CHAPTER 1
INTRODUCTION

1.1 Introduction
1.2 Statement of the Problem
1.3 Significance of the Study
1.4 Scope of the Study
1.5 Objectives of the Study
1.6 Hypotheses
1.7 Operational Definitions
1.8 Research Design
   1.8.1 Data Base
   1.8.2 Instruments Used for the Collection of Primary Data
   1.8.3 Measurement of Variables
   1.8.4 Pilot Survey
   1.8.5 Validity and Reliability
   1.8.6 Sampling Design
   1.8.7 Period of Reference
   1.8.8 Methods and Tools Used for the Analysis
1.9 Limitations of the Study
1.10 Scheme of Presentation of the Report
1.1 Introduction

In the present financial market, mutual funds have emerged as the key player of saving and investment process. Majority of the individual investors have been showing keen interest in the structured financial operation. With the growing emphasis on the adoption of well structural professional management of investments, the role of mutual fund has assumed greater importance. Mutual fund is an innovative financial instrument, and investment vehicle for investors who pool their savings for investing in diversified portfolio of securities, with the aim of attractive yields and appreciation in their value.

A mutual fund is a special type of institution, a trust or an investment company which acts as an investment intermediary and invests the savings of large number of people to the corporate securities in such a way that investors get steady returns, capital appreciation and a low risk. It is essentially a mechanism of pooling together the savings of a large number of investors for collecting investment with an avowed objective of attractive yields and appreciation in their values. A mutual fund is the most suitable investment for the retail investors as it offers an opportunity to invest in a diversified, professionally managed portfolio at a relatively low cost. At the retail level, investors are unique and are a highly heterogeneous group. A large number of investment options are available to investors. Currently there are large numbers of schemes available and the Asset Management Companies (AMCs) compete against one another by launching new products or repositioning old ones. Unless mutual fund schemes are tailored to the changing needs, and the AMCs understand the fund selection behaviour of the investors; survival of funds will be difficult in future.

1.2 Statement of the Problem

In India, the Mutual Fund industry have been in existence with the establishment of UTI and evolved to be a product since 1964. The term product is used because Mutual Fund (MF) is not merely to park investor’s savings but, schemes are tailor made to cater to investor’s needs, whatever their age, financial
position, risk tolerance and return expectations. This issue of combining service and product is an important aspect of mutual fund industry. Mutual funds have opened new vistas to millions of small investors by virtually taking investment to their doorstep. In India, a small investor generally goes for bank deposits, which do not provide hedge against inflation and often have negative real returns. Here the investor has limited access to price sensitive information and if available, may not be able to comprehend publicly available information couched in technical and legal jargons. Mutual funds have come, as a much needed help to these investors. MFs are looked upon by individual investors as financial intermediaries/portfolio managers who process information, identify investment opportunities, formulate investment strategies, invest funds and monitor progress at a very low cost. Thus, the success of MFs is essentially the result of the combined efforts of competent fund managers and alert investors. A competent fund manager should analyse investor behaviour and understand their needs and expectations, to gear up the performance to meet investor requirements.

In an atmosphere of constantly changing economic conditions, investors should keep up with the rapid changes and pursue the most popular trends in order to have their fingers on the pulse. Changing conditions encourage them to come up with new alternatives to their investment instruments. These alternatives consist of a mixture of numerous investment vehicles which are mainly formed by various types of mutual funds. It should be noted that the expectations of investors play a vital role in the financial markets. They influence the price of the securities, the volume traded and various other financial operations in actual practice. These expectations of investors are influenced by their perception and humans generally relate perception to action. Investor’s behaviour may change from period to period even if the other variables influencing the behaviour are held constant. The individual investors’ decision-making often relies on observable socio-demographic variables to proxy for inherent psychological processes that drive investment choices. The latent
heterogeneity amongst investors in terms of their preferences and beliefs, form the underlying drivers of their behaviour. To gain a better understanding of the relations among individual investors’ decision-making, the processes leading to these decisions and investment performance are taken in to consideration. Hence, with this background, the present study attempts to analyse the investment behaviour of Mutual Fund investors.

