CHAPTER - II

REVIEW OF LITERATURE

The investors behavior aspects, performance and their investment decision are highly influenced by six factors. According to these factors, in the following reviews Indian and foreign authors are classified namely safety on investment, returns from investment, transparency, liquidity, tax benefits, and service to the investors.

A research was conducted by Cumby and Jack (1990) to compare the performance of internationally diversified mutual funds with international equity index and Morgan Stanley Index for the United States. In this study, a sample of fifteen US-based internationally diversified mutual funds between 1982 and 1988 was used. The performance was then compared with the help of Jensen (1968) measure and Positive Period Weighting Measure. The results conclude that the performance of funds individually or as a whole was not higher than the performance of international equity index. The authors also examined the performance of the funds relative to the Morgan Stanley index for the United States and found some evidence that the funds outperform the US index.


The former employs CAPM methodologies to identify securities that are priced at a premium or a discount to the market. The latter refers to an ability to forecast what the market return will be so that the portfolio’s risk levels can be proactively adjusted. Although stocks will offer a higher return than T-Bills over time, the question still remains as to how much.

Madhusudhan V. Jambodekar (1996) conducted a study to assess the awareness of MFs among investors to identify the information sources influencing the buying decision and the factors influencing the choice of a particular fund. The study reveals among other things that Income Schemes and Open Ended Schemes are more
preferred than Growth Schemes and Close Ended Schemes during the then prevalent market conditions. Investors look for safety of Principal, Liquidity and Capital appreciation in the order of importance. Newspapers and Magazines are the first source of information through which investors get to know about MFs and Schemes and investor service is a major differentiating factor in the selection of Mutual Fund Schemes.

Otten and Dennis (1999) analyzed the performance of European mutual funds from 1991 through December 1998. Study also investigates the performance of fund managers along with the influence of fund characteristics on risk-adjusted performance. For this purpose a sample of 506 funds was taken and 4-factor model was used. The results indicate that the European mutual funds especially small cap funds are able to add value and 4 out of 5 countries exhibit significant outperformance at an aggregate level. The results also reveals positive relation between risk-adjusted return and fund size and negative relation between risk-adjusted and funds’ expense ratio.

AnjanChakrabarti and Harsh Rungta (2000) stressed the importance of brand effect in determining the competitive position of the AMCs. Their study reveals that brand image factor, though cannot be easily captured by computable performance measures, influences the investor’s perception and hence his fund/scheme selection.

As indicated by Statman (2000) the e SDAR of a fund portfolio is the excess return of the portfolio over the return of the benchmark index, where the portfolio is leveraged to have the benchmark index’s standard deviation.

Redman (2000) analyzed the risk adjusted returns for five portfolios of international mutual funds. The study was conducted for three periods: 1985-1994, 1985-1989, and 1990-1994. The performance was measured by using Treynor (1965) Index Sharpe (1966)’s Index and Jensen’s Alpha and comparison was made with the U. S. market. Results show that under Sharpe (1966)’s and Treynor (1965) indices the performance of portfolios of international mutual funds are higher than the US market from 1985-1994 and 1985-1989. On the other hand, performance of US equity portfolio and the market index is higher than global portfolios from 1990-1994.
Stehle and Olaf (2001) conducted a research to evaluate the open-ended mutual funds risk-adjusted performance. Study used a data set that included all German funds sold to the public in 1972. The research analyzed covers the time period of 1973 to 1998. DAX, which included the 30 largest German stocks and DAX100, which included the 100 largest German stocks were used as benchmarks for comparison. First of all researchers examined the rates of return of individual funds with the help of Sharpe (1966) and Jensen measures and then applied the same measures to evaluate the unweighted average rates of return of all funds. In case of the rates of return of individual funds, results show that the funds underperform the appropriate benchmarks by approximately 1.5 % per year. On the other hand, underperformance is reduced by 40 % in case of un weighted average rates of return. Study also concludes that the large German stock mutual funds, on the average, performed better than the small ones.

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.

A study was conducted by Otten, and Mark (2002) to compare the performance of European mutual fund industry with performance of United States fund industry. Sample of 506 European open-ended mutual funds and 2096 American open-ended mutual funds was taken from January 1991 to December 19979. Study was restricted the sample to purely domestic equity funds with at least 24 months of data. Results also indicate that European mutual funds have on average a better performance than the American counterparts and that the small cap mutual funds in both Europe and the United States outperformed the benchmark and all other mutual funds.

KshamaFernandes (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 suggests that it is
possible to attain low levels of tracking error under Indian conditions. At the same
time, there do seem to be periods where certain index funds appear to depart from the
discipline of indexation.

**Marcin T. Kacperczyk, et, al. (2005)** demonstrated that unabsorbed
information creates values for some funds. Return gap helps to predict future fund
performance and investors should use additional measures to evaluate the
performance.

