CHAPTER – 2

OBJECTIVES AND METHODOLOGY OF THE STUDY

This chapter is aimed at presenting the objectives and methodology of the study and to present a broad survey of literature pertaining to the present study.

SECTION –I

Objectives of the Study :

The present study has the following objectives.

1. to review the progress of mutual fund industry and the trends in funds mobilisation pattern and Assets Under Management of various mutual funds during the post deregulation period;

2. to examine the shift in the portfolio investment behaviour of the UTI and the other mutual funds during the post deregulation period;

3. to evaluate the financial performance of selected major schemes of various mutual funds in the public and private sectors;

4. to analyse the investors’ opinions on mutual fund investments and to compare the level of satisfaction among the investors of public and private sector mutual funds; and

5. to suggest measures for consideration of the policy makers for strengthening of mutual fund industry.
Methodology:

a) Selection of sample schemes

There were 35 mutual fund companies and 1003 mutual fund schemes existing in India by March 2009. Out of this, close-ended schemes were nearly 106 and most of the schemes were young and operating from the year 2005 and 2006 only and the remaining 897 are open ended schemes. Open-ended schemes with not less than three years old have been selected for the study to assess the overall performance for a period of five years i.e., from April 2004 to March 2009. This period is generally considered to be sufficient enough to cover all upswings and down swings of markets.

A total of 87 open ended mutual fund schemes (10%) representing all categories were selected for the study. Out of the total 35 mutual fund companies, 26 were included in the study-UTI and bank sponsored 4, financial institutions one, private sector Indian 13, and foreign institutions 8. Out of the 87 open-ended sample schemes, equity schemes were 31, bond schemes 48 and the balanced schemes 8. Bond schemes also include short-term and money market schemes. Out of the total 87 sample mutual fund schemes, UTI sponsored 7, bank sponsored 11, financial institutions 3, private sector schemes (Indian) 19, and the balance of schemes were related to foreign institutions predominantly Indian and foreign funds. Size wise mutual fund schemes were categorized into small (less than 100 crores) medium (100 to 500 crores) and big (above 500 crores). The sample schemes include 13
small, 26 medium and 48 big mutual fund schemes. The sample consists of monthly NAVs of maximum 60 periods. NAV per unit was adjusted for dividend, bonus and right issues for appropriate comparison.

b) Selection of Sample Investors for Opinion Survey:

This study has attempted to elicit the opinions of the mutual fund investors for one specific chapter. Since the number of investors is very large and are spread over different regions it is very difficult to select them deciding certain percentage of the Universe.

Therefore, this study has approached all the four investment companies that are operating in the Guntur Region and collected the comprehensive list of mutual fund investors enrolled through their companies. At random, a nominal number of 250 investors were identified though it forms an inadequate sample size. Finally their socio economic profiles was examined besides eliciting and analyzing their opinions on the mutual funds.

Out of the 250 respondents selected, 16 respondents did not respond and the balance of 234 were included in the study. Out of the 234 respondents selected 206 were males and the balance females with different age groups ranging between 25 years to 70 years and they represent different socio-economic backgrounds. All the
respondents selected under convenient sampling method were interviewed with a simple questionnaire during the period from Dec 1, 2008 to Feb 28, 2009\(^1\).

c) **Period of Study** :

As the study is confined to the comparison of public sector and private sector mutual funds, period of study has been taken as (a) a period of six years prior to the entry of private sector i.e., 1987-1993 and (b) a period of 16 years after the entry of private sector i.e., 1993-2009.

d) **Data Source** :

This study is based on primary and secondary data.

i) Primary data has been collected with the help of a questionnaire.

ii) Secondary data has been collected from the annual reports of RBI, Centre for Monitoring Indian Economy (CMIE), annual reports and other documents of the different mutual funds. In addition to the above, different articles and opinions of fund managers have been collected from the magazines like Capital Market, Dalal Street, Chartered Financial Analyst and Mutual Fund Insight. Relevant current data related to mutual funds have been collected from the dailies of Business Line, The Economic Times and internet by going through web sites of www.amfiindia.com, www.mutualfundsindia.com and www.ici.org.

