CHAPTER: 2

RESEARCH METHODOLOGY

- Introduction
- Problem Identification
- Objective
- Hypothesis
- Scope of the Study
- Review of literature
- Methodology Adopted
  - Sample
  - Rationale of Sample
  - Financial and Statistical Tools for Measurement
  - Tools of Analysis
- Chapter Scheme
- Limitations of the Study
- SWOT Analysis
  - Strength
  - Weakness
  - Opportunities
  - Threat
CHAPTER: 2

RESEARCH METHODOLOGY

2.1 INTRODUCTION

Mutual Fund is one of the financial instruments in capital market, here the study based on the empirical investigation on the performance of Mutual Fund schemes, main purpose of the study is to identify which of the month and year schemes provided highest return and minimize the risk. Research need because of the capital market is unexpected volatility and sometime reaction was positive and negative. Good and bad news affects price movement, that needs to identify how much market or bench mark provided return. Investors need to identify trade – off return and risk. The year 2011 had unprecedented global liquidity crisis that led to a share slowdown in growth. The industrial growth index was zero. Time valuations are attractive for investment decision and strategies for active diversification of portfolio. March 2009 sensex and Nifty down by 37% & 36 % respectively. Mutual fund industry has been affected by stock market movements. Mutual fund increased their stock/ scrip fund holding from 4.1% to 21.2% of the total market capitalization. It had opportunity to research in this field, with focus on competitive structure of the mutual fund industry. Equity diversified fund directly affect the stock movements while index, income and balance fund are less affects.

Assets Management Company design fund for particular investors and sectors like information technology, fast moving consumer goods, international financial instruments…. So mutual fund industry is high competitive and fund manager investment style and research team also affecting risk and return of the funds. An important practical motivation for mutual fund performance evaluation is to help an investor decide in which funds to invest.

Indian capital market is extremely unanticipated due to political risk, liquidity risk and others factors affecting it. The Indian equity markets rallied smartly ever-increasing on December 2009, it gains by the end of the December month. The Sensex and Nifty fell 2.31 % and 2.85% respectively while mid cap index was down sharply by 10%.
February 2009 Global equity markets also fared poorly aimed rising recession, the Dow Jones closing the month down 8.83% and NASDAQ down 6.38%. Domestic mutual funds were also net sellers of ₨ 864 crs this month. 2009 shows equity market had been high fluctuation during year and Budget 2009 shows high debt fund fiscal policy.

2.2 PROBLEM IDENTIFICATION

“To study the performance of Indian Mutual Funds based on the performance study of close-end and open-end mutual fund schemes over the period 2002-3 to 2012-13.”

As per the past research, no of articles and research papers should highlight the performance of mutual fund industry. As we have been seen that research is very essential for this filed because it’s guide the investors when and how to take decision about which of the financial instrument select for invest. Capital market is not so easy to predict, so many point need to count the predict the capital market like fundamental analysis, efficient market, technical analysis and theory of portfolio management like Markowitz, portfolio optimization, single index model, factor analysis and Sharpe index model.

Here the researcher took many tools for analysis of performance of mutual fund. Its’ included Price Earnings Ratio, Book Price Ratio, Return and Net Asset value and Assets Under Management. Further take to considering the performance index model. Sharpe performance evaluation model, model represents return on security with risk free return on investment and then take into considering the variance on security. Jenson model represents same liked sharpe’s model difference is that under these model beta considering for portfolio measurement. Treynors performance model indicates alpha from market return. Pricing earnings ratio, price book ratio researcher follow the model of F – test, test of one way classification of rows and columns. The model indicates rows variance from the average and columns variance from the average of the averages.
The study constructs a portfolio with maximum Sharpe ratios from an equity diversified schemes and income, balance and index to identify the selection of funds.

2.3 OBJECTIVE

Beginning with Jensen (1969)\(^4\), numerous studies focus on fund performance and a manager's ability to outperform the market. Since the work by Ferris and Chance (1987)\(^5\), researchers have also considered how fund characteristics impact fund expense ratio and consequently how expense ratio impact fund performance (Carhart, 1997)\(^6\). A variety of determinants have been explored, including prior fund performance (e.g. Sirri and Tuffano\(^7\),1998; Jain and Wa,2000\(^8\); Del Guercio and Tkac,2002)\(^9\), rating system such as Morningstar starts in America and CRISIL in India (e.g. Nanda et al. 2004\(^10\), Del Guercio and Tkac,2005)\(^11\), and the impact of advertising (Jain and Wa, 2008\(^12\), Yankow et al. 2006)\(^13\)

Specifically—

- We have to examine in detail the growth pattern of public and private sector mutual funds in Indian scenario and its impact on the financial market.

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• To find out the types of close-end and open-end mutual fund schemes that are most popular with Indian investors and reasons for the same.
• We have to evaluate and compare the performance of different mutual fund schemes in India with reference to different performance indicators viz. rates of return, expense ratio, rate of dividend, investment pattern and rate of appreciation in NAV vis-à-vis BSE index.
• To study the existing organizational structure of mutual funds, marketing as well as the regulatory framework operating in India for mutual funds.
• To identify the various problems and challenges which may be faced by the public and private sector mutual funds in the future and to suffer suggestion for improving in the future and to suffer suggestion for improving the working thereof.

