Chapter I

Introduction and Design of the Study
CHAPTER I

INTRODUCTION AND DESIGN OF THE STUDY

1.1. INTRODUCTION

India is listed as one of the top emerging markets by the global players for investment purposes and it is being called as the fundamentally strong emerging market by many of the top most performing investment institutions such as Morgan Stanley, Fidelity Fund, Morning Star etc. Investment in securities such as shares, debentures and mutual funds has been getting acceptance in India. The stock market boom and bust which had happened during early 1992 made almost every Indian a stock literate. And shortly after the bust of the bubble, people have started looking up towards the Indian stock market. Then came the scrapping of Capital Issues Control Act, liberalisation of Indian economy etc. Indian capital market has become a place for global players. As a result of the changes that had taken place in the Indian economy after Liberalisation, Privatisation and Globalisation (L.P.G), the capital markets have undergone a metamorphosis to emerge as a major spectrum in the Indian financial system.

In the early 90's investment in shares have been a favoured investment avenue available for the investing community. Owing to this fact, the Indian capital market has registered an impressive growth and hence the stock market gained the confidence of the investors. The year 1992-93 marked the turning point in the history of Indian capital market. Due to phenomenal increase in the domestic savings, improvement in
deployment of investment through vibrant capital market and the ill-effects of stock scam made the investors to search for a new investment avenue where they can minimize the risk for a reasonable return. Thus mutual fund industry gained its significance.

The avenues of corporate investment such as ownership securities, creditorship securities, mutual funds etc., have their own characteristics. Investment in stock market securities needs more involvement in risk bearing with an exception to mutual funds, which offer steady return and capital appreciation with minimum risk. A mutual fund operates as a financial intermediary. It sells its units to the public and invests the proceeds in a large number of market securities. The major role of a mutual fund is to reduce risk through diversification and to provide the ordinary investor with expert selection and professional monitoring of investments backed by excellent customer service. A mutual fund is a collection of stock, bonds and other securities purchased by a group of investors, managed by a professional investment company. It pools all the resources of unit holders and invests on their behalf in diversified securities in the capital market for attaining the desired objectives.

In developed countries, approximately 60 per cent of savings go into mutual funds and 20 per cent in bank deposits. But it is not so in the case of India. Prior to 1995, the only route through which mutual funds

---

could mobilise money was debt funds. But now, however the scene is completely different. The small investors are increasingly lying on the equity funds. Mutual funds are also responding by offering a gamut of products to cater to the changing needs of the investors. This trend would accelerate, as fund managers deliver performance and more investors taste the benefit of convenience offered by the funds. As the economic outlook improves, investor confidence will improve for the better. This will indirectly make the mutual fund industry to flourish.

The Indian capital market has followed the western model of its various activities. With the flavour of liberalisation, structural reforms in the financial sector, there is a dire need to keep pace with the developments in the stock markets of the developed countries. In the early 90's investment in shares has always been a favoured investment avenue available for the investors. Owing to this fact, the Indian stock market has registered an impressive growth and hence the stock market has gained the confidence of the investing community. In April 1992, when all the investors were actively engaged in securities trading, the stock market virtually collapsed due to the unearthing of the scam. This made the investing community to quit the stock market.

At this juncture, to instill confidence in the minds of the investors, the Government pursued several structural reforms. The recent policies of liberalisation, devaluation of Indian rupee followed by partial convertibility, freedom for Indian companies to enter into international capital markets, abolition of control on pricing of securities and tax
exemption for the investments in mutual funds have paved the way for a strong come back for the Indian capital market. The year 1992-93 marked the turning point in the history of mutual funds in India. The need and scope for mutual funds have risen due to phenomenal increase in domestic savings and improvement in deployment of investment through vibrant capital market.

The mutual fund industry will grow very fast in terms of asset size in the next few years. However, in order to survive in this fierce competitive environment, asset management companies will have to come out with customized products to cater to varying investor needs. Currently, the size of the Indian Mutual Fund Industry is about Rs.1,00,000 crore which is one-seventh of the size of total bank deposits. The industry standards have been consistently improving over the last few years. The increase in the number of private sector players has had a positive effect on investor service standards, portfolio disclosure norms and fund performances. With the economy picking up, the mutual fund industry is expected to grow at a rapid pace. Industry experts see money moving into the lap of mutual funds from banks as mutual funds offer the same convenience with higher returns.

In the recent period the investment in mutual fund schemes has phenomenally increased, the growth witnessed being 25 to 30 percent.

