CHAPTER - 2
REVIEW OF LITERATURE

2.1 Introduction

The review of literature is to guide us in conducting a study on a particular theme. So, it assists in designing the research methodologies to be used, estimation procedures, analytical tools and interpretation of results. This chapter, therefore, focuses on both theoretical and empirical literature to understand the need for regulation, the form of regulation, approaches to risk and performance assessment of funds. Mutual funds play a crucial role in reducing risk and transaction cost while investing in the stock markets. They offer a more efficient route of investing. In the process of encouraging more investments they help in realizing true prices of securities. This in turn helps to attract investments through the initial public offer route and mobilize the savings of Indian households. Review of literature presented in this chapter is a brief description about mutual funds research work conducted in India as well as in abroad. A large number of studies on the growth and financial performance of mutual funds have been carried out during the past, both in the developed and developing countries. A brief review of the following research works reveal the wealth of contributions towards the performance evaluation of mutual funds, market timing and stock selection abilities of fund managers. The pioneering work on the mutual funds in U.S.A. was done by Friend, et al., (1962) in Wharton School of Finance and Commerce for the period 1953 to 1958.

**Friend, et al., (1962)** made an extensive and systematic study of 152 mutual funds and found that mutual fund schemes earned an average annual return of 12.4 percent, while their composite benchmark earned a return of 12.6 percent. Their alpha was negative with 20 basis points. Overall results did not suggest widespread inefficiency in the industry. Comparison of funds returns with turnover and expense categories did not reveal a strong relationship.

**Irwin, Brown, FE (1965)** analyzed issues relating to investment policy, portfolio turnover rate, performance of mutual funds and their impact on the stock markets.
The research work identified that mutual funds had a significant impact on the price movement in the stock market. On an average, the funds did not perform better than the composite market and there was no persistent relationship between portfolio turnover and fund performance.

Treynor (1965) used ‘characteristic line’ for relating expected rate of return of a fund to the rate of return of a suitable market average. He coined a fund performance measure taking investment risk into account. Further, to deal with a portfolio, ‘portfolio-possibility line’ was used to relate expected return to the portfolio owner’s risk preference.

Sharpe (1966) developed a composite measure of return and risk. He evaluated 34 open-end mutual funds for the period 1944-63, and found that. Reward to variability ratio for each scheme was significantly less than DJIA and ranged from 0.43 to 0.78. Expense ratio was inversely related with the fund performance, as correlation coefficient was 0.0505. The results depicted that good performance was associated with low expense ratio and not with the size. Sample schemes showed consistency in risk measure.

Treynor and Mazuy (1966) evaluated the performance of 57 fund managers in terms of their market timing abilities, and found that fund managers had not successfully outguessed the market. The results suggested that the investors were completely dependent on fluctuations in the market. Improvement in the rates of return was due to the fund managers’ ability to identify under-priced industries and companies. The study adopted Treynor’s (1965) methodology for reviewing the performance of mutual funds.

Jensen (1968) developed a composite portfolio evaluation technique concerning risk-adjusted returns. He evaluated the ability of 115 fund managers in selecting securities during the period 1945-66. Analysis of net returns indicated that 39 funds had above average returns, while 76 funds yielded abnormally poor returns. Using gross returns, 48 funds showed above average results and 67 funds gave below average results. He further found that very little evidence that funds were able to
perform significantly better than expected as fund managers were not able to forecast securities’ price movements.

**Posner (1969)** discussed exhaustively the regulating monopolies, although dealing with the issue of regulating 'natural monopolies' or more specifically 'utilities' reforms questioned the traditional basis and of regulating monopolies. The traditional 'dead weight loss' of monopoly profit maximizing price is questioned. He maintained that price need not be to maximize short term profits. He pointed out other managerial objectives which may lead to lower price. Preventing potential entrants from entering and developing good reputation were two such reasons.

**Smith and Tito (1969)** examined the inter-relationships between the three widely used composite measures of investment performance, and suggested a fourth alternative, identifying some aspects of differentiation in the process. While ranking the funds on the basis of ex-post performance, alternative measures produced little differences. However, conclusions differed widely when performance were compared with the market. In view of this, they suggested modified Jensen’s measure based on estimating equation and slope coefficient.

**Friend, Blume and Crockett (1970)** compared the performance of 86 funds with random portfolios. The study concluded that, mutual funds performed badly in terms of total risk. Funds with higher turnover outperformed the market. The size of the funds did not have any impact on their performance.

**Carlson (1970)** examined mutual funds emphasizing the effect of market indices (S&P 500, NYSE composite, DJIA) during the period 1948-67. All fund groups outperformed DJIA but for a few which had gross returns better than that of S&P 500 or NYSE composite. Though there was consistency in risk and return, there was no consistency between risk-adjusted performance measures over the time period. Carlson’s analysis of performance exposed relationship between cash inflows into funds and not with the size or expense ratio.

**Akerlof (1970)** pioneered the study on information asymmetry and showed how imperfect information would lead to adverse selection and the ultimate collapse of
the market through low quality sellers crowding out good quality sellers.

Arditti (1971) found that Sharpe’s conclusion got altered when annual rate of return was introduced as a third dimension. He found that contrary to Sharpe’s findings, the average fund performance could no longer be judged inferior to the performance of DJIA. Fund managers opted higher risk for better annual returns.

Stigler (1971) revealed that the demand for regulation is not often for 'public benefit' but rather for the benefit of the industry in question. The states coercive power allows it to tax, control entry, effect make policies which affect complements or substitutes or even fix prices.

Williamson (1972) compared ranks of 180 funds between 1961-65 and 1966-70. There was no correlation between the rankings of the two periods. The investment abilities of most of the fund managers were identical. He highlighted the growing prominence of volatility in the measurement of investment risk.