2.4 HYPOTHESIS

On the basis of aforesaid objectives the following hypothesis are formulated for testing in the course of study:

H1₀: Mutual funds are not growing very fast and gaining popularity among small investors.
H1₁: Mutual funds are growing very fast and gaining popularity among small investors.
H2₀: The investors’ preferences are same towards different type of close-end and open-end mutual fund schemes as well as organizations.
H2₁: The investors’ preferences are different towards different type of close-end and open-end mutual fund schemes as well as organizations.
H3₀: Growing acceptability of mutual funds has not changed the pattern of savings in India from physical assets to financial assets.
H3₁: Growing acceptability of mutual funds has changed the pattern of savings in India from physical assets to financial assets.
H4₀: The mutual fund has not consistently outperformed the market.
H4₁: The mutual funds consistently outperform the market.
H5₀: The performance of scheme in one period does not correlate with that of the other period so that the past performance of any scheme.
H₅₁: The performance of scheme in one period is correlated with that of the other period so that the past performance of any scheme.
H₆₀: The returns provided by the mutual funds are not better than the returns provided by the other similar investment avenues available to the investors.
H₆₁: The returns provided by the mutual funds are better than the returns provided by the other similar investment avenues available to the investors.
H₇₀: Movement in market prices of schemes is negatively related to the movements in NAV.
H₇₁: Movement in market prices of schemes is positively related to the movements in NAV.

2.5 SCOPE OF THE STUDY

In my study the scope is limited to open-end and close-end schemes offered by different mutual funds. I analysed the funds depending on these schemes which may include investments in equity, income, balance etc. But there is so many other schemes in mutual fund industry like specialized (banking, infrastructure, pharmacy) funds, index funds etc. My study is mainly concentrated on equity schemes, the returns in income schemes, ELSS and Debt schemes (from 2002-3 to 2012-13).

2.6 REVIEW OF LITERATURE

An attempt has been made to review some existing literature available and having broad relatively with the subjective area.
Many of the literature on new asset flows examine fund-specific flows. Early works by Warther (1995)\textsuperscript{14}, Chevalier and Ellison (1997)\textsuperscript{15}, and others suggest that funds with stronger past performance have higher flows. Ippolito (1992)\textsuperscript{16} and others demonstrate the flow performance relationship is asymmetric in that while investors tend to invest in the funds at a much slower rate after poor performance. Combined with Jain and Wu’s (2000)\textsuperscript{17} evidence that recent high performing funds do not outperform in subsequent periods, this literature has led to claims of investors’ irrationality. Much of recent research has focused attention on how rating from CRISIL impact fund flows. Del Guercio and Tkac (2005)\textsuperscript{18} find that ratings upgrades to five stars in morning star/A’AA in CRISIL etc. lead to abnormally high flows. Similarly, Yankow etal (2006)\textsuperscript{19} find that funds with higher ratings have significantly higher flows. Finally, Knuutila etal.(2007)\textsuperscript{20} find that funds with five stars have significantly higher flows than lower-rated funds, although the result is conditional on the funds being distributed by non-bank institutions.

Many researchers have tested the persistence of mutual fund performance and their findings are generally mixed in nature. Jensen\textsuperscript{21}, Kritzman\textsuperscript{22} and Dunn\textsuperscript{23}. Elton\textsuperscript{24} found

\begin{footnotesize}
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\item Kritzman, M, 1983,”Can bond managers perform consistently”, Journal of Portfolio management, vol.9 no.4 , pp.54-56
\end{itemize}
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no evidence of persistence in the performance of mutual funds. Lehman and Modest\textsuperscript{25} on the other hand showed evidence of persistence. Kahn and Rudd\textsuperscript{26} in their study found no evidence of persistence of 300 equity funds from October 1988 through September 1994. They however found evidence of persistence of performance of 195 bond funds from October 1991 through September 1994. Further studies on this topic continued to generate mixed results. Malkiel\textsuperscript{27} found evidence of persistence in 1970s, disappearing in 1980s. Grabber on the hand found very strong evidence of persistence looking at equity mutual funds from 1985 to 1944 and argued that it was the reason for the growth of active mutual funds during this period.

Although much has been clarified for the American market, little evidence has been brought up with regard to the European situation. Brown looked at 602 British pension funds. Blake and Timmermann\textsuperscript{28} studied the complete sample of British unit trusts while Granbichler and Pleschiutsnig\textsuperscript{29} worked with 333 European equity mutual fund domiciles in various European countries.

Robson examined a sample of unit trusts and mutual funds which were continuously in existence for at least five years in existence for at least five years in Australia between 1969 to 1978 and found little evidence of persistence. Vos studied a sample of 14 New Zealand investors during 1988 to 1994. Their study however was unable to establish any inter period ranking consistency.

