CHAPTER –II
OBJECTIVES, METHODOLOGY AND REVIEW OF LITERATURE

A.0. Overview of the chapter

A.1. Objectives of the Study

A.2. Hypotheses

A.3. Scope of the Study

A.4. Data Analysis Techniques

A.5. Data Sources

A.6. Coverage of the Study

A.7. Sample Size

A.8. Sampling

A.9. Limitations

2.B. Review of Literature

B.1. Performance Evaluation Methods

B.2. Fund Selection Behaviour/ Investors’ Behaviour

B.3. Other Relevant Studies
CHAPTER –II

OBJECTIVES, METHODOLOGY AND REVIEW OF LITERATURE

A.0. Overview of the chapter:

This chapter is divided into two sections i.e., Section-A deals with the objectives and methodology and Section-B deals with the review of literature.

Section-A: OBJECTIVES AND METHODOLOGY

Mutual funds play crucial role in an economy. They are the vehicles for mobilization of funds towards the securities market, which have become barometer of economic health of any economy. In this context, the study aims at achieving the following objectives.

A.1. Objectives of the Study:

1. To trace the trends in the growth of mutual funds and changes in the regulatory measures of mutual fund industry in India.

2. To examine the factors influencing the resource mobilization patterns of Mutual Funds during post-liberalization period under private sector, public sector (Other than UTI) and Unit Trust of India and make projections up to 2020.

3. To examine the investment behaviour of mutual funds under the three sectors, with an object of assessing the distribution of funds in various debt-equity instruments.

4. To evaluate the performance of various schemes of the mutual funds in the three sectors by employing Sharpe, Treynor and Jenson models.

5. To elicit the opinions of investors in mutual funds pertaining to the promise and performance, problems and prospects of the funds.

6. To suggest suitable measures for the strengthening of the mutual funds in India.
A.2. Hypotheses:

1. There is considerable impact of various factors like household savings in shares, debentures and mutual funds, volatility of BSE Sensex, FII investment on gross resource mobilization either in private sector or public sector.
2. “Higher the risk and higher the returns”, this is valid both in the case of public sector and private sector mutual funds”.

A.3. Scope of the Study: This study examines the patterns in the resource mobilization by private sector and public sector during the post liberalization period during 1993-2009 and projections for the year 2020. This study presents an overview of investment patterns of public sector vs private sector mutual funds. Besides, it also undertake the performance analysis of selected schemes of public and private sector organizations using various measures of risk. The results are classified on the basis of nature of schemes like i) balanced fund, ii) Equity, iii) Floating Rate Income Schemes, iv) Gilt Long-term, v) Gilt Short-term, vi) Income Fund, vii) Liquid Fund, viii) MIP, ix) Sector Fund-FMCG, x) Sector Fund-Pharma, xi) Sector Fund-Infotech xii) Short-term Income scheme and xiii) Tax Schemes.

A.4. Data Analysis Techniques:

1. Tabular analysis technique is widely used.
2. Simple percentage analysis: It calculates various percentages in the customers profile, attitude and opinions of the investors.
3. Regression analysis, ANOVA , T- test, and Multiple correlation were employed.
4. Statistical formulae like Standard deviation, alpha, beta etc were employed to find the intensity of risk
5. Sharpe, Jensen and Treynor Models were used to measure the performance of the various schemes of mutual funds.
A.5. Data Sources: Data were collected from two important sources.

Primary Data: For the purpose of analyzing the perception of the investor, primary data were collected with the help of a pre-tested questionnaire. People from different walks of life like: executives, doctors, business men, professors etc., were included as respondents.

Secondary Data: Secondary sources like various books, journals and financial news papers were approached for relevant information, literature and data.

A.6. Coverage of the Study:

Various mutual funds have been offering 1871 schemes up to the beginning of 2009. Out of these schemes, 182 schemes were launched during the last two years period. Hence, such schemes are excluded from the study. The remaining 1689 schemes were the total population of the study, out of which around 20 per cent schemes were chosen for the purpose of evaluation.

A.7. Sample Size:

The questionnaire is canvassed among the investors of mutual funds in all the four categories, i.e. public sector, private sector, business people and others, equally. However, we could able to get more response from private sector employees than other three study groups. More than 600 questionnaires are distributed and the response rate is 83.33 per cent i.e. 500 questionnaires are found to be properly filled. The survey was conducted during the four months period from April, 2008 to July, 2008.
A.8. Sampling:
A Sample survey is conducted to elicit the opinions of investors in mutual funds with regard to their promise and performance, problems and prospects. The investors are selected from the data supplied by the various mutual fund distributors, agents and financial consulting organizations in the city of Visakhapatnam, Andhra Pradesh, India. The convenience sampling method is used for selecting sample investors in this study.

A.9. Limitations:

1. Out of total 1871 schemes being offered by various mutual funds in India, only 311 schemes were finally taken as the sample.

2. The entire empirical study with the help of the questionnaire was done among the mutual fund investors that are available in only Visakhapatnam city of Andhra Pradesh, because of the time and money constraints.
Section-B: REVIEW OF LITERATURE

In India, there were a few studies on the mutual funds, which have a complete scientific analysis, primarily due to comparatively short period of existence of Mutual funds. Samir et al (1994) reviewed work done with respect to capital markets during the fifteen year period from 1977 to 1992. They mentioned that a large number of works are merely descriptive or prescriptive without rigorous analysis. However, a rigorous scientific research was taken place in this subject in other countries. Besides this, now we can obtain lot of information through different websites or portals like ‘Mutual Funds India.com’.2

This chapter focuses on review of some select studies, which are categorized into three sections: 1) Performance Evaluation methods, 2) Fund Selection behaviour/Investors Behaviour and 3) Other relevant studies.

B.1. Performance Evaluation Methods:


The following paragraphs indicate a brief description of the studies on ‘performance evaluation of mutual funds’.