Fama (1972) developed methods to distinguish observed return due to the ability to pick up the best securities at a given level of risk from that of predictions of price movements in the market. He introduced a multi-period model allowing evaluation on a period-by-period and on a cumulative basis. He branded that, return on a portfolio constitutes of return for security selection and return for bearing risk. His contributions combined the concepts from modern theories of portfolio selection and capital market equilibrium with more traditional concepts of good portfolio management.

Klemosky (1973) analysed investment performance of 40 funds based on quarterly returns during the period 1966-71. He acknowledged that biases in Sharpe, Treynor, and Jensen’s measures, could be removed by using mean absolute deviation and semi-standard deviation as risk surrogates compared to the composite measures derived from the CAPM.

McDonald and John (1974) examined 123 mutual funds and identified the existence of positive relationship between objectives and risk. The study identified
the existence of positive relationship between return and risk. The relationship between objective and risk-adjusted performance indicated that more aggressive funds experienced better results.

Gupta (1974) evaluated the performance of mutual fund industry for the period 1962-71 using Sharpe, Treynor, and Jensen models. All the funds covered under the study outperformed the market irrespective of the choice of market index. The results indicated that all the three models provided identical results. All the mutual fund subgroups outperformed the market using DJIA while income and balanced groups underperformed S&P 500. Return per unit of risk varied with the level of volatility assumed and he concluded that funds with higher volatility exhibited superior performance.

Hogan and Warren (1974) developed a CAPM using a below target semi variance risk measure also termed as the ES-CAPM. This corrects for the symmetric distribution approach of the traditional CAPM.

Bawa (1975) generalized the semi-variance measure of risk to reflect a less restrictive class of decreasing absolute risk averse utility function known as the Lower Partial Movement (LPM). The M-V approach was restrictive as it ensured an optimal portfolio only if the utility function was quadratic.

Tullock (1975) downplays the need for regulation and believes that the costs of government failures or regulatory failures are larger than the cost of market failures.

Bawa and Lindenberg (1977) proved that 'separation' holds for the LPM risk measure when the target was the risk-free rate (for fixed target). Where variance measures the expected squared deviation around the mean, LPM measures the expected value of the alto power of the deviation below a target (when a > 1). When a=2, the LPM is also termed as Target Semi Variance (TSV).

Fishbum (1977) introduced the general LPM risk measure setting a=2 to give the TSV. Since the TSV only punishes returns below the target, it fits investor preferences. The induced efficient set of his model was found to satisfy the
stochastic dominance criteria (which consider the whole probability distribution of returns and not just the M-V a measure). Stochastic dominance was found better for judging the performance of portfolios, because it did not make any assumptions about the probability distribution of security returns and was based on a general utility function.

**Meyer’s (1977)** findings based on stochastic dominance model revalidated Sharpe’s findings with the caution that it was relevant for mutual funds in the designated past rather than for the future period.

**Klemosky (1977)** examined performance consistency of 158 fund managers for the period 1968-75. The ranking of performance showed better consistency between four-year periods and relatively lower consistency between adjacent two-year periods.

**Roll and Ross (1979)** proposed the ‘Arbitrage Price Theory’ as an alternative to the single factor CAPM. They found that, between 1962 and 1972, there were at least four other factors which could explain risk. But their test, they themselves admitted was a weak one as no economic justification could be given for these factors.

**Schwartz and Wilde (1979)** dealt with the necessity for government intervention in markets with imperfect information. Governments intervene in markets when the percent of informed consumers in the market is sufficient to do so. But this is expensive and besides one does not know what level of information is considered adequate for a consumer, also the focus should be on the market and not the individual.

**Frank and Mayer (1989)** pointed out that information asymmetries can lead to organizational failures which include fraud by employees, mis-utilization of funds, reckless investments and excessive churning of portfolio.

**Ippolito’s (1989)** results and conclusions were relevant and consistent with the theory of efficiency of informed investors. He estimated that risk-adjusted return for the mutual fund industry was greater than zero and attributed positive alpha before
load charges. He identified that fund performance was not related to expenses and turnover as predicted by efficiency arguments.

**Fortin and Michelson (1995)** studied 1,326 load funds and 1,161 no load funds, and identified that, no-load funds had lower expense ratio and so was suitable for six years, on the other hand load funds had higher expense ratio and so had fifteen years of average holding period. No-load funds offered superior results in nineteen out of twenty-four schemes. He concluded that, a mutual fund investor had to remain invested in a particular fund for very long periods to recover the initial front-end charge and achieve investment results similar to that of no-load funds.

**Baur et. al. (1995)** outlined the pricing fundamentals of open-end and close-end funds, and described the transaction cost of buying and selling funds. The U.S.A.’s experience of mutual funds described how these institutions could change a country’s capital market and individual investment patterns. The study disclosed that the continuous redemption privilege of open-end funds had vulnerable consequences in the pricing of each type of fund, the assets held by each type of fund and the manner in which the transaction and management fees were collected.

**Ciccotello and Grant’s (1996)** study identified a negative correlation between asset size of the fund and the expense ratio. The results of the study brought out that, larger funds had lower expense ratios due to economies of scale. Equity funds had spent heavily to acquire information for trading decision and were consistent with the theory of information pricing. The high beta, high expenses and high turnover in the aggressive growth group than in long-term growth funds and income funds suggested higher costs being associated with obtaining and using corporate information in emerging and volatile market.

**Gruber (1996)** attempted to study the puzzle relating to the fast growth of mutual funds inspite of inferior performance of actively managed portfolios. The study revealed that mutual funds had negative performance compared to the market and provided evidence of persistence of underperformance. Sophisticated clientele withdrew money from mutual funds during the period of poor performance, where
as mutual funds found money from disadvantaged clientele leading to the faster growth of funds.

**Dellva, Wilfred L and Olson, Gerard T (1998)** studied 568 mutual funds without survivorship bias. The results indicated that informational competency of funds increased the efficiency, reduced expenses and provided for higher risk-adjusted returns. Redemption fees had positive and significant impact on expenses. International funds had higher expense ratios.

