CHAPTER – 2
RESEARCH METHODOLOGY

2.1 Introduction

Research methodology is a systematic approach of finding an answer to the problem that exists in the industry/sector. This segment of the research is related to disclosing the various steps of research carried out by the researcher in order to reach a solution to the research problem. It means that the researcher is not only involved in practical applications like calculation through various formulae but the logical application of different techniques that vary from one research to another (Kumar, 2010). Thus, the same methodology is not applicable to all the problems. For example, in some of the researches inductive approach is more useful while others use deductive approach. Some of the studies are based on established facts while others are directed towards finding out some new theories. In both the cases, the research would go in an entirely different direction.

A research methodology (Hussain, 2011) enables the researcher to maintain and device an action plan which would guide him through different stages of his research. It is similar to constructing a building in which the architect has to find out the reasons for using the particular shape and size of the doors and windows. Thus, research methodology adds many dimensions to the research which eases out data collection and analysis in order to draw conclusions out of it.

In this chapter, initially background, focus and significance of the study is discussed. After then, 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 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 that are related to identifying the design of research, approach of research, data collection and data analysis. These six layers are Research Philosophies, Research Approaches, Research Strategies, Research Choices, Time Horizons and Research Techniques and Procedures. Theses layers are studied with reference to present Research study.

The research onion was developed by Saunders et al. (2007). It illustrates the stages that must be covered when developing a research strategy. When viewed from the outside, each layer of the onion describes a more detailed stage of the research process (Saunders et al., 2007). The research onion provides an effective progression through which a research methodology can be designed. Its usefulness lies in its adaptability for almost any type of research methodology and can be used in a variety of contexts (Bryman, 2012).

2.2 Background of the Study

The banking system plays a very crucial role in the economy of any country. However, it was never the same as we know it today. The initial prototype of the bank was that of moneylenders giving grain loans to the poor farmers at very high interest rates. This form of banking trapped the illiterate farmers in a vicious debt circle which became impossible for them to break for generations. Hence, one can say that the banking started since the time money in any form started being used as a mode of exchange since the 15th century. Talking of India, it was highly involved in the unorganised sector for the financing part. Many of the small-scale farmers had to sell their lands work as bonded labourers to pay back their loans. As they were illiterates, the moneylenders produced forged documents to trap the poor farmers.

The modern form of banking became relevant in India by the end of 18th century. At that point, many banks were established but soon had to be liquidated owing to their insolvency or due to some kind of fraud, Bank of Hindustan being one of them. State Bank of India is one of the oldest banks still operating today. Hence, the simple and plain structure of a bank for an Indian citizen at that time was of an institution which is responsible for accepting deposits from the people and creates
credit. It implies that the bank or banking system was meant to ease out the task of the public to save money and at the same time get loans in time of need. Put together a bank’s main motto is to motivate people to save a part of their income and earn a profit on that.

With the process of the world becoming a global market and change in the structure of banking structures, banks were not merely responsible for carrying out teller tasks. Before the decade of 90s banking was totally under public sectors. With the release of the Liberalisation, Privatisation and Globalisation (LPG) policy released in 1990, private competitors set their foot in this industry and thus banks like Axis Bank, ICICI Bank and HDFC Bank gave a cutthroat competition to the PSU banks. All banks whether private or government are governed by Reserve Bank of India (RBI). Due to the increased level of privatisation in the banking industry, these institutions are no longer responsible for opening accounts and lending money, but various other activities have been appended to its framework. These tasks may include Insurance, Demat activities, Gold Loans, Foreign Exchange, etc. This in turn puts a great pressure on the environment in terms of deforestation and carbon emissions as well (Bahl, 2012).

As we are moving fast towards modernisation environmental degradation is one fact that cannot be ignored. The increased level of carbon footprint, deforestation, and various other threats has been caused to the environment due to human behaviour. The banking industry also plays a significant role in deteriorating the environment as well. The energy emissions, paper wastage, and the carbon emissions from the computers as well as air conditioners pose a huge threat to the environment. Rather lately the banks have adhered to the issue and have accepted it to be their responsibility for taking steps that would stop the environment from degrading further. Green Banking is one of the remedies suggested by the economists to prevent environment (Bihari and Pandey, 2014).