---


2 Further there are several web sites like, www.amfiindia.com (Association of Mutual funds in India, www.capitalmarket.com etc. A list consisting of 50 websites is provided in the bibliography.

Sharpe (1964)\textsuperscript{4} made a significant contribution in the methods of evaluating mutual funds. His measure is based on capital asset prices, market conditions with the help of risk and return probabilities. Sharpe (1966) developed a theoretical measure better known as reward to variability ratio that considers both average return and risk simultaneously in its ambit. It tested efficacy through a sample of 34 open-ended funds considering annual returns and standard deviation of annual return risk surrogate for the period for 1954-1963. the average reward to variability ratio of 34 funds was considerably smaller than Dow Jones portfolio, and considered enough to conclude that average mutual funds performance was distinctly inferior to an investment in Dow Jones Portfolio.\textsuperscript{5}

Treynor (1965)\textsuperscript{6} advocated the use of Beta Coefficient instead of the total risk. He argues that using only naïve diversification, the unsystematic variability of returns of returns of the individual assets in a portfolio typically average out of zero. So he considers measuring a portfolio’s return relative to its systematic risk more appropriate.

Teynor and Mazuy (1966)\textsuperscript{7} devised a test of ability of the investment managers to anticipate market movements. The study used the investment performance outcomes of 57 investment managers to find out evidence of market timing abilities and found no statistical evidence that the investment managers of any of the sample funds had successfully outguessed the market. The study exhibited that the investment managers had no ability to outguess the market as a whole but they could identify under priced securities.


Michael C. Jensen (1967)\textsuperscript{8} conducted an empirical study of mutual funds during the period 1954-64 for 115 mutual funds. His results indicate that these funds are not able to predict security prices well enough to outperform a buy-the-market and hold policy. His study ignores the gross management expenses to be free. There was very little evidence that any individual fund was able to do significantly better than which investors expected from mere random chance. Jensen (1968) measured the performance as the return in excess of equilibrium return mandated by Capital Asset Pricing Model. Jensen’s measure is based on the theory of the pricing of capital assets by Sharpe(1964) Lintrer (1965) and Teynor.

Smith and Tito (1969)\textsuperscript{9} conducted a study into 38 funds for 1958-67 and published results relating to performance of mutual funds. However, Mc Donald (1974) examined 123 mutual funds for 1960-69 measures to be closely correlated more importantly, he found that on an average, mutual funds perform about as well as native ‘Buy and Hold’ strategy.

Fama (1972)\textsuperscript{10} suggested alternative methods for evaluating investment performance with somewhat finer breakdowns of performance on the stock selection, market timing, diversification and risk bearing. It devised mechanism for segregation part of an observed investment return due to managers’ ability to pick up the best securities at a given level of risk from part that is due to the prediction of general market price movements.


\textsuperscript{9} Born Karn Eric (1983), ‘International Banking in the 19\textsuperscript{th} and 20\textsuperscript{th} Centuries, New York: St. Martin’s Press.

Dunn and Theisen (1983)\textsuperscript{11} study is about ranking by the annual performance of 201 institutional portfolios for the period 1973 through 1982 without controlling for fund risk. They found no evidence that funds performed within the same quartile over the ten-year period. They also found that ranks of individual managers based on 5-year compound returns revealed no consistency.

Barua and Varma (1990)\textsuperscript{12} examined the performance of Master-shares, the first close end Mutual Fund, both in terms of NAV and market prices. They found that though in terms of NAV the risk adjusted performance of Master-shares was superior to the market, in terms of market prices the performance was inferior to the market. The initial work was refined in the subsequently by the same authors, which concluded that the performance of Master-shares from the point of view of a small investor was poor while from the point of view of a large investor the performance was excellent. The research raised an interesting issue about the purpose of mutual funds: if they are meant primarily for small investors, then Mastershares have failed to serve the purpose.

Eun, Kolodny, and Resnick (1991)\textsuperscript{13} reported similar findings. The benchmarks used in their study were the Standard and Poor’s 500 Index, the Morgan Stanley Capital International World Index, and a self-constructed index of U.S. multinational firms. For the period 1977-1986, the majority of international funds outperformed the U. S. market.


However, they are most failed to outperform the world index. The sample consisted of 19 U.S.-based international funds, and the Sharpe measure was used to assess excess returns.

The earliest work on evolving a regulatory framework for the fledgling industry was done by Barua, Varma and Venkiteswaran (1991). Drawing heavily on the regulatory framework for operation of mutual funds in the U.S.A. (Investment Company Act of 1940), the authors proposed detailed guidelines that could be adopted for mutual funds operating in the Indian capital markets.

Barua and Varma (1993b) have examined the relationship between the NAV and the market price on Mastershares. They conclude that market prices are far more volatile than what can be justified by volatility of NAVs. The prices also show a mean reverting behaviour, thus perhaps providing an opportunity for discovering a trading rule to make abnormal profits in the market. Such a rule would basically imply buying Mastershares whenever the discount from NAV was quite high and selling Mastershares whenever the discount was low.

Verma (1994)’s study on mutual fund covers the conceptual and regularity aspect of Indian mutual fund with some information task and guidelines to the investors in selection of mutual fund.

---


Droms and Walker (1994)\textsuperscript{17} used a cross-sectional/time series regression methodology. Four funds were examined over 20 years (1971-1990), and 30 funds were analyzed for a six-year period (1985-1990). The funds were compared to the Standard and Poor’s 500 Index, the Morgan Stanley Europe, Australia, and Far East Index (EAFE) which proxies non-U. S. stock markets, and the World Index. Applying the Jensen, Sharpe, and Treynor indices of performance, they found that international funds have generally underperformed the U. S. market and the international market. Additionally, their results indicated that portfolio turnover, expense ratios, asset size, load status and fund size are unrelated to fund performance.