---

e) Data Analysis:

The data collected from various sources have been analysed by using different techniques as under.

1. Basic statistical techniques like simple percentages, averages, pie diagrams, bar diagrams, graphs were widely used.
2. Statistical formulae like standard deviation, alpha, beta were employed to find the intensity of risk.
3. Different ratios like a) Rate of return b) Sharpe Ratio c) Treynor Ratio d) Jenson Differential Return e) Fama Components of investment performance were used to measure the financial performance of various sample mutual fund schemes.
4. Chi-square test has been employed to test the significance of differences of the opinions, perceptions of the investors\(^2\).
5. Correlation analysis, t-test and ANOVA has been used to know the degree of relation and significance between inter dependent variables like different investment avenues and others.

\(^2\) Ibid.
f) **Limitations of the Study:**

The limitations of the study have been enumerated below.

1) The study is confined only to the Mutual Fund Industry in India. Therefore it has not focussed on the mutual funds of other countries.

2) The sample size in the case of mutual fund investors has been restricted to 234 as it is highly difficult to arrange a list of investors spread over different regions and to select them deciding certain percentage of the Universe.

3) Because of the time and money constraints convenient sampling method has been adopted to select the respondents. Therefore, all the limitations those are applicable to convenient sampling are applicable to this study.

4) Only the open-ended mutual fund schemes have been included for measuring the financial performance as these are actively traded in the stock exchange.

5) Though the techniques used for analyzing the data are traditional, these were more appropriate as many researchers in India are following at present.
The Indian Mutual Fund Industry has come a long way since its inception in 1963. It has become a major source of investment to the majority of the small investors. The performance of mutual funds has become an issue of concern to the investment public, the policy makers and the institutional investors. Therefore several studies have been taken up to evaluate the performance of mutual funds, the problems of mutual funds, portfolio diversification, emerging trends and prospects of mutual fund industry, safety, liquidity, SEBI regulations, tax factors and perceptions of investors etc.

1. Following are the studies in India and abroad on the financial performance of the mutual funds.

A) Studies in India

Amitab Gupta evaluated the performance of Indian mutual funds in the framework of risk and return during the five years period from April 1, 1994 to March 31, 1999. In his study he found that no conclusive evidence was available which warrants us to accept that their performance was superior. However, there have been some instances where superior performances were surely reflected. Some of the funds from private sector fall under the category. Further, sample schemes
were not found to be adequately diversified. Also, risk and return characteristics for the Indian mutual fund schemes are not in conformity with their stated objectives.\(^3\)

The primary objective of the study of Amitab Gupta was to evaluate the performance of selected mutual fund schemes and to test the market timing abilities of the mutual fund managers and also to examine the growth and development of the mutual fund industry in India during the period 1987 to September 1999. In his study, the author concluded that no conclusive evidence was available which warrants us to accept that their performance was superior.\(^4\)

In his study Ramesh Chander found that fund managers have collectively failed to generate superior return and outperform the market. However, the study noted instances of superior portfolio performance to some individual fund level. On the whole the study has produced evidence supporting superior performance of close-end private sector (including FII sponsored) growth fund across fund characteristics.\(^5\)

In an other study Ramesh Chander identified that a significant majority of sample mutual fund schemes have recorded superior performance, higher variability in returns as compared to benchmark portfolio. It also reveals that market timing of mutual fund investment has resulted in negative performance. The fund managers

---


have been noted to operate with some discretion and freedom, offer assured returns with insurance cover, optimize expenditure on research and analysis and prefer quarterly portfolio disclosure.\(^6\)

Gurucharan Singh studied performance evaluation of equity funds with an objective to evaluate the performance of mutual fund schemes (equity schemes), the funds sensitivity to the market movements and the fund risk adjusted returns from 1996 to 2002. He suggested that, if investors have time to research, they can have a quality portfolio of 10-15 stocks and also suggested to hold investments for at least three years.\(^7\)

