all the legal and environmental compliances as any failure can result in nonperforming assets for the banks.

The concept of going green is new in India and has been adopted by the Indian banks in many forms. Banks have started providing services of online banking,
mobile banking, green loans, E-statements, etc. They have been promoting their services 24*7 to the consumers. Banks have started providing various services like online opening of bank accounts, online payment of bills, online investment, use of ATMs, etc. As the concept of Green Banking is at growing pace in India, it has also entered in the State of Rajasthan. Many Banks both Private and Public Sector Banks in Rajasthan have started providing Green Banking products and services to its customers and have started contributing to the concept of ethical banking. This study provides information about the Green Banking activities carried out by various banks in Rajasthan. This study also includes awareness and perception about Green Banking activities among customers and bank employees of the state.

1.2 Meaning and Concept of Green Banking

In today’s society, climate change is a most complicated issue. Nowadays, people are more conversant with global warming and its inherent consequences on human life (Sharma, 2013). So, change is imminent in present scenario for the survival, and continuous efforts are made to the environmental management (Elkington, 1994) in a sustainable manner. It is the matter of concern for the government and the direct polluters and also for other stakeholders like financial institutions. This includes banks, which are playing a fundamental role in the development of the society. Although banking activities are not physically related to the environment, yet it is an external impact of the customers which is substantial for them. To reduce the carbon footprint from the environment substantially, it is required by banks to promote those products, process and technology which adhere to it. Therefore, banks are adopting green strategies into their buildings, operations, and investments and financing strategies.

The banking industry in India witnessed many changes and introduced a lot of technical changes (Curry and Moutinho, 1993) that changed the definition of banking. Many functions were included in the process other than the core ones. However, in the twentieth century when everyone was hailing about sustainable development banking industry went into yet another revamp. Many studies undertaken back then proved that banks were a major source of environment
degradation and increased the level of carbon footprint. As per the requirement, sustainable development was seen as the only option in order to reduce the factors giving birth to global warming (Elkington, 1994). Already much advancement has been undertaken by the banking industry and to support sustainable development; Green Banking was taken to be a common answer to all the environment related problems. With the widespread use of internet banking, mobile banking and cashless transactions, it is easy to implement the concept of Green Banking. In order to promote the use and implementation of Green Banking, a general campaign was launched by NDTV under the name Greenathon. Inspired by this campaign many banks started to finance those projects which were eco-friendly and included provisions for providing energy efficiency.

The increasing adoptable symbol of Eco-consciousness in the world is green. According to Indian Banks Association (IBA, 2014) “Green Bank is like a normal bank, which considers all the social and environmental/ecological factors with an aim to protect the environment and conserve natural resources”. It is also known as an ethical bank or sustainable bank. The purpose of these banks is to perform banking activities alongside with taking care of earth’s environment, ecology and natural resources including biodiversity. The key reasons for going green are:

- Increase in consumption and of energy
- Increase in energy prices
- Increase in demand for environmentally-friendly goods and services by consumers
- Higher expectations by the public on Ban’s environmental responsibilities
- The emergence of stricter regulatory and compliance requirements.

The concept of Green Banking or Green initiatives taken by Banks is making technological improvements, operational improvements and changing client habits in the banking sector. It means promoting environmental-friendly practices and reducing the carbon footprint of banking activities. Green Banking is not only a Corporate Social Responsibility (CSR) (Narwal, 2007) activity of an organisation, but also it is about making the society habitable without any considerable damage.
For banking professionals, Green Banking involves the tenets of sustainability, ethical lending, conservation and energy efficiency. This comes in many forms:

- Increasing Use of online and reduce use of branch banking
- Performing online payments instead of using emails
- Opening online bank accounts, instead of large multi-branch banks
- Finding that local bank in their vicinity which supports local green initiatives.

The concept of Green Banking is mutually beneficial to the Consumers, banks, industries and the economy. For consumers, this shift towards Green Banking means that more deposit and loan products will be available through online and mobile banking. It also means better deposit rates on Green Deposits and Green savings accounts and lowers interest rates for Green Mortgages. For banks, adoption of Green Banking services leads to paperless banking, energy saving, etc. This is an effort by the banks to make the industries grow green through prudent use of Green Mortgages. The importance of Green Banking is immense for the overall economy as it mitigates Credit Risk, Legal Risk and Reputation Risk involved in the banking sector.