1.3 Significance of the Study

It is widely believed that Mutual Fund is a retail product designed to target small investors, salaried people and others who are intimidated by the stock market but, nevertheless, like to reap the benefits of stock market investing. It is evident that mutual funds have at the top of the agenda over the last decade thus, constituted the majority of many organisations’ portfolios. They have become worldwide phenomena and attached great importance to global financial markets. Nowadays, an increasing number of investors are relying on mutual fund as investment and retirement vehicles. Hence, designing a mutual fund product and expecting a good response will be futile.

Investor’s behavioural study occupies a significant place for asset management companies offering investment products. A better understanding of behavioural processes and outcomes is important for financial planners because an understanding of how investors generally respond to market movements should help investment advisors devise appropriate asset allocation strategies for their clients. For mutual fund companies, identifying the most influencing factors on their investors’ behaviour would affect their future policies and strategies. Finally, for government, identifying the most influencing factors on investors’ behaviour would affect the required legislations and the additional procedures needed in order to satisfy investors’ desires and also to give more support to market efficiency. In this context, the present study is very useful and relevant to examine the factors influencing the behaviour of investors, while making
decisions related to mutual fund investments and the features that investors look for in mutual fund products

1.4 Scope of the Study

The present study aims at tracking investors’ preferences and priorities towards different types of mutual fund products and for identifying key features of a mutual fund for deciphering sustainable marketing variables in the design of a new mutual fund product. Besides the factors identified, the study provides key information inputs regarding investors’ fund selection behaviour and post-buying behaviour that will guide future mutual fund product managers in designing attractive mutual fund products for the Indian market.

1.5 Objectives of the Study

1. To investigate the investment objectives of mutual fund investors across their time horizon, and demographic features.

2. To identify the saving and investment avenue preferences of mutual fund investors, and their level of preferences towards mutual fund products with respect to the time horizon, risk perception, and socio-economic characteristics.

3. To ascertain the key features of mutual fund products influencing the fund selection behaviour of mutual fund investors.

4. To assess the fund preferences of mutual fund investors in relation to their investment objectives, time horizon and risk perception.

5. To examine the post-buying behaviour of mutual fund investors in relation to their time horizon, risk perception and demographic profile.

6. To assess the product performance satisfaction level of the investors across the different types of mutual fund products.

7. To develop a model for deciphering sustainable marketing variables in the design of a new mutual fund product.
1.6 Hypotheses

1. The investment objectives of mutual fund investors do not vary with time horizon of investment.
2. The level of preference towards mutual fund products is not affected by time horizon, risk perception and demographic features of mutual fund investors.
3. Fund preferences of mutual fund investors depend on their investment objectives, time horizon and risk perception
4. The post-buying behaviour of mutual fund investors depends on their time horizon, risk perception and demographic features.
5. The product performance satisfaction level of mutual fund investors is uniform across different types of funds.

1.7 Operational Definitions

❖ Mutual Fund Investor

Mutual fund investor is referred to as an individual or retail investor who has currently invested in any investment products, whose name appears in the portfolio records of different Assets Management Companies (AMC) as on 30/09/2010. It does not include high net-worth individuals (i.e., those who earn above ₹ 10,00,000/- per annum) and institutional investors.

❖ Rural, Urban, and Semi-urban Investor

Rural Investor is referred as an investor who resides in the geographical boundaries of Local Grama Panchayat. Urban investor is an investor residing in the geographical boundaries of Corporations; and Semi-urban investor is defined as a mutual fund investor residing in the geographical boundaries of Municipalities in Kerala.

❖ Investor Behaviour

Behaviour of the investor refers to the attitude of the investor while, searching, using, evaluating, and disposing mutual fund products. It is the aggregate of pre-buying and post-buying behaviour of a mutual fund investor.
- **Fund Selection Behaviour**
  
  It refers to the behaviour exhibited by the mutual fund investors at the time of searching, evaluating and selecting mutual fund products for the purpose of investment.

- **Pre-buying Behaviour**
  
  Pre-buying behaviour refers to behaviour exhibited by the mutual fund investors at the time of investing in mutual fund products. It includes fund selection behaviour and fund preferences of mutual fund investors.

