CHAPTER-3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

Research in a common parlance refers to a search for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. In fact, research is an art of scientific investigation. The Advanced Learner’s Dictionary of Current English lays down the meaning of research as a “careful investigation or inquiry especially through search for new facts in any branch of knowledge”. Random and Mory define research as a “Systematized effort to gain knowledge”.

To undertake the study on “A comparative study on financial performance of selected mutual fund companies in India.” The present study is conducted by using both types of primary as well as secondary data. The performance of selected mutual fund have been examined on the basis of secondary data which have been collected from the records of Association of Mutual Fund of India (AMFI) and value research website, data based websites, journals, magazines and euthanatized public data.

Indian mutual fund companies came under liberalized environment in the year 1993 with the introduction of SEBI (Mutual funds) Regulations. The industry was brought under the regulatory frame work and control with implementation of SEBI (Mutual funds) Regulations 1996. Hence the study attempts to evaluate financial performance of this companies from 2010 onwards.

To study the financial performance of mutual funds, the sampling frame was selected after considering the number of mutual funds, assets under management(AUM) and schemes of mutual funds currently operated in India.

I have observed from various literature reviews that Various studies has been done using different variables, time period, statistical tools, with different schemes of private mutual fund companies on comparison, on quality of services, comparisons of Private companies and Public Companies, Returns comparisons and trends, Different Samples Sizes, Different time Period (Length and Era),Trends and Development of mutual fund
companies, effects of new rules and regulations, Economic crisis 2008, etc., Which gives me idea to carry out my research work.

3.2 GAP DEFINED ON THE BASIS OF LITERATURE REVIEW

Similar studies have been carried out by various researchers, however here researcher has found following GAP which motivates to conduct research on this topic.

- Comparative financial performance analysis of mutual fund schemes are made by various researchers, but majority of studies are related to short time period, so here the study is extended up to 10 years’ performance (2007-08 to 2016-17).
- Majority of studies are conducted on basis of limited tools of analysis, here I had used more seven (7) test parameters for comparative financial performance analysis.

3.3 OBJECTIVES OF THE STUDY

The objectives of the study are as under:

1) To examine trends in terms of growth, size volumes, etc of mutual fund companies of India
2) To document the assets management of various Mutual Fund Companies.
3) To examine various schemes of Mutual Fund Companies
4) To evaluate the financial performance of selected mutual fund companies in India.
5) To suggest the appropriate strategy for Mutual Fund Schemes of Mutual fund Companies in India.

3.4 PRINCIPLES OF RESEARCH

The purpose of deciding Principle in research is to guide researchers in creating and writing their research protocols. It is essential to understand the fundamental principles of research because all the contents of research like hypothesis, methodology, conclusion are depend on Research Principles.

Following principles should be observed while designing and managing research projects
Objective:
- worth to current societal issues
- assist to current body of knowledge

Significance:
- helpful in finding Literature review
- meaningful to the problem itself

Practicability:
- accessibility of sources,
- acceptance of limitations

Truthfulness:
- resemblance with theoretical predictions, available statistical data and data from similar studies
- correctness and proof of data
- Free from bias.

3.5 ADVANTAGES OF THE STUDY:
1- The study will be helpful in understanding the relating performance of mutual fund schemes.
2- Study will helpful to take strategically decisions for selecting best mutual fund schemes.
3- New investors can get idea about different measures to justify best investment scheme of mutual fund.
4- Investor can take benefit by clear picture of mutual fund industry and different types of mutual funds.
5- The result of the said research may prove to be one of the useful inputs for various mutual fund investors of the society.
3.6 SOURCES OF DATA FOR THE RESEARCH (SECONDARY)

- Factsheets of selected schemes
- Different issues of Trend and Progress of Mutual fund in India published by AMFI
- Different issues of Trend and Progress of Mutual fund Schemes
- Mutual fund’s Websites
- Journals and periodicals, Magazines and Newspapers
- Books of various Authors
- Ph.D. Thesis

3.7 TECHNIQUES USED FOR ANALYSIS OF DATA AND STATISTICAL METHOD:

Statistical Tools Used

- Mean (Average)
- Standard deviation
- Credit Rating
- Sharpe Ratio
- Treynor’s Ratio
- Expense ratio
- Beta
- Analysis of variance (ANOVA)
- F –TEST (with the P-Value)
- Diagrammatic and Graphic Analysis

1- AVERAGE:

➢ What it indicates?