Green Banking as the name signifies an environment-friendly banking system. This concept was originally projected by Reed Hundt (United States) in 2008. The main purpose of Green Bank is to make all the physical transactions online in order to reduce the use of paper, energy and fuel. The idea behind launching this
scheme is to give access to all the banking facilities sitting at home. The clients need not stand in long queues and wait for their transactions to be processed. Another very vital part of green banks is to finance those projects that facilitate to abide by the eco-friendly laws and try to embed technologies which would be in accordance with nature. For example, solar heaters are now installed in most of the new buildings to heat water. Then there are a lot of Bungalow owners who use these types of heaters as a renewable source of energy.

The huge leap from traditional banking to Green Banking is a gradual process that is being adopted by PSUs and private sector banks. Like, majority of banks are shifting to paperless banking to put minimum possible burden on the environment.

The reason for such a big jump from fully paper-oriented to paperless transactions is mainly the environment effect. However, there are many other reasons to it. As the world is becoming a global economy, people have time constraints for performing each and every task. It is quite a known fact that every single physical transaction consumes a lot of time to be accomplished. It not only lets the people suffer but also makes it difficult for the bank officials to manage the various processes and customers as well. It results in the wastage of time, human resources, fuel, paper and many more resources that could be better utilised elsewhere. The Green Banking system provides the clients with an option to carry out banking transactions 24/7 even on holidays. Thus, the clients can utilise their spare time to do banking without being actually present in any of the nearest branches. Also, the banks need not open branches in different locations within the same city that would save the infrastructure cost. Hence, one can say that Green Banking is useful both for banks and customers at the same time.

2.3 Focus of the Study

As people around the world are getting more concerned about environment and availability of its natural resources for the future generation, they have decided to follow the concept of ‘Go Green’. This concept involves the world to adopt new technologies which helps in saving the earth’s non-renewable resources.
Organisations have started focusing more on their activities and moving towards adopting new techniques which leads to sustainable development. With the time every sector of the economy has started concentrating its efforts on the concept of going green. This research study focuses on the concept of going green in the banking industry. The focus of the research is to provide insight of Green Banking in the state of Rajasthan and mainly in cities like Udaipur and Jaipur. The research is conducted in both public and private banks which include State Bank of India (SBI), Bank of Baroda (BOB), Industrial Credit and Investment Corporation of India (ICICI), and Housing Development Finance Corporation (HDFC).

2.4 Significance of the Study

This era of globalisation along with industrialisation has helped individuals move towards a more comfortable and easy lifestyle. On the one hand, where it is easing out the work of people, it is posing a great threat to the environment also. The banking system of India has reached to a level where competition and profit earning has become a prime motto. In this race for becoming the best, they had forgotten their social responsibility. Now, after strict regulations from government’s side for protecting the environment, the banking industry has realised the drawbacks in their system and have toiled to find out the possible solutions for them. One such step forward in this direction is Green Banking. This idea originated in the USA and had travelled all around the world in a very short span of time. The various drawbacks like excessive use of paper, light and various other resources in traditional banking industry are now narrowed down to the minimal possible level.

Green Banking reduces the level of carbon emissions in the environment majorly as there would be less need of setting up branches in every location. For example, in some city, if presently there are 10 branches of a particular bank then it can be reduced to 5 with the help of Green Banking. As all the transactions are to be processed online which zeros down the need to visit the branch physically. Green Banking not only includes paperless transactions but focusing on matters of environmental safety, financing projects and organisations that work for saving and rebuilding environmental damage.
Green banks are increasing the trend of energy-efficient houses by financing such projects on discounted rates. This not only benefits the clients but also reduces the excessive burden on the employees. The Go Green concept leads to controlled use of paper, in turn, less number of trees would be cut down for making paper.