- **Post-buying Behaviour**
  
  Post-buying behaviour is the behaviour exhibited by the mutual fund investors after investing in mutual fund products such as redemption, switching of funds, additional buying of units, and future buying intention.

- **Product Performance Satisfaction Level**
  
  Product performance satisfaction level implies the satisfaction level of mutual fund investors with respect to return, transparency, safety, liquidity, service quality, fund management, and overall performance of the mutual fund products.

- **Investment Factors**
  
  Investment factors are those factors influencing the saving and investment avenue preferences of mutual fund investors such as time horizon, risk perception, financial literacy etc.

- **Time Horizon**
  
  Time horizon can be described as the stipulated time duration an investor is willing to block his money in an investment avenue.

- **Risk Perception**
  
  It is the level of risk perceived by a mutual fund investor at the time of investing in mutual fund products.
Financial literacy
It implies the awareness level of mutual fund investors about the financial and operational aspects of mutual fund products such as NAV, market risk, portfolio, scheme information document etc.

Product Attributes
Product attributes are referred as the attributes of mutual fund products comprising of the factors such as core of the product, fund quality, investors confidence, service quality, promotional mix, and fund sponsor quality.

Environmental Forces
These are the factors motivated or persuaded or influenced the mutual fund investors to invest in mutual fund products.

Additional Buying Factors
It refers to the factors persuaded the mutual fund investors to invest further in mutual fund products.

Portfolio Revision
It implies the switching of fund/portfolio opted by the mutual fund investor.

Future Buying Intention
It refers to the investment preference of mutual fund investors to other savings avenue in the future.

1.8 Research Design
The present study adopted descriptive as well as an empirical research design based on the survey method. Here, the researcher makes use of an inductive research approach to construct the model based on the analysis.

1.8.1 Data Base
The data required for the study have been collected from both primary and secondary sources. The study basically depends on the primary data collected from 400 sample mutual fund retail (individual) investors in Kerala through a structured questionnaire. In addition to this, the discussion with officials of AMCs, stock broking firms, agents and distributors of MF products, and experts in this
field were conducted to collect required information. The survey was conducted during the period of 2011 February to 2012 January.

The secondary data required for the study have been collected from the reports and publications of AMFI, SEBI, and RBI; books, journals, and periodicals; dissertations; and various websites; related with the subject.

1.8.2 Instruments Used for the collection of primary data

In order to collect the primary data required for the study, a structured questionnaire (shown in Appendix-A) has been developed by the researcher. The questionnaire consists of three parts. First part comprises of questions related to demographic features and saving/investment avenue preferences of MF investors. The second part of the instrument deals with questions for assessing the pre-buying behaviour, and the last part consists of questions related to post-buying behaviour of MF investors.

1.8.3 Measurement of Variables

- **Saving and investment avenue preferences**

  For measuring the saving and investment avenue preferences among the mutual fund investors, the researcher has considered nine investment alternatives which have been measured on a five point *Likert-type* scale, ranging from ‘least preferred’ to ‘most preferred’.

- **Environmental forces**

  In order to measure the environmental forces persuaded the investor to invest in mutual funds, ten persuading factors were considered and these factors were measured on a five point *Likert-type* scale ranging from ‘least influence’ to ‘most influence’.

- **Product attributes**

  For measuring the product attributes considered by the investor while selecting mutual fund products, 38 attributes of mutual fund products were taken in to consideration and these items were measured on a five point *Likert-type* scale ranging from ‘least considered’ to ‘most considered’.
Financial literacy

For measuring the financial literacy of mutual fund investors, the awareness level of nine important technical and operational aspects of mutual fund products have been considered and these items were measured on a five point Likert-type scale ranging from ‘least aware’ to ‘most aware’.

Product performance satisfaction level

In order to measure the product performance satisfaction level of mutual fund investors the satisfaction level in respect of seven parameters were identified and the items were measured on a five point Likert-type scale ranging from ‘excellent’ to ‘extremely poor’.

Redemption factors

The redemption factors represented by seven important reasons for redeeming the mutual fund units were measured on a five point Likert-type scale ranging from ‘strongly disagree’ to ‘strongly agree’.