The retail investors are again evincing interest in mutual funds and equity related schemes. Retail investors are gradually beginning to understand the concept of a mutual fund and its importance as an investment avenue. Still, they must understand the risk-reward relationship while investing in mutual funds. The investor has to bear in mind the fact that the risk-reward relationship differs between schemes. The successful launch of growth schemes in the last six months is an evidence of the current fiscal 1999-2000 for the change that is taking place in investor perception. A major contributing factor has been the performance of the funds themselves. Over the last two years, fund managers have been discretely restructuring their portfolios with a near 100 percent turnover, as a result of which 80 percent of equity funds have out performed the market indices. Investor confidence in the industry has been reinforced by the increased disclosures and adequate transparency of the funds, improved accounting standards and valuations, quarterly disclosures including complete portfolio publication and regulations such as those that restrict private placements and investments in-group companies, have all contributed to this change. Awareness has also grown among the investing public as a result of the investor and agent education programmes carried out by the various players from time to time. Due to competition and entry of foreign players, the investor now has a variety of innovative schemes to choose from.

The mutual fund industries in the USA, the UK and Japan have achieved tremendous diversity in terms of innovative schemes. The launching of innovative schemes in India has been rather slow due to the
prevailing investment psychology and infrastructure inadequacies. Mutual fund investors in India, who are largely from the upper-middle class income group, are risk averse and as such more interested in schemes with tolerable capital risk and returns over bank deposits. This has restricted innovation and the launching of more risky products in the Indian market.

Though the first and by far the most popular, mutual fund scheme US64 is an open-ended scheme, open-ended schemes were not very popular in India unlike the USA and the UK till the end of 1990's. By the end of March 1996, the total number of schemes (excluding UTI's three venture funds) were 194, out of which 31 schemes were open-ended and the rest were close-ended. However the trend has reversed now. According to a report by AMFI there are at present 326 schemes. Out of 326 schemes (as on 31st March 2000) 177 schemes are open-ended and 149 are close-ended.

Mutual fund schemes can also be classified according to investment objectives as follows. They are Income schemes, Growth schemes, Income and Growth (Balanced) schemes, Tax-saving schemes, Industry-specific schemes and Special purpose schemes. A number of offshore funds have also been launched by mutual funds in India, either independently or jointly with foreign investment management companies.

Between July 1986 (the year of launch of their first offshore fund by UTI) and December 1996, 20 offshore funds were launched successfully, out of which 10 were open-ended and the remaining were close-ended.

1.2. STATEMENT OF THE PROBLEM

Mutual fund is a new financial institution which has entered into the Indian Capital Market with a bang which suits the requirements of the small and medium investors who are averse to risk element. Mutual funds are not free from shortcomings. They have been quite wrongly promoted as an alternative to equity investing, thus creating a very high expectations in the minds of the investors. In a falling market these expectations have been belied. The market success of any new product, particularly a financial product, depends largely on its acceptance by customers, in this case, the investors. Mutual funds must undertake a well designed and comprehensive programme of investor's education, especially aimed at investors in rural and semi-urban areas. However this has been mostly neglected in India.

Further, in India, due to the mushroom growth of mutual fund industry during 1986-1999 and the encouragement given by the Government in the form of tax concessions for the investors, the capital market has become a place for the Foreign Institutional Investors. This was further activated by the abolition of Capital Issues Control Act. Since the mutual fund industry has become a competitive investment arena, the performance of the various funds and schemes have to be evaluated
to bring out the true and fair picture of these institutions in the interest of the investing public.

1.3. SIGNIFICANCE OF THE STUDY

Mutual funds are institutions who mobilise resources from the small investors. The savings of small investors are, therefore, utilised to purchase the securities of companies and corporations. It is, thus, an institutional arrangement for resource mobilisation from small, marginal and household sector investors who are averse to risk element. Therefore, the interest of the investors in mutual funds will have to be protected. The expectation with which the investors entered into the mutual fund industry is to be fulfilled to a certain extent. The fund managements have to fulfill their committed obligations towards the expectations of the investors. During the mid 90's mutual fund schemes are being quoted in the stock market well below their Net Asset Values (NAV) published by the funds. The investors having waited for long years for their fund's appreciation got disappointed and they tried to windup their units either to the fund or in the stock market. Some of the mutual fund players, who assured certain percentage of returns to the unit holders, were unable to carryout their commitment. As things stand to day, when the investors have many options for their investments, it is very apt to identify the successful schemes, to analyse the investors' perception towards mutual funds and the fund management's skill in market timing and selectivity aspects of securities, transparency factor etc. Hence the present study makes an attempt to evaluate the performances of mutual fund schemes
by identifying any gap between the expectation of the investors and performance of the fund. Further it makes an attempt to offer suitable solutions for their grievances if any.

1.4. REVIEW OF RELATED LITERATURE

The pioneering work on the US mutual funds was done by Wharton School of Finance and Commerce (1962)\(^4\) for the period 1953 to 1958. The study examined the issues relating to investment policy, portfolio turnover rate, performance and impact of mutual funds trading activity on the stock markets. The study concluded that, on an average, the funds had not performed well than the composite markets from which they selected their securities. There was no persistent relationship between the annual portfolio turnover rates and the performance. Further, the funds net purchases had significantly affected the price movement of individual stocks and to a lesser extent, the price movements of the markets.

Friend and Vickers(1965)\(^5\) evaluated the performance of mutual funds against the randomly constructed portfolios. The study concluded that mutual funds on the whole had not performed superior to random portfolios.