This study attempts to test the persistence in performance of equity fund managers in India, with respect to three performance proxies, namely, raw returns, tracking error and information ratio. Performance of a mutual fund manager in India is usually evaluated against a prespecified benchmark portfolio. Fund managers are thus concerned not with

\textsuperscript{29} Grunbichler, A, and U Pleschiutsnig, 1999, “Performance Persisitence: evidence for the European Mutual Funds Market”, Working paper, Swiss Institute of Banking and Finance, University of St Gallen
absolute return, but also with relative return (i.e., the difference between the fund’s return and that of the benchmark, also known as ‘tracking error’). The common practice is to link the manager’s compensation with the excess return he/she achieved over the concerned benchmark in the form of a ‘bonus’ over a fixed salary.

The important issue involved is whether the value added by the fund manager is in line with the risks involved. In fact, as noted by Jorion, the setup as above is likely to induce an option like pattern in the compensation of the manager with unlimited upside and limited downside. The manager may thus have an incentive to take on more risk to increase the value of the option, which is likely to give rise to increase the value of the option, which is likely to give rise to a real ‘agency problem’. To control this behaviour, commonly a limitation is imposed on the volatility of deviations of the managed portfolio from the benchmark which is also known as the ‘tracking error volatility’ (TEV).

A widely used measure of an active manager’s ‘efficiency’ is ‘information ratio’ which is defined as the manager’s excess return (over the benchmark) per unit of standard deviation of excess return. Simply put, it is the ratio of tracking errors and TEV. The information ratio is considered to be a very useful risk adjusted measure of performance than can be used to compare the active management skills across managers.

A manager with a higher information ratio can leverage the investment process to produce additional return more efficiently than another manager with a lower information ratio.

Gupta 30 maintain that the information ratio is significant indicator of the persistence of a manager’s performance.

Dev ,Banerjee and Chakarbarthi 31 analysed the relative performance of equity mutual funds in India with respect to their announced benchmarks, and determined whether a good past performance is indicative to any degree of the funds subsequent performance,

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they used raw return, tracking error and information ratio of funds as performance proxies.

Author tested the persistence in fund performance, using a regression approach and a contingency table approach and further substantiated result with a Spearman Rank Correlation Coefficient test. The observations show some evidence of persistence in performance of growth funds, in terms of ‘raw returns’, tracking error and information ratio.

As far as ELSS is concerned very little evidence of persistence was found irrespective of the evaluation horizon. On an average the evidence of persistence was found irrespective of the evaluation horizon of one year. Persistence is proportionally much less when the time horizon is three months or six months and it disappears completely when the horizon is extended to a period of more than thirty months.

Too many reversals occurring during a very short period (three months or six months) before equilibrium are reached may cause lowering of proportional persistence over such time horizons. Presence of short term (one year) persistence and absence of long term (30 months or more) persistence give the impression of market efficiency in the long run. This is because an efficient market for mutual funds implies that historical performance cannot be used to identify funds that will be superior performers in the future. As noted by Hendricks other plausible causes for this may be due to superior analyst getting bid away once they build a track record and urgency or drive for the existing managers getting reduced once a reputation is established. Again, new funds flowing excessively to successful performers may lead to fewer good investment ideas per managed rupee and lower the fund’s future performance in the long run.

Rising fees and salaries of managers resulting from recent success may get capitalized and may also reduce performance in the long run. All these may be potential causes of lack of persistence observed in performance in long run. Persistence seems to be more for raw returns compared to tracking error or information ratio. Thus a fund manager may be maintaining her position with respect to absolute return, but actually be lagging behind her peers, irrelative performance vis-à-vis the benchmark. On the whole, the result of this
analysis suggests that the past performance of a fund is hardly a reliable guide to future performance.

Mrudula E, Priya Raju in the book “Mutual Fund Industry in India” Icfai university press (2005) explained that Mutual funds are the best investment vehicles for those who do not want to tussle with the bulls and the bears of the capital market. This book looks at how mutual funds are seen as more reliable. It traces the history of the mutual fund industry in India from the establishment of the Unit Trust of India in 1964 as well as presenting successful strategies for mutual fund investors.

Indian Mutual Funds Handbook by Sankaran S, vision book (2007) lays out the working of Indian mutual funds, their operational and regulatory mechanisms, the advantages and limitations of investing in them along with sensible approaches to personal financial planning.

Taxmann in his book “Mutual Fund Industry – Products and Services” writes that mutual funds are a type of financial intermediary that pools the investors who seek the same general investment objective and invests them in a number of different types of financial claims (e.g. equity, shares, bonds, money market instruments). These pooled funds provide thousands of investors with a proportional ownership of the diversified portfolios managed by professional investment managers. The term ‘mutual’ is used in the sense that the fund’s unit holders share all its returns, minus its expenses.

The book “How Good Are Mutual Funds” by L.C. Gupta and Utpal K. Choudhary (2001) attempts to analyse the perception and attitude of investors towards mutual funds. This book contains a study that gives valuable insight into the functioning of mutual funds in India. It brings out how the investors perceive mutual funds both inter se and in relation to various types of investments.

The study, which was undertaken by the Society for Capital Market Research and Development and later published in book form, brings out the fact that competition in the mutual fund industry has grown and become vibrant in India. There are more than three-
dozen mutual fund organizations operating in India. But the growth that was short-lived had been only in qualitative terms. Indian mutual fund industry has changed from monolithic to an extremely competitive structure, where many players are involved.