Additional buying factors

Additional buying factors constituted by the five important motivating factors to invest further in investment products were measured on a five point Likert-type scale ranging from ‘strongly disagree’ to ‘strongly agree’.

Risk perception

Risk perception has been measured on a 10 point scale ranging from low risk ‘1’ to high risk ‘10’.

1.8.4 Pilot survey

A pilot survey was conducted to assess the reliability and validity of the questionnaire developed by the researcher. It was conducted during the month of January 2011 among 150 mutual fund retail (individual) investors selected from Ernakulam, Thiruvananthapuram, and Kozhikode districts of Kerala (50 each). The questionnaire so designed and developed has been tested for consistency and viability to satisfy the scale refinement and validation.
1.8.5 Validity and Reliability

The content validity of the scales was evaluated by using a panel of experts in the field of the subject to judge the validity of the instrument. In order to ensure the convergent validity of the instruments, confirmatory factor analysis of each item in the scale is checked with the help of coefficient called Bentler-Bonett Fit Index. It has been observed that TLI values of each construct as well as overall TLI values are more than 0.90 which indicated strong convergent validity of the instrument.

*Cronbach’s alpha* was used to test the reliability of the construct of scales. The calculated value of *cronbach’s alpha* (overall) for the study is 0.845 which indicates strong internal consistency.

1.8.6 Sampling Design:

➢ Universe of the Study

The universe of the study consists of as all those individual investors (retail investors) of mutual fund products whose names appearing in the portfolio records of different Asset Management Companies (AMCs) as on 30-9-2010. As per the portfolio records of different AMCs, the estimated number of mutual fund individual investor folios was around 19 lakhs (as on 30-9-2010), which fall under 27 AMCs in Kerala having three regional offices. It does not include high net-worth individuals (i.e., those who earn above ₹ 10,00,000 /- per annum) and Institutional investors. The table 1.1 shows the AMC wise data of mutual fund investors in Kerala.
Table 1.1 AMC-wise estimated number of mutual fund individual investor folios in Kerala (as on 30-9-2010)

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Name of the AMC</th>
<th>Population (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UTI Asset Management Co Ltd</td>
<td>4,43,181</td>
</tr>
<tr>
<td>2</td>
<td>Reliance Capital Asset Management Ltd</td>
<td>3,21,371</td>
</tr>
<tr>
<td>3</td>
<td>SBI Funds Management Pvt Ltd</td>
<td>2,43,581</td>
</tr>
<tr>
<td>4</td>
<td>HDFC Asset Management Co Ltd</td>
<td>1,84,314</td>
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<td>5</td>
<td>ICICI Prudential Asset Management Co Ltd</td>
<td>1,25,488</td>
</tr>
<tr>
<td>6</td>
<td>Birla Sun Life Asset Management Co Ltd</td>
<td>1,06,946</td>
</tr>
<tr>
<td>7</td>
<td>Sundaram Asset Management Co Ltd</td>
<td>95,804</td>
</tr>
<tr>
<td>8</td>
<td>Franklin Templeton Asset Mgt Ind Pvt Ltd</td>
<td>90,434</td>
</tr>
<tr>
<td>9</td>
<td>DSP BlackRock Investment Managers Pvt Ltd</td>
<td>65,748</td>
</tr>
<tr>
<td>10</td>
<td>Tata Asset Management Ltd</td>
<td>59,827</td>
</tr>
<tr>
<td>11</td>
<td>Kotak Mahindra Asset Management Co Ltd</td>
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</tr>
<tr>
<td>12</td>
<td>PRINCIPAL Asset Management Co Pvt Ltd</td>
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</tr>
<tr>
<td>13</td>
<td>IDFC Asset Management Co Pvt Ltd</td>
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<td>14</td>
<td>LIC NOMURA Mutual Fund Asset Mgt Co Ltd</td>
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<td>HSBC Mutual Fund Asset Management Co Ltd</td>
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<td>Axis Asset Management Co Ltd</td>
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<td>20</td>
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<td>22</td>
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<td>23</td>
<td>IDBI Asset Management Ltd</td>
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<td>25</td>
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<td>26</td>
<td>Motilal Oswal Asset Management Co Ltd</td>
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<tr>
<td>27</td>
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<td>578</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>19,44,009</td>
</tr>
</tbody>
</table>

Source: Compiled from the Official Records of AMCs
Determination of sample size

The sample size of the study has been arrived at on the basis of minimum required Sample Size Table and Power Analysis. As per the sample size table, minimum required sample size \((n)\) for the study is 384 \((N= 19,44,009, P< 0.05)\). The Power Analysis provides a minimum required sample (Effect size) of 300 \((n)\) mutual fund investors. Therefore, the researcher has decided to fix the sample size \((n)\) 400 Nos. mutual fund individual investors.