---


Most of the studies conducted during the time period of 1960's to 1980's have been concerned with measuring mutual fund performance, with management's ability to "time" the market or with management's ability to select under priced securities. Studies in these categories include those by Treynor and Mazuy (1966), Jensen (1968), Kon and Jen (1979)\textsuperscript{6}, Henriksson and Merton (1981), Chang and Lewellen (1984)\textsuperscript{7}, Henriksson (1984)\textsuperscript{8}, and Jagannathan and Korajezyk (1986), to name but a few. These studies have generally concluded that mutual fund managers cannot consistently time the market or select under-priced securities. This has led to the conclusion that long-term individual mutual fund performance can best be described as random. Very few studies have attempted to explain the flow of money into and out of mutual funds.


The emergence of Markowitz's portfolio theory\(^9\) followed by the development of Capital Asset Pricing Model (CAPM)\(^10\) gave a new direction to the evaluation of portfolio performance. Following the CAPM, Treynor (1965)\(^{11}\), Sharpe (1966)\(^{12}\) and Jensen (1960)\(^{13}\) made remarkable contributions by developing models to evaluate the portfolio performance. Fama's work\(^{14}\) in this direction is also a valuable contribution. The later works mostly followed the methodology of Treynor, Sharpe and Jenson.

---


10. The model is developed independently by,
   
   
   
   


Sharpe's (1964)\textsuperscript{15} study concluded that out of 34 funds selected, 19 had outperformed the benchmark in terms of total risk. Treynor (1966)\textsuperscript{16} evaluated the performance of mutual fund managers in terms of their ability in market timing. The evidence of 57 mutual funds showed that, none of the fund manager had outguessed the market. Jensen (1968) evaluated the ability of the fund managers in selecting the under valued securities. He concluded that for the sample of 115 mutual funds, the fund managers were not able to forecast security prices well enough to recover research expenses and fees. Friend, Blume and Crockett (1970)\textsuperscript{17} compared the performance of 86 mutual funds with random portfolios. The study concluded that mutual funds did worse than the randomly selected portfolios in terms of total risk. Further, the funds with high turnover seemed to outperform the funds with low turnover and the fund size had no impact on the performance.

Risk-adjusted performance evaluation was also made by Carlson (1970)\textsuperscript{18} and SEC study (1971)\textsuperscript{19}. The broad conclusions arrived

\begin{itemize}
  \item \textsuperscript{15} William F. Sharpe, \textit{op.cit.}
  \item \textsuperscript{16} Jack L. Treynor, \textit{op.cit.}
\end{itemize}
by them were, that some of the funds had out performed the benchmarks, but there was no consistency in performance.

John McDonald (1974) examined the relationship between the stated fund objectives and their risks and return attributes. The study concluded that, on an average the fund managers appeared to keep their portfolios within the stated risk. But there was considerable overlap between funds in different groups. Some funds in the lower risk group possessed higher risk than funds in the most risky group. Ang and Chua (1982) conducted a similar study. The study concluded that a majority of the fund managers did not "deliver the goods" although they stated different investment objectives. Further, all funds at one time or other provided superior performance relative to the benchmark, however only half the funds consistently achieved this degree of relative performance.

Norman E. Mains (1977) applied neutral risk adjusted performance measure and concluded that approximately 66 per cent of the funds (out of 75) had larger net returns adjusted for systematic risk.

---


Klemosky (1977)$^{23}$ concluded that past risk adjusted performance was not a good guide to future performance.

James R.F. Guy (1978)$^{24}$ evaluated the risk-adjusted performance of the UK Investment Trusts through the applications of Sharpe and Jensen measures. The study concluded that, no trust had exhibited superior performance, compared to the London Stock Exchange Index.

Lehmann and Modest (1987)$^{25}$ study found that the Jensen measure and the Treynor - Black appraisal ratios of individual mutual funds were quite sensitive to the method used to construct the APT benchmarks. This study suggested the importance of knowing the appropriate model for risk and return.

Grinblatt and Titman (1989)$^{26}$ and Richard A. Ippolito (1989)$^{27}$ took a relook at the evaluation of mutual fund performance. The former


study concludes that mutual funds do not offer abnormal returns for any category of funds. Contrary to this, the later study concludes that mutual funds on an aggregate offer superior returns. But they are offset by expenses and load charges. This characterises the efficient market hypothesis.

Hendricks and others (1993)\textsuperscript{28} found that mutual funds offered superior returns predominantly over a short period of roughly four quarters. The study suggests that a strategy of selecting the top performers in the last four quarters significantly outperform the average returns on mutual funds.