Bauman and Miller (1995)\textsuperscript{18} studied the persistence of pension and investment fund performance by type of investment organization and investment style. They employed a quartile ranking technique because they noted that "investors pay particular attention to consultants' and financial periodicals' investment performance rankings of mutual funds and pension funds". They found that portfolios managed by investment advisors showed more consistent performance (measured by quartile rankings) over market cycles and that funds managed by banks and insurance companies showed the least consistency. They suggest that this result may be caused by a higher turnover in the decision-making structure in these less consistent funds. This study controls for the effects of turnover of key decision makers by restricting the sample to those funds with the same manager for the entire period of study.


Volkman and Wohar (1995)\textsuperscript{19} extend this analysis to examine factors that impact performance persistence. Their data consists of 322 funds over the period 1980 to 1989, and shows performance persistence is negatively related to size and negatively related to levels of management fees.

Elton, et al (1996)\textsuperscript{20} examined the predictability of stock mutual funds performance based on risk-adjusted future performance. It also demonstrated application of modern portfolio techniques on past data to improve selection, which permitted construction of portfolio funds that significantly outperformed a rule based on the past rank alone. The portfolio so selected was reported to have small, but statistically significant, positive risk-adjusted returns during a period when mutual funds in general had negative risk adjusted returns.

Jayadev (1996)\textsuperscript{21} paper enlightens performance evaluation based on monthly returns. His paper focuses on performance of two growth oriented mutual funds (Mastergain and Magnum Express) on the basis of monthly returns compared to benchmark returns. For this purpose, risk adjusted performance measures suggested by Jensen and Treynor and Sharpe are employed.


Carhart (1997)\textsuperscript{22} shows that expenses and common factors in stock returns such as beta, market capitalization, one-year return momentum, and whether the portfolio is value or growth oriented "almost completely" explain short term persistence in risk-adjusted returns. He concludes that his evidence does not "support the existence of skilled or informed mutual fund portfolio managers".

Yuxing yan (1999)\textsuperscript{23} examined performance of 67 US mutual funds and the S &P 500 index with 10-year daily return data from 1982 to 1992. The S & P index was used as benchmark index. Daily data are transformed into weekly data for computational reasons. In the calculations, it was assumed that the S & P 500 market index is a good one, i.e., it is efficient and its variance is constant.

Arnold et al (2000)\textsuperscript{24} study examines the risk-adjusted returns using Sharpe’s Index, Treynor’s Index and Jensen’s Alpha for five portfolios of international mutual funds during 1985-1994. The benchmarks for competition were the U.S. market proxied by the Vanguard Index 500 mutual fund and a portfolio of funds that invest solely in U.S. stocks. The results show that for 1985 through 1994 the portfolio of international mutual funds outperformed the U.S. market and the portfolio of U.S mutual funds.


Rahul Bhargava et al (2001)\textsuperscript{25} evaluated the performance of 114 international equity managers over the January 1988 to December, 1997 period. Performance tests are conducted using Sharpe, Jensen performance methodologies. Three major findings are reported. First, international equity managers, on an average, were unable to outperform the MSCI world market proxy during the sample period. Second, geographic asset allocation and equity style allocation decisions enhanced the performance of international managers during the sample period. Third, separately managed funds were outperformed mutual funds.

Sadhak (2003)\textsuperscript{26} study is an attempt to evaluate the performance of Indian mutual funds with the help of data pertaining to: a) trends in income and expenses, b) investment yield and risk-associated returns, and c) returns of Indian mutual funds vis-à-vis returns of other emerging markets.

Bala Ramasamy and Yeung’s (2003)\textsuperscript{27} survey focused on Malaysia where the mutual fund industry started in the 1950s but only gained importance in 1980s with the establishment of government initiated programme. The sample size consisting of 56 financial advisors representing various life insurance and mutual fund companies resulted in 864 different profiles of mutual funds. The cojoint analysis was employed to generate the questionnaire and analyse its results. The results of this survey point to three important factors which dominate the choice of mutual funds. These are consistent past performance, size of funds and costs of transaction.


Chang, et al (2003)\textsuperscript{28}, identified hedging factor in the equilibrium asset pricing model and use this benchmark to construct a new performance measure. Based on this measure, they are able to evaluate mutual fund managers hedging timing ability in addition to more traditional security selectivity and timing. While security selectivity performance involves forecasts of price movements of selected individual stock, market timing measures the forecasts of next period realizations of the market portfolio. The empirical evidence indicates that the selectivity measure is positive on average and the market timing measure is negative on average.

Alexander (2004)\textsuperscript{29} has suggested a new dimension called ‘modified approach for risk-adjusted performance of mutual funds’. This method can be considered as more powerful, because it allows not only for an identification of active resources, but also for identification of risk. He observed two interesting results: First, it can be shown that in some cases, a superior security selection effect is largely dependent on taking higher risks. Second, even in the small sample analyzed in the study, significant differences appear between each portfolio manager’s styles of selection.

Patil (2004)\textsuperscript{30} finds that the healthy development of the corporate debt market hinges on a significant level of reforms in regulations governing in the primary and secondary markets in corporate debt. There were three major financial scams in 1991-92, 1998 and 2001, because of the market regulator did not learnt from the lessons during the immediate past period.


Gupta OP and Amitab Gupta (2004)\textsuperscript{31} published their research on select Indian mutual funds during four year period from 1999 to 2003 using weekly returns based on NAVs for 57 funds. They found that fund managers have not outperformed the relevant benchmark during the study period. The funds earned an average return of 0.041 per week against the average market return of 0.035 per cent. The average risk free rate was 0.15 per cent per week indicating that the sample funds have not earned even equivalent to risk-free return during the study period.