Kulbhushan Chandel and OP Verma studied the investment performance of mutual funds on the basis of weekly returns compared with risk free security returns and BSE index from Oct 1, 2003 to Sep. 29, 2004. The study reveals that the performance of sample schemes during the study period were good. However there are some instances where poor performance has been reflected. Portfolio managers have done fairly a good job in generating positive returns. It may lead to regain investor’s confidence.\(^8\)

---


The main objective of the study of H.J.Sondhi and P.K. Jain is to examine the rate of returns generated by equity mutual funds, Vis-à-vis 364 days T-bills and the Bombay Stock Exchange-100 (BSE-100) National Index during the period 1993-2002. The notable finding in the study was that fund sponsored by private companies have performed much better than the public sector undertaking sponsored equity mutual funds and the market returns too. The private equity mutual funds seem to have followed superior fund management practices backed by well-researched ‘stock selection’ and ‘timing skills’.

The study of OP Gupta and Amitabh Gupta aims at evaluating the investment performance of select Indian mutual fund schemes during the four years period from April 1, 1999 to March 31, 2003. The result indicates mixed performance of sample funds during the study period. There is no conclusive evidence, which suggests that performance of Indian mutual funds is superior to the market. However, there is some evidence that some of the funds are performing better than the market. Further, they found that the sample funds are not adequately diversified.

Arjuna Raychandhuri’s paper studies about persistence in mutual fund performance in India from 2001 to 2004. It is found that performance measures that are constructed using large lags of data are better predictors of future performance. In addition, the predictions of performance for longer future periods are superior to

---

predictions made for short-run future periods. Finally, it is found that auto-regression tests for persistence may fail despite the presence of persistence\textsuperscript{11}.

The study of Ramesh Chander has 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 results reported in the study documented evidence supporting parameter stationarity and the identical persistence of investment performance across all the measurement criteria. Superior performance differentiation was discerned in relation to the fund characteristics. The results reported were very robust to provide credence to the performance comparability across diverse market indices and to negate the myth regarding fund managers’ predisposition for a particular index for better performance reporting\textsuperscript{12}.

PK Muthappan and E.Damodharan evaluated the performance of Indian Mutual Fund Schemes in the framework of risk and return during the period April 1, 1995 to March 31, 2000. The results indicate that the risk and return of mutual fund schemes are not in conformity with their stated investment objectives. Further sample schemes are not found to be adequately diversified. The funds are able to earn higher returns due to selectivity, however the proper balance between selectivity

and diversification is not maintained. Based on the empirical investigation it is observed that the Indian Mutual Funds are not properly diversified\textsuperscript{13}.

B.S. Bodla and Ashish Garg studied the performance of selected growth schemes of mutual funds for a period of 8 years from January 1977 to December 2004. The results show that equity mutual funds have succeeded in providing a fair rate of return to the investors\textsuperscript{14}.

b) Studies in other Countries:

Hellara Slaheddine & Snoussi Imen attempted to test the persistence of performance and to know to what extent the arbitrage strategies developed by the Charhart (97) model help in explaining a possible persistence of performance in the Tunisian investment fund by taking six year period from January 1994 to December 1999. Their finding suggests that the funds in question have no consistent strategies through time\textsuperscript{15}.

Maria Do Ceu Cortz and Florinda Silva analysed in their paper about the implications of using conditioning information variables on mutual fund performance and on the persistence of that performance. The paper reveals that, in relation to the persistence of performance, the results do not change. Although the

\textsuperscript{15} Hellara Shaheddine & Snoussi Imen, “The implication of arbitrage strategies on performance persistence: Evidence on Tunisian Mutual Fund”, \textit{Finance India}, 27 (3), September 2000, 931-936
case for persistence is not evident, individual fund managers exhibit characteristics of superior persistent or inferior persistent performance over both short and long intervals. The incorporation of public information variables is an important contribution to the process of evaluating fund performance\textsuperscript{16}.