Swaminathan and Bhaskaran (1994)\textsuperscript{29} made an attempt to focus on the implications of individual investor behaviour for the pricing of close-ended funds and small firms. Specifically, they developed a two security noisy rational expectations model of close-end funds and compared their predictions to that of a model of investor sentiment. Their empirical tests examined the time series implications of the two models. The results indicated that discounts forecast small firm returns. They also showed that the forecasting power of discounts was not related to that of any known fundamental forecasting variable. This evidence provides support for the investor sentiment explanation of the pricing of close-end


funds and small firms and suggests that there may be sentiment related variation in small firm expected returns.

The study by Lee, Sunghoon in (1995)\textsuperscript{30} makes three contributions to the literature on the evaluation of mutual fund performance. First, it evaluates various empirical models of the bond return generating process and suggests new benchmarks that are the most appropriate for evaluating the performance of managed bond portfolios. Second, it provides thorough empirical evidence concerning the performance of bond mutual funds and examines the sensitivity of performance inferences to benchmark choice. Third, it analyses the cross-sectional and inter-temporal behaviour of performance measures to determine the relationship between performance and various fund characteristics. The appropriateness of benchmarks is tested in both the specialized context mean-variance efficiency and in the more general context of goodness-of-fit comparison.

The study finds little evidence that the managers of bond funds as a class provide superior performance after accounting for expenses relative to various benchmark returns. While the average Jensen alphas across benchmarks are predominantly negative in both the full sample period and in the first sub-period, bond mutual funds exhibit better performance with a considerable decrease in the number of funds with significantly negative Jensen alphas during the second sub-period spanning from 1984-1989.

Another study by Prather and Larry Joseph (1995)\textsuperscript{31} reexamines performance evaluation of managed portfolios. Past measures of portfolio evaluation such as the measures of Sharpe, Treynor and Jensen are subject either to the inability to rank performance based on statistical significance, or are dependent on both a single factor CAPM return generating process and the selected market portfolio. Recent studies show performance ranking is sensitive to the selection of the market proxy when the security market line is used to evaluate performance.

There are some studies in the past which made an attempt to rate the market timing and selection of portfolio skill of mutual fund managers. A number of studies including those by Fabbozzi and Francis (1979)\textsuperscript{32}, Alexander and Stover (1980)\textsuperscript{33} and Miller and Gresis (1980)\textsuperscript{34} have made an attempt to find out whether the portfolio managers might, however, achieve differential return performance by engaging in successful "micro" market timing activities as well as careful "micro" security selection effort.


Ravi Jagannathan and Robert A. Korajczyk (1986)\textsuperscript{35} made an attempt to assess the market timing performance of mutual funds. The authors employed only parametric techniques which only assume knowledge of the managed portfolios returns and hence did not require direct observation of the manager's market forecasts or portfolio composition. The authors used the parametric tests proposed by Henriksson and Merton (1981)\textsuperscript{36} as their performance measurement technique. This method was chosen by them because it was a widely known and tested technique: their results were calculated for the 56 year period Jan, 1926 - Dec. 1981. In addition they found out results for four 14 year sub-periods.

Veit and Cheney (1982)\textsuperscript{37} investigated the ability of mutual funds managers to adjust the risk level of funds to leverage the ability to time the market. They tested the null hypothesis that alphas and betas were the same in bull and bear market using annual data for 74 funds over the 1944-78 period. Results suggest funds in general do not change their risk level to time the market. They conclude that inability to forecast market returns, high transaction costs to change portfolio composition,

\begin{itemize}
\end{itemize}
or unwillingness to change the risk class of the fund are possible explanations for the lack of timing.

Judith Chevalier and Glenn Ellison (1999) took a new approach to the question of whether some mutual fund managers were better than others by looking at the relationship between performance and manager characteristics. The authors used a sample of 492 managers who had sole responsibility for the growth or income fund for at least some part of the 1988-1994 period. The results suggest that there are some systematic cross-sectional differences in fund manager performance that cannot easily be attributed to differences in managerial behaviour. In particular they find that mutual fund managers who attended more selective undergraduate institutions have higher performance than mutual fund managers who attended less selective undergraduate institutions, after correcting for differences in risk characteristics, survivorship biases, differences in expense ratios, and differences in factor loadings in a four factor model. They also find that older managers have worse performance than younger managers.

A number of academics, professional 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 emphasised the importance of mutual funds in the

---

development of the capital market in India. A few under this category are; Sudeep Ghosh\textsuperscript{39}, Madan Gopal\textsuperscript{40}, Vidhya Shankar\textsuperscript{41}, Batra\textsuperscript{42}, Sunil Garodia\textsuperscript{43}, Sarkar\textsuperscript{44}, Agarwal\textsuperscript{45}, N.R Nagarajan\textsuperscript{46}, A.K. Sen Gupta\textsuperscript{47}, S.I. Venkateswara, P.V. Narasaiah and P. Mohan Reddy\textsuperscript{48}, Uma Shashikant and M. Thiripal Raju\textsuperscript{49}, James Mathew\textsuperscript{50},

\begin{itemize}
  \item Madan Gopal, "Mutual Funds in India: The Future is Bright", \textit{The Banker}, December 1990.
\end{itemize}
S. Venugopalan\textsuperscript{51}, K.N. Atmaramani\textsuperscript{52} and Sadhak\textsuperscript{53}. Verma's\textsuperscript{54} books on mutual funds cover the conceptual and regulatory aspects of the Indian mutual funds with some informational data and guidelines to the investors in selection of mutual funds.