**Noulas, John and John (2005)** evaluated the risk-adjusted performance of
Greek equity funds during the period 1997-2000. This study is based on weekly data
for equity mutual funds and includes 23 equity funds that existed for the whole period
under consideration. Mutual funds are ranked on the techniques used by Treynor
(1965), Sharpe (1966) and Jensen. Results show positive returns of the stock market
for the first three years and negative returns for the fourth year. The results also
indicate that the beta of all funds is smaller than one for four-year period. The authors
conclude that the equity funds have neither the same risk nor the same return. The
investor needs to know the long-term behavior of mutual funds in order to make the
right investment decision.

**K. Pendarakiet. al. (2005)** 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.

**ZakriY.Bello (2005)** matched a sample of socially responsible stock mutual
funds matched to randomly select 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 finds 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 is not different between the two groups.
Both groups underperformed the Domini 400 Social Index and S and P 500 during the study period.

**Boudreaux and Suzanne (2007)** conducted a study to examine the risk adjusted returns of international mutual funds for the period of 2000-2006. For this purpose a sample of ten portfolios of international mutual fund is taken and risk-adjusted performance is calculated by using Sharpe (1966)’s Index of Reward to Variability ratio. US market of mutual funds is taken as the benchmark. The results show that the performance of nine out of ten of the international mutual fund is higher than the US market. Those portfolios which contained only U.S stock mutual funds underperform on a risk adjusted the funds that contained all international mutual funds. The authors conclude that investors may not fully take advantage of possible portfolio risk reduction and higher returns if international mutual funds are excluded.

**Arugaslan and Ajay (2008)** examined the risk-adjusted performance of US-based international equity funds from 1994-2003. The analysis was done for five-year period 1999-2003 and ten-year period 1994-2003. For this a sample of 50 large US-based international equity funds was taken and a new method of measurement Modigliani and Modigliani (M squared) was applied. The performance was compared with both domestic and international benchmark indices. The results show that the risk has great impact on the attractiveness of Funds. Higher return funds may lose attractiveness due to higher risk while the lower return funds may be attractive to investors due to the lower risk.

**Keswani and Stolin (2008)** documented a positive association between past net flows and future fund performance in the British as well as in the US equity fund market. In particular, recent positive (or high) net flow funds are shown to perform better (they show less negative risk-adjusted returns) than negative (or low) net flow funds.

**Dietze, Oliver and Macro (2009)** conducted a research to evaluate the risk-adjusted performance of European investment grade corporate bond mutual funds. Sample of 19 investment-grade corporate bond funds was used for the period of 5 years (July 2000 – June 2005). Funds were evaluated on the basis of single-index
model and several multi-index and asset-class-factor models. Both maturity-based indices and rating based indices were used to account for the risk and return characteristics of investment grade corporate bond funds. The results indicate that the corporate bond funds, on average, underperformed the benchmark portfolios and there is not a single fund exhibiting a significant positive performance. Results also indicate that the risk-adjusted performance of larger and older funds and funds charging lower fees is higher.

**Bello and Frank (2010)** have given analysis regarding impact of reduced expense ratio (by Security and exchange commission’s regulations) in US mutual funds performance. Their results show that both expense ratio and portfolio turnover are negatively related to investment performance. Hence, high expenses and high turnover tend to decrease performance.

**Selvam et.al. (2011)** studied the risk and return relationship of Indian mutual fund schemes. The study finds out that out of thirty five sample schemes, eleven show significant t–values and all other twenty four sample schemes do not prove significant relationship between the risk and return. According to t-alpha values, majority (thirty two) of the sample schemes' returns are not significantly different from their market returns and very few number of sample schemes' returns are significantly different from their market returns during the study period.

**Salganik (2014)** finds that institutional investors do not exhibit superior selection abilities with respect to individual investors. In fact, the opposite seems to occur since a long-short strategy comprising positive and negative net flow retail funds outperforms and equivalent strategy that relies on institutional funds. He claims that even though retail funds are often populated by less sophisticated investors (when one compares them with their institutional peers), performance persistence and the wide availability of past return information may explain why retail investors, on the whole, do not lag behind institutional investors in terms of risk-adjusted performance, when buying and selling funds.
Returns from Mutual fund:

*Friend I, Brown F, Herman E and Vickers D (1964)* had done an extensive and systematic study of mutual funds. The study considered 152 mutual funds with annual data from 1953–1958. Using their own benchmark, the authors find that mutual funds earned an (unweighted) average annual return of 12.4%, while their composite benchmark earned a return of 12.6%. Overall, it is revealed that overall results do not suggest widespread inefficiency in the industry. The study also compared return of the funds across turnover categorized and expenses and categorized. The analysis does not reveal a strong relationship between turnover rates and performance. The same is found to be true in respect of expenses.

