

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 METHODOLOGY USED**

This study is systematically organized and scientifically analyzed the data. Both descriptive and inferential analyses are simultaneously employed to derive results derived in the objective of the study.

##### **3.1.1 Pilot Study and Pre-testing**

In order to study financial behaviour and psychological well-being of investors of mutual fund instruments in Salem district data were collected by questionnaire. At the point of inception a pilot study was planned and pre tested with a well defined questionnaire. The main aim of the pilot study is to check the feasibility and reliability of the questionnaire, which is used as a main tool of analysis. A tentatively well-framed questionnaire was circulated among 60 respondents in Salem districts. The responses obtained are systematically transformed into the data spread sheet with suitable numerical coding. The Cronbache's Alpha method was applied on the primary responses and found that the reliability of more than 0.75 was observed. This shows the high reliability of the questionnaire circulated among the respondents. It is concluded out of these results that the questionnaire so framed is highly suitable in ascertaining the responses from the respondents. Questionnaire method helps in fulfilling several purposes, like measurement, descriptions and drawing inferences. The primary data is collected through the well framed



questionnaire comprising optional type and Likert's five point scales. The questionnaire mainly focused on personal information about the respondents and the information about Investor's psychological well-being, factors influencing investment decisions, investor awareness towards mutual fund, perceived risk, investor attitude in investing mutual fund instruments and level of satisfaction. The structured questionnaire, personal discussions with all types of respondents, personal observations, etc, were also used in the survey. The questionnaires were distributed in person at the time of the survey with a request to fill it up. A sincere and persistent effort helped to obtain the required data for the completion of the study. The survey was conducted for 16 months (August 2013 to November 2014). Due to the sensitivity of the study and the eliciting critical information 80 respondents were failed to respond and 40 respondents did not complete the questionnaires. However in verifying the majority of objectives and testing the hypotheses, the responses from all the 660 respondents were taken into account. This study was conducted in Salem District in Tamilnadu and data were collected during 2012-2014. In order to collect the data, Self-administered questionnaire was applied. The Clients (Investors of mutual fund instrument) of brokerage firms in Salem district were chosen as population and primary data from a total of 660 samples were included in edifice of the Structural Equation Model [SEM] using AMOS version 5.0 as well as Chi Square, Friedman test, Analysis of Variance and T test were used for data analysis.

### **3.1.2 Instruments for Data Collection**

One of the main research instruments for collecting primary data is questionnaire. Questionnaire method helps in fulfilling several purposes, like measurement, descriptions and drawing inferences. The primary data is collected through the well framed questionnaire comprising optional type and Likert's five point scales.



### **3.1.3 Sources of Data and Sampling**

Two types of data have been used for the study viz., Primary data and Secondary data. Primary data refers to those data which are collected first hand by the investigator. Such data are original in character and are generated in a large numbers of surveys conducted, mostly by government and also by some individuals, institutions and research bodies. There are several methods of collecting primary data like survey method, observation method to name a few. In this project, survey method is used to collect the primary data through a well designed questionnaire. In this method, the enumerator makes personal contacts with the informants either directly or indirectly and collects the required data. Various devices such as telephone, mailed questionnaire are used to collect information. As the enumerator is personally involved in collecting data, the information is more reliable and accurate. The data which are not originally collected but collected from either published or unpublished sources are called secondary data. In this research secondary data is also used. Instead of obtaining information from each and every unit of the universe, only a small representative part is studied and the conclusions are drawn on that basis for the entire universe or whole population. Hence, this research uses sampling method for collecting data. The sampling units are the clients of stock brokerage in Salem district.. The sample size for the study is calculated with the margin of error of 5 % and 99 % confidence level. Here researcher used the 99% confidence level and the sample size is calculated as 660.

### **3.2 TOOLS USED**

The study results were analyzed by using various statistical tools. The data collected from the respondents were analyzed and presented in the form of tables. Bar charts are used at various places as a statistical tool. The



results are compared and analyzed by using descriptive analysis and inferential analysis.

### 3.2.1 Descriptive Analysis

Descriptive analysis, also termed as percentage analysis, was used for each question contained in the interview schedule mainly to ascertain the distribution of respondents under each category. Diagrams and charts are mainly used for clear understanding of the data collected in pictorial form. Pie-charts and bar charts were used for this purpose.

### 3.2.2 Non parametric Friedman Test

The Friedman test is a nonparametric alternative to the repeated measures of analysis of variance. It is the non parametric equivalent of a one-sample repeated measures design or a two-way analysis of variance with one observation per cell. Friedman tests the null hypothesis that k related variables come from the same population. In order to ascertain the factors that will influence the respondents towards the psychological Well-being, investors attitude, investors awareness and level of satisfaction of mutual fund investors.

$$G = \frac{12}{nK(K+1)} \sum R_j^2 - 3n(K+1)$$

### 3.2.3 Chi-square Analysis

The Chi-square analysis is used to test the significance of association between two attributes. In other words, this technique is used to test the significance of the influence of demographic characters over mode of payment, types of schemes preference and other factors of investing mutual



fund investment. All the tests were carried out at 5 percent level of significance.

