CHAPTER 3

RESEARCH METHODOLOGY
Chapter Outlines

3.1 The Study

3.1.1 Defining Methodology

3.1.2 Exploratory Design

3.1.3 Descriptive Design

3.2 Sample Design

3.2.1 Population

3.2.2 Sample Size

3.2.3 Sampling Element

3.2.4 Sampling Techniques

3.2.5 Terrestrial Spread of Sample

3.3 Scope of Study

3.4 Tools for Data Analysis
Chapter 3: Research Methodology

3.5 Hypothesis Framed

3.6 Steps in the Research

Chapter References
In chapter 1 and 2, researcher has discussed the concepts of investment and investment behaviour related products and their associated concept also.

This chapter explains the methodology adopted and the methods employed for this piece of research giving appropriate justifications for the same. The chapter also discusses about the identifying the various challenges within the study. Various issues related to methodology also have been justified. This chapter focuses on the research philosophy as well as the research type, research approach, and research strategy.

In order to execute the study and attain its aims, this chapter sets out to discuss the various steps that had been taken in the study. The chapter starts with restatement of the objectives of the study followed by research design (approaches and methods), adopted for study. This chapter also deals with scope of the study, research approach (flowchart of research process), Methodology adopted for the study, sampling plan, development of instrument and statistical tools utilised for data analysis, interpretation and making significant inferences at the end of chapter.

3.1 The Study

The study was exploratory (explanatory and descriptive) in nature and is to be conducted to determine Behavioural Factor Influencing Individual Investors Decision Making and Investment Performance in Capital Market.
The present study is an exploratory, descriptive and contextual quantitative study in behavioral finance. The researcher employed a phenomenological research design and methodology to achieve the objectives of this study. In this regard, the following terms are defined next: methodology, exploratory, descriptive and epistemology.

3.1.1 Defining Methodology

Methodology as the mean or methods of doing something. It is the process of following the steps, procedures and strategies for gathering and analyzing the data in a research investigation. These methods describe in detail how the study was conducted. Bryman & Bell (2011) has defined methodology as it includes the design, setting, sample, methodological limitations and the data-collection and analysis techniques in a study. This is the know-how of the scientific methods and techniques employed to obtain valid knowledge.

3.1.2 Exploratory Design

According to Collins Cobuild English Dictionary for Advanced Learners (2001), “Exploratory actions are done in order to discover something or to learn the truth about something.” Malhotra & Dash (2013) define exploratory research as research conducted to gain new insights, discover new ideas and/or increase knowledge of a phenomenon.
3.1.3 Descriptive Design

Descriptive research refers to research studies that have as their main objective the accurate portrayal of the characteristics of persons, situations or. Malhotra & Dash (2013) define descriptive research as a non-experimental research design used to observe (and measure) a variable when little conceptual background has been developed on specific aspects of the variables under study. This approach is used to describe variables rather than to test a predicted relationship between variables.

3.2 Sample Design

A probability sampling method is any method of sampling that utilizes some form of random selections. In order to have a random selection method, you must set up some process or procedure that assures that the different units in your population have equal probabilities of being chosen. Humans have long practiced various forms of random selection, such as picking a name out of a hat, or choosing the short straw. These days, we tend to use computers as the mechanism for generating random numbers as the basis for random selection (Trochim, 2006). As above say reasons were important enough to utilise probability sampling for the study.

Out of the four methods of data collection primarily used by researchers; self-administered questionnaire, personal interview, telephone interviews, and mail interviews (Dwivedi, 1997; and Zikmund, 2003), self-administered
questionnaires were used for the purpose of data collection (Nachmias & Nachmias, 1981; Zikmund, 2000 and 2003).

It was difficult to select a particular one from them by comparing the advantages and disadvantages of each. This is because the strong point of one mode tends to be the weakness of the other. In order to overcome these situations, Peterson (1982) stated that the choice of mode should be dictated by the aims of the study and data required to attain the aims. Nachmias and Nachmias (1981) also viewed the situation in the same way.

Malhotra & Peterson (2001) also quoted that the mail interviewing method are not applicable in developing countries, as the postal address was of the respondents are not easily available. Cox (1996) and Huang (1998) also suggested that telephonic interviews are also not possible in developing countries because of the unavailability of telephone numbers and lack of database containing telephone numbers.

Peterson (1982) specified that the self-administered questionnaires are probable of providing the highest quantity and quality of data compared to the other modes of data collection. It is the most flexible but also the most expensive method too.

However, the researcher decided to use self-administered questionnaire method considering the potential increase in quantity and quality of information that could be obtained. To fulfil the requirements and the situations, the
researcher identified the need of using self-administered questionnaire method and considered it the best and most appropriate mode of data collection for this study.

**Media used for communicating with the respondent:** Zikmund (2003), identified *Human Interactive Media (HIM)* as a personal form of communication through which a message is focused towards an individual (or small group), creating a chance to intermingle with the communicator. HIM was profoundly used for this study and thus majority of the places were visited by researcher himself and only and very few places the researcher sent his representatives.