*Friend I, Brown, E Herman E (1965)* comprehensively examined investment policy and investment company performance, for the period 1952-58. Investment policy encompassed the structure of the portfolios, frequency, timing and methods of portfolio changes. Portfolio structure is influenced by the announced investment objectives. The common stocks accounted for a predominant share in growth funds (87.25%) and balanced funds (63.0%). The Impact of funds portfolio policies and activity in the capital market is determined by the distribution their security holding by market place of listing. Invested funds, as they expanded in size tended to change the percentage of their portfolio they held in securities other than those listed on particular exchange. As the size of individual transactions increased, it experienced a larger percentage of their portfolio sales in the over-the-counter markets by means of secondary offerings. The study confirms that the validity of explanation of relatively higher portfolio turnover rates in the smaller funds could depend on the age of the fund and the expectation that a newly formed fund could record higher turnover rates as it shifted its assets from a temporary liquid position into permanent portfolio of securities. In view of a variety of investment, objectives announced by the funds, a single measure of performance for all funds and for all investors are considered inadequate. During the period, studied performance records varied considerably, both within and among the type of funds, but on the average, it conformed rather closely to the behavior of securities market as a whole. About half the funds performed better,
and half worse, than unmanaged portfolios. These performance records are largely influenced by size, composition and portfolio structure.

**Treynor, Jack I and Mazuy (1966)** devised a test of ability of the investment managers to anticipate market movements. The study used the investment performance outcomes of 57 investment managers to find out evidence of market timing abilities and found no statistical evidence that the investment managers of any of the sample funds had successfully outguessed the market. The study exhibits that the investment managers have no ability to outguess the market as a whole but they can identify underpriced securities.

**Jensen, Michael C (1968)** developed a composite portfolio evaluation technique that considered returns adjusted for risk differences and used it for evaluating 115 open-end mutual funds during the period 1945-66. For the full period, Jensen examined returns net of expenses and gross of expenses. The analyses of net return indicate that 39 funds (34 Percent) have above average returns. Using gross returns, 48 funds (42 Percent) show above average results and 67 (58 percent) have below average results. He concludes that evidence on mutual fund performance indicate that not only this 115 mutual funds on the average are not able to predict security prices well enough to show that any individual fund is able to perform significantly better than that expected return.

**Arditti, Fred D (1971)** criticized the reward-to-variability criterion proposed by Sharpe (1966) on the grounds that it utilizes only the first two moments of the probability distribution of returns. Author proposes that the third moment, a measure of the direction and size of the distribution’s tail, be included in the analysis. He further argues that investors preferred positive skewness because positive skewness implies greater probability of higher return. Therefore, assets with relatively low reward-to-variability ratios would not be inferior investments if ratios also have relatively high third moments (high positive skewness). Furthermore, author reexamines the Sharpe (1966) data with this additional requirement and finds that average fund performance is not inferior to Dow Jones Industrial Average (DJIA).
performance because the skewness of the Dow Jones Industrial Average (DJIA) return distribution is significantly less than fund skewness.

Mcdonald (1973) has developed a model to evaluate the investment performance of funds holding securities in two countries. For this purpose a sample of eight of the oldest French mutual funds was taken. The monthly returns of these funds were calculated and analyzed for the period 1964-1969. The results show that the funds, generally, produced superior risk-adjusted returns and that the French market is inefficient with respect to the completeness and speed of dissemination of information. The author concludes that those funds which invested in the French market in 1964-69, generally, achieved lower return at a given level of variance than that reflected in the US market returns. Mcdonald (1973) also finds that the funds are generally able to attain superior returns relative to naive portfolio strategy.

Cornell, Bradford (1979) contested Meyers and Rice methodology based on CAPM and pointed out that CAPM could not be resurrected as a practical tool for performance measurement, this outlining a performance measures based only on returns. This measure is found robust, as it is capable of correctly designating superior performance in the context of CAPM, arbitrage-pricing theory (APT) and equilibrium models of security prices.

Ang, James S and Chua, Jess H (1979) examined the mean-variance measures and found them unsatisfactory in evaluating investment performance in view of the systematic bias. The study attributes it to the asymmetry of return distributions at small intervals and failure to appropriate holding period influencing systematic bias. It shows the superiority of performance measures that consider asymmetry of distributions along with mean and variance.

Hendrickson, Roy D and Merton, Robert C (1981) derived a statically framework for both parametric (using models based on assumptions) and non-parametric tests (which do not make assumptions the distribution of the variable) of market timing ability. If the managers forecast are observable, the parametric test can be used without further assumptions on distribution of security returns. If not, the parametric tests under the assumption of either CAPM or multi-factor return structure
can be used. This permits identification and separation of gains from market timing skills and from stock selection skills.