Jeffery A. Busse in his paper titled “Another look at Mutual Fund Tournaments”, used daily returns to examine how mutual funds actively alter the risk of their portfolio in response to past performance. He found that, compared to monthly data, daily returns produced much more efficient estimates of fund volatility, which give vastly different inferences about the behaviour of fund managers. In particular, monthly results consistent with under-performers increasing their risk relative to better performing fund disappear with daily data. The differences in the monthly and daily results arise in the monthly volatility estimates attributable to daily return autocorrelation\textsuperscript{17}.

Kenbata Bangassa in his paper investigated the selectivity and timing performance of investment trusts in the UK using conditional and unconditional models in order to assess whether or not there are significant differences in the results that are obtained by applying these alternative models for the period from January 1975 to December 1998. He failed to render support to the claim of

superiority of conditional models over the unconditional models that are proposed by Ferson and Schadt, 1996\textsuperscript{18}.

William G. Droms and David A. Walker test persistence of mutual fund returns, turnover rates and expenses ratio over the 20 years period from 1971 to 1990. The results indicate that there was no long term persistence of returns, expenses or turnover rates. Moreover, the tests for consecutive years in contract to test between decades show that there is short-term, but not long-term persistence for returns\textsuperscript{19}.

The paper of Gulielomo Maria Caporale, Nikolaos Philippas and Nikitas Pittis examines the dynamic interactions between mutual fund flows and security returns in an emerging Greek Capital Market. In their study, it is found that momentum trading is the most plausible explanation for dynamic feedbacks and that temporary price pressures might also be a relevant factor, whilst information revelation does not appear to play a role\textsuperscript{20}.

The paper of Yue-Cheong Chan and Louis T.W. Cheng aims to add contribution to the 1997 Asian financial crises research by examining how U.S. based equity mutual funds investing in Asian regions perform during the crises


period. They find that the actively managed mutual funds under perform with respect to the market portfolio by 1.71 percent in average monthly returns. Fund managers are found to be more skillful in picking the correct market, when the market is up than going down. In addition there exists a negative relation between asset allocation ability and selectivity of fund managers\textsuperscript{21}.

Jow-Ranchang, Mao-Wei Hung, Chang-Few Lee attempted to construct a new performance measure viz., “An inter-temporal CAPM approach to evaluate mutual fund performance”. The result show that mutual fund managers are on average with positive security selection and negative market timing ability. Furthermore the mutual funds with investment style classified as “Asset Allocation” generally have positive hedging timing ability\textsuperscript{22}.

The main objective of the study of Roberto Casarin, Marco Lazzarin, Loriana Pelizzon & Domenico Sartore is to provide a comparative analysis of the relative benchmark performance measure (Morningstar rating) applied to Italian equity funds. It is found that this performance measure is highly correlated with the classical performance measure (Sharp ratio, Sortino ratio and Trynor ratio) and poorly correlated with the customized benchmark measure (Information ratio). Further more, performing a persistence analysis, using non-parametric methods,

cross product ratio and chi-squared test, it is observed that only the Morningstar rating measure generates a strong degree of persistence\textsuperscript{23}.

The objective of Russ Wermers study is decomposition of mutual fund performance into stock-picking talent, style, transactions costs and expenses. They find that fund hold stocks that outperform the market by 1.3 per cent per year, but their net returns under perform by one per cent. Of the 2.3 per cent difference between these results, 0.7 per cent is due to the under performance of nonstock holdings, where as 1.6 per cent is due to expenses and transactions costs. Thus funds picks stocks well enough to cover their costs\textsuperscript{24}.

Marcin Kacperezyk, Clemens Sialsm and Lee Zheny study the relation between the industry concentration and the performance of actively managed U.S. mutual funds from 1984 to 1999. Their results indicate that, on average, more concentrated funds perform better after controlling for risk and style differences using various performance measures. This finding suggests that investment ability is more evident among managers who hold portfolios concentrated in a few industries. The evidence lends support to the value of active fund management\textsuperscript{25}.