Gupta\textsuperscript{55} 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 are more appropriate to the policy makers and mutual funds to design the financial products for the future.

Seema Vaid's\textsuperscript{56} study covers conceptual and the regulatory framework, review of the growth of mutual funds, and primary information about mutual fund schemes. Kulashreshta\textsuperscript{57} offers certain guidelines to the investors in selecting the mutual fund schemes.


\textsuperscript{57} Kulashreshta, C.M., \textit{Mastering Mutual Funds}, (New Delhi : Vision Books, 1994).
In 1987, when the public sector banks entered the mutual fund sector there were no regulations at all. Later guidelines were issued by RBI and the Government of India. A few articles highlighted the importance and issues for the regulation of mutual funds. Among them the notable are: Barua58, Narayan Bhatt59, Bhanu60, and Bhatt61. Finally in 1993, SEBI framed regulations for mutual funds and amended them in 1996.

Computation of the Net Asset Value (NAV) and the pricing of mutual fund units are very important as there were no guidelines at all. A few articles62 published in the financial dailies highlighted the importance of uniform valuation of investments. Jayadev63 also critically analysed the desperate practices of mutual funds in the valuation of investments. In January 1966, SEBI committee report on valuation and

pricing was released which suggested norms for the valuation and pricing. However, empirical works on relationship between NAV, repurchase price and market price, and reasons for close-end fund discounts are yet to be attempted in the Indian context.

A few articles touched upon certain aspects of portfolio management and other issues involved in the management of mutual funds. The notable among them belonged to Sen Gupta\textsuperscript{64}, Lal and Sharma\textsuperscript{65} and Saha and Murthy\textsuperscript{66}.

Some empirical works in this area can be termed as research, as they have some methodology and conclusions. Barua and others (1991)\textsuperscript{67}, made a pioneering attempt to evaluate the performance of 'Master Share' scheme of UTI from the investor point of view. They employed the Capital Asset Pricing Model (CAPM), and computed the risk of the 'Master Share' scheme (for the period 1987-1991). The risk adjusted performance was measured by using Sharpe, Jenson and Treynor ratios. Here the bench-mark selected was the 'Economic Times Ordinary Share Price Index'. The study concluded that, 'Master Share' had performed better in systematic risk, but not in terms of total risk.


Sharad Shukla (1991)\textsuperscript{68} evaluated the performance of 'Canshare' and 'Master Share' by employing the Sharpe, Jenson and Treynor ratios for the period January 1988 to June 1991. He concluded that 'Master Share' had performed better than the 'Canshare'.

Ajay Shah and Susan Thomas\textsuperscript{69} studied the performance evaluation of eleven mutual fund schemes, on the basis of market price data. The weekly returns were computed for these schemes since their commencement to April 1994. Jensen and Sharpe measures were used to evaluate the superior performance of the schemes. They concluded that except UGS 2000 of UTI, none of the schemes had earned superior returns than the market in general. The risk of these schemes was very high and funds might be inadequately diversified.

Jaideep and Sudip Majumdar (1994)\textsuperscript{70} evaluated the performance of five growth oriented schemes for the period February 1991 to August 1993. They have employed the CAPM and Jensen measure to evaluate the performance. They have also evaluated the boom period performance of the scheme during the first quarter of 1992 by employing Jensen (adjusted) model. They concluded that the selected mutual fund

\begin{itemize}
\end{itemize}
schemes had not offered superior returns during the study period than the market in general. However, they concluded that in the boom period the funds had performed well.

Kaura and Jeyadev (1995)\textsuperscript{71} evaluated the performance of five growth oriented schemes in the year 1993-94, by employing the Sharpe, Treynor and Jenson measures. According to them, 'Mastergain-91', 'Can bonus' and 'Ind Sagar' had performed better than the market in terms of systematic but not in terms of total risk. However, the methodology would have been more appropriate had the study period were longer.

The Dalai Street Journal (1993)\textsuperscript{72} carried out an analysis and published performance ranking of 122 mutual fund schemes floated by different mutual fund organisations taking 26 schemes from growth category, 28 schemes from income category, 35 schemes from income and growth category and 33 schemes from the tax planning category. This study used the Relative Performance Index and Compounded Annual Growth Rate (CAGR) as measures to evaluate the performance of these schemes. Based on this methodology the schemes which were having high relative performance index and higher percentage of CAGR were rated as top performers and vice versa.


