CHAPTER - 3
RESEARCH METHODOLOGY

3.1 RESEARCH THE CONCEPT

Research comprises "creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of humans, culture and society, and the use of this stock of knowledge to devise new applications."[1] It is used to establish or confirm facts, reaffirm the results of previous work, solve new or existing problems, support theorems, or develop new theories. A research project may also be an expansion on past work in the field. To test the validity of instruments, procedures, or experiments, research may replicate elements of prior projects, or the project as a whole. The primary purposes of basic research (as opposed to applied research) are documentation, discovery, interpretation, or the research and development (R&D) of methods and systems for the advancement of human knowledge. Approaches to research depend on epistemologies, which vary considerably both within and between humanities and sciences. There are several forms of research: scientific, humanities, artistic, economic, social, business, marketing, practitioner research, etc.

As per some other thoughts Research is a careful and detailed study into a specific problem, concern, or issue using the scientific method. It's the adult form of the science fair projects back in elementary school, where you try and learn something by performing an experiment. This is best accomplished by turning the issue into a question, with the intent of the research to answer the question.

Research is the systematic investigation and study of materials and sources to establish facts and reach new conclusions, so it shapes people’s understanding of the world around them. Through research findings, psychologists are able to explain individuals’ behaviours, including how people think and act in certain ways. This helps to determine disorders and their impact on the person and society, thus developing appropriate treatments to improve the individual’s quality of life.
3.2 ETHICS IN RESEARCH

When most people think of ethics (or morals), they think of rules for distinguishing between right and wrong, such as the Golden Rule ("Do unto others as you would have them do unto you"). a code of professional conduct like the Hippocratic Oath ("First of all, do no harm"), a religious creed like the Ten Commandments ("Thou Shalt not kill...") or a wise aphorisms like the sayings of Confucius. This is the most common way of defining "ethics": norms for conduct that distinguish between acceptable and unacceptable behavior.

Most people learn ethical norms at home, at school, in church, or in other social settings. Although most people acquire their sense of right and wrong during childhood, moral development occurs throughout life and human beings pass through different stages of growth as they mature. Ethical norms are so ubiquitous that one might be tempted to regard them as simple common sense. On the other hand, if morality were nothing more than common sense, then why are there so many ethical disputes and issues in our society?

One plausible explanation of these disagreements is that all people recognize some common ethical norms but different individuals interpret, apply, and balance these norms in different ways in light of their own values and life experiences.

3.3 FORMS OF RESEARCH

3.3.1 Scientific research is a systematic way of gathering data and harnessing curiosity. This research provides scientific information and theories for the explanation of the nature and the properties of the world. It makes practical applications possible. Scientific research is funded by public authorities, by charitable organizations and by private groups, including many companies. Scientific research can be subdivided into different classifications according to their academic and application disciplines. Scientific research is a widely used criterion for judging the standing of an academic institution, such as business schools, but some argue that such is an inaccurate assessment of the institution, because the quality of research does not tell about the quality of teaching (these do not necessarily correlate totally).

3.3.2 Research in the humanities involves different methods such as for example hermeneutics and semiotics, and a different, more relativist epistemology. Humanities scholars usually do not search for the ultimate correct answer to a
question, but instead explore the issues and details that surround it. Context is always important, and context can be social, historical, political, cultural or ethnic. An example of research in the humanities is historical research, which is embodied in historical method. Historians use primary sources and other evidence to systematically investigate a topic, and then to write histories in the form of accounts of the past. Artistic research, also seen as 'practice-based research', can take form when creative works are considered both the research and the object of research itself. It is the debatable body of thought which offers an alternative to purely scientific methods in research in its search for knowledge and truth. These are the traditional or conventional ways to describe research. Practically speaking research is an activity which comes up with some constructive result with reference to any objective. The types of research are like Quantitative research which is generally associated with the positivist/post positivist paradigm. It usually involves collecting and converting data into numerical form so that statistical calculations can be made and conclusions drawn.

Researchers rarely have access to all the members of a particular group (e.g. all people with dementia, carers or healthcare professionals). However, they are usually interested in being able to make inferences from their study about these larger groups. For this reason, it is important that the people involved in the study are a representative sample of the wider population/group. However, the extent to which generalizations are possible depends to a certain extent on the number of people involved in the study, how they were selected and whether they are representative of the wider group. For example, generalizations about psychiatrists should be based on a study involving psychiatrists and not one based on psychology students. In most cases, random samples are preferred (so that each potential participant has an equal chance of participating) but sometimes researchers might want to ensure that they include a certain number of people with specific characteristics and this would not be possible using random sampling methods. Generalizability of the results is not limited to groups of people but also to situations. It is presumed that the results of a laboratory experiment reflect the real life situation which the study seeks to clarify. When looking at results, the P value is important. P stands for probability. It measures the likelihood that a particular finding or observed difference is due to chance. The P value is between 0 and 1. The closer the result is to 0, the less likely it
is that the observed difference is due to chance. The closer the result is to 1, the greater the likelihood that the finding is due to chance (random variation) and that there is no difference between the groups/variables.