The study of Mark M. Carhart demonstrates that common factors in stock returns and investment expenses almost completely explain persistence in equity mutual funds mean and risk adjusted returns. The evidence of this article suggests three important rules for wealth maximizing mutual fund investors (a) Avoid funds with persistently poor performance, (b) Funds with high returns last year have higher than average expected returns next year, but not in years there after, and  b) the investment cost of expense ratios, transaction costs and load fees all have a direct, negative impact on performance\textsuperscript{26}.

An analysis of managerial incentives in the mutual fund industry have been studied by Keith C. Brown, W.V. Harlow and Laura T. Starks with a hypothesis that when their compensation is linked to relative performance, managers of investment portfolios likely to end-up as ‘losers’ will manipulate fund risk differently than those managing portfolio likely to be ‘winners’. The study reveals that mid year losers tend to increase fund volatility in the latter part of an annual assessment period to a greater extent than mid-year winners. Further more, we show that this effect became stronger as industry growth and investor awareness of fund performance increase over time\textsuperscript{27}.

2) Studies on portfolio diversification, stock selection, managers market timing abilities, managers turnover and adverse selection costs of mutual funds in India and other countries are given under.

a) Studies in India

M.S. Narasimham & S. Vijaya Lakshmi examined a) the correlation between the stocks in the portfolios of mutual funds and their diversification benefit derived and b) the fund managers’ performance in selecting and investing in top performing stocks of different periods. In their study, they observed that funds invested in select stocks frequently have a strong positive correlation between them. The result shows that there is a general shift in investment strategy of holding a diversified portfolio and in optimizing the risk-return on investments to investing in predictive winners of the period\(^{28}\).

Ajay Khorana examined the impact of mutual fund manager replacement on subsequent fund performance, by using a sample of 393 domestic equity and bond fund managers that were replaced over the 1979 to 1991 period. In his study he found that dismissal of poorly performing managers leads to substantial improvements in post replacement performance\(^{29}\).

\(^{28}\) Narasimham M.S. & Vijaya Lakshmi S. “Performance Analysis of Mutual Funds in India”, *Finance India*, March 2001, p. 155-174

\(^{29}\) Ajay Khorana, “Performance changes following Top Management Turnover; Evidence from open-end Mutual Funds”, *Journal of Financial and Quantitative Analysis*, 36 (3), September 2001, p. 371-393
Mark M. Carhart, Ron Kaniel, David K. Musto and Adam V. Reed focused to present evidence that fund managers inflate quarter-end and especially year-end portfolio prices with last minute aggressive trading of stocks they already hold. They found that the cross section of inflation matches the cross section of incentives from the flow/performance relations, that a surge of trading in the quarter’s last minutes coincides with a surge in equity prices, and that the inflation is greater for the stocks held by funds with the most incentive to inflate, controlling for the stocks size and performance.\(^{30}\)

The study of Nicolas P.B. Bollen and Jeffrey A Busse examines the ability of mutual fund managers to time the market with the daily tests, which are more powerful than monthly tests. Their study reveals that the daily timing coefficients of the majority of funds are significantly different from their synthetic counterparts. These results suggest that mutual funds may possess more timing ability than previously documented.\(^{31}\)

Ramesh Chander examined the stock selection abilities of investment managers in India across the fund characteristics as well as the persistence of such performance from January 1998 to December 2002. On the whole, the results reported documents significant statistical evidence for positive selection abilities of


Indian investment managers and also points to the consistency of performance across the measurement criteria\textsuperscript{32}.