Subash Chander and Jaspal Singh (2004)\textsuperscript{32} considered selected funds during the period Nov 1993 to March, 2003 for the purpose of their study. It was found that Alliance Mutual Fund and Prudential ICICI Mutual funds have posted better performance for the period of study in that order as compared to other funds. Pioneer ITI, however, shown average performance and Tepleton India mutual fund has staged a poor show.

Amit Singh Sisodiya (2004)\textsuperscript{33} makes comparative analysis of performance of different mutual funds. He explains that, a fund’s performance when viewed on the basis of returns alone would not give a true picture about the risk the fund would have taken. Hence, a comparison of risk-adjusted return is the criteria for analysis.

Alberto et al (2005)\textsuperscript{34} analyzed the passive role that, implicitly, would place institutional investors in such a context. The study was conducted in Italy using empirical


evidence from the Italian stock exchange (Comit Index). This study finds that three factors reduce the freedom of institutional investors to manage their portfolio - the market target size, the fund structure and the benchmarking.

Sudhakar and Sasi Kumar (2005)\textsuperscript{35} made a case study of Franklin Templeton mutual fund. The sample consists of a total 10 growth oriented mutual funds during the period April 2004 to March 2005. NIFTY based on NSE Index was used as the proxy for the market index and each scheme is evaluated with respect to the NSE index to find out whether the schemes were able to beat the market or not. It was found that most of growth oriented mutual funds have been able to deliver better returns than the benchmark indicators. In the sample study, all the funds have positive differential returns indicating better performance and diversification of the portfolio, except two funds with negative differential returns viz., Franklin India Blue Chip Fund, Templeton India Income Fund.

Martin Eling (2006)\textsuperscript{36} made a remarkable contribution to the theory of ‘performance evaluation measures’. In this study, data envelopment analysis (DEA) is presented as an alternative method for hedge fund performance measurement. As an optimization result, DEA determines an efficiency score, which can be interpreted as a performance measure. An important result of the empirical study is that completely new rankings of hedge funds compared to classic performance measures.

George Comer (2006)\textsuperscript{37} examined the stock market timing ability of two samples of hybrid mutual funds. It was found that the inclusion of bond indices and a bond timing


variable in a multifactor Treynor-Mazuy model framework leads to substantially different conclusion concerning the stock market timing performance of these funds relative to the traditional Treynor-Mazuy model find less stock timing ability over the 1981-91 time period provide evidence of significant stock timing ability across the second fund sample during the 1999-2000 period.

Yoon K Choi (2006)\textsuperscript{38} proposed an incentive compatible portfolio performance evaluation measure. In this model, a risk-averse portfolio manager is delegated to manage a fund, and his portfolio construction (and information-gathering) effort is not directly observable to investors, in which managers are to maximize investors’ gross returns net of managerial compensation. He considers the effect of organizational elements such as economics of scale on incentive and thus on performance.

Ramesh Chander(2006)\textsuperscript{39}, study examined the investment performance of managed portfolios with regard to sustainability of such performance in relation to fund characteristics, parameter stationarity and benchmark consistency. The study under consideration is based on the performance outcome of 80 investment schemes from public as well as private sector for the five-year period encompassing January 1998 through December 2002. The sample comprised 33.75 per cent of small, 26.75 per cent of medium, 21.25 per cent of large and 18.75 of the giant funds.


Ramesh Chander (2006a) study on market timing abilities enables to understand how well the manager has been able to achieve investment targets and how well risk has been controlled in the process. The results reported were unable to generate adequate statistical evidence in support of manager’s successful market timing. It persisted across measurement criteria, fund characteristics, and the benchmark indices. However, absence of performance is noted for alternative sub-periods signifying the negation of survivorship bias.

Beckmann, Lutje & Rebeggiani (2007) found that Italian female professionals do not only assess themselves as more risk averse than their male colleagues, they also prefer a more passive portfolio management compared to the level they are allowed to. Besides, in a competitive tournament scenario near the end of the investment period, female asset managers do not try to become the ultimate top performer when they have outperformed the peer group. However in case of underperformance, the risk of deviating from the benchmark makes female professionals more willing than their male colleagues to seize a chance of catching up.

Gajendra Sidana (2007) made an attempt to classify hundred mutual funds employing cluster analysis and using a host of criteria like the 1 year old return, 2 year annualized return, 3 year annualized return, 5 year annualized return, alpha, beta etc. The data is obtained from value-research. The author finds inconsistencies between investment style/objective classification and the return obtained by the fund.

---


Coates and Hubbard (2007)\textsuperscript{43} reviewed the structure, performance and dynamics of the mutual fund industry, and showed that they are consistent with competition. It was also found that concentration and barriers to entry are low, actual entry is common and continuous, pricing exhibits no dominant long-term trend, and market shares fluctuate significantly. Their study also focused on ‘effects of competition on fee’ and ‘pricing anomalies’. They suggested legal interventions are necessary in setting fee in mutual funds of United States.

Subha and Bharathi (2007)\textsuperscript{44} study is carried out for open end mutual fund schemes and 51 schemes are selected by convenient sampling method. NAV’s are taken for a period of one year from 1\textsuperscript{st} October 2004 to 30\textsuperscript{th} September, 2005. Out of the 51 funds as many as 18 schemes earned higher returns than the market return. The remaining 33 funds however generated lower returns than the market.

Sondhi (2007)\textsuperscript{45} study analyses the financial performance of 36 diversified equity mutual funds in India, in terms of rates of return, comparison with risk free return, benchmark comparison and risk adjusted returns of diversified equity funds. Fund size, ownership pattern of AMC and type of fund are the main factors considered in this study. The study reveals that private sector is dominating public sector.