The study exposes the myth of investors' loyalty and malpractices of mutual funds. The mutual fund industries' low and declining share in mobilisation of saving is indicative of lower image of its products. Finally, they failed to create real value for investors. The author points out that instead of relying on tax concessions and incentives, which the government gave to the mutual fund industry, value for investors should be created through services.

“A Commonsense Guide To Mutual Funds” by Mary Rowland W Norton &Co(1996) offers advice on investing in mutual funds, discussing risk and asset allocation and winning strategies of professional advisers and managers.

David Scott's Guide to Investing in Mutual Funds, Maughton Mifflin Harcourt (2004) analyzes the role that mutual funds play in achieving a balanced portfolio. In addition to explaining how shares in mutual funds are bought and sold, this clearly written book will show investors
- how to assess a fund's investment objective in light of their own goals
- how to choose from among stock, bond, and money market funds
- how to evaluate the three different kinds of income associated with mutual funds – dividends, capital gains, and market appreciation
- how to save on fees when buying and redeeming mutual fund shares

Tamal Dutta Chaudhari and Jayanta Kumar Seal in their book “Mutual Funds Industry: Issues and Experiences”, Icfai university press (2008) tell about Indian Mutual Fund industry. The Indian Mutual Fund Industry has come of age. It has grown over the years in terms of total assets under management (AUM), number of A.M.Cs, number of schemes and types of schemes aimed at different segments of households with varying
risk appetite. Mutual funds hold a significant share in total funds deployed in the capital market. It has grown to such an extent that a separate regulatory body is being contemplated for this industry. However, this industry is still urban-oriented with a few major cities contributing to its growth. The extent of penetration in the rural and semi-urban areas is low and thus investor education has been chosen to be a major thrust area by the Association of Mutual Funds in India (AMFI). The purpose of the book is investor education. It blends in well with the current thought process between AMFI and Mutual Fund Managers that in order to increase fund penetration, investor education is a prerequisite. It deals with contemporary issues in this field and makes cross-country comparisons. The need for new generation products and how the developments in the macro economy help in the process are analyzed. Performance of schemes introduced recently like Real Estate Funds, Country Funds, Thematic Funds, Value Funds, Fund of Funds, Capital Protection Funds, Gold ETFs etc., are explained with a detailed account of the schemes and their characteristics. It is hoped that this book will make the reader thoroughly conversant with this industry.

E.J. Elton and M.J. Gurber (1996) have tried to prove that past performance is predictive of future risk adjusted performance and form a combination of actively managed portfolios with the same risk as a portfolio of index fund but higher mean return. The research paper weight on portfolio index return means market return and could fund provided same return.

Fisher and Gorden, Security Analysis and Portfolio Management, his study based on how to verified the risk under the calculated of Beta and Portfolio risk adjustment return. Beta played role for risk measurement of the fund. Risk involved on the fund than tried to reduce it and increased return. Beta indicates diversification of the portfolio.

Bala Ramasamy, Mattew C.H., have examined the growth in terms of size and choice, in the Mutual Funds industry among emerging markets has been impressive. The papers
give you an idea about future market of Mutual Fund, Also highlight tax benefit received to invest in Mutual Fund.


The Character Accountant; Journal of the Institution of Character Accountants of India, Volume 56; No 03 September 2007. Guide the researcher how to calculate the risk and return. The papers are evidence for total risk which mention systematic and unsystematic risk and how to calculate the beta value.

Accounting & Finance; Publisher of Tata Mcgraw Hill & Mcgraw Hill, How to calculated the beta and Price Earning Ratio. The Fund Performance also communicated return inform of Price Earnings Ratio and Price Book Ratio.

Indian Economy Review, Capital Market Publisher India Private Limited. Over all review for Assets Management Company, strategies follow by the fund managers. The Capital Market publisher high light the economic situation and how the fund performance under particular political and business risk.

Business Standard article by Jyoeeta Dey and Malvika Bhatnagar (New Delhi 30, December’2009) 2009 was peppy for mutual Fund investors. Investors got the upper hand in 2009, as regulatory changes made mutual funds more attractive to park their money in even as the industry shrugged off recession blues with its assets hitting an all-time high of eight lakh crore.
The year was particularly significant as the market regulator SEBI acted in favour of the investors and eased norms making it easier for them to invest in mutual funds. The key changes include abolishment of entry load on purchase of schemes and allowing MFs to be traded on the stock exchanges.

Only intermediaries, like brokers, stood to lose by this change in regulatory norm, as they stand to lose the commission they earned from entry load.

"Even though these are early days, both (regulatory changes) have deep potential for a positive impact. The abolition of entry load is a significant game-changer as it completely transforms the business model of the fund distribution industry. For fund companies as well as distributors, it throws up a challenge of managing a big change if they have to flourish," mutual fund tracking firm Value Research CEO Dhirendra Kumar said.

According to marketmen the move for introduction of MFs on exchanges as well as an improvement in the state of the economy would increase reach of MFs across the country.

Analysts believe that the improving economic conditions and relatively good performance of the Indian stock markets show the promise that lies ahead for the mutual funds and 2013 should be a better year.

During 2008, the industry had incurred heavy losses when the fund houses became poorer by about Rs 1, 50,000 crore and leaving the industry shattered with a huge liquidity crunch. At present, the industry, considered a safe haven for investors, consists of 37 fund houses.