- **Credit Risk**: Customers affected by credit risks (Kiesel and Spohnholtz, 2017) due to lending are those whose businesses are affected by the pollution cost, changes in environmental regulations and new requirements on emissions levels. It is higher due to the probability of customer default arising due to uncalculated expenses for capital investment in production facilities, loss of market share and third party claims.
- **Legal Risk**: Banks are likely to face legal risk (Charlier, 2000) if they violate environmental regulation rules. They may also face risk of direct lender liability for cleanup costs or claims for damages in case they actually take possession of pollution causing assets.
- **Reputational Risk**: Banks are prone to loss of their reputations (Saleuddin, 2014) if they indulge in environmentally damaging projects.
1.3 **Inception of Green Banking**

Initially, the banking industry was considered to be a most relaxing job. Employees would wind up their work by four in the evening and would also do the pending work the next day. Backdate entries were common as the ledger were posted manually. This gave an opportunity to the bankers to become lazy and also frauds became common. Another very major drawback of the traditional banking was that the cash timings were till two in the afternoon. After that, there was neither the facility of withdrawal or deposit. Moreover, if anyone required money in an emergency, then the person has to borrow it from relatives or friends. Moreover, in many cases, there were casualties as the required amount of money could not be arranged in order to treat the patient. It was also seen that there was extensive use of paper which in turn resulted in deforestation.

In traditional banking people with knowledge of debit and credit functions were considered eligible for working as a banker. Not much technical qualifications were required, and also no specific education required to be undertaken like in other professions, for example, doctors. These were the issues that required to seriously adhere to for improving the condition and structure of the entire banking industry. The shortcomings were closely studied by PM Mrs. Indira Gandhi, and apart from these, many other reforms were undertaken in her regime. The nationalisation of all the major banks running in the country was a major decision taken back then.

Following the nationalisation policy, One another concept launched in 1990 that was the New Economic Policy or Liberalization, Privatisation and Globalisation (LPG) policy. Under this policy, many of the private sector banks received licence. It was from here that a new chapter in the banking industry was introduced. Automation of the core banking process was one of the major changes that took place at that point in time. Since the liberalisation policy was adopted by the banking sector, a new term tech-savvy came into existence. After the launch of LPG, the banking sector saw a reform on the whole. The major impact was in the working culture. Prior to 1990, the employees were habitual of banking till 10-5, and after that, the bankers had to work till the bank required them. As
everything was computerised backdate entries, pending work and frauds nearly banished. For some time the employees had to struggle with learning the new process and bringing back the core banking processes on track. Slowly, people also started to expect more regarding the quality of banking services and in terms of product range. This in turn led to the evolution of a new era in the banking industry.

Post new economic policy (Gorton, and Huang, 2002) the role of banking increased manifolds, and their participation in the economy became more and more significant. Apart from the core banking activities like accepting deposit and giving out loans, banks started many other activities as well. The other activities included insurance, debit card, credit card, message alert and insurance. Although the first ATM (Sharma, 2013) in India was launched in 1989 by HSBC, it was not popular among the clients as well as banks. Slowly after 1990, all banks started the process of launching ATMs and debit cards in order to reduce the workload in the branch as more and more people started using banking services. Even though the ATMs allowed cash withdrawal for 24*7 customers fear using them as it was a new technology, and they were unaware of its use. Hence, even after having debit cards, customers rushed to the branches for withdrawing money. To solve this problem banks launched awareness campaigns in which the customers were taught how to use ATM and also its importance.