Cheng-Ru Wu et al. (2008) study adopts modified Delphi method and the analytical hierarchy process to design an assessment method for evaluating mutual fund performance. The most important criteria of mutual fund performance should be ‘mutual fund style’ following is ‘market investment environment’. This result indicates investor’s focus when they evaluate the mutual fund performance.

Eleni Thanou (2008) study examines the risk adjusted overall performance of 17 Greek Equity mutual funds between years 1997 and 2005. The study evaluated performance of each fund based on the CAPM performance methodology, calculating the Treynor and Sharpe Indexes for the nine year period as well as for three sub-periods displaying different market characteristics. The results indicated that the majority of the funds under examination followed closely the market, achieved overall satisfactory diversification and some consistently outperformed the market, while the results in market timing are mixed, with most funds displaying negative market timing capabilities.

Lakshmi, Malabika Deo and Murugusean (2008) studied a sample of schemes in the eight years period. This study is based on performance evaluation is restricted to the schemes launched in the year 1993 when the industry was thrown open to private sector under the regulated environment by passing the SEBI(Mutual Funds) Regulations 1993. The performance of the sample schemes were in line with that of the market as evident from the positive beta values. All the sample schemes were not well diversified as depicted by the differences in the Jensen alpha and Sharpe’s differential return.

---


Massimo Masa and Lei Zhang (2008)\textsuperscript{49} found the importance of organizational structure on Asset Management Company of mutual fund. Their study found that more hierarchical structures invest less in firms located close to them and deliver lower performance. An additional layer in hierarchical structure reduces the average performance by 24 basis points per month. At the same time, more hierarchical structures leads to herd more and to hold less concentrated portfolios.

Manuel Ammann and Michael Verhofen (2008)\textsuperscript{50} examined the impact of prior performance on the risk-taking behaviour of mutual fund managers. Their sample taken from US funds starts in Jan 2001 and ends in Dec, 2005. The study found that prior performance in the first half of the year has, in general, a positive impact on the choice of the risk level in the second half of the year. Successful fund managers increase the volatility, the beta, and assign a higher proportion of their portfolio to value stocks, small firms, and momentum stocks in comparison to unsuccessful fund managers.

Onur, Edwards and Ajay(2008)\textsuperscript{51} study evaluates the performance of 50 large US-based international equity funds using risk-adjusted returns during 1994-2003. This study provides documentation on the risk-adjusted performance of international mutual funds. The evaluation is based on objective performance measures grounded in modern portfolio theory. Using the methodology developed by Modigliani and Miller in 1997, the study reports the returns that would have accrued to these mutual funds for a five-year holding period as well as a ten-year holding period. It is evident from the empirical results of this study that the


funds with the highest average returns may lose their attractiveness to investors once the degree of risk embedded in the fund has been factored into the analysis.

Qiang Bu and Nelson Lacey (2008)\textsuperscript{52} examined the determinants of US mutual fund terminations and provided estimates of mutual fund hazard functions. Their study found that mutual fund termination correlates with a variety of fund specific variables as well as with market variables such as the S&P 500 index and the short-term interest rate. This was tested with the underlying assumptions of the semi-parametric Cox model and reject proportionality. They also found that different fund categories exhibit distinct hazard functions depending on the fund’s investment objectives.

David M Smith (2009)\textsuperscript{53} discussed the size and market concentration of the mutual fund industry, the market entry and exit of mutual funds, the benefits and costs of mutual fund size changes, principal benefits and costs of ownership from fund shareholders’ perspective etc. This study is based on data from Morningstar (2009) about US mutual fund industry, which was composed of 607 fund families.

Bake, Haslem and Smith (2009)\textsuperscript{54} investigated the relation between the performance and characteristics of 118 domestic actively managed institutional equity mutual funds. The results showed that the large funds tend to perform better, which suggests the presence of significant economies of scale. The evidence indicates a positive relation between cash holding and performance. They also found evidence in a univariate analysis that expense


ratio class is an important determinant of performance, and the results are significant in a multivariate setting using Miller’s active alpha as a performance metric.

Khurshid et al (2009)\(^{55}\) studied the structure of the mutual fund industry in India and analyzed the state of competition among all the mutual funds in private sector and public sector. The levels of competition and their trends have been obtained for the periods March 2003 to March, 2009. This study found over-all mutual fund industry is facing a high competitive environment. An increasing trend of competition was observed within Bank-Institution, Private sector foreign and private sector joint venture mutual funds.

Mohit Gupta and Agarwal (2009)\(^{56}\) study focused on the portfolio creation and industry concentration of 18 ELSS schemes during April 2006 to April 2007. Mutual fund industry concentration was the variable used in classification or cluster creation. This exercise was repeated each month for the period under study. Finally portfolio performance was compared with index fund, portfolio of three randomly picked funds of the previous month, and the return and risk parameters of ELSS category as a whole.

Amar Ranu and Depali Ranu (2010)\(^{57}\) critically examined the performance of equity funds and found out the top 10 best performing funds among 256 equity mutual fund schemes in this category. Their considers three criteria for selection: a) mutual funds having 5 years of historical performance, b) fund schemes having a minimum of Rs.400 crore of assets under management and c) fund which have average return more than 22.47. They found that HDFC TOP 200(Growth) option was outperforming among the top 10 best performing equity funds.


Sunil Whal and Albert Wang (2010)\textsuperscript{58} found impact of the entry of new mutual funds on incumbents using the overlap in their portfolio holdings as a measure of competitive intensity. Their study reveals that funds with high overlap also experience quantity competition through lower investor flows, have lower alphas, and higher attrition rates. These effects only appear after the late 1990s, at which point there appears to be endogenous structural shift in the competitive environment. Their concluding remark is that ‘the mutual fund market has evolved into one that displays the hallmark features of a competitive market’.