**Khorana et. al. (1998)** using Multinomial Probit Model identified that, funds with higher ratings had higher risk adjusted performance, lower systematic risk, greater degree of diversification, larger asset base, lower portfolio turnover, managers with longer tenures, lower front load and expense ratios. Persistence in fund performance was statistically significant during short time horizons. Morning star’s mutual fund ratings were based on historic risk and reward. The ratings provided useful information while selecting mutual funds. Funds in the top 10 percent of risk-adjusted scores had five star rating; next 22.55 percent received four star rating; middle 35 percent were assigned three stars, and the last two categories represented the next 22.5 percent and 10 percent. High rated funds performed substantially better than low rated funds after the issue of ratings.

**Fernandoet, al. (1999)** observed that splitting did not exhibit any superior performance nor any change in the risk characteristics of funds but enhance the marketability of fund’s shares due to positive response from small investors.

**Statman, Meir (2000)** emphasized that, socially responsible investing has to be taken as a tool by the corporations. He further identified that socially responsible stocks outperformed while socially responsible mutual funds underperformed the S & P 500 Index during 1990-98.

**Cortez and Florinda Silva (2002)** analysed the implications of conditioning information variables on a sample of Portuguese stock funds. He identified that unconditional Jensen’s alpha ensured superior performance till incorporation of public information variables. Alpha was not statistically different from zero while beta was related to public information variables.
Pendaraki, Zopounidis and Doumpous (2005) studied construction of mutual fund portfolios, developed a multi-criteria methodology and applied it to the Greek market of equity mutual funds. The methodology was based on the combination of discrete and continuous multi-criteria decision aid methods for mutual fund selection and composition. UTADIS multi-criteria decision aid method was employed in order to develop mutual fund’s performance models. Goal programming model was employed to determine proportion of selected mutual funds in the final portfolios.

Zakri (2005) matched a sample of socially responsible stock mutual funds to randomly selected conventional funds of similar net assets to investigate differences in characteristics of assets held, degree of portfolio diversification and variable effects of diversification on investment performance. The study found that socially responsible funds do not differ significantly from conventional funds in terms of any of these attributes. Moreover, the effect of diversification on investment performance was found different between the two groups. Both groups underperformed the Domini 400 Social Index and S & P 500 during the study period.

Chen et al. (2011) have tested MFs that engaged in tax planning, and how did they respond to changes in the capital gains tax rates was investigated. It was found that there was consistency with tax planning by managers of both open-end and closed-end MFs and MF managers may not tax plan tax like individuals because fund managers have incentives to consider the tax liability of both current and potential investors.

Agapova (2011) has examined the cross-sectional differences among Money Market Mutual Funds (MMMFs) in the context of sponsoring fund families, and found that flows to family non-MMMFs were negatively related to family MMMF flows, and family non-MMMF cash flow volatility was positively related to family MMMF cash flow volatility. The study has further suggested that fund family investors also use family MMMFs as cash centers by utilizing free asset transfers within the family.
Badrinath & Gubellini (2011) have evaluated the return performance of long-short, market neutral and bear MFs using multi-factor models and a conditional CAPM, they and revealed that Market-neutral funds provide a down market hedge, but bear funds did not generate the returns as per investors, desire.

Cao et al. (2011) have investigated two types of funds that make more extensive use of derivatives, global funds and specialized domestic equity funds.

The literature survey of foreign studies revealed that mutual fund managers were not able to offer higher returns due to their inability in stock selection and market timing. For short periods fund managers were able to offer superior returns.

Review of Indian Studies

The following is a brief account of research articles published in books, financial dailies, magazines and research journals by academicians, professionals and journalists explaining the concepts of mutual funds. Their importance, features different schemes, investment patterns, methods of examining a mutual fund prospectus, how to choose a scheme and significance of IMFI etc. Gupta L C et. al. are a few academicians and professionals who have studied the need for radical changes in the Indian financial system, emergence of mutual fund operations in India, regulatory framework and the impact of taxation on mutual fund performance. Verma’s book on mutual funds covers the conceptual and regulatory framework of the mutual funds in India with guidelines for mutual fund selection. A brief account of important research studies conducted by the Indian academicians and experts are as follows:

Nancy (1985) has stated that study of the past performance is helpful in forecasting. Examining of the past performance unveils some of the factors that influence the level of financial returns. The study of these factors will help in improving the ability and accuracy of forecasting future returns. This study is likely to be useful for investors and portfolio managers

Haslem (1988) studied that past performance is the most important aspect for the mutual fund because it is basis to estimate how well the fund would perform in future.
Gupta (1989) evaluated funds performance in India comparing the returns earned by different schemes of similar risk and similar constraints. An explicit risk-return relationship was developed to make comparison across funds with different risk levels. His study decomposed total return into return from investors’ risk, return from managers’ risk and target risk. Mutual fund return due to selectivity was decomposed into return due to selection of securities and timing of investment in a particular class of securities.

Vidhyashankar (1990) identified a shift from bank or company deposits to mutual funds due to its superiority by way of ensuring a healthy and orderly development of capital market with adequate investor’s protection through SEBI interference. The study identified that mutual funds in the Indian capital market have a bright future as one of the predominant instruments of savings by the end of the century.

Bansal (1991) identified that mutual fund like other financial institutions is a potential intermediary between the prospective investors and the capital market. Mutual fund, as an investment agency was preferred since 1985-86 due to the benefits of liquidity, safety and reasonable appreciation assured by the industry. The schemes with assured returns showed tremendous progress. Majority of the funds floated by commercial banks gave an impression that the responsibility of funds laid with the respective banks and their investment was secured.

Sarkar (1991) critically examined mutual fund evaluation methodology and pointed out that Sharpe and Treynor performance measures ranked mutual funds alike inspite of their differences in terms of risk. The Sharpe and Treynor index could be used to rank performance of portfolios with different risk levels.