Eventually, the clients started using ATMs when a new concept of internet banking was launched by ICICI bank. This facility allowed the clients to access all the functions of the bank by themselves using the internet. They had to register for the service and obtain an ID and password. Through this, they could access their account by visiting the site of the bank. Online transfer, bill payments, examination fee payment and online purchasing became much easy. Even though one could not withdraw or deposit money through internet banking but transfer entries made realising the payment to anybody much easy. This in turn led to an increase in the product range of the bank making banking transactions very simple. Adding to the innovations in banking industry Union Bank became the first ever bank to launch a talking ATM in 2012. These ATMs were specially
designed for physically challenged and visually impaired people. After the first launch, SBI made it a point to launch real talking ATMs across India. Making it even easier for the clients to operate, ICICI Bank launched the concept of mobile ATM. This meant a van would carry an ATM from place to place and people could withdraw and deposit money as in any other ATM. Similar to ATMs the banks launched another machine for depositing cash into the account through the debit card itself. Through this step, RBI tried to reduce the movement of cash and customers for cash transactions so that employees could manage branches easily. It reduced the long queues in banks and also zeroed the time limitation on withdrawal and deposit of cash.

1.4 Inception of Commercial Banking

Commercial banking was unknown to the Indian economy in the ancient era. However, various accounts of the learned people and various travellers depict the existence of merchants and moneylenders (Dadabhoy, 2013). They were rich and used to run a type of unorganised banking sector, but in only for lending money. The other activities were absent. People used to preserve their wealth in the form of gold that could be easily stolen. Thus, the gold was kept safely in the temples. While in the Mughal period the moneylenders and rich merchants achieved a significant position for providing and facilitating the exchange of trading instruments. Finally, in the British period, these unorganised bankers were shifted to the role somewhat similar to commercial bankers. These bankers were made to collect, store and loan the money to the British government.

Commercially the very first bank was established in India in Calcutta in the year 1770. The bank was started by a European agency M/s. Alexander &Co. It was named The Bank of Hindustan. The main purpose of establishing the bank was to facilitate the trading practices during that period. With the closure of Alexander Company (Anitha and Rao, 1998), The Bank of Hindustan failed as well in 1832. The new twist in the history of the banking sector of India came when the three Presidency States set up their respective banks in their domains, namely, The Bank of Bengal (1806), The Bank of Bombay (1840) and The Bank of Madras (1843). These banks were established by the East India Company in order to lend
and safeguard money. These banks (Bonin, 2016) enacted all the responsibilities of a central bank and carried out the activities in their respected vicinity. The entire banking evolution can be classified into four phases (Figure 1):

- Phase I- Pre-Nationalization Phase (prior to 1955).
- Phase IV- Period of Increased Liberalisation (2004 onwards).

Figure 1: Evolution of Indian Banking Industry

Source: D&B Industry Research Service, 2006
The first proper commercial bank of India was established after the Joint Stock Companies Act was passed in 1850. Following the suit, Oudh Commercial Bank emerged on the horizon of Indian Banking industry in the year 1881 and further in 1894 Punjab National Bank was the next milestone. After that, the banking industry adhered to mushroom growth where banks sprang in every hook and cranny of the country owing to the absence of proper rules and regulations. This led the failure of these banks at the same speed with which they have been coming up in the competition. Looking into the matter more seriously the Indian government was compelled to pass the Indian Companies Act in 1913 after analysing the hardcore failure and crisis of different commercial banks. After that, the banking industry saw many changes two of them being the merger of three Presidency Banks into one single Imperial Bank (1920) and the establishment of an apex bank for controlling all the banks, i.e., Reserve Bank of India (1935).

1.5 Traditional Banking v/s Green Banking

Table 1: Difference between Traditional Banking and Green Banking

<table>
<thead>
<tr>
<th>Traditional Banking</th>
<th>Green Banking</th>
</tr>
</thead>
<tbody>
<tr>
<td>The processes were time-consuming and also had time boundations. It means no transaction could be carried out after the banks closed.</td>
<td>The processes have been digitised, and it takes a few minutes to realise one single transaction. Also, there is no time boundation. One can do banking at any hour of day or night.</td>
</tr>
<tr>
<td>Everything was done manually, and there were increased chances of mistakes and frauds.</td>
<td>As computerization has been adopted at every level, it has become easier to track mistakes, and it has also zeroed down the chances of frauds.</td>
</tr>
<tr>
<td>The cost of operation was very high as it involved usage of electricity, paper, furniture, and space. It also increased carbon footprint.</td>
<td>The valuable resources like electricity and forests are saved as there is a diminishing need to establish more branches. People need not visit the branches for transacting. As a result, carbon could be controlled easily.</td>
</tr>
</tbody>
</table>
- Only visiting the branch could let the account holder withdraw or deposit money which was tedious and inconvenient at times.