\textsuperscript{72} "Which Mutual Fund should you Invest in?", \textit{Dalal Street Journal}, December 13-26, 1993.
The Capital Market Research Bureau (1993)\textsuperscript{73} made a research presentation explaining how different mutual funds and their various schemes fared during 1992, the turbulent period. For comparing fund wise performances, only those schemes which closed on or before March 1992, had been considered. The schemes were classified into Income, Growth, Income - Cum-Growth and Tax planning schemes. Each category had a different investment objective and hence, a different level of risk. Hence a comparison had been made of performance of different schemes within each category, and how the mutual funds in that category performed on the whole. The analysis also evaluated the change based on BSE National Index during the period April 1993- June 1993. Further an investment strategy has been suggested to the prospective investors based on the overall performance.

The Express Investment Week (1994)\textsuperscript{74} surveyed and assessed the performance of 113 schemes of different mutual fund organisations. Of which 34 schemes were from growth category, 23 were from income category, 24 were from income-cum-growth category and 32 schemes from tax planning category.

With regard to 6 months performance in the growth category BOI mutual funds scheme FBGS-1991 fared well with +25 points. The worst performer in that category was UTI's Master Share with -75 points.

\textsuperscript{73} "Mutual Funds - The Winners and the Vanquished", \textit{Capital Market}, October 11-24, 1993, pp.8-23.

\textsuperscript{74} "Mutual Fund Guide", \textit{Express Investment Week}, May 2-8, 1994, pp.50-52.
In the income category, the best performer was Can Bank mutual fund's Can Star (80L) with +2 points and the worst performer was LIC mutual fund's Dhanaraksha '89. With regard to income-cum-growth category Can Bank mutual fund's Can Stock was the best performer with +2 points and the worst performer was LIC MF's Dhanasahayog with -49 points. In the tax planning category the best performer was PNB mutual funds Equity growth fund '93 with 417 points and the worst performer was Ind Bank mutual fund's India Tax Shield -A with -40 points.

The study by Shome (1994) was based on growth schemes which had completed at least one year before April 1993. The performance of the mutual funds industry during the period 1993 to March 1994 was examined in relation to the market using BSE sensitive Index. The study revealed that the average rate of return of the industry was 5.16 per cent as against market return of 5.78 per cent.

Kale and Uma (1995)\textsuperscript{75} of the National Insurance Academy, Pune, India, employing risk-return relationship technique conducted a study, on the performance of Indian mutual funds. The study revealed that the schemes on an average proved true to their objectives. According to the findings, the growth schemes yielded an average of 47 per cent CAGR, tax planning schemes gave an average of 30 per cent CAGR, followed by balanced schemes with 28 per cent CAGR and income schemes with 18 per cent CAGR.

Value Research India Ltd (1996)\textsuperscript{76} conducted a survey covering the bearish phase of Indian stock markets from 30 June 1994 to 31st December 1995, when BSE sensex fell from 4086.70 to 3110.50 and the National Index fell from 1937.70 to 1480.80. The survey examined 83 mutual fund schemes. The findings of the survey revealed that Indian mutual funds are generally safe avenues for investment. While income and balanced schemes are absolutely risk free, even a large number of growth schemes are quite safe for investors. The findings suggested that there is a scope for improving portfolio structure and portfolio readjustment, keeping in view the scheme fundamentals and investment objectives.

They have ranked the schemes based on their returns. The rankings applied to the specific peer group, like open-ended growth funds. But to make comparison possible within the broad investment objective, they have also used a measure of risk-adjusted return, called the Sharpe ratio. The findings revealed that the tax-saving funds and the equity funds did well.

The Intelligent Investor (2001)\textsuperscript{77} a leading personal finance magazine conducted a survey of mutual fund performance in 2000 to help the investors to choose the funds that best suit their needs. The survey was based on the data source from Credence Analytics, a Mumbai based


research outfit that monitors mutual fund performance. The cut-off date of the survey was December 31, 2000. The methodology and the performance parameters they used were: One year return, two years return and three years return calculated by taking the percentage change in Net Asset Values. The ranks have been assigned on the basis of risk-adjusted returns.

The survey revealed that the performance of equity funds has to be seen in the light of stock market conditions, which are anything but favourable.

A few articles also appeared in the financial dailies (The Economic Times, Financial Express, Business Standard) and the periodicals (Dalal Street, Business Today, Intelligent Investor, Business India etc.,) about the evaluation of mutual fund schemes by comparing the changes in NAV and market price between the changes in stock market indices. However, these analyses were purely for a short period and ignored the concept of risk.

It is found that while there has been extensive research on mutual funds in the U.S. there are very few empirical studies in India on the subject. The empirical studies of Barua and others were limited to few schemes of public sector mutual funds for a shorter period. Hence, the researcher has made an attempt to study the performance of schemes of public and private sector mutual funds for a period of 5 years from 1st April 1996 to 31st March 2000.