The government is also taking up initiatives for attracting citizens towards Green Banking. One of the major examples is the Union Budget of 2017-18 that was recently presented by the Finance Minister, Mr Arun Jaitley. He proposed to waive off the service charge for booking e-tickets. Thus, people are not required to pay any extra amount while booking tickets online which motivate them to use more and more online banking facilities. Again, the concept of digitisation after introduction of demonetization put forward by our PM Mr. Narendra Modi is a way of moving the Indian Economy towards paperless transactions.

Along with the environmental causes, there are various other advantages of adopting Green Banking. The emergence of the cashless or plastic economy would result in a reduction of unethical practices like robbery or contract killing. The simple reason being the money would have to transferred online that would attract the attention of authorities and require an explanation for amount transfer. It would bring down the index of crime manifolds.

The Go Green concept is not only limited to the banking industry, but its scope of operation is much wider. The other industries are also adopting this technique to contribute a positive change in environment. Like, the automobile industry is bringing the trend of solar vehicles or more fuel efficient mode of transport. In which Toyota has launched Prius, a hybrid vehicle, the most fuel-efficient car in the category. The computer industry is one of those segments of the economy that produces maximum waste, but the company Dell has launched a program of recycling of its products. It welcomes the customers to return the old Dell products as well other company’s products for safe disposal as well as recycling.

Thus, it is clearly identified that the Go Green concept is not only related with making progress in the banking sector alone, but, its influence is seen in every sector of the Indian economy as well. The organisations, clients and government
all are trying to make the environment much healthier by eliminating the practices that are harming the environment in any way.

2.5 Research Problem

With the emerging cutthroat competition in the banking industry, each one of them is trying to attract people by opening up many branches in the near vicinities so as to give an easy access to the customers. However, the thing they forget to realise is that in order to compete they are attacking the environment with such force that it leaves an irreparable loop in the natural beauty. It implies that with each new branch a lot of resources are being used up like wood for furniture, marble for flooring, electricity, human resources, paper, etc. These all not only cost the company but the environment has to pay for them as well. Not only has the infrastructure rather the operations had posed a greater threat to the environment. A carbon footprint measures the amount of CO\textsubscript{2} released into the environment by an organisation, and it is increasing day by day. The reason behind it is the use of too many electronic gadgets like air-conditioners, computer terminals, LED lights, etc.

Apart from the environmental effects, there are various drawbacks in the system of banking as well. For example, thousands of customers visit the bank daily. Each process of the bank has a dedicated staff. Still, customers have to stand in long queues and wait for their turn (Prasad and Ghosh, 2005). Many times banks have to face irritated customers in rush days, like at the time of salary. Every branch can assign at most 2 people for a single process. Even then, it is impossible for the banks to attend each and every customer without having them to wait for their turn. Hence, the customers have to look forward to their turn to transact patiently. Another very recent example of how situations can be chaotic in the traditional banking system was seen when the PM applied demonetization policy on November 8\textsuperscript{th}, 2016. Banks were flooding with people who were shouting their lungs out for exchanging and withdrawing money. One could see the mismanagement caused and how it became difficult for the staff members at each branch to handle it.
Although various facilities like debit cards, credit cards have been introduced by banks to reduce the load of bank employees, certain restrictions like the withdrawal limit of less than Rs 50,000 from the ATM again compels people to rush to their nearest branch in order to make any transaction above Rs. 50,000. The cooperative societies also play an important role in the finance industry of India. As the RBI does not fully govern these institutions, the chances of frauds increase manifolds (Prasad and Ghosh, 2005). It is also one of the major loopholes in the entire banking industry as the cooperative societies can be established and liquidated with much ease. Thus, the money of customers is not safe. Also, these institutions cannot be abolished completely. This issue also requires to be taken seriously as it is affecting the financial market adversely.

There are certain facilities launched by various banks which include internet banking. It is a step towards digitisation. Talking of India, still, a major population is illiterate and lives below poverty line. Digitisation for them is like a fairy tale. Even the literate people who use internet banking try to avoid it. Cyber crime is one such factor that has distanced people from technology. Customers believe that their account would be hacked and the money would be transferred to some unknown account. It is true to some extent as many cases have been registered of this sort. It shows that there are some flaws in the technology launched by the banks. Also, as the clients hesitate to use any technology as they feel they would by mistake transfer funds into the wrong account. Rather than involving themselves in such situations, they prefer to go to the banks physically and carry on their transactions.