- ATMs can be used both for withdrawing and depositing money. The account holder does not need to wait for the branch to open up in order to take money out of the account or deposit it.

- Cash was the only alternative for purchasing something or paying for any of the services. This required a lot of cash in hand and involved a risk of theft or loss.

- With the introduction of debit and credit cards, the need of carrying cash was reduced to a minimum. Moreover, then with the online payment mode, the need for even carrying the cards has been abolished.

- Security of transactions is guaranteed as they are performed in front of the clients.

- There is a greater risk of hacking as the transactions are carried out online. It is possible to hack the passwords and other credentials for hacking and using them for own purpose.

- There is a huge requirement of human resource as the processes are labour-intensive. The whole tram with various designations is required in order to handle the banking process as well as the customers.

- With the introduction of advanced technology, it is possible to get the work done with comparatively less number of people. It is because maximum transactions have been digitised.

- There is no need of internet connection for the clients to carry on their transactions.

- Regular internet connectivity is required to carry out the transactions. If the internet connection fails, then the transaction would be interrupted in between.

- Not much-skilled people were required for handling daily transactions as there were simple debit and credit operations to be carried out.

- In order to perform various functions provided by Green Banking, it is necessary to have technical expertise. Working on computers and understanding of various technologies is important in order to work.
1.6 Green Process

A Green Bank requires each of its functional units and activities to be green i.e. environmentally friendly and help to improve environmental sustainability (Al-Tekreeiti, and Beheiry, 2016). Several opportunities are available for banks to green their functional units and activities. Key among them is:

- Supply Chain Management
- Adopt techniques and plans to minimise inventory
- Adopt networked design using a carbon footprint
- Enterprise Resource Management
- Facilitate paperless transactions
- Adopt techniques for workforce and parts optimization as well as intelligent device management.
- Customer Relationship Management
- Use electronic means, wherever possible, to maintain contact with and correspond with customers and potential customers and minimise paper-based correspondences.
- Sourcing and Procurement
- Select vendors by the sustainability rating of their products, services and operations.
- Product Life Cycle Management
- Design and offer banking products and services in such a way that consume fewer resources and energy and thereby reduce carbon footprint.
- Implement effective systems for product end-of-life management that have minimal impact on the environment.

1.7 Green Banking Products and Services

There is a greater scope of Green Banking in India as constant planning and efforts have been laid in the field. As per the Happy Planet Index, India is making steady progress towards reducing the carbon emissions. The index shows that while in 2006 India stood at the 90\textsuperscript{th} position in the race of reducing carbon
emissions. The same index in 2009 showed an improvement in the position of India, and it moved from the 90th to the 35th place. Continuing the progress India is aiming at reducing the carbon emission by 20-25% till 2020. Thus, it shows that the economy of the country especially the banking sector has been working in order to prevent further environmental loss by reducing carbon emissions. The banking sector has thoroughly built its strategy keeping in mind the six major factors i.e. the 3Cs and the 3Ps. On one hand where the 3Cs stands for Cost, Control and Customer Service, 3Ps stand for Profit, Planet, and People.

The 3Cs are the important part of banking operations, and with the help of Green Banking, it all can be achieved by the companies. Green Banking promotes online transactions, and it is the best way to enhance better customer services. The customers can avail all the facilities just by sitting at their place. They can access important information through laptops or even through smart phones. It is also a part of better customer services, and cost can also minimise. Thus, Green Banking has huge advantages for the banks as well as for the society. Green Banking is having two folds; one is promoting environmental practices through the introduction of Green Banking Financial Products and Services and second is reducing carbon footprints from banking activities on the environment.