Selection of Sample Frame and Sample units

The universe of the study (MF retail investors) comprises of 27 AMCs (Sample Frame) having three regional offices in Kerala represented by North, Central, and South Zone. Initially, the required sample size for each of the regions was fixed on the basis of the percentage of population of sample frame (AMCs) to the universe of the study. After determining the required sample size of each region, the sample size required for the sample frame (AMC) has been arrived in proportion of the size of the sample frame to the total universe of the region. The required sample units (mutual fund retail investors) were selected from the list of mutual fund retail investors provided by the three regional offices of 27 AMCs. Simple random sampling by using random number table was deployed for the selection of sample units from the sample frame. Accordingly 400 sample units (MF investors) constituted by 100 sample units from north, 160 sample units from central, and 140 sample units from southern region were selected for the study. The table 1.2 shows the selection of sample units from the sample frame.
<table>
<thead>
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<th>Sample Frame</th>
<th>South</th>
<th>Total</th>
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<td></td>
<td>North</td>
<td>Central</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Population %</td>
<td>Sample size</td>
<td>Population</td>
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<td>SBI Funds</td>
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<td>Sundaram</td>
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<td>Peerless Funds</td>
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<tr>
<td>Total</td>
<td>481500</td>
<td>100</td>
<td>100</td>
<td>776129</td>
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</tbody>
</table>

Source: Compiled from the official records of AMCs
1.8.7 Period of reference

The data collected for the study were relating to a five year period from 2006-07 to 2010-11. However, a longer duration has also been considered wherever necessary.

1.8.8 Methods and Tools used for the analysis

Statistical Package for Social Sciences (SPSS version 20) is used to analyze the data. To understand the investment objectives of mutual fund investors, weighted score ranking of investment objectives; and its association with time horizon, and demographic features were conducted. Weighted score means and Kruskal Wallis test were applied for the purpose. The saving and investment avenue preferences of mutual fund investors were analysed by way of weighted score ranking and box plot. The investors’ preferences towards mutual fund products and its association with time horizon, risk perception, and demographic factors were tested with chi-square test of independence.

In order to identify the key product attributes considered by the mutual fund investors while selecting mutual fund products, factor analysis has been done by using Principal Component Method. The fund preferences of mutual fund investors with their investment objectives were analysed with the help of Friedman’s test. The dependence of fund preferences of mutual fund investors with time horizon, and risk perception were tested with chi-square. The association between post-buying behavioural factors with time horizon, risk perception, and demographic features of mutual fund investors were tested by using chi-square test of independence. The mutual fund product performance satisfaction level of the investors across different funds were analysed with the help of chi-square test. Finally, Structural Equation Modelling (SEM) was applied using AMOS-17 to derive the structural relationship between the latent variables and the measured variables; and to construct a comprehensive model of mutual fund investors’ behaviour.
Tools for model building

In order to construct Mutual Fund Investors’ Behaviour Model, the variables considered for model building were put into Reliability Test (Cronbach’s Alpha) and Principal Component Analysis (PCA) for ensuring scale refinement and validity. Then, Confirmatory Factor Analysis was used to develop measurement model by using the software AMOS 17. After developing the variables to be measured, the Exploratory Factor Analysis (EFA) has been done to group the measured variables and designate the latent variables. On the basis of literature support from investment management; and correlation between the latent variables, the researcher has developed a structural model indicated by a path diagram of causal relationship. Thereafter, the confirmatory factor analysis (CFA) model was developed and parameters estimated in the model were examined based on the goodness of fit measures available in AMOS output. It is generally suggested that at least one index of measures of ‘goodness of fit’ from each of the following category should be reported at the time of testing the fitness of the model (Brown, T.A, 2006). The table 1.3 indicates the recommended level of ‘goodness of fit’ of the model. The following are the measures of ‘goodness of fit’ used by the researcher for model building:

- Absolute fit measures:
  1. **Likelihood ratio Chi-square statistic (p):** Usually greater than 0.05 is the level of acceptable fit.
  2. **Goodness of fit index (GFI):** Higher values closer to 1.0 indicate better fit.
  3. **Root mean square residual (RMR):** The smaller values the better.