3.3.3 Qualitative research: Qualitative research is the approach usually associated with the social constructivist paradigm which emphasises the socially constructed nature of reality. It is about recording, analysing and attempting to uncover the deeper meaning and significance of human behaviour and experience, including contradictory beliefs, behaviours and emotions. Researchers are interested in gaining a rich and complex understanding of people's experience and not in obtaining information which can be generalized to other larger groups.

The scope of research is much more widespread and simply depends upon the researcher also how far he wants to go in depth. Many definitions and explanations about research is available, but one of a very relative and broad definition of research is given by Martyn Shuttle worth - "In the broadest sense of the word, the definition of research includes any gathering of data, information and facts for the advancement of knowledge. Methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Typically, it encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques. So it is easy to derive that one of the most significant factor in a research work is to determine research methodology.

The purpose is to describe the Title, Objectives, Hypothesis, Research Design, Sample Design, Sources and Data Collection, Sampling Technique, Analysis and Interpretation of data and also Limitations of the study. The title of the research is A Comparative study of SBI and ICICI banking services with special reference to customers' preferences of Gujarat state”.

3.4 STATEMENT OF THE PROBLEM

The Banks (Public and Private) have been facing fierce competition due to the entry of foreign banks. The application or use of technology for the qualitative transformation in the process of banking service is necessary and quite natural, since the market is competitive and the customers are receptive. Consumerism has taken a new shape. The needs and requirements of the customers are developing and
expanding very fast. In this complex and fast changing environment, the only sustainable competitive advantage for banks (Both public and private sector) is to give the customer an optimum blend of technology and traditional services. Hence meeting the competition and the customer requirements are the priorities of both public and private sector banks and hence he focusing element in the thesis title is a comparative study of customers preferences of the major two player competitors in banking sector, SBI and ICICI.

3.5 OBJECTIVES OF THE STUDY

The study is about comparison between two banks services with reference to consumer preferences, so the purpose is as follows.

1. To find out customer relationship with banks.
2. To know that how far customers are aware about various services provided by banks.
3. To know customer satisfaction about various services and process in transactions.
4. To know employees opinions about promoting services and customer dealings.
5. To know CRM practises opined by employees.
6. To know and compare overall satisfaction of customers regarding both bank services.
7. To offer suitable suggestions based on the findings of the whole study.

To full fill the purpose separate questionnaire are made to understand opinions. Here one questionnaire is for customers and another is created for bank employees. In customers questionnaire various questions like factors to keep in mind while selecting bank, bank employees’ attitude, time taken to provide service, extra facilities, customers’ problem solutions and other necessary questions are included. In employees questionnaire questions related to CRM practises, communication about new services, related to commitment, complaints, marketing of various services and other necessary details are also included.

3.6 HYPOTHESIS

In the light of the objectives set, the following assumptions are framed-

1. Public Sector banks are facing stiff competition from private sector banks with regard to customer satisfaction.
1) 2. There is a difference in level of satisfaction of SBI and ICICI customers.
2. Employees of ICICI bank are more efficient in providing services to customers than employees of SBI.

**Hypothesis -1**
Dependent Variable: Perceptions
Factor: Age Group
H1: There is significant difference in the perceptions regarding satisfaction level with respect to the services of the bank among the customers belonging to different **age group**
H0: There is no significant difference in the perceptions regarding satisfaction level with respect to the services of the bank among the customers belonging to different **age group**

**Hypothesis -2 (with reference to both the banks)**
Dependent Variable: Perceptions
Factor: Education level
H1: There is significant difference in the perceptions regarding satisfaction level with respect to the features/services of the bank among the customers belonging to different **education level**
H0: There is no significant difference in the perceptions regarding satisfaction level with respect to the features/services of the bank among the customers belonging to different **education level**

**Hypothesis -3 (with reference to both the banks)**
Dependent Variable: Perceptions
Factor: Income level
H1: There is significant difference in the perceptions regarding satisfaction level with respect to the features/services of the bank among the customers belonging to different **income level**
H0: There is no significant difference in the perceptions regarding satisfaction level with respect to the features/services of the bank among the customers belonging to different **income level**