1.7.1: Green Banking Financial Products and Services

i. **Green Deposits:** Banks offer higher rates on commercial deposits, money market accounts, checking accounts and savings account if customers opt to conduct their banking activities online.

ii. **Green Mortgages and Loans:** The green mortgage is a type of debt given to the customers for making their homes more energy efficient and eco-friendly. Banks offer a green mortgage with better rates or terms for energy efficient houses. The Ministry of Non-renewable Resource in association with some nationalised and scheduled banks undertook an initiative to go green by paying low-interest loans to the customers who would like to construct houses or buildings with energy efficient designs and would like to install gadgets that are environmentally safe like solar equipment, energy-efficient windows, geo-thermal heating or water
heaters (Rouf, 2012). The savings in monthly energy bills can offset the higher monthly mortgage payments and save money in the long run.

iii. **Green Credit Cards:** Green credit cards are helpful in reducing the personal carbon footprint of each and every client. The scheme is mainly launched in order to increase the use of plastic money (debit and credit cards) in place of currency notes. A green credit card facilitates cardholders to earn rewards/points through redeeming it for contributions to eco-friendly charitable organisations. These cards offer an excellent incentive for consumers to use them for their expensive purchases. As per a research if a person spends $1 from his/her green card then the carbon emissions would be reduced by two to four pounds. It means that if a person is spending $100 per week through green card then as per the calculations, it would be possible to stop 20,000 pounds of carbon emissions per year.

iv. **Green Reward Checking Accounts:** It is a bank product called reward checking accounts which pay a bonus to customers who are going green. This account helps the environment by utilising more online banking services (Roux, 2015) like online bill payment, debit cards, and online statements. Customers can earn higher checking account rates if they meet monthly requirements that might include receiving electronic statements, paying bills online or using a debit or check card. Higher rates and eco-friendly living go hand-in-hand with this banking product.

v. **Mobile Banking:** Mobile banking has the ability to check balances, transfer funds or pay bills from a mobile phone, which saves time and energy of the customers. It also helps in reducing the use of energy and paper of the bank. Most of the Indian banks have introduced this paperless facility.

vi. **Online Banking:** Online banking is the developing concept in young and corporate India. Online banking helps in additional conservation of energy and natural resources. Online Banking includes:

- Paying bills online,
- Remote deposit,
• Online fund transfers, and
• Online statements.

It creates savings from less paper, less energy, and less expenditure of natural resources from banking activities. Customers save time by avoiding standing to queues and paying the bills from home online.

vii. **Banking through ATMs:** ATMs are becoming more powerful than before and banks are consciously driving its usages with the concept of branchless banking. A visit to an ATM helps customer accomplish myriad value-added transaction services like utility payments, pre-paid mobile re-charge, credit card payments, tax payments and much more.

### 1.7.2: Carbon Footprint Reduction

Carbon footprint is a measure of the impact of activities on the environment. It relates to the amount of Green House Gases (GHG) (Gibbs and O’Neill, 2012) producing in day-to-day business while burning fossil fuels for electricity, heating, transportation, etc. Banks can reduce their carbon footprints by adopting the following measures:

i. **Paperless Banking:** Banks are switching their customers towards Online Banking and Mobile Banking to promote paperless banking.

ii. **Energy Consciousness:** Banks save their energy consumption by developing energy consciousness, adopting effective office time management and automation solutions and using compact fluorescent lighting (CFL) which helps them considerably. In order to manage their offices and ATMs, banks are switching over to renewable energy (solar, wind etc.) resources.

iii. **Using Mass Transportation System:** Banks are becoming fuel efficient organisation by providing common transport for a group of officials posted at one office.

iv. **Use of Solar and Wind Energy:** To go green, usage of solar and wind energy is a preferable option. State Bank of India (SBI) has become the first bank in the country to venture into a generation of green power by installing windmills for captive use. As part of its Green Banking
initiative, SBI has installed 10 windmills with an aggregate capacity of 15 MW in the states of Tamil Nadu, Maharashtra and Gujarat.

1.8 A SWOC Analysis: Green Banking

a) Strengths

1. Green Banking practice saves the time of customer as well as the bank.

2. It reduces the cost of bank operation and cost to the customer too.

3. The transaction can be done at any time and any place.

4. By financing in solar energy and wind energy program, the bank is reducing the carbon footprint from the environment.

b) Weaknesses

1. Lack of knowledge among the employees has been noticed.

2. There are some geographical barriers for the implementation of Green Banking practices.

3. All banks are not coming equally for the practice of Green Banking.

4. Problem of security is always with Green Banking practices

c) Opportunities

1. People are becoming more computer literate, so it is easy to start Green Banking practices and grape the customer toward the activities.