Batra and Bhatia (1992) appreciated the performance of various funds in terms of return and funds mobilized. UTI, LIC and SBI Mutual Funds are in the capital market for many years and declaring dividends ranging from 11 percent to 16 percent. The performance of Canbank Mutual Fund, Indian Bank Mutual Fund and PNB Mutual Fund were highly commendable. The performance of many schemes was equally good compared to industrial securities.
**Gupta (1992)** attempted a household survey of investors with the objective of identifying investors’ preferences for mutual funds so as to help policy makers and mutual fund manager in designing mutual fund products and shaping the mutual fund industry in India.

**Yadav (1992)** did a comprehensive study on “Mutual Funds in India: Some Issues”. The study revealed that mutual funds have emerged as a significant force in the country’s financial sector with a vast potential. There were about seventy lakh investors in Indian mutual funds of which about 30 percent found from rural areas. It observed less than one percent of the total population, which embarked on the potential of Indian market, where the mutual fund could play a significant role and reach a significant size.

**Gangadhar (1992)** identified mutual funds as the prime vehicle for mobilization of household sectors’ savings since they provided the triple benefits as steady return, capital appreciation and low risk. He identified that open-end funds were very popular in India due to its size, economies of operations and for its liquidity. Investors opted for mutual funds with the expectation of higher return for a given risk, greater convenience and liquidity.

**Lal and Sharma (1992)** identified that the household sector’s share in the Indian domestic savings increased from 73.6 percent in 1950-51 to 83.6 percent in 1988-89. The share of financial assets increased from 56 percent in 1970-71 to over 60 percent in 1989-90 bringing out a tremendous impact on all the constituents of the financial market.

**Sahu (1992)** identified mutual funds as a suitable investment vehicle to strengthen capital market, as the total assets were around Rs.30,000 crores while the total resources in equity was less than 15 percent of market capitalization.

**Venugopalan (1992)** opined that India (15 million) ranks third in the World next to U.S.A. (50 million) and Japan (25 million) in terms of number of shareholders ensuring the spread of equity cult. He observed that many investors faced hardships
in the share market due to lack of professional advice, inability to minimize risk, limited resources and information.

**Anagol (1992)** identified the urgent need for a comprehensive self regulatory regime for mutual funds in India, in the context of divergence in its size, constitution, regulation among funds and sweeping deregulation and liberalization in the financial sector.

**Shashikant Uma** (1993) critically examined the rationale and relevance of mutual fund operations in Indian Money Markets. She pointed out that money market mutual funds with low-risk and low return offered conservative investors a reliable investment avenue for short-term investment.

**Ansari** (1993) stressed the need for mutual funds to bring in innovative schemes suitable to the varied needs of the small savers in order to become predominant financial service institution in the country.

**Sahu R K and Panda J** (1993) identified that, the savings of the Indian public in mutual funds was 5 to 6 percent of total financial savings, 11 to 12 percent of bank deposits and less than 15 percent of equity market capitalization. The study suggested that, mutual funds should develop suitable strategies keeping in view the savings potentials, growth prospects of investment outlets, national policies and priorities.

**Saha Asish and Rama Murthy Y Sree** (1993-94) identified that return, liquidity, safety and capital appreciation played a predominant role in the preference of the schemes by investors. The preference of the households towards shares and debentures was 7 percent by 1989-90. Mutual funds being an alternative way for direct purchase of stocks should be managed effectively adopting investment analysis, valuation models, and portfolio management techniques. The study suggested that, fund managers could adopt portfolio selection techniques to make more informed judgments rather than making investments on an intuition basis.
Vaid, Seema’s (1994) study revealed that the industry showed a continuous growth in savings mobilization and the number of unit holders during the period 1987 to 1992. 58.40 percent of resources mobilized by the industry were through income schemes. UTI accounted for 83.90 percent of industry mobilization. Pure growth schemes displayed a sound investment pattern with 81.80 percent of portfolios in equity scrips and had identified that semi-urban and rural areas were not adequately tapped by the mutual funds inspite of satisfactory returns. Offshore funds showed best performance during 1985-86.

Shukla and Singh (1994) attempted to identify whether portfolio manager’s professional education brought out superior performance. They found that equity mutual funds managed by professionally qualified managers were riskier but better diversified than the others. Though the performance differences were not statistically significant, the three professionally qualified fund managers reviewed outperformed others.

The study by Shome (1994) based on growth schemes examined the performance of the mutual fund industry between April 1993 to March 1994 with BSE SENSEX as market surrogate. The study revealed that, in the case of 10 schemes, the average rate of return on mutual funds were marginally lower than the market return while the standard deviation was higher than the market. The analysis also provided that, performance of a fund was not closely associated with its size.

Shah Ajay and Thomas Susan (1994) studied the performance of 11 mutual fund schemes on the basis of market prices. Weekly returns computed for these schemes since their launch of the scheme to April 1994 were evaluated using Jensen and Sharpe measures. They concluded that, except UTI UGS 2000, none of the sample schemes earned superior returns than the market due to very high risk and inadequate diversification.

Kale and Uma (1995) conducted a study on the performance of 77 schemes managed by 8 mutual funds. The study revealed that, growth schemes yielded 47 percent CAGR, tax-planning schemes 30 percent CAGR followed by balanced schemes with 28 percent CAGR and income schemes with 18 percent CAGR.
The Delhi-based **Value Research India Pvt. Ltd** (1996) conducted a survey covering the bearish phase of Indian stock markets from 30\textsuperscript{th} June 1994 to 31st December 1995. The survey examined 83 mutual fund schemes. The study revealed that, 15 schemes provided negative returns, of which, 13 were growth schemes. Returns from income schemes and income-cum-growth schemes were more than 20 percent. From the point of risk-adjusted monthly returns, of the 53 growth schemes, 28 (52.8 percent) could beat the index even in a bear phase.