Despite a rebound in the performance of the fund houses, equity schemes continued to lag compared to debt and other liquid schemes as investors preferred to park money with funds promising assured returns, although analysts are upbeat that equity MFs would perform better going forward in 2012-13.
"The bloated AUM should not be paid too much attention too as most of it is in short-term debt funds which have become attractive simply because the system has a lot of loose cash floating.... As far as long-term equity money goes, the situation is not that great. Almost all the AUM increase has come from market appreciation rather than fresh inflows," Kumar said

"The regulator's current mood is of actively chasing and fixing issues in the industry. Another, regulator change which was mooted in 2010 in favour of the investors was doing away with the practice of obtaining a no objection certificate (NOC) from existing distributors, if a customer wants to switch the distributors.
The market regulator said it has come to notice that unwarranted hardships were being caused to investors in mutual fund schemes.

Kumar said: "The decision is pro-consumer in spirit and will drive distributors to provide satisfactory after-sales services to investors. As investors would have the choice to switch their existing distributor if they are unsatisfied with its performance."


Obaidullah M.,(1992),Are Price / Earnings Ratios Indicators of Future Investment Performance? Indian Journals of Finance and Research, vol 2 (1); 5-12: the future
investment means portfolio diversification, every time need to adjustment of fund risk, that wise portfolio diversification.

Huang Stanely S.C. and Randall Maury R., Investment Theory, Englewood Cliffs, New Jersey (1987) ; Investment Theory proved when to invest, to hold, to sell. The theory indicates the investment process and when to invest, how much to save the money.

Mallikarrajunappa T., and Iqbal, (2003), Stock Price reactions to Earnings Announcement, Journals of IAMD and IUCBEr, vol.26(1), 53 -60


Brown, Stephen J., 1979. Optimal portfolio choice under uncertainty: a Bayesian approach. The optimum portfolio should achieve with strategic planned. The fund manger must need to study the different approach to measure the risk and return. Optimum portfolios means not just reduce risk but reduce average risk and increased average return.

In V. S. Bawa, S. J. Brown, and R.W. Klein, eds.: Estimation Risk and Optimal Portfolio Choice (North Holland, Amsterdam). The fund has need to identification of the risk and return. The estimation of risk and return was very difficult due to economy and political risk. The Optimal Portfolio means proportion of the fund allocation.

Research team has been Assets Management Company pocket watch the market return or bench mark return.


Sharpe, William F., 1964, Capital asset prices: A theory of market equilibrium under conditions of risk, Journal of Finance 19, 425—442. William model confirmed how much risk free return plus risk premium. The risk premium is high when fund has high risk, the fund manager should concentration portfolio diversification.


Jayadev, M (1996), Mutual Fund Performance: An Analysis of Monthly Returns, Finance India, 10(1) March, pp 73-84: The Mutual Fund Performance shows the how the investor trade on unit, would Fund provided same return liked capital market provide.

Turan, M.S.; Bodla, B.S. and Mehta, Sushil Kumar (2001), Performance Evaluation of Listed Schemes of Mutual Fund, Management Researcher, (July – December,), pp. 38 - 66. Evaluation of the fund indicates schemes achieve the desired objective or not. The schemes have mentioned the objectives of the particular schemes.

Wermers, Russ (2002), Mutual Fund Performance: An Empirical Decomposition into Stock Picking Talent, Style, Transaction Costs, and Expenses, the Journal of finance,
Vol. 55, issue 4, December, pp. 1655-1703. Expenses on purchasing and selling reduce the fund return also security transaction costs.

Mehta, Sheetal (2003), —Make the most of MIPs , Outlook Money, October 31. Monthly Income Plan shows monthly return on the fund how to take both schemes objectives.

Monthly Income Plan provided floating rate of return while transferring scheme provide schemes return.


Eugene, Fama (1972), —Components of Investment Performance, The Journal of Finance, June, pp. 551 – 567. The components of investment performance should shows sectors of investments and each of the sectors how much provided return, same fund provided return which shows the industry return, than diversification of the portfolio.

2.7 METHODOLOGY ADOPTED

2.7.1 Sample:
Our data on fund families come from different sites of various mutual fund companies in India or from AMFI site or specialized sites like value research India. The data set includes total fund assets, the number of investors in the fund family, fund expenses, fund standard deviation, and top performing funds. From these data, we are also able to construct a variable identifying fund companies operated by banks.

The sample unit included Equity Schemes Diversification Funds, Balanced Schemes, Income Balanced Schemes, Monthly Income Funds, Long – Term and Short – Term Funds. All the schemes rating the five/four stars by Mutual fund Insight.

Sample should collect on secondary sources. It’s included the mutual fund fact sheet and magazine the — “Mutual Fund Insight” and addition to others journals, magazines, articles, books and the publisher and unpublished documents of the mutual funds have been consider in the research.

Our full sample includes five asset management companies’ family years over the period of 2002-2003 to 2012-13 namely ICICI Prudential mutual fund, UTI mutual fund, Reliance mutual fund, HDFC mutual fund, Birla Sun Life mutual fund. In order to calculate lagged flow measures, we require a minimum of two year of data. When new fund families appear in the middle of the sample, we only include them in empirical analysis after a full year of lagged data are available. This reduces the sample size.