**Reilly, Frank K (1982)** studied the performance open-end mutual funds over fifteen years period, 1966-80 and found that return of all the funds was quite close to that of the market. Based on return alone, 12 funds outperformed the market. The study notes larger rate of fund returns indicating inadequacy of portfolio diversification. Similarly, the two risk measures (standard deviation and beta) exhibit a wide range, but generally consistent with expectations. Specifically, 14 funds have a standard deviation larger than the market, which is found consistent with the lack of complete diversification. The performance of individual funds is very consistent for alternative performance evaluation models. Sharpe’s model indicate that 13 funds have a higher value than the market and the Jensen’s model indicate 13 of the 20 having positive intercepts, with only one being statistically significant. These results indicate that on average sample funds outperformed the market during the period of study.

**Kon, Stanley J (1983)** proposed an empirical methodology measuring the market-timing performance of an investment manager and provide evidence for a sample of mutual funds. The results indicate that at the individual fund level there is an evidence of significant superior timing ability and performance. The multivariate tests also produce result consistent with efficient market hypothesis. That is, fund managers as a group had no special information regarding expectations on return of market portfolio.

**Chang, Eic C and Lewellen, Wilbur G (1984)** employed the parametric statistical procedure developed by Hendrickson and Merton to empirically evaluate investment performance of mutual funds. This procedure and associated findings are compared with those of prior investment performance evaluations. The new procedure produced more favorable judgment about mutual fund security selection performance in aggregate and the performance evaluations of various individual funds in which fewer fund managers displayed more market skills than before. The study concludes
that the fund managers are collectively unable to outperform a passive investment strategy, an endorsement of the market efficiency.

In order to analyze the market-timing performance of mutual funds, a study was conducted by Hendrickson, Roy D (1984). For this purpose, a sample of 116 open-end mutual funds from February 1968 to June 1980 was taken. By using parametric and nonparametric techniques author examined the performance of these open-end mutual funds using monthly data. The returns data included all dividends paid by the fund and were net of all management costs and fees. Both the parametric and nonparametric tests show that mutual fund managers are unable to follow a successful investment strategy. The results also show that no evidence is found that forecasters are more successful in the market-timing activity with respect to predicting large changes in the value of the market portfolio relative to smaller changes.

De Bondt and Thaler (1985) while investigated the possible psychological basis for investor behavior, argue that mean reversion in stock prices is an evidence of investor over reaction where investors over emphasized recent firm performance in forming future expectations.

Davanzo, Lawrence E and Nesbit, Stephen L (1987) Pointed out that traditional compensation structure had hardly any relation with typical performance objectives like outperforming market objectives. If found asset based fees more akin to the compensating corporate officers in relation to the size of their company or division and net profits. As result money managers have an incentive to become large, a characteristic frequently cited as hampering otherwise good firms. Tying management compensation directly to the portfolio performance objective would prevent sponsors from paying high fees for mediocre results. Although any active stock or bond manager could be eligible for a performance fee, managers with high fees would be the best candidates from the sponsor’s viewpoint, as the sponsor would not have to pay high fee unless the managers produced high returns.

Ippolito, Richard A (1989) conducted a research to analyze the efficiency in capital markets when information is costly to obtain. Sample of 143 mutual funds
were reported in the 1965 edition of Wiesenberger. The analysis was done for the period of 1965-1984. Ippolito (1989) employed CAPM model and made a comparison of results to those reported in Jenson (1968). The results show that risk-adjusted returns in the mutual fund industry, net of fees and expenses, are comparable to returns available in index funds. Results also indicate that portfolio turnover and management fees are unrelated to fund performance. The researcher concludes that mutual funds with higher turnover fees and expenses, earn rates of return sufficiently high to offset the higher charges. Research also concludes that the mutual funds are efficient in the trading and information-gathering activities.

Lee, Cheng few and Rahman Shafiqur (1990) also examined market timing and selectivity performance of mutual funds by using simple regression technique and the results indicate some evidence of micro and macro forecasting ability of fund managers.

Barua, Raghunathan and Varma (1991) evaluated the performance of Master Share during the period of 1987 to 1991 using Sharpe, Jensen and Treynor measures and conclude that the fund performs better in the market, but not so well as compared to the Capital Market Line.

Sirri and Tufano (1992) found that for a sample of 632 US mutual funds, investors responded to the published fund ranking, and registered the existence of a positive relation between return obtained by the funds and the contributions received by them. In other words, the funds that for the analysis period obtained high raw returns experienced larger net new money inflows in the Following periods.