Therefore, Green Banking might be a possible solution to the problem faced by the traditional banking, but still customer’s negative psychology about cyber crime, improper knowledge of digitization among illiterates and financial restrictions imposed on Green Banking transactions remains a research problem.
2.6 Objectives and Hypotheses

2.6.1 Objectives

- To study the concept of Green Banking
- To study the nature of Green Banking services offered by selected public and private sector banks in the state of Rajasthan.
- To assess the awareness level of customers and banking staff regarding Green Banking
- To find out the flaws in the traditional banking system and the necessity to adopt Green Banking approach.
- To study the association between demographic characteristics of respondents and usage/adoption of Green Banking.
- To identify the factors hampering the implementation of Green Banking.

2.6.2 Hypotheses

- H1: There is no statistically significant difference between the benefits offered by traditional banking and Green Banking
- H2: Customers usage/adoption of Green Banking Services is independent of their demographic characteristics
- H3: There is no statistically significant relationship between practising Green Banking and factors motivating Green Banking

2.7 Research Onion as Framework

Research Onion is a systematic and detailed presentation of research process (Figure 3). This Onion is studied from the outermost layer and moving towards the innermost later of the Onion. Any researcher needs to analyse different layers of research onion, which will provide complete insight of the study. There are six layers in the research onion which includes research philosophies, research approaches, research strategies, choices, time horizons and techniques and
procedures. These all layers are related to each other and are to be followed in the same sequence to gain the required output.

Each layer is discussed below in order to gain knowledge about the present research study.

Figure 3: Research Onion

Source:

2.8 Research Philosophy (Layer I)

Research philosophy can be defined as the ways in which research will be going to be conducted. It is the first step of the research process. Research Philosophy is a set of beliefs and assumptions which will help the researcher in the development of knowledge on a particular topic. The existence of the various phenomenon that is true or believed to be true revolves around the concept of research philosophies (Barrett, Powley and Pearce, 2011). Through a research philosophy, a researcher clarifies the strategies which are to be used in the research process. Research philosophy defines the perception and thinking of the researcher. It helps the researcher in knowing different ways in which data can be collected. Selection of
research method, analysing of data and application of the knowledge gained are cores parameters of research philosophy. There are different types of research philosophies. The type of research philosophy is based on the research question, or research hypothesis being prepared.

2.8.1: Positivism

It is the concept which is based on the study of science. Positivism philosophy undermines that reality is stable and it cannot be changed. It believes that the reality can only be observed and described. Positivism states that social entity has no role and only the factual knowledge is trustworthy. It holds the generalisation principle and explains that reality can only be experimented, tested and expanded. Objectivity is considered in place of subjectivity. Positivism follows an independent approach in which observations of researchers are not influenced by human values and beliefs. The facts are quantitatively measured, and researcher has minimum interaction with the research participants. In positivism, the work of a researcher is limited to data collection and interpretation.

2.8.2: Realism

It an approach in which the researcher has to follow a scientific path rather than believing in what is being perceived. This means that conceptions and conclusions can be drawn, but if there is no scientific logic to support it then the conclusion cannot be accepted at all. Thus, to make any concept applicable, the research has to build up a backing for it.

2.8.3: Interpretivism

Interpretivism philosophy is based on the study of the social world. It views that human beliefs and values have an impact on the work of the researcher. Interpretivism philosophy is also called as social constructivism. It is associated with the concept of naturalism. Human interest is taken into account by means of interviews and observations. Interpretivism philosophy is applied when results are based on the situations.
2.8.4: Pragmatism

It is one of the research philosophies in which any concept is held true only when it generates any kind of action. Pragmatism is concerned with the fact that no situation in this world can be solved by following one single path. There are multiple ways of solving a single problem (Kooy, 2008). It means that in pragmatism the various approaches of research philosophy are combined and followed in order to reach a conclusion.