2.7.2 Rationale of Sample:
We have chosen above five management companies due to following reason:
  i. ICICI Prudential Mutual Fund: It is one of the fastest growing mutual funds in India and ranks among top 5 private sector mutual funds.
ii. **UTI Mutual Fund**: It is oldest fund house of India with large no. of schemes under it.

iii. **Birla Sun Life Mutual Fund**: It is established in 1994, and has emerged as one of India's leading flagships of Mutual Funds business managing assets of a large investor base.

iv. **Reliance Mutual Funds**: It is one of the fastest growing mutual funds in India and ranks among top 3 private sector mutual funds.

v. **HDFC Mutual Fund**: It is the largest (AUMwise) fund house in the country.

### 2.7.3 Financial and Statistical Tools for Measurement:

Here the researcher has used following techniques to study the performance of Mutual Funds which are as under:

#### Average

Average means numbers or names, arrays or references that contained numbers. Other words average means number representations of numbers.

#### Standard Deviation

The Standard Deviation is a measure of how widely values are dispersed from the average value (the mean). Standard Deviation assumes that its arguments are a sample of the population. If data represents the entire population, then compute the Standard is calculating suing the —n-1method.

#### Beta

A relative measure of the sensitivity return on security is to change in the broad market index return. Beta measure the systematic risk, it shows how prices of securities respond to the market forces. Beta is calculated by relating the return on a security with return for the market. Market will have 1.0, if the beta is greater than 1 than the stock is said to be very riskier than market risk, beta less than 1 than the stock is said to be not that much
riskier as compare to the market risk. Beta involved market risk, and market risk involved political risk, inflation risk, and interest rate risk.

**R – Square**
R – Square measures the funds correlations to the market R – Square are between the 0 and 1.

**Sharpe– Ratio**
A Sharpe ratio indicates the risk premium of portfolio relative to the total amount of risk in the portfolio. Sharpe ratio summarizes. The risk and return of a portfolio in a single measure that categories the performance of funds on the risk adjusted basis. The larger the Sharpe ratio, the portfolio is over performing the market and vice – versa.

**Earnings per Share**
P / E Ratio are the weighted average price to earnings ratio of all the stocks in fund’s portfolio. P/E ratios are ratios of share prices to earnings. The P/E ratio of a stock is equal to the price of a share of the stock divided by per share earnings of the stock. The focus of this article, however, is the P/E ratio of the overall stock market index rather than P/E ratios of individual stocks. For a stock index, the P/E ratio is calculated the same way—the average share price of the firms in the index is divided by the average earnings per share of these firms. Two types of measurement issues arise in computing P/E ratios. One of them concerns the time period over which share prices and earnings are measured. The price in a P/E ratio is usually the current market price of the stock or index, such as the weekly or monthly average of the daily closing prices.

**NAV**
NAV means the market value of the assets minus the liabilities on the day of valuation. In other words, it is the amount which the shareholder will collectively get if the fund is dissolved or liquidated.
Assets + Accrued Income – Liabilities – Accrued Liabilities

NAV: ________________________________

Number of Share or Units Outstanding

**Price to Book Ratio**

A very basic price ratio for a company is price book ratio, sometimes called the market book ratio. A price book ratio is measured as the market value of a company’s equity issued divided by its book value of equity.

Price – book ratio are applying because book values represents in principle historical costs. The stock price is an indicator of current value. So a price book ratio simply measures what the equity is worth today relative to what it cost.

**2.7.4 Tools of Analysis:**

*Sharpe’s Performance*

Sharpe’s performance index gives a single value to be used for the *performance ranking of various funds or portfolios*. *Sharpe Index* measures the risk premium of the portfolio relative to the total amount of the risk in the portfolio. This risk premium is the Difference between the portfolio’s average rate of return and the risk less rate of return. The standard deviation indicates portfolio the risk. The index assigns the highest values to assets that have best risk-adjusted average rate of return.

\[ St = \frac{Rp - Rf}{\sigma_p} \]

Sharpe’s index = portfolio average return – risk free rate of return / S.D. Of the portfolio return

*Jenson Measure*

The absolute risk adjusted return measure was developed by Michael Jensen and commonly known as Jensen’s measure. It is mentioned as a measure of absolute performance because a definite standard is set and against that the performance is measured. The standard is based on the manager’s predictive ability successful prediction
of security price would enable the manager’s to earn higher returns than the ordinary investor expects to earn in a given level of risk.