Malkiel, Burton G (1995) conducted a research to analyze the performance of equity mutual funds for the period of 1971 to 1991. For this purpose, study involves a data set that includes the returns from all mutual funds in existence in each year of the period. After analyzing the returns from all funds, he finds that mutual funds underperform the market. Survivorship bias is considered to be the important part of the analysis. Study also examines the fund returns in the context of the capital asset pricing framework and neither finds any evidence of excess return nor observed any risk return relationship stated by the capital asset pricing model. Study concludes that
it is better for the investors to purchase a low expense index fund than to select an active fund manager.

**Jayadev (1996)** evaluated the performance of two growth-oriented mutual funds namely Master gain and Magnum express by using monthly returns. Jensen, Sharpe and Treynor measures have been applied in the study and the pointed out that according to Jensen and Treynor measure Master gain have performed better and the performance of Magnum is poor according to all three measures.

**Zheng (1999)** shows that investors make above-average fund selection decisions since various trading strategies that invest in funds with positive flows are able to deliver higher returns than investing in an equally-weighted portfolio of all funds. She also shows that this “smart money” effect is driven by small funds suggesting that investors make shrewder buy and sell decisions when opting for this type of funds.

**Bijan Roy, et, al(2000)** used conditional performance evaluation on a sample of 89 Indian MF schemes measuring with both unconditional and conditional form of CAPM model. The results suggest that the use of conditioning lagged information variables improves the performance of mutual fund schemes, causing alphas to shift towards right and reducing the number of negative timing coefficients.

**Shanmugham (2000)** conducted a survey of 201 individual investors to study the information sourcing by investors, their perceptions of various investment strategy dimensions and the factors motivating share investment decisions, and reports that among the various factors, psychological and sociological factors dominated the economic factors in share investment decisions.

**Otten and Mark (2002)** to compare the performance of European mutual fund industry with performance of United States fund industry. Sample of 506 European open-ended mutual funds and 2096 American open-ended mutual funds was taken from January 1991 to December 19979. Study was restricted the sample to purely domestic equity funds with at least 24 months of data. Results also indicate that European mutual funds have on average a better performance than the American
counterparts and that the small cap mutual funds in both Europe and the United States outperforms the benchmark and all other mutual funds.

**Ottem and Bams (2002)** As they concluded that European mutual funds (UK, Italy, Germany and Netherlands) seem to prefer smaller stocks, and stocks with high book-to-market ratios with exception to French Mutual funds which prefer midcaps portfolios. We are also following recent studies of Huji and Verbeek (2009) with an idea of style portfolios based on anomalies of Carhart (1997). They analyzed the impact of portfolios assembled on market beta, size beta, value beta and past returns of funds, which gives a better understanding of the factors affecting more on funds return. His results obtain through Carhart’s four factor model (1997) support the value premium and momentum effect for US funds.

**Rajeshwari T.R and Rama Moorthy V.E (2002)** studied the financial behavior and factors influencing fund and scheme selection of retail investors by conducting Factor Analysis using Principal Component Analysis, to identify the investor's underlying fund and scheme selection criteria, so as to group them into specific market segment for designing of the appropriate marketing strategy.

**RoshniJayam’s(2002)** study brought out that those 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 suggests Systematic Withdrawal Plan (SWP) with growth option is more suitable for investors in need of regular cash inflows.

**Sapar and Narayan(2003)** examine the performance of Indian mutual funds in a bear market through relative performance index, risk-return analysis, Treynor's ratio, Sharp's ratio, Sharp's measure, Jensen's measure, and Fama's measure with a sample of 269 open ended schemes (out of total schemes of 433). The results of performance measures suggest that most of the mutual fund schemes in the sample of 58 are able to satisfy investor's expectations by giving excess returns over expected returns based on both premium for systematic risk and total risk.
Elango’s (2004) analytical results indicate that private funds have a high positive association between the past and current year NAV compared to public sector. The private sector schemes outperform public sector in terms of NAV range value, innovative products and in deployment of funds. Public sector funds show low volatility as against greater variability for private sector indicating low consistency. Student ‘t’ test indicate 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.

Ramamurthy and Reddy (2005) conducted a study to analyze recent trends in the mutual fund industry and draw a conclusion that the main benefits for small investors’ due to efficient management, diversification of investment, easy administration, nice return potential, liquidity, transparency, flexibility, affordability, wide range of choices and a proper regulation governed by SEBI. The study also analyzes about recent trends in mutual fund industry like various exit and entry policies of mutual fund companies, various schemes related to real estate, commodity, bullion and precious metals, entering of banking sector in mutual fund, buying and selling of mutual funds through online.

Rao D. N (2006) studied the financial performance of select open-ended equity mutual fund schemes for the period 1st April 2005 - 31st March 2006 pertaining to the two dominant investment styles and tested the hypothesis whether the differences in performance are statistically significant. The analysis indicates that growth plans have generated higher returns than that of dividend plans but at a higher risk studied classified the 419 open-ended equity mutual fund schemes into six distinct investment styles.