In this research study, **Interpretivism Research Philosophy** is used as no pre-defined theories are worked upon here. This research is conducted to find out the benefits of Green Banking for entire banking industry. The main objective of this research is played by the customers and employees whose opinions and viewpoints are impacting the outcome of the research. The results of the research are interpreted based on the facts and findings of the research. Hence, interpretivism is the best choice as research philosophy that makes it possible to draw conclusions on this topic, as Green Banking is neither a universal fact, nor there are any of the theories prevailing in the banking industry related to Green Banking.

2.9 Research Approaches (Layer II)

This segment of the research methodology is concerned with testing facts and findings of the research with different suitable designs. The research approach is mainly concerned with finding out the type of research and in which way it should be carried out to reach a conclusion. In order to do so, there are two research approaches available in the market namely, deductive and inductive.
2.9.1: **Deductive Approach**

This approach works on predefined hypothesis and conclusions. This approach defines a research process in which there is a predefined theory that has to be proved true or false using the different approaches. However, the most suitable is deductive approach as it allows the researcher to draw conclusions on a theory that need to be proved through the research. For example, research is based on the theory that rose is red in colour. It is no doubt a known fact, and thus one requires collecting different facts in either proving the statement to be correct or to be false. It is a top-down approach.

2.9.2: **Inductive Approach**

This type of research approach is related to the formulation of hypotheses and finding out results. It means that the researcher has to begin with formulating the research questions and then reaching to conclusions on the basis of analysis of data. It is a bottom-up approach and follows an inverse path starting from the end and reaching to the top. For example, by asking various questions related to the eating habits of people, one can reach to the conclusion that most of the people are
not eating a healthy diet. Thus, the inductive approach is based on identifying the subject of research with the questions that are being asked.

In this research, **Inductive Research Approach** is used. The reason behind this selection is that there are no pre-defined theories relating to the main objective of the present study that is to assess the awareness of customers and bank employees regarding Green Banking services. There are a lot of conceptions and misconceptions floating in the market that does not have a base. However, by using inductive approach, it is very much possible to identify the facts and figures behind Green Banking and then reach towards generating any conclusion related to it. Through this research new avenue for the need and importance of Green Banking would be brought to light. There is a lot of scope in the field of Green Banking, and no proper research has been conducted on the same. Thus, it is an entirely unique topic for the purpose of research and the conclusions drawn from this would lead to the innovation of new concepts like the need of Green Banking and its effectiveness in managing the environmental issues.

### 2.10 Research Strategies (Layer III)

This layer depicts that how the work of researcher will be carried out. Research Strategy helps to analyse research objectives by using certain research methods. These methods are discussed below.

**2.10.1: Experimental Research**

In this type of research results of an experiment are examined against the expected results by developing a research process. It is used in almost all research areas, and generally involves the examination of limited number of factors. The connection between the factors are analysed, and interpreted according to the expected research outcomes.

**2.10.2: Action Research**

This research is a practical approach to a particular research problem within an area of practice. It tends to focus on reflective process, which is a systematic
practice by which the professional practice and experience of the practitioners is assessed. This form of research is familiar in professions such as nursing or teaching, where the practitioner assesses the ways in which they can advance their understanding and professional approach.

2.10.3: Case Study Research

This research design refers to the full-fledged study of any situation or topic. The case study allows the researcher to filter down a vast research field into a manageable topic. This method is also useful for proving certain theories already existing in the field. Thus, a case study will help researcher to explore more on a particular topic.

2.10.4: Grounded Theory

This theory is a type of research methodology which is systematic and qualitative in nature and follows inductive research approach whereby data of the study derives a pattern as a precondition. For example, data of an interview can be transcribed, coded and then grouped according to the factors that are commonly exhibited among respondents. This means that the outcomes of the research are originated basically from the research that has been done, rather than where the data is analysed to ascertain whether it fits with pre-existing frameworks. It is more familiar in the social science researches.

2.10.5: Surveys

Surveys are used in quantitative researches, and produce quantitative data that can be examined empirically. This involves making a representative sample from the population. Surveys are mostly used to analyse causative variables among people and their thoughts and behaviours through the use of statistical surveys or questionnaires.