**Hypothesis -4 (with reference to both the banks)**
Dependent Variable: Perceptions
Factor: Occupation
H1: There is significant difference in the perceptions regarding satisfaction level with respect to the features/services of the bank among the customers belonging to different occupation

H0: There is no significant difference in the perceptions regarding satisfaction level with respect to the features/services of the bank among the customers belonging to different occupation

3.7 RESEARCH DESIGN
In this thesis, a study of comparative analysis regarding SBI and ICICI banking services with reference and view point of customers’ preferences has been conducted. An attempt is made to give a an overview of customers opinions, suggestions and also employees opinions to understand CRM practises of the banks., for comparative analysis various comparative bar charts are prepared after collecting customers and employees opinions through two different questionnaires respectively dully filled up by customers and employees. Appropriate and suitable analysis is also made to justify this topic; beliefs of customers, views regarding the services of the banks through questionnaire and influence of Age-group on customers preferences about selection of a bank and satisfaction from therein.

3.8 SAMPLING DESIGN-THE CONCEPT EXPLANATION
A sample design is the framework, or road map, that serves as the basis for the selection of a survey sample and affects many other important aspects of a survey as well. In a broad context, survey researchers are interested in obtaining some type of information through a survey for some population, or universe, of interest. One must define a sampling frame that represents the population of interest, from which a sample is to be drawn. The sampling frame may be identical to the population, or it may be only part of it and is therefore subject to some undercoverage, or it may have an indirect relationship to the population (e.g. the population is preschool children and the frame is a listing of preschools). The sample design provides the basic plan and methodology for selecting the sample. A sample design can be simple or complex.

3.8.1 Non-probability Sampling Techniques is a sampling technique where the samples are gathered in a process that does not give all the individuals in the
population equal chances of being selected. **Reliance On Available Subjects.**

Relying on available subjects, such as stopping people on a street corner as they pass by, is one method of sampling, although it is extremely risky and comes with many cautions.

This method, sometimes referred to as a **convenience sample**, does not allow the researcher to have any control over the representativeness of the sample. It is only justified if the researcher wants to study the characteristics of people passing by the street corner at a certain point in time or if other sampling methods are not possible. The researcher must also take caution to not use results from a convenience sample to generalize to a wider population.

**A. Purposive or Judgmental Sample.** A purposive, or judgmental, sample is one that is selected based on the knowledge of a population and the purpose of the study. For example, if a researcher is studying the nature of school spirit as exhibited at a school pep rally, he or she might interview people who did not appear to be caught up in the emotions of the crowd or students who did not attend the rally at all. In this case, the researcher is using a purposive sample because those being interviewed fit a specific purpose or description.

**B. Snowball Sample.** A snowball sample is appropriate to use in research when the members of a population are difficult to locate, such as homeless individuals, migrant workers, or undocumented immigrants.

A snowball sample is one in which the researcher collects data on the few members of the target population he or she can locate, then asks those individuals to provide information needed to locate other members of that population whom they know. For example, if a researcher wishes to interview undocumented immigrants from Mexico, he or she might interview a few undocumented individuals that he or she knows or can locate and would then rely on those subjects to help locate more undocumented individuals. This process continues until the researcher has all the interviews he or she needs or until all contacts have been exhausted.

**C. Quota Sample.** A quota sample is one in which units are selected into a sample on the basis of pre-specified characteristics so that the total sample has the same distribution of characteristics assumed to exist in the population being studied. For example, if you a researcher conducting a national quota sample, you might need to know what proportion of the population is male and what proportion is female as well.
as what proportions of each gender fall into different age categories, race or ethnic categories, educational categories, etc. The researcher would then collect a sample with the same proportions as the national population.

3.8.2 Probability Sampling Techniques

Probability sampling is a sampling technique where the samples are gathered in a process that gives all the individuals in the population equal chances of being selected.

A. Simple Random Sample. The simple random sample is the basic sampling method assumed in statistical methods and computations. To collect a simple random sample, each unit of the target population is assigned a number. A set of random numbers is then generated and the units having those numbers are included in the sample. For example, let’s say you have a population of 1,000 people and you wish to choose a simple random sample of 50 people. First, each person is numbered 1 through 1,000. Then, you generate a list of 50 random numbers (typically with a computer program) and those individuals assigned those numbers are the ones you include in the sample.

B. Systematic Sample. In a systematic sample, the elements of the population are put into a list and then every kth element in the list is chosen (systematically) for inclusion in the sample. For example, if the population of study contained 2,000 students at a high school and the researcher wanted a sample of 100 students, the students would be put into list form and then every 20th student would be selected for inclusion in the sample. To ensure against any possible human bias in this method, the researcher should select the first individual at random. This is technically called a systematic sample with a random start.