Aggarwal, Navdeep and Gupta, Mohit (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.

A study by 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.

Anand and Murugaiah (2006) 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 90 percent of corpus to equity stocks of 25 fund houses. The empirical results report reveal the fact that the mutual funds are 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 is more severe during negative performance of the funds while the impact selectivity skills of fund managers is 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.

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 analyzes the relative performance of the funds with respect to their style benchmarks. The results of the study show that the funds have not been able to beat their style benchmarks on the average.

Bessler, Drobetz and Zimmermann (2009) studied fund industry in German market while using beta-pricing approach and the stochastic discount factor (SDF).
They drew a general conclusion that German mutual funds, on average, hardly produce returns that are large enough to cover their expenses.

Agrawal Deepak and Patidar Deepak (2009) studied the empirically testing on the basis of fund manager performance and analyzing data at the fund-manager and fund-investor levels. The study reveals that the performance is affected by the saving and investment habits of the people and at the second side the confidence and loyalty of the fund Manager and rewards- affects the performance of the MF industry in India.

SathyaSwaroopDebasish (2009) studied the performance of 23 schemes offered by six private sector mutual funds and three public sectors of mutual funds based on risk-return relationship models and measure it over the time period of 13 years (April 1996 to March 2009). The analysis has been made on the basis of mean return, beta risk, co-efficient of determination, Sharpe ratio, Treynor ratio and Jensen Alpha. The overall analysis concludes Franklin Templeton and UTI being the best performers and Birla Sun Life, HDFC and LIC mutual funds showing below-average performance when measured against the risk-return relationship models.

Sondhi and Jain (2010) examined the market risk and investment performance of equity mutual funds in India. The study used a sample of 36 equity fund for a period of 3 years. The study examined whether high beta of funds have actually produced high returns over the study period. The study also examined that open-ended or close ended categories, size of fund and the ownership pattern significantly affect risk-adjusted investment performance of equity fund. The results of the study confirm with the empirical evidence produced by fama (1992) that high beta funds (market risks) may not necessarily produced high returns. The study reveals that the category, size and ownership have been significantly determine of the performance of mutual funds during the study period.

Prabakaran and Jayabal (2010) evaluated the performance of mutual fund schemes. The study conducted a sample of 23 schemes were chosen as per the priority given by the respondents in Dharmapuri district covered a period from April 2002 to March 2007. The study used the methodology of Sharpe, Jensen and Fama for the
performance evaluation of mutual funds. The results of the study find that 13 schemes out of 23 schemes selected had superior performance than the benchmark portfolio in terms of Sharpe ratio, 13 schemes have superior performance of Treynor ratio and 14 schemes have superior performance according to Jensen measure. The Fama’s measure indicates in the study that the returns out of diversification are less. Thus the India Mutual funds are not properly diversified.

Clifford et. al. (2011) showed that investors chase past raw performance disregarding risk (i.e., standard deviation of monthly returns). They document some differences in terms of the flow-performance relationship between retail and institutional investors. For the former, the relationship appears convex and for the latter is linear implying, among other things, that institutional investors punish bad performance more severely. A similar finding is reported by Del Guercio and Tkac (2002) who provide evidence of a convex flow-performance association in the mutual fund industry and a linear one in the institutional fund segment.

Dhume and Ramesh (2011) conducted a study to analyze the performance of the sector funds. The sectors considered were Banking, FMCG, Infrastructure, Pharma and Technology. This study is used different approach of performance measures. The findings of study revealed that all the sector funds have outperformed the market except infrastructure funds.

Garg (2011) examined the performance of top ten mutual funds that was selected on the basis of previous years return. The study analyzed the performance on the basis of return, standard deviation, beta as well as Treynor, Jensen and Sharpe indexes. The study also used Carhart’s four-factor model for analyze the performance of mutual funds. The results reveal that Reliance Regular Saving Scheme Fund has achieved the highest final score and Canara and Robeco Infra have achieved the lowest final score in the one year category.

Deepak Agarwal (2011) Mutual funds contributes to globalization of financial markets and is one among the main sources for capital formation in emerging economies. He analyzed the pricing mechanism of Indian Mutual Fund Industry, data at both the fund-manager and fund-investor levels. There has been incredible growth
in the mutual fund industry in India, attracting large investments from domestic and foreign investors. Tremendous increase in number of AMCs providing ample of opportunity to the investors in the form of safety, hedging, arbitrage, limited risk with better returns than any other long-term securities has resulted in attracting more investors towards mutual fund investments.

Anitha et al. (2011) in their study, evaluated the performance of public-sector and private sector mutual funds for the period from 2005 to 2007. Selected funds were analyzed using Statistical tools like Mean, Standard Deviation and Co-efficient of Variation. The performance of all funds has shown volatility during the period of study making it difficult to earmark one particular fund which can outperform the other consistently.