The research paper of H.J. Sondhi and P.K. Jain examines the stock selectivity skills of the fund managers of diversified equity funds operating in India. The data reveals that the majority of the sample equity mutual funds have been able to generate positive alpha values. The positive alpha value estimates of 15 out of 20 equity mutual funds have been statistically significant implying that the fund managers have added value to the portfolio by their stock selection abilities\textsuperscript{33}.

b) Studies in Other Countries :

Ali Hortacsu and Chad Syverson in their case study investigate the role that non-portfolio fund differentiation and information/search frictions play in creating two salient features of the mutual fund industry i.e., the large number of funds and the sizable dispersion in fund fees by taking S&P 500 index funds. They found that despite the financial homogeneity of S&P 500 index funds, this sector exhibits the fund proliferation and fee dispersion observed in the broader industry. They have also showed how extra-portfolio mechanisms explain these features\textsuperscript{34}.

Judith Chevalier and Glenn Ellison examined how the behaviour of mutual fund managers may be affected by their desire to avoid loosing their jobs, managerial turnover and pattern in investment decisions. They find that termination is more performance-sensitive for younger managers. And they have also identified possible implicit incentives created by the termination performance relationship. The shape of the termination performance relationship may give younger managers an incentive to avoid unsystematic risk. Consistent with these incentives, they find that younger managers hold less unsystematic risk.\textsuperscript{35}

Jeng–Hong Chen and Christine X. Jiang Jang-Chul Kim and Thomas H. Mcinesh in their study investigated differences in spreads and adverse selection costs between the close-ended funds and a matched sample of common stocks using a sample of close-end equity fund listed on the NYSE from 1994 to 1999. They find that spreads and adverse selection costs for the close-ended funds are significantly lower than those of control stocks. They have also find that abnormal investor sentiment and adverse selection costs of close-end funds are positively correlated over time.\textsuperscript{36}


The Objective of Hsiu-Lang Chen, Narasimhan Jagadeesh, Russ Wermers is to investigate the value of active mutual fund management by examining the stockholdings and trades of mutual funds. The study reveals that stock widely held by funds do not perform other stock and growth oriented funds exhibit better stock selection skills than income-oriented funds. It also find only weak evidence that funds with the best past performance have better stock-picking skills than funds the worst past performance 37.

The paper of Klaas P. Baks, Andrew Matrick and Jessica Wachter aims to study the portfolio choice problem for a mean variance investor choosing among a risk free asset, index funds, and actively managed mutual fund by employing a Bayesian method of performance evaluation. They find that some extremely skeptical prior beliefs never the less lead to economically significant allocations to active managers 38.

3) Following are the different research studies on perception of investors and emerging trends and prospects of mutual fund industry in India.

a) Studies in India:

Ashok Motilal Agrawal evaluated the emerging trends and prospects of mutual funds. He studied the organization and working of various mutual fund schemes, Government policies and regulations and practical problems of mutual funds. He suggested various steps for improvement of the performance and prospect of mutual funds.\(^{39}\)

Tapan K. Panda & Nalini Prava Tripathy have undertaken a study with the objective of finding out the perception of the investors towards mutual funds and also to analyze the investors preference and importance assigned to different attributes, satisfaction levels of respondent investors regarding customer service offered by the company. The general perception of the investors in their study revealed that the mutual funds have cheated the common investors, however it can be said that market sentiments are no way favourable to any mutual funds. Only a few private sector funds have started to catch investor attention with impressive growth. If mutual fund organization can reach out to people with awareness campaigns, aggressive integrated marketing, it can hold a good chunk of the mutual fund market.\(^{40}\)

Jaspal Singh & Subhash Chander in their study attempted to study the perceptions of investors towards mutual funds and analyzed the reasons for withdrawal from mutual funds. The study says that investors’ perceptions regarding day-to-day disclosure of net asset value by the funds and provision for more tax rebates on investment in mutual funds and government have emerged as important requirement for the investors. The ineffectiveness of controlling bodies like SEBI and others have resulted in investors’ disillusionment. The funds have under performed as against expectation and management has been inefficient, thereby disclosing investors to keep their funds parked in mutual funds\textsuperscript{41}.

Gupta made a household investor survey in April 1992. The main objective of the survey was to provide data on the investor preferences on mutual funds and other financial assets. The findings of the study were more appropriate to the policy makers and mutual funds to design the financial products for the future\textsuperscript{42}.