C. Stratified Sample. A stratified sample is a sampling technique in which the researcher divided the entire target population into different subgroups, or strata, and then randomly selects the final subjects proportionally from the different strata. This type of sampling is used when the researcher wants to highlight specific subgroups within the population. For example, to obtain a stratified sample of university students, the researcher would first organize the population by college class and then select appropriate numbers of freshmen, sophomores, juniors, and seniors. This ensures that the researcher has adequate amounts of subjects from each class in the final sample.
D. **Cluster Sample.** Cluster sampling may be used when it is either impossible or impractical to compile an exhaustive list of the elements that make up the target population. Usually, however, the population elements are already grouped into subpopulations and lists of those subpopulations already exist or can be created. For example, let’s say the target population in a study was church members in the United States. There is no list of all church members in the country. The researcher could, however, create a list of churches in the United States, choose a sample of churches, and then obtain lists of members from those churches.

### 3.9 ALL ABOUT SAMPLING IN THIS STUDY

In this study convenience is also considered at the time of collecting data. From respondents. The study has been conducted on the basis of some selected branches of these banks. State bank of India the largest bank is taken and here in the study two branches from Ahmadabad are included. Some other branches are also considered in which one from Surat, one from Bhavnagar, one from Vadodara is taken. In case of the another bank ICICI two branches from Ahmedabad, one from Surat, one from Bhavnagar and one from Vadodara is taken into consideration. Apart from these as per the convenient sampling, some other customers those who are associated with these banks from long time are also requested to give their opinions, most of them are from Ahmedabad. Total 300 customers have responded in this study. Apart from the above the questionnaire is translated into Gujarati language (regional language) also for the sake of some of the Respondents convenience. To understand employees’ opinions about their marketing strategies and CRM practises of the banks, a special questionnaire is also prepared. These questionnaires has been circulated in some branches of both the banks. In this study total 100 employees from some SBI and ICICI banks’ branches were taken into consideration.

### 3.10 SOURCES OF DATA INFORMATION AND COLLECTION

The study is undertaken on the basis of all details about services from SBI and ICICI. It includes the banks profile, evolution and developmental phases, awards won by both the banks and other necessary details. The primary data is also plays very vital role in this study which is collected through questionnaires prepared separately for
selective bank branches customers and employees. These respondents (customers and employees) are from Gujarat state. In a nutshell data is as follows in this study.

- SBI and ICICI banks’ websites on internet.
- Authenticated websites on internet
- Website of RBI (Reserve bank of India)
- Information collected to know the preferences and opinions would be mainly from primary sources such as:
  - Customers of some of the cities (Ahmedabad, Vadodara, Surat and Bhavnagar) in Gujarat.
  - Employees of some selective branches of SBI and ICICI.
  - CMIE (Centre for monitoring Indian economy)

The questionnaires were designed based on the study of literature and brain storming sessions held with management faculty and practicing managers. Feedback of the respondents, received during testing of the questionnaire was also considered. Appendix A.1 shows the complete questionnaires as used for the survey.

3.11 SAMPLING TECHNIQUE

Sampling Technique The personal judgment method is employed for the selection of banks. Each of the SBI and ICICI banks has different number of branches in all selected cities. Simple Random Sampling method has been used to select the respondents from the bank customers. The study has been conducted in two ways and means. Firstly from the customers of the selected branches and also others from reference groups, and then after some selective bank employees of selective branches of SBI AND ICICI were also asked through another different questionnaire. For comparative analysis the leading banks SBI and ICICI (the two prominent banks of India), the study has been taken during the period from 2012 to 2015. To know the preferences of customers’ data is collected through questionnaire method. Two different questionnaires are developed. One to know customers preferences and another is to know marketing strategies and CRM practises by SBI and ICICI.
3.12 ANALYSIS AND INTERPRETATION OF DATA:

The marketing philosophy of customers’ satisfaction is based on the banks relationship orientation, customer acquisition, retention and customer perception of bank products and services. Customer differs in two main areas, such as the needs they want to satisfy and the different values that each customer represents for the bank. The target customer groups mainly include young age and middle age people. They have rated their banks mainly on service availability and easy accessibility parameter based. To understand all these the questionnaires were bifurcated area wise and after collecting responses from the reference group customers, they have asked individually also about their likes and dislikes as well suggestions and complaints.