2.10.6: Ethnography

Ethnography studies the close inspection of people, exploring their culture and cultural processes. In this type of research, the researcher conducts the research
from the point of view of the individuals being observed, and focuses on understanding the differences of meaning and behaviours or importance from their viewpoint.

2.10.7: Archival Research

This research strategy is the one where the existing materials are used to conduct any research. This form of research involves a systematic review of literature, where pattern of existing researches are examined and summarized in order to create the sum of knowledge on a particular study, or to analyse the applicability of existing research to certain specific problems. Archival research also refers to historical research, in which in order to establish results, a body of source material is mined.

In this research study, Survey Research Strategy is used wherein customer’s and bank employee’s awareness level regarding Green Banking Services is analysed by the use of questionnaire. Further, various close ended and open ended questions are framed in questionnaire and responses of respondents (customers and bank employees) are gathered and analyzed to find out conclusions.

2.11 Research Choices (Layer IV)

This layer of Research Onion includes 3 elements: Mono Method, Mixed Method and Multi Method.

2.11.1: Mono Method

A mono method as the name depicts uses only one type of method, either quantitative or qualitative. So, this method can further be classified as quantitative or qualitative research.

Quantitative study carries a single or multiple values that can be measured by applying various statistical tools. This paradigm follows already established procedures and hypothesis. The main aim of this method is to collect data that is based on numbers, and that can be represented in a tabular format as well. This
technique focuses on finding out the facts and figures and on the basis of data analysis allowing the researcher to draw possible conclusions. Thus, the researcher focuses on asking questions that fetch realistic data and on which different statistical tools are applied more easily.

In **Qualitative study**, the data collection is based on finding out the opinions of the participants that cannot be measured in terms of numbers. For example, if it is asked to define the beauty of a flower, which cannot be defined in a numeric value. Similarly, if the research is based on finding out the quality of anything, then researcher is required to collect data based on the ideology and thinking of the participants. No statistical tools can analyse qualitative data. Results are based on interpretations and analysis by the researcher himself.

### 2.11.2: Mixed Method

There are a number of topics that can neither be fully qualitative nor quantitative. In such case, a mixed approach (Ashwin, 2011) is followed where a mixture of both the approaches is adopted. In this way, the researcher is able to accumulate numeric values as well as the opinions about the topic. In this approach, interpreting and application of statistical tools go hand in hand. This makes the research even more interesting as with the help of applying a single approach the researcher is able to gain the benefits of two approaches at the same time.

### 2.11.3: Multi Method

A multi method study uses more than one method study. Moreover, multi methods are easily understandable when it will be differentiated from mixed method as mixed method is the integration of quantitative and qualitative methods whereas multi method research is the use of multiple quantitative or qualitative methods.

Here in this research study, **Mixed Research Method** is used for identifying the opinion of the customers and employees about Green Banking. There are various points that are required to be measured in terms of numeric values while others display the feelings of the participants. For example, if asked how many times a customer uses Green Banking would be answered by providing a numeric value.
On the other hand, if one is asked about the complications in the process of Green Banking then this would be answered as per the opinion of the individual and not in terms of numeric value. Thus, in order to cover both the qualitative and quantitative aspect of research, mixed approach is the best pick.

2.12 Time Horizons (Layer V)

This layer provides the time horizon within which the project can be completed. This is independent of selected research approach. Time horizon can be like a “snapshot” or like a “diary”. Snapshot is considered as Cross-sectional and Diary is considered as Longitudinal research studies.

2.12.1: Cross-sectional Research Studies

This study collects data from a representative subset or population at a specific point in time.

2.12.2: Longitudinal Research Studies

This study collects the data for a same topic repeatedly over a period of time. Theses researches can be extended over years or even decades. This study is majorly used to study certain change or development.

This research is based on Cross-Sectional data wherein respondent’s (customers and bank employees) responses on adoption of Green Banking products and services are collected at only one point in time. Further, perception of customers is analysed only one time which is a cross-sectional study.