Growth performance and prospects of mutual funds in India has been studies by Jaspal Singh with an aim to measure the growth, performance, perceptions of investors regarding mutual funds and to assess prospects of mutual funds in India. The study depicts that a growth trend has moved in favour of private sector more sharply since 1998-99. Majority of investors belonging to salaried category and those in the age group of 20-35 years intend not to invest in mutual funds any more and

\textsuperscript{42} Gupta L.C. “Mutual funds and asset performance” Society for capital market, Research and Development- 1994, Delhi.
prefers day-to-day disclosure of net asset value by the funds. The author also suggested various steps for strengthening mutual fund industry\textsuperscript{43}.

The primary objective of the study of Y.P. Singh and Vanita is to investigate into the mutual fund investors’ perceptions, preferences and their investment experiences in terms of risk, return, safety and diversification. The study reveals that most of the investors are not satisfied with the performance of their mutual fund, particularly the investors of public sector mutual funds. Most of the investors are not aware of the risk inherent in mutual fund investment and they prefer to invest in private mutual funds, open-end schemes and balanced funds\textsuperscript{44}.

4) Some of the research studies related to safety, liquidity, SEBI regulations and tax factors of mutual funds in India and other countries are.

a) Studies in India:

Jayadev studied SEBI (MF) regulations to suggest the areas where regulations are to be strengthened and relaxed. He also analyzed the investment policies with respect to investment pattern, the practices of mutual funds in the

evaluation of pricing of mutual fund units and to evaluate the performance of mutual fund unit schemes in terms of returns and risks\textsuperscript{45}.

Seema Vaid’s study covers conceptual and the regulatory framework, review of the growth of mutual funds, and primary information about mutual fund schemes\textsuperscript{46}.

b) Studies in other Countries

The discussion of “An empirical examination of tax factors and mutual funds’ stock sales decision” by IRAS Weiss reveals that managers may be psychologically biased towards selling winners and holding on to losers. Due to a feature in the tax code that essentially requires funds to distribute all realized gains. To maintain their tax-free status, funds must distribute to their fund holders 98 per cent of all gains realized\textsuperscript{47}.

5) Other studies on mutual funds like urban and rural household investor survey, exchange traded funds, daily pricing of mutual funds and changing names of mutual funds are given under.

\textsuperscript{45} Jayadev M. \textit{Investment Policy and performance of Mutual Funds}, Kanishka Publishers & Distributors, New Delhi, 1998
a) Studies in India:

Venkatapati Raju attempted to assess urban and rural household investment preferences in different financial assets, to measure the degree of awareness of savers towards mutual funds, the perception and preferences of small investors among various mutual fund schemes.\footnote{Venkatapati Raju, “Mutual Funds: perceptions of Urban and Rural Investors”, \textit{Finance India}, September 2001, p. 980-986.}

K.D. Mehru examined the problems of mutual funds related to safety, liquidity and returns on investments to the small investors of our country. In his study all the problems of mutual fund industry have been classified in four categories viz., a) Problems related to structure b) Problems related to the investors c) Problems related to working and d) Problems related to performance and suggested various steps to solve the Problems. In his opinion greater transparency, increased innovations, better services to the investors, liquidity and higher returns will make mutual fund schemes more popular and investor friendly.\footnote{Mehru K.D., “Problems of Mutual Funds in India”, \textit{Finance India}, 18 (1), March 2004, p. 220-222.}

Subrahmanyam studied Testing of Random walk Hypothesis and behaviour of equity share prices in Indian Capital Market with a comparative analysis of equity issues, GDRs and mutual funds. The aim of the study is principally to examine the equity share prices and to test whether the random walk hypotheses of stock market prices is applicable in describing the share price behaviour in Indian conditions. The
study reveals that the Indian stock market does not follow the random walk. In general, it can be said that the volatility in the market is a bounded set\textsuperscript{50}.

