CHAPTER - 3

RESEARCH MEHODOLOGY

3.1 Research Methodology

3.1.1 Introduction to Methodology
This segment of the thesis particularly aims on the research methods and techniques used in the present study. The methodology focuses on different research patterns, and rationalizes the selection of one for the thesis. Next section focuses on the research design strategy and other section highlights the data collection procedures which define the data types, sampling techniques, measuring instrument, target population and selection criteria. This is followed by exchange of ideas for data analysis tools, and the credibility and dependability of the collected data and measuring instrument. Finally the section concludes with the limitations of the methodology and ethical considerations for the study.

3.1.2 Conceptual Framework
The capital market is a place where sellers and buyers of the financial securities meets together to trade their securities. The buyers and sellers are mainly the financial institutions including primary dealers and
individuals. The new issue of shares is coming through the primary market and the already issued shares are trading the secondary market.

In India, derivative trading’s regulated by three authorities. Equity derivative contracts are regulated by the SEBI and Interest rate derivatives and currency derivatives are regulated by the RBI and FBI is the controller for Commodity derivatives. In this study, I have taken Equity derivatives and it is controlled bySEBI.

Derivatives trading in India are mainly takes places in stock exchanges and it functions as self-regularity organizations. SEBI is controlling the regularity functions and also supervise of all derivatives trading of the stock exchanges.

According to SEBI, derivatives operations are accountable for making sure of efficient and accurate transaction processing across a broad range of products. Normally, derivatives operations are spearhead of shaping and driving change in the industry with the eventual aim of delivering greater efficiency, accuracy and control.

The regulations require that all the contracts be approved by the regulating body before they are offered in the market, whether through exchanges or through the OTC market. The operation of these exchanges, composition of the Clearing Corporation, and risk
management by the exchanges is regulated so that the derivatives market functions smoothly.

3.1.2.1 Working Definitions:

**Derivatives:** The Derivatives are financial instruments and its values derived from something else which normally called Underlying. The underlying may be anything includes shares, stocks, commodity, foreign exchange and weather etc.

**Capital Market:** The capital market is a place where sellers and buyers of the financial securities meets together to trade their securities. The buyers and sellers are mainly the financial institutions including primary dealers and individuals. The new issue of shares is coming through the primary market and the already issued shares are trading the secondary market.

**Investor Protection:** Investor Protection defined by many authors and in a nutshell it is the activity of the regulators (SEBI in the case of Equity Derivatives) to safeguard and protect the interest of the investors and provide assistance to the investors for their claims by creating investor friendly regulations.

**Retail Investor:** Retail investors are individual investor who normally trades the securities in a small quantities and maximum value for their trading at one time may be not more than one lakh rupees.
**SEBI (Securities and Exchange Board of India):** It is the regulatory authority established by the Government of India to protect the equity market by creating stable and friendly markets through its regulations and enforcing the same for the benefit for the security market of India.

**Reserve bank Of India:** It is the controller of all the banks and financial institutions and also instrumental to make proper monetary policies and systems to control the currency and credit systems to create a financial strength and sustainable growth to the economy of India.

### 3.1.3 Research Philosophy

When conducting a research, the researcher has to know the meaning of methodology and also select an appropriate research paradigm to conduct the research (Perry, 2002). According to Guba and Lincoln (1994), research philosophy guides the researcher on how to conduct the research appropriately.

There are four main research paradigms i.e. positivism, critical theory, constructivism, and realism (Saunders et al, 2009; Perry et al, 1999 and Guba and Lincoln, 1994). As per Guba and Lincoln (1994), Research paradigms are set a belief system which is based on ontological, epistemological and methodological assumptions.
According to Healy and Perry (2000) Ontology is about realities which are investigated by the researcher. Another way of classifying the paradigms as suggested by Easterby-Smith et al (1991) is that there are two types of paradigms named phenomenological and positivist. When using a positivist research philosophy, the researcher uses quantitative methods to explore what is happening in the external environment. The second paradigm is critical theory which is based on the fact that reality is generally based on the historical structure. Now the aim of the researcher would be to criticize the historical point of and bring about a transformation. Constructivism is the third paradigm, wherein it is assumed that trust is constructed based on a particular belief system related to the context which is being studied. It enquires about the ideologies and values underlying the research findings. The last research paradigm is realism which states that reality exists but is imperfect because there are flaws in intellectual mechanisms of humans and also the nature of phenomenon is intractable. Realism has some of the elements from positivism and constructivism (Perry et al 1999; Saunders et al 2009).

For the present research study positivism research paradigm was found appropriate. This seemed most appropriate because the study is based on quantitative analysis, and the researcher would be able to study about the phenomenon without getting influenced from external sources and it will also influence retail investors and their perceptions towards derivative
operations therefore application positivist philosophy was found most appropriate.

3.1.4 Research Design Strategy

3.1.4.1 Research Methods

a) Qualitative Research Method:

In the qualitative research approach, the researcher’s main intention is investigating the research literature regarding his research topic based on the investigations and findings of the analysis is conducted (Zikmund, 2000). Since the procedure used for the investigation and analysis is based on the assumptions of the researcher the Qualitative research will bring new conviction.

b) Quantitative Research Method

When conducting a social research, generally quantitative research methods are applied and can be attributed to positivist research paradigm. Quantitative research methods are used to find casual relationships, and are objective in nature. Therefore, numerical evidence can be used to draw conclusions and test the hypothesis based on existing theories (Zikmund, 2000).

For the present study quantitative research methods is selected mainly because quantitative research is attributed to the positivist research
philosophy. Secondly, the research involves collection of large amount of data from retail investors which indicates that quantitative research methods would be most appropriate.