**B.2. Fund Selection Behaviour/ Investors’ Behaviour:**

Vidhyashankar (1990)\textsuperscript{59} concludes that mutual funds would emerge as the predominant instrument for savings by the household sector by the turn of this century. Gupta (1992)\textsuperscript{60} made a household investors survey in April, 1992. The main objective of the survey is to provide data on the investor performance on mutual fund and other financial assets. The findings of the study are more appropriate to the policy maker and mutual finds to design the financial products for the future.

Elton et al., (1998)\textsuperscript{61} study indicates whether small investor sentiment, as measured by the change in the discount on closed-end funds, is an important factor in the return generating


\textsuperscript{59} Vidhyashankar S (1990), “Mutual Funds- Emerging Trends in India”, Chartered Secretary, Vol.XX, No.8, Aug, P.639.


process for common stocks. Modern asset pricing theory implies that only sensitivity to systematic factors in the return generating process be priced. Their study is based on sample, which is made up of the 586 New York Stock Exchange stocks that have continuous return history on ‘Centre for Research in Security Prices’ from January 1969 to December 1994.

Ronald (2003) research examines how investors choose a mutual fund within a given class of funds. Among the major finding is that the investors pay a great deal of attention to past performance and vastly overnight loads relative to expense ratios when evaluating a fund’s overall fee structure. It was also found that investors with a greater knowledge of basic finance are less likely, not more likely, to make reasonable fund choices.

Jaspal Singh and Subash Chander (2003) studied the factors influencing the choice of a mutual fund by an investor. They have considered six factors like past record of the organization, growth prospects, credit rating, market speculators disclosure and early bird incentives. The appraisal criteria are based on the size of the fund, portfolio selection, NAV and return.

Prasada Rao and Saikia (2006) critically examined fund selection behaviour. Their study identified six factors like: Monetary Factor, Core Product Factor, Fund Strength Factor, Promotional Factor, Customer Expectation Factor and Service Quality Factor are influencing consumer behaviour towards their investment in mutual funds. It was found that there is an impelling need for domestic mutual funds to expand their investor base. This can be possible,

---


only when the fund organizers make a determined effort to understand the value drivers and thus lure retail investors to invest in mutual funds.

Kavitha Ranganathan (2006)\textsuperscript{65} study mainly deals with the financial behaviour of individual investors towards mutual funds in Mumbai. The survey conducted during Sept-October, 2004 among 100 educated, geographically dispersed individual investors of Mumbai. The study reveals that investors are prominently influenced, in the selection of schemes, by the extent and quality of disclosure of information subsequent to their investment like: regarding disclosure of NAV, portfolio of investment and disclosure of deviation from the stated objectives and attached fringe benefit to the schemes.

George et al (2007)\textsuperscript{66} examined the impact of gross flows and investor behaviour using a large sample of monthly gross flows from 1997 to 2003. Their study found that persistence in fund flows dominates performance as a predictor of future fund flows. They have also examined differences in the speed and magnitude of investor’s purchase and sales responses to performance.

Thomas\textsuperscript{67} (2007) study relates to servqual scale, which is a 22 item scale with five dimensions viz., reliability, assurance, tangibles, empathy and responsiveness. This scale has been developed for the service sector. Customer satisfaction is the key for any service


organization, only satisfied investors will stay invested with the organization and recommend others to invest in particular scheme or fund.

Soumya Guha Dev et al (2007) study evaluated the performance of mutual funds and identified ways of evaluating successful fund managers for stock selection and market timing abilities using both conditional and unconditional approaches. The results conclude that fund managers are more inclined toward stock selection than market timing, because stock selection skills involves micro-forecasting of price movements of the individual stocks relative to the market.

Simranjeet et al (2008) carried out a study of investors psychology in Bhopal region. The study was conducted during Feb, 2006 to April, 2006 and the sample size is 200. The research has concluded that guidance, compensation associated with investment plan are some of the important factors which most of the investors rely. The investors who are in the age group of 25-35 and 40-50 rely differently on different factors for taking investment decisions especially for the income groups of Rs.1-2 lakhs, 2.5 – 3.5 lakhs and 4 lakhs and above. This indicates that the younger age group of investors behaved differently than that of elder age group.

Sudalaimuthu and Kumar (2008) conducted a survey on investors behaviour in Tamil Nadu state. They found that 40.8 per cent respondents prefer to invest in private sector


mutual funds and 62.4 per cent of the respondents opined that open-ended schemes are better choice of investment. It was also interesting to note that 85.6 per cent of respondents are aware of the ‘risk’ involved in mutual fund investment. The demographic factors such as age, gender, occupation, income and percentage of savings of the respondents have shown direct impact on the ‘fund selection behaviour’ of investors.

Chaubey and Rajat (2009)\textsuperscript{71} carried out a study on investment pattern of investors of Garhwal Region of Utarkhand state. The results reveal that the calculated chi-square value (48.28) is much greater than the critical value (24.996) @ 5 per cent level of significance and 15 degree of freedom, null hypothesis is rejected, revealing that investors choice in their investment pattern is associated with their level of annual saving.

Rajesh Kothari and Narendra Sharma (2009)\textsuperscript{72} study examines mutual fund investment services for ‘small and medium class investors’. The impact of service quality, name familiarity and price were examined. The experimental design followed 2 x 2 x 2 between subjects factorial design. The number of male and female respondents approximately equal (138 and 135 respectively). The respondents were new and old investors in their investment behaviour. Finally, the results revealed that the respondent’s attitude towards the advertisement were not influenced by service quality or name familiarity. The interaction effect was also not significant.


Saurabh Singh (2009)\textsuperscript{73} study identifies, understands and explains that how human emotions influence investor’s decision making process. The study resulted in listing, factors as age, sex, education, family and the past performance of a company’s securities variables or attributes, having significant influence and impact on the investor’s investment decision making process. Risk evasiveness was found to be the case with majority of investors’, very much unlike the present day young investors’ who happen to be comparatively skilled, informed with access to all kind of sources of information.