The word “average” is used in everyday life to describe where the middle number of a data set is. It’s the typical number you would expect to find in a series of numbers. In statistics, the average is called the “arithmetic mean,” usually just shortened to the mean.

Both the average and the mean use the same formula:
- **How it is calculated?**

In other words, to find the average, add up all of the numbers in the set, and then divide by number of items in the set.

\[
\text{Avg} = \text{total sum of all the numbers} / \text{number of items in the set}.
\]

The average is used when reporting the historical return, such as the three-, five- and 10-year average returns of a mutual fund. The average annual return is stated net of a fund's operating expense ratio, which does not include sales charges, if applicable, or portfolio transaction brokerage commissions.

- **Implications for investors:**

When investors are selecting a mutual fund, the average annual return is a helpful guide for measuring a fund's long-term performance. However, investors should also look at a fund's yearly performance to fully appreciate the consistency of its annual total returns. For example, a five-year average annual return of 10% looks attractive; however, if the yearly returns (those that produced the average annual return) were +40%, +30%, -10%, +5% and -15% (50 / 5 = 10%), performance over the past three years warrants examination of the fund’s management and investment strategy.

2- **STANDARD DEVIATION**

- **What it indicates**

This is a measure of the volatility in a fund’s returns and, therefore, indicates the risk in a fund’s portfolio.

- **How is it calculated**

First, calculate the average of daily returns. Deduct this average from each daily return and square the difference. The sum of all these squared values is then divided by the number of days to get the variance. And the square root of the variance is standard deviation.

- **Implications for investors**

Lower the deviation, the better it is. However, one needs to compare it only within categories. The range can be below 1% for liquid funds and 20%-40% for equity funds.
3. CREDIT RATING

➢ What it indicates
All debt papers that the fund invests in are rated by agencies according to their risk profile. While government securities are totally risk free, corporate papers are rated from AAA (highest safety) to D (default).

➢ How is it calculated
Agencies use their own methodology to rate a fund. The ratings are usually provided in the fund’s fact sheet.

➢ Implications for investors
High rating indicates that the fund is taking lower credit risk. Since investors go for debt investment to reduce risk, they should avoid schemes with too many low quality papers.

4. SHARPE RATIO

➢ What it indicates
This ratio shows the return per unit of the total risk taken by the scheme.

➢ How is it calculated
(Return – risk free return) ÷ standard deviation

➢ Implications for investors
Compare only within categories. Higher than category average Sharpe ratio indicates that the fund manager was able to generate higher return per unit of total risk.

5. TREYNOR’S RATIO

➢ What it indicates
This ratio indicates the return per unit market risk—also known as systemic risk—taken by the scheme.

➢ How is it calculated
(Return – risk free return) ÷ beta

➢ Implications for investors
Compare only within categories. Higher than category average Treynor’s ratio indicates that the fund manager was able to generate higher return per unit of systemic or market
risk.

6. EXPENSE RATIO

➢ What it indicates
This ratio represents the annual expense the fund will charge the investor. It ranges between 0.1% (for fixed maturity plans) to 3.25% (for small-sized equity funds).

➢ How is it calculated
Total expenses charged by the fund/average assets under management of the fund.

➢ Implications for investors
The lower the expense ratio, the better it is for the investor. Since most debt funds generate similar gross returns, expense ratio becomes more important for debt funds. Direct plans have lower expense ratios.

7. BETA

➢ What it indicates
It measures the fund’s performance compared to the market.

➢ How is it calculated
The variance of market index is calculated as explained for Standard Deviation. To calculate co-variance between market index and the scheme, the difference between daily returns of the scheme and the index is first squared. The sum of all these squared values is divided by the number of days to get the covariance. Finally, beta is calculated by dividing the covariance between market index and the scheme with the variance of market index.