**Tripathy, Nalini Prava** (1996) identified that the Indian capital market expanded tremendously as a result of economic reforms, globalization and privatization. Household sector accounted for about 80 percent of country’s savings and only about one-third of such savings were available for the corporate sector. The study suggested that, mutual funds should build investors confidence through schemes meeting the diversified needs of investors, speedy disposal of information, improved transparency in operation, better customer service and assured benefits of professionalism.

**Yadav R A and Mishra, Biswadeep** (1996) evaluated 14 close end schemes over the period of April 1992 to March 1995 with BSE National Index as benchmark. Their analysis indicated that, 57 percent of sample schemes had a mean return higher than that of the market, higher Sharpe Index and lower Treynor index. Schemes performed well in terms of diversification and total variability of returns but failed to provide adequate risk-premium per unit of systematic risk. 57 percent had positive alpha signifying superior performance in terms of timing ability of fund managers. Fund managers of growth schemes adopted a conservative investment policy and maintained a low portfolio beta to restrict losses in a rapidly falling stock market.

**Jayadev M** (1996) studied the performance of UTI Mastergain 1991 and SBI Magnum Express from 1992-94 with 13 percent return offered by Post Office Monthly Income Deposits as risk-free return. Mastergain earned an average return of 2.89 percent as against market earnings of 2.84 percent. Volatility of Magnum Express was high compared to Mastergain. Master gain had a superior performance
over its benchmark (Economic Times Ordinary Share Price Index) by taking greater risk than the market. Mastergain indicated lesser degree of diversification of the portfolio with lower R² value and very high unique risk. Magnum Express portfolio was well diversified with higher R2 value along with lower unique risk and total risk. Both the funds did not earn superior returns because of lack of selectivity on the part of the fund managers indicating that, the funds did not offer the advantages of professionalism to the investors.

**Sahadevan S and Thiripalraju M** (1997) stated that, mutual funds provided opportunity for the middle and lower income groups to acquire shares. The savings of household sector constituted more than 75 percent of the GDS along with a shift in the preference from physical assets to financial assets and also identified that, savings pattern of households shifted from bank deposits to shares, debentures, and mutual funds.

**Krishnamurthi S** (1997) identified mutual funds as an ideal investment vehicle for small and medium investors with limited resources, to reap the benefits of investing in blue chip shares through firm allotment in primary market, avoid dud shares, access to price sensitive information and spread risk along with the benefits of professional fund management.

**Gupta and Sehgal** (1998) evaluated performance of 80 mutual fund schemes over four years (1992-96). The study tested the proposition relating to fund diversification, consistency of performance, parameter of performance and risk-return relationship. The study noticed the existence of inadequate portfolio diversification and consistency in performance among the sample schemes.

**Rao, Mohana P** (1998) opined that, UTI followed by LIC Mutual Fund dominated the market with 54 and 15 schemes respectively. His interview with 120 respondents showed that, 96 percent invested in UTI due to better service and return. 50 percent of shareholding and 25 percent of unit-holding respondents were from metro cities. Investor’s services, income–cum-growth option and capital appreciation were very important aspects while choosing a fund. He identified that the close-end schemes were very popular among investors and respondents in
general expected private sector funds to improve the quality of services, investors’ confidence besides reducing fraud and mismanagement.

Kumar V K (1999) analysed the roles, products and the problems faced by the IMF. He suggested the turnaround strategies of awareness programs, transparency of information, distinct marketing and distribution systems to rebuild confidence.

Irissappane Aravazhi (2000) evaluated the investment pattern and performance of 34 close-end schemes from 1988-98 and elicited the views of investors and managers belonging to Chennai, Mumbai, Pune and Delhi. The survey identified that the investors desired a return equivalent to market. 16 schemes reported greater risk than the market volatility. Majority of the schemes had a lower beta. Negative values in the case of Treynor and Sharpe index among many schemes indicated the mockery of the market. He further identified that the fund managers of 26 schemes had missed the chance of gaining from scheduling with response to changes in the market.

Gupta Amitabh (2000) identified that the IMF had come a long way since its inception in 1964. The transformation in the previous decade was the outcome of policy initiatives taken by the Government of India to break the monolithic structure of the industry in 1987 by permitting public sector banks and insurance sectors to enter the market.

Agrawal, Ashok Motilal (2000) opined that mutual funds had made a remarkable progress during 1987-95. The cumulative investible funds of the mutual funds industry recorded a skyrocketing growth since 1987 and reached Rs.8,059 crores by December 31, 1995 from Rs.4,564 crores during 1986-87.

Ramesh Chander (2000) examined 34 mutual fund schemes with reference to the three fund characteristics with 91-days treasury bills rated as risk-free investment from January 1994 to December 1997. Returns based on NAV of many sample schemes were superior and highly volatile compared to BSE SENSEX. Open-end schemes outperformed close-end schemes in term of return. Income funds outsmarted growth and balanced funds. Banks and UTI sponsored schemes performed fairly well in relation to sponsorship. Average annual return of sample
schemes was 7.34 percent due to diversification and 4.1 percent due to stock selectivity. The study revealed the poor market timing ability of mutual fund investment. The researcher also identified that, 12 factors explained majority of total variance in portfolio management practices.

**Gupta Amitabh** (2001) evaluated the performance of 73 selected schemes with different investment objectives, both from the public and private sector using Market Index and Fundex. NAV of both close-end and open-end schemes from April 1994 to March 1999 were tested. The sample schemes were not adequately diversified, risk and return of schemes were not in conformity with their objectives, and there was no evidence of market timing abilities of mutual fund industry in India.