1.5. SCOPE OF THE STUDY

The present study throws light on the investment motive, awareness and problems of investors in mutual funds in and around Chennai, Coimbatore, Trichy and Madurai cities. The study also examines the performance of various schemes of select institutions viz., UTI, Can bank MF, LIC MF, SBI MF, IDBI MF, Kothari Pioneer MF, Alliance Capital MF, Tata MF, Birla MF and JM MF. A comparative study of operating performance of selected public and private sector mutual funds has been made as an attempt to understand the role of mutual funds in Indian capital market. It also deals with various protective measures to be taken to safeguard the interest of existing unit holders and prospective investors in mutual fund schemes. It also makes an attempt to shed light and to bring out the reasons for the success or failure of these mutual fund schemes.
1.6. OBJECTIVES OF THE STUDY

The main objectives of the study are:

1. To study the evolution of mutual fund industry in India.
2. To examine the legal framework in relation to mutual funds.
3. To analyse the scheme-wise performance of the select institutions.
4. To compare the operating performance of public sector mutual funds and private sector mutual funds.
5. To find out the factors influencing investors' decision in investment in mutual funds.
6. To identify the problems of investors in mutual funds and
7. To offer suggestions for the improvement of the performance of mutual funds in India.

1.7. HYPOTHESES TO BE TESTED

The study attempts to test the following hypotheses in respect of performance evaluation of the Indian Mutual Funds and schemes.

1. The mutual fund schemes are not reasonably diversified.
2. Mutual funds do not offer superior risk-adjusted returns.
3. There is no significant difference between the return on investment of the public sector mutual funds and private sector mutual funds.
4. There is no significant difference between the size of unit capital of the public sector mutual funds and private sector mutual funds.
5. There is no significant difference between the size of investible funds of the public sector mutual funds and private sector mutual funds.

6. There exists no association between the age of the respondents and the most preferred investment avenue.

7. There exists no association between the educational level of the respondents and the most preferred investment avenue.

8. There exists no association between the occupation of the respondents and the most preferred investment avenue.

9. There exists no association between the annual income of the respondents and the most preferred investment avenue.

10. There exists no association between the age of the respondents and the type of the respondents.

11. There exists no association between the educational level of the respondents and the type of the respondents.

12. There exists no association between the occupation of the respondents and the type of the respondents.

13. There exists no association between the annual income of the respondents and the type of the respondents.
1.8. DATA AND METHODOLOGY

1.8.1. COLLECTION OF DATA

The present research is an empirical and analytical study. This study is compiled with the help of both primary and secondary data.

The primary data were collected directly from the investors with the help of a structured interview schedule (vide Appendix-A).

The secondary data were collected from the books, journals, newspapers, works published and maintained by the AMFI, a self regulatory body of mutual funds in India, the annual reports collected from the respective mutual funds, Report on Currency and Finance, Handbook of Statistics on Indian Economy, 2000 and other publications published by the Reserve Bank of India, publications of the Securities and Exchange Board of India (SEBI), web sites of respective mutual funds and publications of the Bombay Stock Exchange.

1.8.2. CONSTRUCTION OF INTERVIEW SCHEDULE AND PRE-TEST

Interview schedule in this study has been planned and structured by the researcher himself. The variables to be studied have been identified in the preliminary interview with some of the investors.

The variables thus identified by the researcher have been converted into appropriate questions. The schedule so drafted was circulated among a few research scholars for a critical review with regard to its content, wording, format sequence and the like.
A pre-test was conducted. The interview schedule was pre-tested with 30 respondents and revised in the light of the experience gained from the pre-test.

1.8.3. SAMPLING DESIGN

1.8.3.1. SAMPLING OF INVESTORS

To obtain primary data, a survey was undertaken in the study area. Four metropolitan cities of Tamil Nadu namely, Chennai, Coimbatore, Madurai and Tiruchirappalli were chosen as the study area. As the population of the study consists of innumerable investors the sample of investors selected for the study was restricted to 300, comprising 75 respondents from each of the four cities. Judgement sampling, a non-probability sampling method was adopted in the selection of investors in consultation with the stock-brokers, Depository Participants, Mutual fund offices and agents. However, due care was taken to have a representative sample.

1.8.3.2. SAMPLING OF MUTUAL FUND PLAYERS

At present the mutual fund industry has three types of players viz., (a) the Unit Trust of India, (b) Public Sector Banks and Institutions and (c) Private sector. There are 37 mutual funds existing in India as on 31st March, 2000. Of the total 37 players, 11 are in the public sector including the UTI, while the remaining 26 are in the private sector. To compare the operating performance of the public and private sector mutual funds the researcher has chosen five public sector mutual funds including UTI and five private sector mutual funds at random as sample
mutual funds. The required data for analysis were obtained from the annual reports of the respective mutual funds.

1.8.3.3. SAMPLING OF MUTUAL FUND SCHEMES

To analyse the scheme-wise performance of the mutual funds the researcher has selected five public sector mutual funds at random from the eleven public sector mutual funds and five private sector mutual funds at random from the twenty six private sector mutual funds as the first stage sampling.

Under the second stage sampling the researcher has selected 20 schemes out of the 144 schemes of the five public sector mutual funds and 20 schemes out of the 61 schemes of the five private sector mutual funds at random as sample mutual fund schemes. The details about the sampling of mutual fund schemes are given in the following table.