**3.2.1 Population**

The population for the study is the investors from four major cities of Madhya Pradesh they are Indore, Bhopal, Jabalpur and Gwalior.

**3.2.2. Sample Size**

To achieve the objective of the study overall sample size was 500 retail investors.

**3.2.3 Sampling Element**

Retail investors were used as the sampling elements of the study.
3.2.4 Sampling Techniques

Purposive sampling, purposive sampling and stratified random sampling is used in research work and data will be collected so that fair results can be obtained due to time constraint retail investors are only the sampling element and the data is collected from only 10 Security Company which is limitation for the study.
3.2.5 Terrestrial Spread of Sample

As discussed earlier that convenience sampling was used for this study. Broadly, Madhya Pradesh was selected as location for collection of data from respondents. As there are various places nearby too, but they have not been considered important for this study, because it was difficult to get access to all the places in short time duration.

Figure 3.1: Identification of territorial spread of sample.

(Source: Veethi.com, 2014)
3.3 Scope of Study

This study focuses identification of prospects related to investment procedure. Subsequently there were some more reasons for making this research in exact sense. In this study researcher has tried to identify prospects of investment and investment behavior.

3.4 Tools for Data Analysis

For the purpose of data analysis SPSS software is used to know descriptive statistics, factor analysis, Cronbach’s Alpha Test.

*SPSS 20* is used to understand the profile of the data. Different charts have been prepared by the use of descriptive function to understand the demography also to identify the major characteristics of the respondents.

*Cronbach’s Reliability* coefficient is utilized to analyze the authenticity/Reliability of the collected data and correlation among the variable is assessed.

*Independent Sample test* was applied Independent sample t-tests was applied on gender of the respondents to compare and measure the opinion differences, F value with p (sig.) value is checked from Levene’s Test For Equality and mean value from group statistics is compared
One Way ANOVA (Analysis of Variance) test was applied to understand the behaviour of investors to invest in capital market (Educational qualification, Marital Status, Age Group Wise Analysis and Monthly Income). F value is checked which is significant at .000.

Descriptive statistics is used to describe the influence level of behavioral variables on the investment decision making.

Confirmatory Factor Analysis was carried out by using AMOS 18.0 software, CFA was conducted with the objective to define Individual constructs and test whether the data fit a hypothesized measurement model.

Structural Equation Modeling is a statistical tool carried out after CFA, This model is used to draw relationship between the variable/ construct.
3.5 Hypotheses Framed

The present study was aimed to see impact of behavioral factor influencing decision making and investment performance in capital market. Following hypotheses were formulated to achieve the desired research objective.

<table>
<thead>
<tr>
<th>Hypotheses No.</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₀a:</td>
<td>There is no difference for investment in capital market between males and females.</td>
</tr>
<tr>
<td>H₀b:</td>
<td>There is no significant difference for investment in capital market among different education level of the respondents.</td>
</tr>
<tr>
<td>H₀c:</td>
<td>There is no significant difference for investment in capital market among different marital status of the respondents.</td>
</tr>
<tr>
<td>H₀d:</td>
<td>There is no significant difference for investment in capital market among different level of experience of investment of the respondents.</td>
</tr>
<tr>
<td>H₀e:</td>
<td>There is no significant difference for investment in capital market among different age groups of the respondents.</td>
</tr>
<tr>
<td>H₀f:</td>
<td>There is no significant difference for investment in capital market among different age groups of the respondents.</td>
</tr>
<tr>
<td>H₀g:</td>
<td>The behavioral factor influencing the investment decision of individuals are not grouped in four factors as the reviewed theories: Heuristic, prospect, Market and Herding.</td>
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</tbody>
</table>
3.6 Steps in the Research

![Diagram of research steps]

**Figure 3.2: Steps in the research**
Flow of this study depicted through a flowchart following. Figure 3.2 charts out the stepwise framework implemented to carry out the research.

Figure 3.2 briefly elaborates the steps taken by the researcher to answer the raised questions during the study.

The first step taken by the researcher was to identify the background for the research. The variables in used in the study were identified and particularly the backdrop for the study was created. The reasons which motivated researcher to undertake the study were mentioned. Second step is to collect all the literature which provides the information about the variables and various studies carried out by the various researchers in the past. This is an important step as it allows the researcher to enhance understanding of the variables. It is considered as the most important step. The gap in the literature is also identified and is utilized for the study. Next, the research step creation of the research design. Research design is the framework that has been created to seek answers to research questions. From the reviewed literature the instrument for the study was developed which was used in the study. The scales were modified for the Indian context as per the discussion with experts of the subject. And a pilot study also has to be carried out to identify whether the developed instrument is usable in the present context. After the instrument for data collection has been finalized the, collected data has to be analyzed. The empirical analysis is done using various statistical tools and finally after empirical testing of the data, the research findings are summarized and conclusion with implications for researchers and managers is placed at the last.
Chapter References