2. Most of the customers are using ATM card only. So it is a time to start all the initiatives for Green Banking practices.

3. Mobile banking and Internet banking is increasing day by day, so it is a time to spread Green Banking practices.
### Challenges

1. Startup face: Since it is a new concept, so the customer will take the time to adopt this.

2. Higher operating cost: Green Banking requires talented, experienced staffs to provide proper services to customers and technology which costs highly. It requires renewable and recycling techniques, which is again costly.

3. Diversification problems: Green banks restrict their business transactions to those business entities who qualify screening process done by green banks. With a limited number of customers, they will have a smaller base to support them.

4. Credit Risk: Credit risks arise due to lending to those customers whose businesses are affected by the cost of pollution, changes in environmental regulations and new requirements on emissions levels. It is higher due to the probability of customer default as a result of uncalculated expenses for capital investment in production facilities, loss of market share and third party claims.

5. Reputational Risk: If banks are involved in those projects which are damaging the environment they are prone to loss of their reputations.

### 1.9 Role of Green Banking in sustainable growth

Green Banking could create awareness by imparting education to attain sustainable development through communication. The first step would be defining target groups and means of communication. The whole system can be divided into internal and external sub-system (Figure 2). For internal subsystems (Page and Jones, 1989), banks could create awareness on this issue by weekly broadcasting green news on the internet, clearing programmes, high-level meetings, bank’s newsletter, publication, etc. and targeting on managers and other personnel. For external subsystems (Choi, 1994), effective means could be followed like
websites, capacity building, road shows, events meetings, benchmarking, media, etc. whereas clients, subsidiaries and the general public are target groups.

Figure 2: Green Banking in Sustainable Growth
Source: Bahl, 2012
1.10 Development in the Subject of Green Banking

1.10.1: International Status

The idea of environmental sustainability came in 1969 with the formation of the National Environmental Policy Act (NEPA, 2014) in the United States whose purpose is to maintain productive harmony between man and nature. After that an independent agency was established in 1970 “Environmental Protection Agency” (EPA) with the aim to protect the natural resources, human health and to preserve the quality of the environment. Since then, several other organizations are formed which are working towards environmental management like US Green Building Council (USGBC), IFC (International Finance Corporation) etc. to fosters the sustainable growth. In the early 1992, United Nations Framework Convention on Climate Change (UNFCC) is an international treaty which was joined by countries to limit the average increase in global temperature.

Then United Nations Environment Program (UNEP) launched what is known as the UNEP finance initiative (UNEPFI) and 200 financial institutions around the globe are signatories of this initiative statement to promote sustainable development. It will be noteworthy to mention that Netherland based ABN-AMRO bank has developed certain Reputational Risk Management (RRM) policies to identify, access and manage non-financial present within it business engagements. In 2002, a global coalition of NGOs formed a network named “Bank Tract” to promote sustainable finance in the commercial sector.

Across the world various voluntary rules have been set up for the classification, assessment and management of ecological risk in project financing like Equators Principles(EPs) which are adopted by financial institutions (currently 79 institutions in 35 countries) for assessing, determining and managing social and environmental risk in projects(Equator Principles Association, 2014). In India, Centre for Environmental Research and Education (CERE), Centre for Environmental Education (CEE) and Indian Green Banking Council are principal organizations to promote environment sustainability. Other initiatives like S&P
BSE-GREENEX and “Green Coin Rating system” introduced by RBI are playing an important role in promotion of sustainable development in India.

Similarly, World Bank E&S Norms, Carbon Disclosure Project, Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), ISO 14000 etc. are other guidelines for Green Banking. The Financial Times and International Finance Corporation (IFC), a member of the World Bank Group had launched the Sustainable Finance Awards for the institutions that are integrating social, environmental and corporate governance considerations into their business operations.