2.13 Research Techniques and Procedures (Layer VI)

2.13.1: Research Design

In this research study, Exploratory Research Design is used because the topic of current study in new for the banking industry of Rajasthan and there are no previous researches available on this topic. Also, there are no theories regarding Green Banking that can be researched upon. There is a wide scope of learning and
drawing conclusions as is it is an entirely new field. Thus, the exploratory design is the best choice here.

2.13.2: Type of Research

Empirical Research is conducted to identify customer’s and banker’s perception about Green Banking services, as it includes collection of both primary as well as secondary data by means of questionnaire, internet, books, journals, etc. to test certain hypotheses.

2.13.3: Data Collection

In this study, information is collected from Primary and Secondary Sources.

Primary data is collected by means of Structured Questionnaire method in which information from customers and employees of the banks regarding the Green Banking concept was gathered. This technique helped in understanding the awareness and behaviour of the people about the Green Banking concept. It also helped in knowing that what all steps are taken up by certain banks in order to adopt the Green Banking techniques. Moreover, the filled questionnaires helped in discovering the most preferred Green Banking products and services among customers and banking staff.

Secondary data is collected from internet, books, journals to gain the insight of the banking sector and how Green Banking concept has been evolved. This information helped in knowing the difference between traditional banking and Green Banking and why the concept of Green Banking is important.

2.13.4: Area of Research

The scope of study includes study of customer and employee awareness about Green Banking services in Rajasthan state. Further, the study is conducted in two Cities of Rajasthan- Jaipur and Udaipur. Among these cities, 4 Banks are selected, which are State Bank of India (SBI), Bank of Baroda (BOB), Industrial Credit and Investment Corporation of India (ICICI) and Housing Development
Financial Corporation (HDFC) – **two public sector banks (SBI and BOB)** and **two private sector banks (ICICI and HDFC).**

### 2.13.5: Sampling Technique

In this Green Banking study, various sampling techniques are applied for different elements i.e. for Cities, Banks, Respondents (Customers and employees).

The study is conducted in two Cities of Rajasthan- Jaipur and Udaipur which have been selected by the method of **Non-Random Convenience Sampling.** This technique is applied because these two cities are the most popular cities of Rajasthan and are easily reachable to me.

Two Public sector banks (SBI and BOB) and two private sector banks (ICICI and HDFC) are selected for the research study as these are the leading banks of Indian banking sector according to their highest market capitalization and maximum number of branches (www.moneycontrol.com, 2015) in India. So it can be stated that **Non-Random Judgemental Sampling** technique is applied for selection of Banks.

**Random Sampling** technique is applied for the selection of customers and bank employees. Customers and employees are chosen from respective bank branches for the purpose of data collection in two cities of Rajasthan i.e. Udaipur and Jaipur.

### 2.13.6: Sample Size

**Sample Size of Customers**

In this study, a sample of 600 customers is taken from selected 4 banks (2 public and 2 private sector banks) from 2 different cities of Rajasthan state. Further, 75 customers are taken from each bank in each city. The calculation of sample size is shown in the following table.
Table 2: Number of Customers to be taken for Study (Sample Size)

<table>
<thead>
<tr>
<th>Cities</th>
<th>Public Sector Banks</th>
<th>Private Sector Banks</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>SBI</td>
<td>BOB</td>
<td>HDFC</td>
</tr>
<tr>
<td>Jaipur</td>
<td>75</td>
<td>75</td>
<td>75</td>
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<tr>
<td>Udaipur</td>
<td>75</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
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Out of above selected 600 sample size of customers, only 426 customers gave proper responses of which 104 customers belong to SBI bank, 111 belongs to BOB Bank, 108 Belongs to HDFC bank, and remaining 103 were from ICICI bank.

Sample Size of Bank Employees

In this study, a sample of 40 employees is taken from selected 4 banks (2 public and 2 private sector banks) from 2 different cities of Rajasthan state. Further, 5 customers are taken from each bank in each city.

The calculation of sample size is shown in the following table.