**Narasimhan M S and Vijayalakshmi S** (2001) analysed the top holding of 76 mutual fund schemes from January 1998 to March 1999. The study showed that, 62 stocks were held in portfolio of several schemes, of which only 26 companies provided positive gains. The top holdings represented more than 90 percent of the total corpus in the case of 11 funds. The top holdings showed higher risk levels compared to the return. The correlation between portfolio stocks and diversification benefits was significant at one percent level for 30 pairs and at five percent level for 53 pairs.

**Mishra and Mahmud** (2002) measured mutual fund performance using lower partial moment. In this paper, measures of evaluating portfolio performance based on lower partial moment are developed. Risk from the lower partial moment is measured by taking into account only those states in which return is below a pre-specified “target rate” like risk-free rate.

**Roshni Jayam’s** (2002) study brought out that equities had a good chance of appreciation in future. The researcher was of the view that, investors should correctly judge their investment objective and risk appetite before picking schemes, diversified equity funds were typically safer than others and index funds were the
best when market movements were not certain. The researcher suggested Systematic Withdrawal Plan (SWP) with growth option was more suitable for investors in need of regular cash inflows.

Singh and Vanita (2002) in their study found that most of the investors still hold investment in public sector mutual funds, particularly UTI, but in the recent past the proportion of investors investing in private mutual funds has increased and that of in UTI decreased.

Jatana and Gupta (2003) found in their study that different investment avenues are available to investors by doing the investment in mutual funds but they also carry certain risks. The investors should compare the risk and expected yields after adjustment of tax in various instruments while taking investment decisions.

Kshama Fernandes (2003) evaluated index fund implementation in India. In this paper, tracking error of index funds in India is measured. The consistency and level of tracking errors obtained by some well-run index fund suggest that it is possible to attain low levels of tracking error under Indian conditions. At the same time, there do seem to be periods when certain index funds appear to depart from the discipline of indexation.

Bansal Manish (2003) survey of 2,819 respondents revealed that, the percentage of investors holding only UTI schemes reduced. The unit holders’ loyalty seemed to have become a myth as investors were looking for performance. Unit-holders spread their holdings over two or more funds with an urge to diversify increasing competitive mutual fund environment.

Singh, Jaspal and Subhash Chander (2003) identified that past record and growth prospects influenced the choice of scheme. Investors in mutual funds expected repurchase facility, prompt service and adequate information. Return, portfolio selection and NAV were important criteria’s for mutual fund appraisal. The ANOVA results indicated that, occupational status; age had insignificant influence on the choice of scheme. Salaried and retired categories had priority for past record and safety in their mutual fund investment decisions.
Saha, Tapas Rajan (2003) identified that Prudential ICICI Balanced Fund, Zurich(I) Equity Fund were the best among the equity funds while Pioneer ITI Treasury scheme was the best among debt schemes. He concluded that, the efficiency of the fund managers was the key in the success of mutual funds and so the AMCs had to ensure more professional outlook for better results.

K. Pendaraki et al. (2004) studied construction of mutual fund portfolios, developed a multi-criteria methodology and applied it to the Greek market of equity mutual funds. The methodology is based on the combination of discrete and continuous multi-criteria decision aid methods for mutual fund selection and composition. UTADIS multi-criteria decision aid method is employed in order to develop mutual fund’s performance models. Goal programming model is employed to determine proportion of selected mutual funds in the final portfolios.

Antonella Basso and Stefania Funari (2004) tackle the problem of the presence of negative average rate of returns in the computation of the performance of ethical mutual funds. The presence of these negative values raises problems both in the computation of the classical performance indicators and in DEA modeling.

Satish D (2004) opined that investors from seven major cities in India had a preference for mutual funds compared to banking and insurance products. Investors expected moderate return and accepted moderate risk. 60 percent of investors preferred growth schemes. The image of AMC acted as a major factor in the choice of schemes. Investors had the same level of confidence towards shares and mutual funds.

Sharath Jutur (2004) studied 58 schemes during the bear period (September 1998 to April 2002). He identified that the risk was low for 37 schemes, below average risk for 11 and of average risk for 10 schemes. Risk-return analysis revealed that, average mutual funds were found to be with low unsystematic and high total risk. The return was positive in the case of 46 schemes, with 30 schemes yielding above 5 percent. 32 schemes had positive Treynor ratio, 30 schemes had positive Sharpe ratio, and 35 schemes had positive Jensen measure due to the bearish market with low CAPM returns.
Elango’s (2004) analytical results indicate that, private funds had a high positive association between the past and current year NAV compared to public sector. The private sector schemes outperformed public sector in terms of NAV range value, innovative products and in deployment of funds. Public sector funds showed low volatility as against greater variability for private sector indicating low consistency. Student ‘t’ test indicated the existence of a high significant difference between the mean NAV of private sector funds and public sector with a high statistical significance of (-)5.95.

Venkateshwarlu M (2004) had analysed investors from the twin cities of Hyderabad and Secunderabad. Investors preferred to invest in open-end schemes with growth objectives. Chi-squared value revealed that, the size of income class is independent of preference pattern, and dependent on the choice of fund floating institution. Reasonable returns and long-term strategy adopted by the scheme were the criteria of scheme selection. Investors perceived that too many restrictions led to the average performance of mutual funds in India.

Sondhi H J and Jain P K (2005) examined 17 public and 19 private sector mutual fund equity schemes. The mean and median returns for the aggregate period (1993-2002) were lower than the returns on 364 days treasury bills, and higher than the BSE 100 index. Alliance Equity fund was the top performer and Canbonus and LIC Dhanvikas(I) were the worst performers. They hypothesized that majority of the sample schemes earned returns better than the market. Private equity schemes had superior performance due to its popularity; fund management practices, well-researched stock selection and timing skills. More than three-fourth of public sector schemes were unable to achieve better returns in spite of higher investor confidence associated with high safety. The funds did not show consistency in performance.