1.10.2: National Status

As far as Green Banking in India is concerned, the banks are way behind the schedule compared to the global trends. None of the Public Sector Banks or the Private Sector Banks has adopted “EQUATOR PRINCIPLES” of risk management framework for determining, assessing and managing environmentally and socially risk projects. Only few of the Indian Banks are signatories to UNEP-FI (United Nations Environment Programme - Finance Initiative). This declaration is endorsed by over 200 civil society organizations including banks which give a clarion call to all the financial institutions and banks to embrace six commitments and take immediate steps to implement the same in fostering the sustainability. Further, very few banks are also signatories to Carbon Disclosure Project (CDP)-India, an initiative to prevent dangerous climate change and protect our natural resources. Six Indian Banks have willingly agreed to include “Principles of Collevecchio Declaration”. It seems there is no systematic attempt to integrate the environmental concerns into the business operations by Indian Banks. Further, there are no particular RBI guidelines for banks on Green Banking. However, RBI has issued circular advising banks to integrate social and environmental concerns in their business operations. The RBI has also advised the banks to put in place an appropriate plan of action for sustainable development, albeit all this is voluntary on the part of the banks. Green banking has potential to transform the Indian economy. The concept of green banking is catching up in
India and banks are actively looking for ways to portray themselves as a Green Bank.

1.10.3: Its potential contribution to knowledge in the field of social relevance or National importance

The importance of Green Banking is immense for both the banks and economy by avoiding the risks involved in banking sector. The adoption of green banking strategies will help the bank to deal with credit risk, reputation risk and legal risk involved in their business operation.

Green banking strategies involves two components:

- Managing environment risk, and
- Identifying opportunities for innovative environmentally oriented financial products.

To manage environmental risk, the banks have to design proper environmental management systems to evaluate the risks involved in the investment projects. The risks can be internalized by introducing differential interest rates and other techniques. Moreover, bank can withdraw itself from financing high-risk projects. The second component of green banking entails creating financial products and services that support commercial development with environmental benefits. This includes investment in renewable energy projects, biodiversity conservation, energy efficiency, investment in cleaner production. Thus, the banking activities impose significant impact on society and thus are considered of a great national significance.

1.11 Structure of the Report

This part contains the entire structure of the report with a brief introduction of each chapter included in the study. The complete research work is completed in six well-knitted chapters along with a rich bibliography and questionnaire.
Chapter 1: Introduction to Green Banking

Sustainability is one of the major driving forces for establishing techniques that would not only promote business but would also help in looking after the environmental damage. With the passage of time each and every industry is evolving techniques that make a profit along with bringing eco-friendly. Green banking is one such concept put forward by the banking industry. The first chapter includes the overview, meaning, concept of Green Banking. In this chapter, it becomes evident that how and what led to the evolution of Green Banking and also understanding its various advantages. In this section, the emphasis is laid on identifying the gap between Traditional Banking and Green Banking. So, a comparison table is prepared to study the differences between Traditional Banking and Green Banking. Majorly the adverse effects like increased carbon footprint and excessive use of non-renewable sources of energy in banks through traditional banking are posing a great threat to the environment, and thus, green banking has been considered to be the possible solution to it. Hence, this chapter would show as to how it can be possible to make this concept a worldwide used technology.

Chapter 2: Research Methodology

In this chapter, initially background, focus and significance of the study is discussed. Further, Objectives and hypotheses are framed. The main objective of the research study is to assess the awareness level of customers and bank staff regarding Green Banking. Further, the objective of the study is to assess the behaviour and obstacles experienced by the customers and employees of the banks when they are adopting Green Banking services. Moreover, the basis of the research is to study the nature of Green Banking in both the public and private sector banks of Rajasthan and also to study the factors that are hampering the implementation of the Green Banking services.

The concept of Research Onion is also highlighted in this chapter which includes six layers i.e. Research Philosophies, Research Approaches,
Research Strategies, Research Choices, Time Horizons and Research Techniques and Procedures. These layers are studied with reference to present Research study. In this study, a sample of 600 customers is selected from selected 4 banks i.e. SBI, BOB, ICICI and HDFC (2 public and 2 private sector banks) from 2 different cities of Rajasthan State i.e. Jaipur and Udaipur. Out of 600 customers, only 426 customers gave proper responses, which are considered for the evaluation of results. Further, to analyze the awareness level of Banking Staff regarding Green Banking, a sample of 40 employees is taken from selected 4 banks of 2 different cities of Rajasthan state.