The paper of Renu Jatana and Josephat Keros Bosire attempts to throw light towards better understanding on how the mutual fund industry plays a role in economic development. The main objective of their study is to review the development in investment patterns of mutual fund industry in terms of various innovative products and investment patterns and also assess the investors attitudes with regard to their preferences for mutual fund schemes. The study reveals that the distribution of mutual fund products and certification of agents is most crucial part of the business. The future growth of the mutual fund industry depends upon participation of small investors (household savers) in capital market\textsuperscript{51}.

b) Studies in other Countries:

The main objective of William N. Geetzmann, Zoran Ivkovic, and K. Geert Rouwenhorst is to study the daily pricing of mutual funds, which provides liquidity to investors by taking 391 US, based open-end international mutual funds. The paper reveals that the mutual fund practice of using the final transactions prices of foreign exchanges to compute daily NAVs create predictability in fund returns. They have

found that mutual fund prices are not efficient with respect to information that becomes available during the US trading day\textsuperscript{52}.

James S. Ang and James Wuh Lin propose a fundamental approach to estimate the economies of scale and scope for financial products, a case of mutual funds. They have applied three product line approaches to mutual funds data and find economies of scale for some fund type. The evidence on marginal cost economies due to increasing scope is rather weak. The results have practical implications for investment companies\textsuperscript{53}.

The study of Timothy E. Jares and Angeline M. Larin contribute to the understanding of Hong Kong and Japan ETFs and perhaps of foreign ETFs in general, by studying the relation between discounts from NAV and future ETF returns. The data for Japan and Hong Kong shares show that deviations exist between the ETF price and the value of the underlying securities. The deviations are positively related to subsequent ETF returns creating potential profit opportunities\textsuperscript{54}.

Bradford Cornell and Kevin Green study extends the literature on the pricing of low grade bond funds. The study reveals that low grade bond funds are less sensitive to movements in interest rates than high-grade bonds and much more


\textsuperscript{54} Timothy E. Jares and Angeline R. lavin, “Japan and Hong Kong Exchange-Traded Funds (ETFs) : Discounts, returns and Trading Strategies”, \textit{Journal of Financial Services Research}, 25(1), 57-69.
sensitive to changes in stocks prices because of their shorter duration. When adjusted for risk using a simple two factor model, the returns on low grade bond funds are not statistically different from the returns on high grade bonds\textsuperscript{55}.

The primary objective of Michael J. Cooper, Huseyin Gulen, and P. Raghavendra Rao is to examine whether mutual funds change their names to take advantage of current hot investment styles, and what effects these name changes have on inflows ‘to the funds and to the funds’ subsequent returns. They found that the year after a fund changes its name to reflect a current hot style, the fund experiences an average cumulative abnormal flow of 28 per cent, with no improvement in performance\textsuperscript{56}.

A number of academics, professionals and journalists have written articles explaining the basic concept of mutual funds, their characteristics and reviewed the trends in the growth of mutual funds. They also emphasized the importance of mutual fund in the development of the capital market in India. A few persons who come under this category are Sudeep, Ghosh, Madan Gopal, Agarwal, Sadhak, Varma, Sahadevan and Tiripal Raju.

A few articles also appeared in the financial dailies (The Economic Times, Business Line, Financial Express) and the periodicals like Mutual Fund Insight,


Research Problem :

A brief survey of literature presented above indicates that many studies attempted the evaluation of the performance of mutual funds in India. In 1993, through the process of economic reforms, and deregulation, the private sector was allowed to operate in the field of mutual funds. Since then, the role of private sector in the area of mutual funds increased phenomenally. With the entry of private sector and foreign players into the Indian Mutual Fund Industry, the competition among the mutual funds has grown. This competition should have definitely led to the improved performance of the public sector mutual funds, particularly the UTI. In this study, it is proposed to evaluate the impact of the entry of private and foreign mutual funds on the growth, funds mobilization, portfolio investment behaviour, financial performance and the level of satisfaction among the investors of the public sector mutual funds on the premise that the competition should have led to their better performance.