Kalpesh P Prajapati and Mahesh K Patel (2012) evaluated the performance of Indian mutual funds using relative performance index, risk-return analysis, Treynor's ratio, Sharp's ratio, Sharpe's measure, Jensen's measure, and Fama's measure. The data used is daily closing NAVs from 1st January 2007 to 31st December, 2011 and concludes that most of the mutual funds have given positive return during the period of study.

Alekhya P (2012) has undertaken the study to evaluate the comparative performance of public and private sector mutual fund schemes. The paper focused on the performance of Mutual fund equity scheme for past 3 years from 2009 to 2011. Funds were ranked according to Sharpe's, Treynor's and Jenson's performance measure.

Shivani Inder and Shikha Vohra (2012) the paper evaluates the long run performance of the selected index fund schemes and make comparative analysis of the performance of these funds on the basis of the risk-return for the period of 6 years (January, 2005 to December, 2011). The results indicate that index funds are just the follower of market. They try to capture market sentiments, good as well as bad, and thus perform as the market performs.
Transparency factor:

Carlson, Robert S (1970) conducted a research to analyze the predictive value of past results in forecasting future performance of mutual funds for the period 1948-1667. The author also examined the efficiency of market and identified the factors related to the fund performance. First of all he constructed indices for three types of mutual funds (Diversified common stock, Balanced, Income) and compared these indices with the market indices. In order to analyze the performance regression was used. The results provide empirical support to the return-risk postulate of the capital asset pricing model and conclude that whether mutual funds outperform the market depends on the selection of both the time period and market proxy. The author also concludes that past performance shows little predictive value and that the performance is positively related to the availability of new cash resources for investment purposes.

Ippolito, Richard A (1989) conducted a research to analyze the efficiency in capital markets when information is costly to obtain. Sample of 143 mutual funds were reported in the 1965 edition of Wiesenberger. The analysis was done for the period of 1965-1984. Ippolito (1989) employed CAPM model and made a comparison of results to those reported in Jenson (1968). The results show that risk-adjusted returns in the mutual fund industry, net of fees and expenses, are comparable to returns available in index funds. Results also indicate that portfolio turnover and management fees are unrelated to fund performance. The researcher concludes that mutual funds with higher turnover fees and expenses, earn rates of return sufficiently high to offset the higher charges. Research also concludes that the mutual funds are efficient in the trading and information-gathering activities.

Grinblatt and Sheridan (1992) conducted a research to analyze whether mutual fund performance relates to past performance. For this purpose a sample of 279 funds was taken. Study divided the sample into two five year sub periods and calculated the abnormal returns of each fund for each five year sub period. Similarly, the slope coefficient of abnormal returns is computed in a cross-sectional regression. The results indicate a positive persistence in mutual fund performance and fund
managers are able to earn abnormal returns. Therefore, the study concludes that the past performance of a fund provides useful information for investors who are considering an investment in mutual funds.

Coggin T, Daniel, Fabozzi, Frank J, and Rahman, Shafiqur (1993) empirically examined selectivity performance of 71 US equity pension fund managers over the period 1983 to 1990 by applying Jensen (1968), Treynor and Mazuy (1966) and Bhattacharya (1983) performance measures and reported that regardless of the choice of benchmark and/or estimation model, the selectivity measure was positive on an average. However, it did appear to be somewhat sensitive to the choice of a benchmark when managers were classified by investment style. Graham and Harvey (1996) studied the market timing abilities and volatility implied in investment allocation recommendations. The study investigated over 1500 asset allocation recommendations for 1980-92 period and found little evidence that hot recommendations contained adequate information regarding future market returns and some recommendations even appeared to have short run insight over the common level of predictability.

A research was conducted by Martin et. al. (1993) examines the performance of bond mutual funds. Samples of bond fund: first sample was designed to eliminate survivorship bias and was comprised of the 46 non-municipal bond funds for the 10-year period from the beginning of 1979 to the end of 1988. The second sample consisted of all bond funds that existed at the end of 1991. Researcher used linear and nonlinear models in order to examine the two samples. The results show that bond funds underperform relevant indexes post expenses.

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

Khorana, Ajay and Nelling, Edward (1998) using multinomial profit 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. Morningstar’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 perform
substantially better than low rated funds after the issue of ratings.

Syama Sunder (1998) conducted a survey to get an insight into the mutual
fund operations of private institutions with special reference to Kothari Pioneer. The
survey reveals that awareness about Mutual Fund concept was poor during that time
in small cities like Visakapatnam. Agents play a vital role in spreading the Mutual
Fund culture; open-end schemes were much preferred then; age and income are the
two important determinants in the selection of the fund/scheme; brand image and
return are the prime considerations while investing in any Mutual Fund.