Muthappan P K and Damodharan E (2006) evaluated 40 schemes for the period April 1995 to March 2000. The study identified that majority of the schemes earned returns higher than the market but lower than 91 days Treasury bill rate. The average risk of the schemes was higher than the market. 15 schemes had an above average monthly return. Growth schemes earned average monthly return. The risk
and return of the schemes were not always in conformity with their stated investment objectives. The sample schemes were not adequately diversified, as the average unique risk was 7.45 percent with an average diversification of 35.01 percent. 23 schemes outperformed both in terms of total risk and systematic risk. 19 schemes with positive alpha values indicated superior performance. The study concludes that, the Indian Mutual Funds were not properly diversified.

Mohanan (2006) found that Indian mutual fund industry was one of the fastest growing sectors in the Indian capital and financial markets. The mutual fund industry in India has seen dramatic improvements in quantity as well as quality of product and service offerings in recent years.

M. Swaminathan and V. Buvanmeswaran (2006) have conducted a study on investor’s preference towards mutual funds with special reference to Thiruchirapali Town, Tamil Nadu. The investors of Thiruchirapali become more cautious after they lost their saving with incorporated bodies. They are now turning more to mutual funds because of more safety, liquidity, capital gains and transparency. They wish to route their investments through mutual funds.

Meijun Qian(2006) have examined the performance of Whom Can You Trust - A Study on Mutual Fund Governance. This paper examine the Investors in an open-end Mutual Fund can vote with their feet by withdrawing assets from or adding assets to the Fund. This paper examines the effectiveness of this market monitoring mechanism in relation to the trading scandals erupted in 2003. With a sample of 92 Fund families and 10220 funds classes.

Gupta and Aggarwal (2007) sought to check the performance of mutual funds operation in India. In this regard, quarterly returns performance of all the equity-diversified mutual funds during the period from January 2002 to December 2006 was tested. Analysis was carried out with the help of Capital Asset Pricing Model (CAPM) and Fama-French Model. Amidst contrasting findings from the application of the two models, the study calls for further research and insights into the interplay between the performance determinant factor portfolios and their effect on mutual fund returns.
Sanjay Kant Khare (2007) opined that investors could purchase stocks or bonds with much lower trading costs through mutual funds and enjoy the advantages of diversification and lower risk. The researcher identified that, with a higher savings rate of 23 percent, channeling savings into mutual funds sector has been growing rapidly as retail investors were gradually keeping out of the primary and secondary market. Mutual funds have to penetrate into rural areas with diversified products, better corporate governance and through introduction of financial planners.

Agarwal (2007) provides an overview of mutual fund activity in emerging markets. It describes their size and asset allocation. This paper analyzes the Indian Mutual Fund Industry pricing mechanism with empirical studies on its valuation. It also analyzes data at both the fund-manager and fund-investor levels.

Navdeep Aggarwal and Mohit Gupta (2007) The study was conducted using CAPM and FAMA French model and concluded that the value addition of the fund depends on certain factors such as excess market returns, size factor, value factor and suggest that returns earned by Mutual funds were actually due to the exposure of these factors only and fund managers did not add any value.

Soumya Guha Deb (2008) focused on return-based style analysis of equity mutual funds in India using quadratic optimization of an asset class factor model proposed by William Sharpe. The study found the “Style Benchmarks” of each of its sample of equity funds as optimum exposure to 11 passive asset class indexes. The study also analyzed the relative performance of the funds with respect to their style benchmarks. The results of the study showed that the funds have not been able to beat their style benchmarks on the average.

Anand and Murugaiah (2008) examined the components and sources of investment performance in order to attribute it to specific activities of Indian fund managers. They also attempted to identify a part of observed return which is due to the ability to pick up the best securities at given level of risk. For this purpose, Fama's methodology is adopted here. The study covers the period between April 1999 and March 2003 and evaluates the performance of mutual funds based on 113 selected schemes having exposure more than 90percent of corpus to equity stocks of 25 fund houses. The empirical results reported reveal the fact that the mutual funds
were not able to compensate the investors for the additional risk that they have taken by investing in the mutual funds. The study concludes that the influence of market factor was more severe during negative performance of the funds while the impact selectivity skills of fund managers was more than the other factors on the fund performance in times of generating positive return by the funds. It can also be observed from the study that selectivity, expected market risk and market return factors have shown closer correlation with the fund return.

Parihar, Sharma and Singh (2009) revealed that mutual funds are financial intermediaries concerned with mobilizing savings of those who have surplus and the canalization of these savings in those avenues where there is a demand for funds.

The review of foreign studies ensures that, mutual funds have a significant impact on the price movement in the stock market, the average return from the schemes were below that of their benchmark, all the three models provided identical results, good performance were associated with low expense ratio and not with the size.

Zafar Tariq et al. (2009) this study produced sufficient information of risk and return associated with fund and their rank depending on their performance which will ultimately help investors to choose the best mutual fund generating maximum return with minimum risk. Similarly S.S. Debashish (2009) studied the performance of equity based mutual funds of last 13 years (1996 to 2009)


Kumar L.N. & Devi, V.R. (2011) have done the cluster Analysis of the Mutual funds in their study. Their period of study is 2003-2007 and they have taken almost 350 Mutual Funds in their study. Similarly Swaminathan T.M. (2012), Singh Preeti (2011), Dunna M. (2012) and Bawa S.K. et al (2011) in their study analyzed the performance of various income and growth schemes and utilizes the traditional statistical and financial tool like Sharpe ratio, Jenson ratio etc.
Kaur, R. & Gupta S. K. (2012) this study aims to examine the performance of open-ended equity mutual funds in India. To evaluate the performance a sample of 30 schemes have been selected on the basis of weekly returns compared to benchmark returns. For this purpose statistical tools average, standard deviation, beta, co-efficient of determination, systematic and unsystematic risk and the risk adjusted performance measures suggested by Treynor (1965), Sharpe (1966), Jensen (1968) and Fama’s (1972) measures are employed.