Chapter 3: Literature Review

The third chapter is related to the literature review of Green Banking. Total 80 reviews were collected, out of which 35 are reviews of International authors and 45 are of Indian authors. This chapter reveals the internal information related to Green Banking. Various questions like what is Green Banking, why its need was felt, who and where it was invented, scope and future aspects of Green Banking, etc. are answered in this chapter. The implications of Green Banking and how much the customers are happy with the technology is discussed here which decides its future in India. Hence, this chapter also reveals that how Green Banking can become a better option than traditional banking in terms of convenience, time consumed, ease of access, processing time, etc. This chapter determines the key points that influence the banks as well as customers to go in for Green Banking and its various advantages that distinctly identify its importance in the growing environmental crisis.

Chapter 4: Green Banking practised by Banks under the Study

This chapter talks about the nature of Green Banking Services provided by selected 4 banks (SBI, BOB, ICICI, and HDFC) operating in the 2 cities of Rajasthan (Jaipur and Udaipur). These four banks operate at very large scale, and the impact of their Green Banking practices is witnessed in the entire banking industry. The banks have adopted two-way approaches to
support the mission of Green Banking. One approach is that the banks have implemented Green Banking practices within their banking operations and the second approach is that the banks have introduced certain lucrative schemes for their customers that boost their morale to get involved in green practices. In this way, banks are motivating customers and common people in an indirect manner to become supporters of green environment. Thus, this chapter embeds the combined effect of practising Green Banking in both public and private banking sectors.

Chapter 5: Data Analysis and Results

This chapter of the research is related to analysis of data collected from customers and employees through questionnaire method. In this study, data analysis process is carried out in two ways that are qualitative analysis and quantitative analysis. Qualitative analysis is done by the means of Thematic Analysis, which is done in order to understand the awareness and perception of Green Banking among respondents. In this analysis, certain themes are prepared in order to identify and analyse the patterns within the data.

The quantitative analysis applies various statistical tools in finding out the outcome of the study. In this study, T-test, Chi Square test and Regression analysis is done by using the SPSS software in order to test the dependency demographic characteristics of respondents and usage/adoption of Green Banking. This analysis also focuses on the flaws of traditional banking system and benefits offered by Green Banking approach. Moreover, the analysis helps in understanding the obstacles which are faced by customers and employees for adopting the Green Banking practices.

Chapter 6: Findings, Suggestions and Conclusion

This chapter of the research is related to derivation of conclusion based on findings of the study. Also, suggestions are provided to make Green Banking Services more popular among customers. From the study, it is
seen that the customers of the banks are not fully aware of the Green Banking services and its products. However, most of the bank employees are totally aware of the Green Banking products and services. Moreover, from the thematic analysis, it can be seen that the perception of the customers towards the Green Banking services is not 100 percent positive. The customers still fear in carrying out the Green Banking activities as they are of the view that carrying out the online transactions are not safe and can be easily hacked by anyone.

1.12 Conclusion

Green Banking is the new phenomenon in the financial world which aims to protect the environment by promoting environmental-friendly practices through the introduction of Green Banking financial products and services and reduce the carbon footprint from banking activities. Wherein, Green Banking products and services include Online Banking, Mobile Banking, Banking through ATMs, Green Credit Cards, Green Mortgages and Loans, Green Deposits and Green Rewards Checking Accounts. Carbon footprint is a measure of the impact of activities on the environment. It relates to the amount of Green House Gases (GHG) producing in day-to-day business while burning fossil fuels for electricity, heating, transportation, etc. Banks can reduce their carbon footprints by adopting the measures like Paperless Banking, Energy Consciousness, using Mass Transportation System, Use of Solar and Wind Energy.

Green Banking offers various benefits over traditional banking which includes digitization of banking processes, 24*7 access facility, time effective and convenience. Green Banking is not only a Corporate Social Responsibility (CSR) activity of an organisation, but also it is about making the society habitable without any considerable damage. For banking professionals, Green Banking involves the tenets of sustainability, ethical lending, conservation and energy efficiency.
REFERENCES