Maria Do Ceu Cortez and Florinda Silva (2002) analyzed the implications
of conditioning information variables on a sample of Portuguese stock funds. They
identified that unconditional Jensen’s alpha ensured superior performance till
incorporation of public information variables. Alpha is not statistically different from
zero while beta is related to public information variables.

Alves and Mendes (2011) relationship between performance and flows in a
small equity fund market (Portugal). Their evidence lends support to the idea that past
flows are not capable of predicting either good or bad subsequent performance.
Previous evidence on the extent of a “smart money” effect across retail and
institutional funds is mixed and, thus, far prior studies have been focused on
developed markets.

Leite and Cortez (2006) conducted a research to analyze the impact of using
conditioning information in evaluating the performance of mutual funds. For this
purpose, two different samples of Portuguese-owned open end equity funds were
built, over the period of June 2000 to June 2004. The first sample contained surviving 24 funds (10 National funds and 14 European Union funds) at the end of June 2004. While the second sample included all surviving and 20 non-surviving funds during the sample period. Both conditional and unconditional models were used to evaluate the performance. The results of unconditional model indicate that the performance of National funds is neutral while the performance of European Union funds is negative. On the other hand, conditional models, suggested that conditional betas (but not alphas) are time-varying and dependent on the dividend yield variable.

Desigan et al (2006) conducted a study on women investors perception towards investment and found that women investors basically are indecisive in investing in mutual funds due to various reasons such as lack of knowledge about the investment protection and their various investment procedures, market fluctuations, various risks associated with investment, assessment of investment and redressal of grievances regarding their various investment related problems. Savings is a habit specially embodied into women. Even in the past, when women mainly depended on their spouses’ income, they used to save to meet emergencies as well as for future activities. In those days, women did not have any awareness about various investment outlets. But as time passed, the scenario has totally changed.

Tax benefit factor:

SujitSikidar and Amrit Pal Singh (1996) carried out a survey with an objective to understand the behavioral aspects of the investors of the North Eastern region towards equity and mutual funds investment portfolio. The survey reveals that the salaried and self employed form the major investors in mutual fund primarily due to tax concessions. UTI and SBI schemes are popular in that part of the country then and other funds have not proved to be a big hit during the time when survey is done.

Kiran D. and Rao U.S. (2004) identified investor group segments using the demographic and psychographic characteristics of investors using two statistical techniques, namely Multinomial Logistic Regression (MLR) and Factor Analysis.
Liquidity factor:

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

Cai et al. (1996) evaluated the performance of Japanese open-type equity funds from 1981 to 1992. For this purpose, a sample of 800 open-type mutual funds run by 9 management companies was taken. Two benchmarks (value-weighted single-index benchmark and three-factor benchmark) were used in the analysis. This research used Jensen Measure, Positive Period Weighting (PPW) Measure and Conditional Jensen Measure in order to evaluate the performance of these funds. The results show that value-weighted and equal-weighted portfolios of 800 mutual funds underperform the single-index benchmark by approximately 7.0% and 6.0%. The results also show that most of the funds are inclined to invest more in large stocks.

Service factor:

Gupta (1994) made a household investor survey with the objective to provide data on the investor preferences on MFs and other financial assets. The findings of the study are more appropriate, at that time, to the policy makers and mutual funds to design the financial products for the future.

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 concludes that the efficiency of the fund managers is the key in the success of mutual funds and so the AMCs have to ensure more professional outlook for better results.

Anand and Murugaiah (2004) had studied various strategic issues related to the marketing of financial services. They found that recently this type of industry requires new strategies to survive and for operation. For surviving they have to adopt new marketing strategies and tactics that enable them to capture maximum
opportunities with the lowest risks in order to enable them to survive and meet the competition from various market players globally.

**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 have the same level of confidence towards shares and mutual fund.

**Singh and Jha (2009)** conducted a study on awareness & acceptability of mutual funds and found that consumers basically prefer mutual fund due to return potential, liquidity and safety and they were not totally aware about the systematic investment plan. The investors’ will also consider various factors before investing in mutual fund.

**CONCLUSION**

The review of the related literature in the area of performance evaluation, perception and preference of mutual fund indicates that most of the studies made use of the CAPM, Sharpe, Treynor, Jenson and Fama models. Though some of the studies suggest changes to the models in order to be more effective, they are found to be situation specific and hence, generalization may not be appropriate. Almost all studies have adopted variance in the returns as a measure if risk. Factors considered as relevant in perception and preference mutual fund are safety, returns, transparency, tax benefits, liquidity and services to the investors. 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. Nowadays, the mutual fund industry has grown tremendously through the entry of both private and public sectors.