Sumeet Gupta (2010)\textsuperscript{74} examined the factors influencing mutual fund selection through an empirical survey. The major finding of the study is the investors are basically influenced by the intrinsic qualities of the mutual fund scheme followed by efficient fund management and general image of the fund/scheme in their selection pattern.

\textbf{B.3. Other Relevant Studies:}

Madan Goyal (1993)\textsuperscript{75} states that the future of mutual funds in India is inextricable liked to the growth of the Indian economy, savings and investment patterns, government policy towards private sector, and the development of capital market. The government has provided the initial impetus for launching of the funds by providing tax concessions and tax exemptions. Mutual funds in India provide safety, liquidity and growth to investors.


\textsuperscript{75} Madan Goyal (1993), ‘Mutual Funds: India, Here We Come’, ‘Financial Institutions and Economic Development’ edited by Devedra Thakur.
Vikas Dhoot and Vishal Saxena’s\(^{76}\) report, gives a clear picture of index funds of public as well as private sector. It was found that there are five index funds, namely- 1) The IDBI Principal Index Fund, 2) Templeton’s Franklin India Index Fund and 3) The UTI Nifty Funds, 4) The UTI Master Index Funds and 5) The UTI Index Select Equity Fund. Out of these first three funds tracking the Nifty, and UTI Master Index Fund follows the sensex and the UTI Index select equity fund tries to follow both indices.\(^{77}\)

Seema Vaid(1994)\(^{78}\) study covers conceptual and the regulatory frame work, review of the growth of mutual funds and primary information about mutual fund schemes.

Madhusudhan (1996) conducted a study to assess the awareness of mutual funds among investors, to identify the information sources influencing the buyer decision and the factors influencing the choice of a particular fund. Sujit Sikdar and Amrit Pal Sing (1996) carried out a survey with an objective to understand the behavioural aspects of the investors of the North Eastern region towards equity and Mutual Funds investment portfolio.

The survey revealed that the salaried and self employed performed the major investors in Mutual Funds primarily due to tax concessions. UTI and SBI schemes were popular in that part of the country then and other funds had not proved to be a big hit during the time when the survey was done. Raja Rajan (1997, 1998) highlighted segmentation of investors on the basis of their characteristics, investment size, and the relationship between stage in life cycle of the investors and their investment pattern.


Meir Kohn (1997)\(^{79}\) states that mutual funds have adopted the technology they
developed in the long-term market to create an important vehicle for short-term saving-the
money market mutual fund. This has been enormously successful, and it now accounts for a
significant fraction of their business. Meir Kohn explains the origin and growth of mutual
funds in other countries in his book ‘Financial Institutions and Markets’.

Lalit ((1997)\(^{80}\) carried out a study on mutual funds and its regulatory framework. He
also made a critical review of scheme-wise performance and working of SEBI. It also
discusses the portfolio management of some Indian fund managers.

Mohan Rao (1998)\(^{81}\) studied various issues like organization structure of mutual
funds, investment procedure, accounting and reporting standards etc. He states that a lot of
structural changes and innovations have occurred both in international and national financial
system, which lead to change in housing savings and investment attitude also.

Edwin, Martin and Jeffrey (1998)\(^{82}\) study finds whether sentiment could reasonably
be expected to be a factor affecting expected return. Modern asset pricing theory implies that
only sensitivity to systematic factors in the return-generating process be priced. Their
research findings do not support small investor sentiment as a priced factor, either in common
stocks or closed-end funds.


Vijay Kumar (1999)\textsuperscript{83} makes an insight into the growth of mutual funds in India, current scenario of mutual funds, significance of mutual funds, future of mutual funds in India and he suggests suitable measures to make mutual funds effective. Vijay Kumar concludes that the encouraging public response to the mutual funds reveals the potential of mobilizing the savings of the masses for industrial finance. The mutual fund need amendments and modifications with respect to have a uniform rules and regulations for governing mutual funds, disclosure of information, listing of mutual funds in stock exchanges, disallowing private sector in entering mutual fund business, removing urban biases etc.

Srivastava (1999)\textsuperscript{84} critically examined the operational polices and practices of Unit Trust of India and evolution and growth of mutual funds in India. He suggests that there should be comprehensive legislation to control the operations of the mutual funds including Unit Trust of India. At present mutual funds are subject to guidelines laid down by RBI, Government of India and SEBI and some of the guidelines are contradictory leading to confusion among the mutual funds managers. He further suggests that investor's confidence in mutual funds can be inspired by rendering their activity more transparent and providing better services.

Avadhani (1999)\textsuperscript{85} critically examines the role of mutual funds, guide lines of money market mutual funds, RBI guidelines on mutual funds and regulation of mutual funds in


India. Subrahmanyam (1999)\textsuperscript{86} finds that only 38 per cent of savings made by Indian households by the year 1970-71 and it has increased to over 45 per cent by the 1990-91. Thus we can say that Indian investors are saving more through financial assets, as reflected in the changing composition of house-hold sector savings.

Kamath (2001)\textsuperscript{87} states that there was a huge ramp up exist in retail exposure of mutual funds. In September, 1999 retail assets were 1% of the total portfolio: by September 2000, retail assets comprised 7% of the total portfolio. He further assumes that ICICI continues to grow at its historical rate of 15% per annum, five years from now, retail disbursals will amount to Rs.15,000 crore.

Gupta and Choudhary (2001)\textsuperscript{88} conducted a ‘portfolio game’ for investors. The game required of investments to be chosen with equal weightage. The study found that an average of 6.5 investments were in shares and 1.5 in mutual funds. Thus, mutual funds account for only around one-fifth of average portfolio of individual investment.