For comparative analysis, data was analyzed by using comparative bar charts to show direct comparison of answers provided in the questionnaires by the customers of SBI and ICICI. To know the preferences and views and opinions of customers, a questionnaire was sent to customers as per the convenient sampling. Apart from the above the questionnaire is translated into Gujarati language (regional language) also for the sake of some of the Respondents convenience. To understand employees’ opinions about their marketing strategies and CRM practises of the banks, a special questionnaire is also prepared. These questionnaires have been circulated in some branches of both the banks. In this study 100 employees were taken into consideration. The analysis is a descriptive analysis taking into consideration all the preferences and comparisons of each criterion asked in the questionnaires. Besides this, for each significant question asked in both the questionnaires of customer respondents and employee’s respondents a graphical /chart through presentation is also made to make it more explanatory.

Apart from the above which is based on primary data, further information affecting consumer’s perception about the upcoming conditions of economy as well of their purchasing power is described as under. This is based on data released by Reserve bank of India.

Consumer Confidence Survey: September 2015 1 The Consumer Confidence Survey provides an assessment of perceptions of respondents on general economic conditions and their own situation during the current period and a year ahead. The survey captures qualitative perceptions on a three-point scale i.e., improve, remain same or
worsen, from respondents spread across six metropolitan cities viz. Bengaluru, Chennai, Hyderabad, Kolkata, Mumbai and New Delhi. The information so collected is analysed in two parts – current situation as compared with a year ago and the expectations for a year ahead. The salient findings of the survey, based on the responses of around 5,200 respondents are presented below. Highlights: I. Both Current Situation Index (CSI) and Future Expectations Index (FEI) moderated further in the current round as compared to June 2015 round with lower level of optimism in all the parameters, with the exception of perceptions.

So in the above research the information is collected through convenient sampling and personal communication is also made with some respondents after getting duly filled questionnaires.

Apart from the above, in the study the analysis is made descriptive in depth through charts and comparisons of every parameter in the questionnaire. Then after the one way ANNOVA test is applied by keeping in mind the prime essential factors for interbank comparison. The parameters are age, education, income, occupation and occupation.

3.13 ANNOVA ANALYSIS AND TESTING

The objective of the research was to know whether there is no significant difference between the perceptions regarding satisfaction level with respect to the services of the bank among the customers belonging to different age group / education level / income level and occupation. For this purpose hypothetical statements were tested with the help of ANNOVA testing.

3.13.1 Process of Performing ANNOVA Analysis

Analysis of variance is used for examining differences in the mean values of the dependent variables associated with the effect of the controlled independent variables, after taking into account the influence of the uncontrolled independent variables. Essentially, analysis of variance (ANOVA) is used as a test of means for two or more populations. The null hypothesis, typically, is that all means are equal or groups were not different in preference for or perception about something.

In its simplest form, analysis of variance must have a dependent variable that is metric. There must also be one or more independent variable/s which must be all non-
metric (categorical). Here, Researcher has used One-way analysis of variance which involves only one categorical variable.

3.13.2 Conducting One-way ANOVA:
Step-1 Identify the dependent and independent variable
Step-2 Decompose the total variation
Step-3 Measure the effects
Step-4 Test the Significance
Step-5 Interpret the results

3.13.3 Steps to calculate

- **Identify the Dependent and Independent Variable:** The dependent variable is denoted by Y and the independent variable is denoted by X. X is a categorical variable having c categories. There are n observations on Y for each category of X. The sample size in each category of X is n, and the total size \( N = n \times c \).

- **Decompose the total variation:** In examining differences among means, one-way analysis of variance involves decomposition of total variation observed in the dependent variable. This variation is measured by the sums of squares corrected for the mean (SS) variation within and between is measured.

- **Measure the effects:** The effects of X on Y are measured by sum of squares between the categories of X.

- **Test the Significance:** Null hypothesis that category means are equal in population are measured. If the associated probability is less than the significance level of 0.05. The null hypothesis of equal population means is rejected.

- **Interpret results:** If null hypothesis is rejected, then the effect of the independent variable is significant. In other words, the mean value of the dependent variable will be different for different categories of independent variable.

3.14 LIMITATIONS OF THE STUDY

As the research is based on questionnaires here are some limitations...

1. Because of time and other constraints in this survey it would not be possible to contact each and every branch of SBI and ICICI whose responses would have
provided a better insight regarding customers’ preferences regarding bank services.

2. Purpose of research is limited to study customers’ preferences and likings on banking services of Gujarat state only.

3. Lack of some customers’ and employees interest to fill up Questionnaire.

4. Customers past experience may also affect his present preference.

5. Selection of some of the cities of Gujarat state only.

6. Limited sample size

6. Difficulty to get details from some employees of both the banks