**TABLE 1.1**

**SAMPLING DESIGN**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Public Sector Mutual Funds</th>
<th>Private Sector Mutual Funds</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Stage (Mutual Funds)</td>
<td>11</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>I Stage (Mutual Funds Schemes)</td>
<td>144</td>
<td>61</td>
<td>40</td>
</tr>
</tbody>
</table>

For evaluating the performance of sample schemes selected the researcher has used the adjusted monthly NAV data for the five year
period from April 1, 1995 to March 31, 2000. In order to have a meaningful evaluation of the investment performance of the sample schemes one has to compare their performance with those of selected benchmark portfolios. In this study BSE Sensex (30 scrips) has been used as the proxy for the market. Selection of this BSE sensex is consistent with previous studies. K.G. Sahadevan, M. Thiripalraju\textsuperscript{79} (1997) and Financial Express and Value Research (1992) utilised this index for the evaluation process\textsuperscript{80}.

Generally treasury bills of different duration have been used as a surrogate for risk-free asset in studies conducted abroad. In the Indian context, some studies have used bank fixed deposit rates of various duration as a risk-free asset. In this study, however the monthly yields on 91-day treasury bills have been used as a surrogate for risk-free rate of return as has been done by most of the researchers world over.

The sample period covered in the study is five years i.e., April 1, 1995 to March 31, 2000. A maximum of 60 monthly observations could be obtained for each of the sample schemes as well as for the market index and for the 91-day treasury bills. However, there were missing observations for some of the sample schemes. Therefore, the number of observations differed from scheme to scheme. The above five year period is sufficiently long and appropriate for evaluating performance of Indian mutual funds.


\textsuperscript{80} The \textit{Financial Express and Value Research} (1992) compared the funds performance with various benchmarks over different time periods.
1.8.4. FIELD WORK AND DATA COLLECTION

Field work for this study was carried out by the researcher himself. It was conducted during the period from June 2001 to June 2002.

The researcher has administered the interview schedule for collecting primary data from the investors. The interview was quite informal. It was conducted in natural and colloquial conversation in Tamil and was recorded by the researcher in the interview schedule. Enough care was taken to ensure completeness and accuracy in the interview.

1.8.5. DATA PROCESSING AND STATISTICAL TOOLS EMPLOYED

The data collected from the sample schemes were scrutinised and coded for computer analysis. Besides preparing frequency tables and applying simple techniques like Percentages, Averages, Compounded Annual Growth Rate (CAGR), The Garret's Ranking Method, Chi-square test and 't' test of statistical analysis have also been applied. The present study also employs a few techniques to measure the performance of sample schemes and institutions such as risk-return analysis, risk-adjusted evaluation measures of Sharpe, Treynor and Jensen measures. Further the study makes an attempt to find out whether the fund management has the ability to forecast the market timing and the selectivity factors with which the institution performance can be assessed by employing Treynor and Mazuy model.
1.9. LIMITATIONS OF THE STUDY

1. Due to time and cost constraints of the researcher, the primary study area was restricted to the four metropolitan cities of Tamil Nadu namely, Chennai, Coimbatore, Madurai and Tiruchirappalli. The size of the sample was also restricted to 300 and sufficient care was exercised to see that, this in no way affects the representativeness of the sample. As the present researcher has conducted the sample survey by the personal interview technique, the smallness in the size of the sample may be justified.

2. Due to paucity of information and low frequency of publication of data by the mutual fund institutions, this study is restricted to only month-wise analysis.

1.10. CHAPTER SCHEME

This thesis has been organised and presented in seven chapters.

The first chapter gives a vivid account of the need for mutual fund, statement of the problem, objectives and importance of the study, review of related literature, scope of the study, methodology adopted, sampling design, statistical techniques used for analysis, limitations of the study and the chapter scheme.

The second chapter titled, "Growth of mutual funds in India", examines the historical developments and its evolution, its growth in terms of net assets, number of schemes and the unit capital.
The third chapter christened, "Regulatory framework of mutual funds in India", portrays a vivid account of the organisational structure and management of mutual funds, the need for a regulatory mechanism and the role of various constituents of a mutual fund.

The fourth chapter captioned, "Evaluation of the performance of mutual fund schemes", evaluates the performance of selected sample schemes by using the Sharpe, Treynor and Jensen measures.

The fifth chapter titled, "Evaluation of the operating performance of mutual funds", evaluates the public and private sector mutual funds in terms of various ratios. A comparison in terms of unit capital and investible funds between the public and private sector mutual funds has also been analysed.

The sixth chapter captioned "Factors influencing mutual fund investment decision making", portrays the profile of mutual fund investors, awareness of mutual funds and factors influencing mutual fund investment decision making.

The seventh chapter titled, "Summary of findings, suggestions and conclusion", consolidates the results of the performance analysis of different schemes and mutual funds and valuable suggestions have been made for the promotion of mutual funds in India.