3.1.4.2 Research Approach

a) Inductive Approach

In inductive approach, the researcher builds a new theory altogether. In this approach the researcher collects the data in order to develop a new theory. Inductive approach is also known as bottom up approach wherein the researcher moves from specific observations to broader generalizations. However, using this approach involves a certain degree of uncertainty (Saunders et al, 2009).

b) Deductive Approach

Deductive approach is about testing the theory which already exists. In the deductive approach the research would design the research hypothesis based on the existing theories and designs the research strategy to test the formulated theory.

Here, the researcher decided to apply deductive approach as it will help in testing the already existing theories based on the perceptions of retail investors in terms of derivative operation investments in the Indian Capital Market.
Saunders *et al* (2009) have confronted various approaches and each of the strategies can be used at different stages of research, i.e. exploratory, descriptive or explanatory stage. While some of them clearly belong to inductive approach and other can be applied to deductive approach. Selection of research strategy is solely based on the aim and objectives of the study (Saunders *et al*, 2009).

Considering the research aim and objectives to explore the perceptions of retail investors, and also the lack of readily available data especially in the context of Indian Retail Investors, survey method was found most appropriate for the collection of new data. The Survey research strategy utilizes the use of questionnaire to for data collection procedures. The survey method was also appropriate because large amount of data was collected and the findings of the research would help in generalizing the results.

### 3.1.5 Data Collection Procedures

In this section four sub heading will be discussed including the types of data used, sampling techniques, target population and sample selection and finally the measuring instrument.
Data Types
a) Primary Data:

Primary data involves the collection of data from the participants who are actually aware of the studied phenomenon. The researcher herein has collected the primary data from the retail investors from Mumbai using the questionnaire method.

b) Secondary data

It acts a backbone to the primary data in the sense that it helps the researcher in reviewing the literature which has been gathered by other research scholars regarding the studied phenomenon. For the present study, journals, review articles, research papers, books, government archives were explored to collect secondary data.

Sampling Technique

a) Probability Sampling

Probability Sampling is simply a method of collecting a sample wherein the probability of getting selected in the sample is equal for all the participants in the target population (Zikmund, 2000 and Saunders et al, 2009).

b) Non-Probability Sampling
Non Probability sampling is a method of collecting samples from the target population wherein the probability of getting selected in the sample is not same for all the samples (Saunders et al, 2009). This type of sampling technique is generally used when there are time and money constraints.

For the present study convenience sampling has been used for the ease of selecting the samples. Also the researcher had time and money constraints which lead to selection of data through this technique.

**Selection of Sample Size.**

The Researcher herein selected randomly stock brokers in Mumbai and approached them to find out about the retail investors which have Demat accounts and have been investing in derivatives market for at least past one year. Once the list was obtained, 335 retail investors were randomly selected and approached for the survey. Out of these 335 respondents, 300 respondents agreed to participate in the survey.

**Data Collection Tool**

The method in this study is quantitative questionnaire which includes structured closed ended questions. There are six sections and the first one includes questions leads to demographic profile of the respondents. Next section includes questions which give the researcher an idea about the trading activities of the respondents. Third section aims to capture the
growth in the derivative market and reasons behind this growth. The fourth section includes questions which assess the education programs designed for retail investors and their satisfaction level with these programs. Fifth section includes questions related to regulation and protection of retail investor, and the fears they face while investing in derivative market. Last section includes questions related to the future of the derivative market.

**Data Collection Means and Protocols**

In order to collect the data, email was sent to the sample selected i.e. 335 retail investors. The email notified the aim and objectives of the study. Also they were asked for their permission to attend the call from the researcher in order to make them understand the research process in detail. The cover letter also specified the ethical considerations which will maintained throughout the study.

Once 300 respondents agreed to participate in the survey they were mailed the quantitative questionnaire which included structured close-ended questionnaires. The respondents were asked to fill the survey within two days although it would not have taken more than 15-20 minutes to complete the research question. 135 replies were received within the 3 days. After that a reminder mail was sent to the remaining respondents and the remaining filled questionnaires were received within a week.
3.1.6 Data Analysis Procedures

a) Data Processing

The data obtained using data collection instruments was in a raw form. The data was first coded and then transferred to excel sheet. The responses obtained from each and every questionnaire were then entered into the excel sheet. The data from excel sheet was then transferred to SPSS 17.0 file where it was subjected to further analysis.

b) Data Analysis:

Descriptive statistics and cross tabulation analysis was conducted to calculate the frequency and percentage of participant responses. The hypothesis testing was conducted using correlation analysis.

3.1.7 Limitations of the Methodology

1. The study involves the use of quantitative research methods to obtain the perceptions of retail investors. However, in order to get a 360° view of the problem, even stock brokers and other intermediaries could have been subjected to qualitative and/or quantitative interview.
2. Due to time and money constraints the sample size for the present was kept at 300 which may not represent the target population appropriately.

3. Convenience sampling technique was used for data collection procedures which is not a very efficient sampling technique

### 3.1.8 Ethical Considerations

It is important to have ethical considerations when dealing with human beings. Following ethical considerations were maintained during this study:

a) The respondents were informed that throughout the research process, the researcher will not reveal their responses to anyone.

b) Also the respondents had the option to quit the research process whenever they wished to. Also they had the option to skip the questions which they didn’t feel like answering.

c) Also they were informed that the researcher will not use the results anywhere else this research study without the consent the respondents.

d) The respondents were assured that results obtained from the study will not be manipulated or distorted to disseminate the conclusions.
3.2 Conclusion.

The researcher has elaborated this research methodology chapter based on positivism research paradigm, as researcher tries to study the casual relationship variables and influence of these variables on investor’s perceptions and investment behavior. In addition to positivism, quantitative research methodology has been applied. Survey method was used to collect information, and both primary and secondary data was utilized for analysis and conclusion.