Table 3: Number of Employees to be taken for Study (Sample Size)

<table>
<thead>
<tr>
<th>Cities</th>
<th>Public Sector Banks</th>
<th>Private Sector Banks</th>
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<td>BOB</td>
<td>HDFC</td>
</tr>
<tr>
<td>Jaipur</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Udaipur</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Out of above selected sample size of 40 bank employees, all responses are found accurate and are taken in study.
2.13.7: Data Analysis

In this study, data analysis process is carried out in two ways that are qualitative analysis and quantitative analysis.

The qualitative analysis aimed at understanding the popularity of Green Banking products and services among customers and bank employees. 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.

2.14 Ethical Considerations of the Study

This part of the research methodology is very vital part and is related to revealing the practices followed while undertaking the study. Ethical considerations (Hammersley and Traianou, 2012) are an inevitable part because it helps the researcher to understand and distinguish between the correct and wrong practices. In this research, every care has been taken to abide by the ethical considerations.

There is no copied content in this research project, as it has to be free from plagiarism, and proper references have been provided for the information gathered from different books and journals.

The information collected from customers and employees through questionnaire method have been kept confidential as promised to the respondents before filling
up the questionnaire. None of their details was shared publically. Personal opinions and answers of the participants were recorded as they were and no manipulations were done.

While conducting the research, no participant was forced to take part in the process of data collection. None of them was forcibly retained until the data collection process was complete. Before the questionnaire was given to the participants, a brief introduction regarding the topic was given to the respondents so that proper and genuine results were gathered.

An unbiased approach of data collection was adopted as random sampling method was used for data collection from respondents, which provides an equal chance to each individual to be included in the sample.

The data of the selected 4 banks were included only after taking permission from them. None of the practices undertaken was against the law. No harm was brought to nature or public property while conducting the research.

### 2.15 Limitations of the study

Every study has certain limitations and researcher has to restrict their discussion related to the research problem. Below mentioned are the limitations of this study:

#### Geographical Constraint

The study needs to be conducted in the area of Rajasthan, wherein only two popular cities were selected. Since Rajasthan is a big state, the results of the study cannot be generalised.

#### Limited Data

As the Green Banking is an emerging concept limited studies are present. For the purpose of literature review very fewer topics related to Green Banking are available. This has created a little problem in gathering the information from the secondary sources.
**Biases**

The study involves the qualitative research techniques and analysis. These techniques can produce results can be biased as it involves researcher’s understanding of the concept and how he takes it into consideration. There are many instances where the researcher interprets the result by not taking into account all the related factors. As the thematic analysis is applied, it can be possible that all the themes which can be related to the topic are not taken into consideration.

**Time Limit**

In today’s world, nobody is having time for other people. It has been found that people are not at all interested in giving their point of views and answering the questions. Sometimes it happens that respondents just for the sake of filling complete the questionnaire which is given to them. Also since the study is needed to be completed within the specified time duration, it is not possible to reach to the whole population of the two cities.

**Reliable Data**

As the questionnaires are filled by only limited number of respondents, the results of the study cannot be generalised. Also, it may be possible that the respondents are not aware of the importance of the study and they have not filled the questionnaires properly.

**Briefing Problem**

The concept of the study can only be explained to the employees of the banks. But for customers, there are instances that while filling up questionnaires respondents may have certain queries or they are not able to understand any question properly. These problems are remained unresolved, and it might happen that the questionnaires are not filled properly.
2.16 Conclusion

Research methodology is a systematic approach of finding an answer to the problem that exists in the industry/sector. Any problem can be analysed by setting up certain objectives. The main objective of the research study is to assess the awareness level of customers and bank staff regarding Green Banking. Further 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. To achieve these objectives, the concept of Research Onion is also highlighted which includes six layers that are related to identifying the design of research, approach of research, data collection and data analysis. These six layers are 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.

Researcher has collected both primary and secondary data are collected. Primary data is through structured questionnaire from bank customers and bank employees, while secondary data is collected from various books and journals. To access the awareness level of customers, 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. Two cities of Rajasthan i.e. Jaipur and Udaipur are selected on the basis Convenience sampling, four banks i.e. SBI, BOB, ICICI and HDFC (2 public and 2 private sector banks) are selected on the basis of Judgemental Sampling and Respondents are selected on the basis of Simple Random Sampling method.
REFERENCES