Jenson = Portfolio Average Return – Risk Free Rate of Return/Beta

**Treynor’s Performance Index**

The Treynor index, an investor should know the concept of characteristic line. The relationship between a given market return and the fund’s return is given by the characteristic line. The fund’s performance is measured in relation to the market performance. The ideal fund’s return rises at a faster rate than the general market performance when the market is moving upwards and it’s rate of return declines slowly than the market return, in the decline. The ideal fund may place its fund in the treasury bills or short sell the stock during the decline and earn positive return.

\[
Rp = a + B ( Rm – Rf )
\]

Rp = Average return of portfolio

Rf = Risk less rate of return

a = the intercept

B = A measure of systematic risk

Rm = Average market return

### 2.8 CHAPTER SCHEME

For presenting the study the work is divided into 6 chapters:

**Chapter: 1 OVERVIEW OF MUTUAL FUND IN INDIA**

Mutual fund is the pool of the money, based on the trust who invests the savings of a number of investors who shares a common financial goal, like the capital appreciation and dividend earning. The money thus collect is then invested in capital market instruments such as shares, debenture, and foreign market. Investors invest money and get the units as per the unit value which we called as NAV (net assets value). Mutual fund is the most suitable investment for the common man as it offers an opportunity to invest in diversified portfolio management, good research team, professionally managed Indian stock as well as the foreign market, the main aim of the fund manager is to taking
the scrip that have under value and future will rising, then fund manager sell out the stock. Fund manager concentration on risk – return trade off, where minimize the risk and maximize the return through diversification of the portfolio. The most common features of the mutual fund unit are low cost.

Investors in India opt for the tax-saving mutual fund schemes for the simple reason that it helps them to save money. The tax-saving mutual funds or the equity-linked savings schemes (ELSS) receive certain tax exemptions under Section 88 of the Income Tax Act. That is one of the reasons why the investors in India add the tax-saving mutual fund schemes to their portfolio. The tax-saving mutual fund schemes are one of the important types of mutual funds in India that investors can option for. There are several companies in India that offer – tax – saving mutual fund schemes in the country.

**Chapter: 2 RESEARCH METHODOLOGY**

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In ii researcher pursue various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them. It is necessary to know not only the research methods and techniques but also the methodology. Researcher not only needs to know how to develop certain indices or tests, how to calculate mean, standard deviation and beta.

Research method part of research methodology, research methodology start with title of the research problem and researcher set the objectives of the research, which helpful for society, and other researcher for further research. After objectives need to review of literatures means idea generation and inspired to do the research. Research methodology included sample design. Sample design shows types of sampling method, sample size, sampling period.

Research methodology follow the step, after sampling design then need to identified the hypothesis means set of assumption for study. Mutual Fund set assumption regarding
equity schemes provided same return and risk. Researcher goes behind financial and statistical tool to arrive at conclusion.

CHAPTER: 3 REGULATORY FRAMEWORK OF MUTUAL FUNDS IN INDIA

The Indian Mutual Fund has come a long way since the establishment of UTI in 1963 the first and the foremost mutual fund in the country by an act of parliament, known as UTI Act 1963. The government was conscious of the fact that the mutual fund should be a route to attract small savings from large levels of investors mainly small and medium income segments.

Over the years, the mutual fund sector has passed through several phases of growth which may be seen as follows:

- Mutual Fund set up by government and Public Sector Undertaking (PSU) Banks.
- Mutual Fund set up by Foreign and Indian partner.
- Mutual Fund set up by private players only.

By now the industry has taken root in our financial system and is actively involved in strengthening the capital market led system of economic growth through the process of disintermediation. Indian Mutual Funds are regulated by SEBI, whose regulations are quite comprehensive and qualitatively superior to those of many other countries. Association of Mutual Funds in India (AMFI) represents the Asset Management Companies (AMCs) in India. Established as a non-profit organization on 22nd August, 1995. This association is dedicated for promoting and protecting the interest of mutual funds and their unit-holders, increasing public awareness of mutual funds and serving the investor’s interest by defining and maintaining high ethical and professional standards in the mutual fund industry.

Though RBI role is to regulating banking industry in India but as many mutual fund companies are backed by banks so indirectly RBI has significant contribution and role for safeguarding the interest of investors and other stakeholders in India.

List of all stakeholders in Indian mutual fund industry is as follows:

- RBI
CHAPTER: 4 INDIAN FINANCIAL SYSTEM AND MUTUAL FUNDS

This chapter aims at analyzing the significant role played by the Mutual Funds in Indian financial market by channelizing the saving of the investors (mostly of retail investors) into the investment in corporate.

In order to critically examine the role of mutual funds in Indian financial market, we should first of all have a good idea about the Indian financial system. The financial system in India comprises of financial institutions, financial markets, financial instruments and services. Financial market refers to those places where financial assets are created and traded. Financial assets represent a claim for the payment of principal amount some times in future date and for periodic payment of money in the form of interest or dividends. The Reserve Bank of India (RBI) as the main regulator of credit is the apex institution in the financial system. Other important financial institutions are the commercial banks (in the public and private sector), cooperative banks, regional rural banks and development banks. Non-bank financial institutions include finance and leasing companies and other institutions like LIC, GIC, UTI, Mutual funds, Provident Funds, Post Office, Banks etc.. The banking system is, by far, the most dominant segment of the financial sector accounting for over 80 per cent of the funds flowing through the financial sector. The Indian financial sector reforms aim at improving the productivity and efficiency of the economy. It remained stable, even when other markets in the Asian region were facing a crisis. The opening of the Indian financial market to foreign and private Indian players has resulted in increased competition and better product offerings.
to consumers. The main function of all these financial institutions is financial intermediation i.e., facilitating the flow of saving from common man to industrial houses. In the initial stages, the role of the intermediary was mostly related to ensure transfer of funds from the lender to the borrower. This service was offered by banks, FIs, brokers, and dealers. However, as the financial system widened along with the developments taking place in the financial markets, the scope of its operations also widened. Some of the important intermediaries operating in the financial markets include investment bankers, underwriters, stock exchanges, registrars, depositaries, custodians, portfolio managers, mutual funds, financial advertisers, financial consultants, primary dealers, satellite dealers, self-regulatory organizations, etc.