Ravi Vyas and Suresh Chandra Moonat (2012) concluded that the highly volatile funds are risky and therefore the fund manager should collect all possible information before making an investment. A careful and reasonable diversification of investment in mutual funds should be done on the investor’s part to balance the risk involved in investment. And suggested that investors should inculcate the habit of saving regularly so, that the little savings will grow into a big returns.

J.S. Yadav and O.S. Yadav (2012) in their analysis of comparison between Mutual Funds and Foreign Institutional Investors, it was found that though the India is an attractive destination for investment by Foreign Institutional Investors, investments made by the mutual funds were greater than investment made by FII’s, during the recession MF industry has played a vital role in pushing the economy upward while FII’s withdrew their investment, showing the importance of MF’s in Indian economy.

The aforementioned studies indicate that the evaluation of mutual funds has been a matter of concern in India for the researchers, academicians, fund managers and financial analysts to a greater extent after 1985. The reviews bring to light the importance of mutual funds in the Indian financial scenario; highlight the need for adequate investor protection, single regulatory authority, higher return for a given risk as per investors’ expectation, greater convenience and liquidity, and the expectations that mutual funds should act as a catalytic agent of economic growth and foster investors’ interest.
Das Sanjay (2012) explained about the small investor’s perception on the Mutual Funds in Assam. He has taken the study on various type of Mutual funds on the 250 investors.

Dhanda S.K. & Batra G.S. (2012) in their research work, taken the various tools in their analysis including Jenson and Tryneor’s Ratio. Their research period is 2009-2012.

Mehta S & Shah C. (2012) in their study conducted survey of 100 investors of Ahmadabad and Baroda City and give inference that investors rely more on making investment in preferable mode than the suggested one.

Sahil Jain and Dr. Aditi Gangopadhyay analyzed (2012) the performance of equity based mutual funds. A total of 45 schemes offered by 2 private sector companies and 2 public sector companies, have been studied over the period April 1997 to April 2012 (15 years). The analysis has been made using the risk-return relationship and Capital Asset Pricing Model (CAPM). The overall analysis finds that HDFC and ICICI have been the best performers, UTI an average performer and LIC the worst performer which gave below- expected returns on the risk-return relationship.


Biswa B. (2013) in his study has taken a survey in the West Bengal State. He study the performance of 10 best and 10 worst mutual fund during the period of 2009-2012.
Vasantha S.V., Maheswari U., & Subashini K. (2013) studied the various mutual funds and analyzed the performance of open-ended equity and diversified mutual funds. Their period of study is 2008-2012.

Annapoorna M.S. and Gupta P.K. (2013) done the comparative analysis of returns of Mutual funds schemes ranked 1 by CRISIL. Comparison was done with SBI domestic terms deposits is better. Similarly

Naik R.M. (2013), Narayansamy R. et al (2013) and Satya Shekhar G.V. (2013) studied role of mutual funds in Indian financial sector. The studies on mutual fund investment performances have long sought to draw the distinction between the ability to time the market and the ability to forecast the returns of individual assets. Thus superior performances are due to either timing or selection ability or some combination of the two. Indeed portfolio managers often characterize themselves as market timers or stock pickers.

2.2 Conclusion

The subject of mutual fund performance has received a great deal of attention in the literature of financial economics. The reviews of earlier studies have briefly looked at predictability of performance, persistence in performance and market timing ability. Wharton School of Management started the research on the mutual funds from 1953 and Friend with its associates gave the first extensive study in 1962 on 152 mutual funds, highlighting widespread inefficiency in the industry. After that this industry has witnessed many changes from time to time. Irwin Brown suggested and examined issues relating to investment policies, portfolio turnover rates and performance of mutual funds in 1965. Treynor in 1965 provided a performance measure taking investment risk into account, and then Sharpe in 1966 developed a composite measure of return and risk. In 1968, Jensen provided another Index measure to evaluate the performance of mutual funds, this index takes risk adjusted returns into account. Smith’s research in 1969 is based on the inter relationships between the three widely used composite measures of investment performance. Then, later on, Blume (1970), Carlson (1970), Arditti (1971) and Williamson (1972) presented their research papers based on the study on the mutual funds and commented on the investment abilities of the fund managers. Fama in 1972
developed methods to distinguish observed return due to the ability to pick up the best securities at a given level of risk from that of predictions of price movements in the market. Klemonsky in 1973 highlighted the biases in the measures of Sharpe, Treynor and Jensen’s Index on the mutual funds and suggested that these could be removed by using the mean absolute deviation and semi standard deviation as risk surrogate. In 1974, Hogan and Warren came out with a measure based on the CAPM and termed it as ES-CAPM and used symmetric distribution approach. Later on, in 1975, Bawa corrected this model. Afterward many researches were carried out and all were based on either on the performance evaluation or on the correction of the measure of evaluating the portfolio of mutual funds. Some of the studies established their mark, such as Roll and Ross in 1979 used Arbitrage Price theory as an alternative to single factor CAPM. Khorana in 1998 uses Multinomial Probit Model to analyze mutual fund performance.

Indian Research on mutual funds started in late 1980’s but mainly based on the performance evaluation. No measures are suggested by the researchers’ in India which makes their mark like Sharpe, Treynor and Jensen. But Indian researchers carried out there researches on the wide aspects of the mutual funds.

However, reviews on industry performance particularly under the regulated environment are scantily available. As the mutual fund industry has a significant role to play in the corporate governance and to strengthen capital mobilization of the country there is a great need to study the performance of mutual fund industry alongwith the performance of growth schemes, particularly after the industry has ensured uniformity in accounting policies to bridge the gap in the existing literature. Since all the earlier studies have made use of Sharpe, Treynor and Jensen measures the present study makes use of the same well established traditional techniques alongwith Fama’s Decomposition of Total Return which was not applied by many of the previous studies.