➢ Implications for investors
A beta value of one means the fund’s NAV moves with the market. Less than one means the fund is less volatile than the market, and above one indicates it is more volatile than the market.
3.8 HYPOTHESES OF THE STUDY

The broader hypotheses of the study will be as under:

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<tr>
<th>H1₀</th>
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3.9 DATA COLLECTION AND ANALYSIS:

The collection of data is based on secondary probe. Secondary information has been collected through Prowess database, NAV database, www.amfiindia.com and annual reports of various institutions. In addition various journals, magazines, articles, books, published and unpublished documents have also been considered in the research work. The present study is based on secondary and primary data. The data relating to the financial statements of selected Mutual fund companies of India, for the purpose of
analysis of Balance Sheet and Profit and Loss account, they will be rearranged and presented in a condensed form. The figures will be taken from Annual Reports and Accounts will be rounded off up to two decimal places in lakhs or crores of rupees.

The techniques of Ratio Analysis, Trend analysis and comparative analysis will be adopted for the purpose of comparative analysis of the mentioned mutual fund. The statistical techniques like percentage, averages, means, graphs will also be applied.

The study is a blend of both primary and secondary data. Secondary data were collected from the records of AMFI, UTI Institute of Capital Markets, and web sites of respective mutual funds.

The primary data required for the study was collected using a detailed interview schedule / questionnaire from fund managers, brokers and investors respectively. Before the preparation of schedule / questionnaire discussions were held with the AMFI Chairman, Director of Society for Capital Market Research and Development, Dean of UTI Institute of Capital Markets, Officials of SEBI, CRISIL Fund Services Ltd, Credence Analytics (India) Pvt. Ltd and Value Research India Private Limited for first hand information. A structured questionnaire was prepared and tested through a pilot study among investors. The questionnaire was revised and administered to elicit the perception of investors and brokers on their preference for mutual funds.

3.10 SAMPLE DESIGN

The sample consists of top 5 performer schemes and funds of mutual fund companies in India, based on average return as on 8th January, 2015. The sample is reasonable size, to draw meaningful conclusion for further generalization. The research is quite aware of the limitations of the convenient sampling. However, the entire samples were handled without any prejudice whatsoever.
3.11 SAMPLE SIZE
For study following 5 Mutual Fund Schemes have been selected
- RELIANCE Growth FUND
- Franklin India Blue Chip Fund
- HDFC Equity Fund
- Birla Sun Life Advantage Fund
- Franklin India Prima Fund

3.12 PERIOD OF THE STUDY
The period of study is **10 years** i.e. **2007-08 to 2016-17**. The sample consists of top performer schemes and funds of mutual fund companies in India, based on average return of last ten years. The study consist schemes return for the period of 6 months, one year, two year, three year, five year, seven year and ten year.

3.13 LIMITATIONS OF THE STUDY
- The study does not include Public oriented mutual fund schemes.
- Sample is not considered an effective method of representation of the population; the results may be interpreted cautiously, especially when generalized.
- Data collected are of Secondary data method so it is considered as secondary source.
- Information collected are not primary data. i.e. Personal interview, employee talk, organizational behaviors, etc.
- There are different methods to measure the financial performance of mutual fund schemes. Therefore in this connection views of experts differ from one- another.

3.14 FUTURE RESEARCH POTENTIAL
- This study will be useful for academics, research scholar, and future investors.
- The scope of the study can be further increased and enriched to include more variables under study.
- The study can be done by increasing in sample size as well as time period.
➢ The study can be done considering public mutual fund scheme’s financial performance.

3.15 CHAPTERS PLAN

The study has been divided into six chapters:

1- Introduction of Mutual funds: Past and Present scenario
2- Review of Related Literature.
3- Research Methodology
4- A Brief Profile of Private Mutual fund schemes
5- Analysis of Data
6- Findings and Recommendations
7- References and Bibliography
REFERENCES:


Factsheets of mutual fund schemes.

www.miraeassetmf.co.in

https://www.amfi.com