CHAPTER 5: PERFORMANCE EVALUATION OF MUTUAL FUND SCHEMES UNDER DIFFERENT CATEGORIES

Overall performance shows evaluation of equity diversified scheme, balance funds, index fund, income fund, schemes based on period of time, which analyses fund performance, analysis of net assets value and assets under management, other measurement liked price earnings ratio and book price ratio position of schemes.

As per the rated assigned of schemes, performance rank was not equal. Sharpe’s, Treynor’s and Jenson’s performance had been different rank each of same scheme and same year. Beta value of the fund and standard deviation affects fund return. Jenson technique indicated alpha of the fund, high alpha shows good performance of the fund. High beta indicated highest risk. Researcher found that a risk scheme does not provided high return.

CHAPTER: 6 CONCLUSIONS

The research done only selected a scheme which was related with five/four rating star and the value research magazine. The research analysis was based on the past performance of the only selected open-end and close-end schemes. The research had been based on the Net Assets Value, that NAV continuous fluctuation. The research analysis compares the
Net Assets Value and Expense Ratio, but NAV continuous fluctuation. Fund manager investment style based on capital market situation. It could not possible always pursue the mentioned objectives.

2.9 LIMITATIONS OF THE STUDY

i. The research done only selected a scheme which was related with five rating star and the value research magazine.

ii. The mutual fund industry is growing very fast and new developments take place here almost every day. The Indian financial sector is very dynamic and volatile. It is difficult thus to incorporate the latest data in the study as every day the data changes. Hence, the limit has to be put in the time period. The study takes the time period of 2000-2011, as at the time of writing of the present work, annual reports of mutual fund upto 2010-11 were available.

iii. The research analysis was based on the past performance of the only selected Scheme.

iv. The research had been based on the Net Assets Value, that NAV continuous fluctuation

v. The research analysis compares the Net Assets Value and Expense Ratio, but NAV continuous fluctuation.

vi. Fund manager investment style based on capital market situation. It could not possible always pursue the mentioned objectives.

vii. Equity Diversified schemes having different objectives due to sector wise allocation of the fund.

viii. Performance measurement techniques should not give equal weight to each of the schemes.

ix. Sharpen Performance evaluation is based on variance, not cover market risk and that risk also affect fund return.
2.10 SWOT ANALYSIS

2.10.1 Strength:

i. India is a growing country and has a high rate of growth of savings; there is tremendous scope of mutual funds to expand their market base.

ii. Majority of population lives in rural and semi-rural areas. If schemes are designed that can cater to their resources with some assurance of capital protection and reasonable return there is tremendous scope for growth.

iii. Stock market is extremely unpredictable and changes at the spur of the moment, the valuation of blue chip companies are sky rocketing. In this scenario, mutual funds have golden opportunity to take over the situation.

2.10.2 Weaknesses:

i. The mutual funds have to improve in marketing. Present setup needs overhauling.

ii. There is practically nothing on account of risk management. These are needs due attention.

iii. Large number of investor is apprehensive about the performance of the schemes. There is dearth of satisfied clients. After sales service is poor.

iv. Investor awareness is major weakness of the mutual fund industry.

v. The investor is dependent on reports and analysis published in newspapers and magazines. Network of professional advice and newsletters from the funds on no obligation basis is a must.

vi. In spite of low yield (net) large number of investors including educated, well informed still prefer to park their savings and retirement benefits in PPP, Post Office schemes and Bank FD. This is thought provoking.

2.10.3 Opportunities:

i. Mutual funds should aim to improve their share in the house hold by providing their performance.
ii. Globalization has enabled Indian mutual fund industry to mobilize savings from abroad and many overseas Indian funds have been successfully launched. This would open fabulous opportunities.

iii. Mutual funds need to bring innovative funds like baby funds, offshore funds, pension funds, derivative funds, asset allocation funds etc..

iv. Stock market is extremely unpredictable and changes at the spur of the moment, the valuations of blue chip companies are sky rocketing, in this scenario, mutual funds have the golden opportunity to take over the situation.

2.10.4 Threats:

i. Several global players are in queue to establish their business in India. If they are able to provide better service, the Indian players have to sit at the back.

ii. There is need to ensure by the regulators that corporate, trustees, fund managers etc. who are managing the huge corpus do not circumvent the rules and procedures. If it be so, the revival of the confidence of the investors and global players will be really difficult.

To sum up, most of the issues are operational and can be resolved. Urgent issues need to be addressed by the regulators, management and AMFI to put the industry in strong footings. Some hard decisions are actions may also necessary. To name a few there is need to place really competent and of sound integrity fund managers. They need to be improved drastically. Until then, the investor lacks confidence and sustainable growth of the mutual funds remains at cross roads. As a fall out, impact on economy of the country cannot remain unaffected.