The chi-square statistic is

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Here O: Observed frequency E: Expected frequency

### **3.2.4 Average Score Analysis**

After converting the qualitative information into a quantitative one using a five point scale, the average scores were obtained on various issues to determine the mean scores regarding perceived risk in investing the mutual fund instruments.

Parametric test of two sample t-Test and One way analysis of variance for more than two groups are applied to for judging the significance of the difference between means scores of shared value and its impact on performance after testing the normality by Q-Q plot.

### **3.2.5 Structural Equation Model**

Structural equation modeling is a statistical technique that combines elements of traditional multivariate models, such as regression analysis, factor analysis and simultaneous equation modeling. To test the conceptual model, we use structural equation modeling (SEM) method using AMOS version 5.0. A new research attempt made in this study checks whether psychological comfort levels of the investors have any relation with their attitude and their decisions of the investment. The study also finds the relationship of investor's attitude on awareness about the investment with the

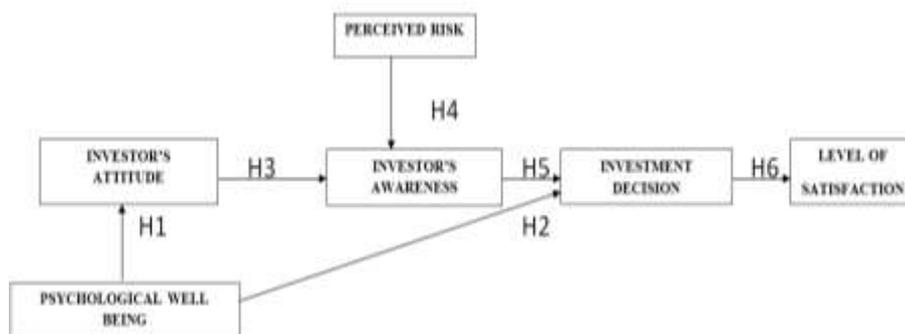


perceived risk and also to check whether satisfaction of the investors depends upon the choices taken. Accordingly the research model is proposed to compare the consciousness of the investor, approach of the investors with the perceived risk, to examine how investment decision making and Psychological Well-Being of the investors are related, as well as compare the relative differences of Psychological Well-Being parameters with the satisfaction of the investments. Thus, a series of hypotheses related to a proposed research model is investigated.

<b>The variables used in the structural equation model are</b>	
<b>Observed, endogenous variables</b> <ol style="list-style-type: none"> <li>1. Investment Decision</li> <li>2. Investor Awareness</li> <li>3. Investor Attitude</li> <li>4. Level of satisfaction</li> </ol>	<b>Observed, exogenous variables</b> <ol style="list-style-type: none"> <li>1. Psychological Well-Being</li> <li>2. Perceived Risk</li> </ol>
<b>Unobserved, exogenous variables</b> <ol style="list-style-type: none"> <li>1. e1: error term for Investor Attitude</li> <li>2. e2: error term for Investor Awareness</li> <li>3. e3: error term for Investment Decision</li> <li>4. e4: error term for Level of satisfaction</li> </ol>	<b>Hence numbers of variable in the SEM are</b> <ol style="list-style-type: none"> <li>1. Number of variables in this model 10</li> <li>2. Number of observed variables 6</li> <li>3. Number of unobserved variables 4</li> <li>4. Number of exogenous variables 6</li> <li>5. Number of endogenous variables 4</li> </ol>



- Hypothesis 1: Investor's Psychological Well Being positively influences his/her Attitude in investments.
- Hypothesis 2: Investor's Psychological Well Being positively influences his/her Decisional factors of the Mutual Fund investment.
- Hypothesis 3: Investor's Attitude positively influences his/her awareness of the Mutual Fund investment.
- Hypothesis 4: Perceived Risk on investment positively influences his/her Awareness of the Mutual Fund investment.
- Hypothesis 5: Investor's awareness of the mutual fund investment positively influences his/her Decisional factors of Mutual Fund investment.
- Hypothesis 6: Decisional factors of mutual fund investment positively influences his/her level of Satisfaction of Mutual Fund investment



**Figure 3.1 Research model and research hypotheses**

### 3.3 DEVELOPMENT OF HYPOTHESES

From the previous reviews of literature, the research tends to analysis financial behavior of the mutual fund investments.

Hypothesis 1: The demographic variables of the respondent positively influences on investment horizon on investing in mutual funds.

Hypothesis 2: The demographic variables of the respondent positively influences on preference of Type of scheme in mutual funds.

Hypothesis 3: The demographic variables of the respondent positively influences on level of tolerance of risk in mutual fund investments.

Hypothesis 4: The demographic variables of the respondent positively influences on mode of payment for mutual fund investments.

Hypothesis 5: Individual demographic variables of the respondent positively influences on perceived risk on investing in mutual funds.

Hypothesis 6: Individual demographic variables of the respondent positively influences on investor awareness towards mutual fund investments.

Hypothesis 7: Individual demographic variables of the respondent positively influences on investor attitude towards mutual fund investments.



Hypothesis 8: Individual demographic variables of the respondent positively influences on psychological well-being towards mutual fund investments.

Hypothesis 9: Individual demographic variables of the respondent positively influences on the Level of satisfaction towards mutual fund investments.