- Comparative fit measures:
  1. **Tucker-Lewis Index (TLI):** A recommended value of TLI is 0.9 or greater. The value closer to 1.0 indicates perfect fit.
  2. **Normal fit Index (NFI):** A recommended value of NFI is 0.9 or greater. The value closer to 1.0 indicates perfect fit.
3. **Adjusted goodness of fit index (AGFI):** A recommended value of AGFI is 0.9 or greater. The value closer to 1.0 indicates perfect fit.

4. **Comparative fit index (CFI):** The value closer to 1.0 indicates perfect fit.

- ** Parsimonious fit measures:**
  1. *Root mean square error of approximation (RMSEA):* Values ranging from 0.05 to 0.06 are acceptable
  2. *Normed Chi-square (CMIN/DF):* Lower limit 1.0 and upper limit 3.0

<table>
<thead>
<tr>
<th>P</th>
<th>Normed $\chi^2$</th>
<th>GFI</th>
<th>AGFI</th>
<th>NFI</th>
<th>TLI</th>
<th>CFI</th>
<th>RMR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;0.05</td>
<td>&lt;3</td>
<td>&gt;0.90</td>
<td>&gt;0.90</td>
<td>&gt;0.90</td>
<td>&gt;0.90</td>
<td>&gt;0.90</td>
<td>&lt;1</td>
<td>&lt;0.06</td>
</tr>
</tbody>
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*Source: Brown, T. A, 2006*

### 1.9 Limitations of the Study

1. The universe of the study is limited to the mutual fund investors in *Kerala*. In India, majority of the mutual fund investors are concentrated in metropolitan cities.

2. This study has not been conducted over an extended period of time having both ups and downs of stock market conditions which might have a significant influence on mutual fund investors’ buying pattern and preferences.

3. Few of the mutual fund investors in *Kerala* have shown reluctance in providing reliable financial data pertaining to certain items. The data from such investors are collected by creating a rapport by the researcher with the investors.

### 1.10 Scheme of Presentation of the Report

The report of the study has been presented in seven chapters.

**Chapter 1: Introduction**- The first chapter exposes the objectives, hypotheses, and methodological design of the study.
Chapter 2: Review of Literature- In this chapter, an attempt is made to review the available literature and identify the research gap in the field of mutual fund.

Chapter 3: Mutual Fund Products - An Overview- The third chapter gives an overview of mutual fund products in India.

Chapter 4: Saving and Investment Avenue Preferences of Mutual fund Investors- In this chapter an attempt to investigate investment objectives of mutual fund investors across their time horizon, and demographic features is made. It also identifies the saving and investment avenue preferences of mutual fund investors, and level of preferences towards mutual fund products in respect of their time horizon, risk perception, and socio-economic characteristics.

Chapter 5: Mutual Fund Investors’ Behaviour- This chapter makes an attempt to ascertain the key features of mutual fund products influencing the fund selection behaviour of mutual fund investors. It also assesses the fund preferences of mutual fund investors in relation to their investment objectives, time horizon and risk perception. Further, the chapter try to examine the post-buying behaviour of mutual fund investors in relation to their time horizon, risk perception and demographic profile; and to assess mutual fund product performance satisfaction level of the investors across different types of mutual fund products.

Chapter 6: Mutual Fund Investor Behaviour Model: This chapter is devoted to develop a model for deciphering sustainable marketing variables in the design of a new mutual fund product.

Chapter 7: Summary of Findings, Conclusion and Suggestions- The last chapter presents the main findings of the study, conclusion, implications, suggestions and scope for future research in the field.

Bibliography

Appendices