Singh HK and Meera Sing (2001)\textsuperscript{89} thoroughly made a study on public and private sector mutual funds institutions engaged in Indian financial system. They have examined the role of Unit Trust of India, Money Market Mutual Funds and Off-shore mutual funds in the

\textsuperscript{86} Subrahmanyam (1999), Former Chairman, Unit Trust of India, - ‘The Changing dynamics’-article published in, Unit Trust of India, The Hindu, Survey of Indian Industry.

\textsuperscript{87} A special article entitled, ‘ICICI: The Big Retail Thrust’ published in Business World issue dated 29\textsuperscript{th} Jan, 2001


light of global market developments. It was mentioned that, Indian mutual funds have not attained equal status as their counter parts in USA, UK and other developed countries.

Rajeswari and Rama Moorthy (2002) studied the financial behaviour and factors influencing fund/scheme selection of retail investors by conducting Factor Analysis using principal component analysis, to identify the investor’s underlying fund/scheme selection criteria, so as to group them into specific market segment for designing of the appropriate marketing strategy.

Narendra Nathan (2002)\textsuperscript{90} analysis is that it is better to hold US-64 till May 2003 to make the best of a bad investment. UTI disclosed that the NAV of its US-64 stood at Rs.5.81. The massive redemption was made by corporates and high net-worth individuals, in April and May 2001. It was found that the equity component of US-64’s portfolio increased steadily over the past decade. Since 1996, it is been between 60% and 70% - dangerous for a balanced fund. In late- 1998, a panel recommended that it be brought down to prudent levels, but UTI didn’t pay heed. It now says it’ll keep it between 25 and 55 per cent.

A survey report\textsuperscript{91} by global consultancy firms KPMG and CREATE identifies several key challenges before investment world, which holds good for Indian mutual fund industry as well. The report titled, ‘Revolutionary shifts, evolutionary responses: Global investment management in 2002’, finds that while investment management companies have recognized the failure like, under performance, inflation, lack of focus, unclear value propositions etc.

\textsuperscript{90} Narendra Nathan (2002), ‘Sell? Hold? – article published in Intelligent Investor, January 31\textsuperscript{st}.

The Indian mutual fund industry has been growing at a healthy pace of 16.68 per cent for the past eight years and the trend will move further as has been emphasized by the global asset management 2006 report.\(^\text{92}\)

Ronald (2003)\(^\text{93}\) research examines how investors choose a mutual fund within a given class of funds. Among the major findings are that investors pay a great deal of attention to past performance and vastly overnight loads relative to expense ratios when evaluating a fund’s overall fee structure. It was also found that investors with a greater knowledge of basic finance are less likely, not more likely, to make reasonable fund choices.

Manjesh Roy (2005)\(^\text{94}\) described how money market offers superior venues for deployment of bulk short-term funds in terms of risk, return and liquidity. He states that there is a lack of a long-term vision on part of the mutual fund industry has resulted in low level of retain penetration. Other aspects like: lack of awareness, poor infrastructure for fund transfer and regulatory restrictions have also continued to the poor impact of money market mutual funds. Finally, he suggests that the structural constraints can be addressed by launching an awareness campaign on the role of mutual funds.

Jaspal Singh (2006)\(^\text{95}\) made an in depth study of status of mutual funds industry in India. The central focus of his study is the ‘investors perception towards mutual funds during post-liberalization period. He examined 23 open-ended equity and growth schemes launched

---

\(^{92}\) A Report by Boston Consulting Group estimates that India-managed assets will exceed more than $1 trillion by 2015.


by selected five mutual funds viz., UTI, Pioneer ITI, Prudential ICICI, Alliance Capital India and Franklin Templeton India.

Nalini Prava Tripathy (2007)\(^{96}\) states that the Indian investors are attracted to put their money in mutual funds for two reasons: First, they offer a better return than fixed deposits and second, the funds are being run by professionals with requisite infrastructure. Her study also focuses various others issues like regulatory frame work, investment management and mutual fund marketing.

Sujatha (2007), study specially focuses about real estate mutual funds (REMF), which refers to a scheme of mutual funds with the objective of investing directly or indirectly in real estate property. She states that REMF is having a vital role in the growth of IT and ITES sector in India. This study also highlights the advantages of the REMFs and the challenges faced by them.

Gordon and Natarajan (2008)\(^{97}\) suggest that to ensure mutual funds for a good return, quick liquidity and safety and create a good rapport with the investors, their future will be very bright. They act as a via media between bank deposit and share in the sense it involves a higher risk than a bank deposit and hence a better return, but a lower risk than a share and hence more safety.

Khan (2009)\(^{98}\) defines and explains Mutual Funds and its regulatory frame work in his book entitled ‘Indian Financial System’. As an investment intermediary, it offer a variety of services to the relatively small investors who on their own cannot successfully construct and


manage investment portfolio mainly due to the small size of their funds, lack of experience and expertise, and so on. L.M. Bhole (2009) explains the nomenclature and nature of mutual funds and Unit Trust of India’s functioning in his book entitled, ‘Financial Institutions and Markets’.

The following areas are identified as crucial considerations, while doing review of literature, for further research on Mutual funds.

1. Size, structure, regulation and competition among various schemes offered by Private and Public Sector Mutual Fund organizations.
2. Inter-relation between stock market volatility and resource mobilization by private sector and public sector mutual funds.
3. Investment pattern, Investor’s composition and unit holding pattern.
4. Portfolio structure, Portfolio turnover and operating performance.
5. Valuation and pricing of mutual fund units and reasons for discounts on mutual fund units.
6. Comprehensive study of performance evaluation of various schemes using risk measures like Sharpe, Treynor and Jensen.
7. Performance evaluation of ability of the mutual fund managers in order to achieve superior returns.

In the light of above review, this study considers patterns in resource mobilization, investments and investors composition along with performance evaluation of various schemes offered by private sector and public sector mutual funds offered in India.