CHAPTER 3

LITERATURE REVIEW

Review of literature plays an important role in research as it considers the enormous efforts made by the academicians and researchers in the particular area. There are a variety of research studies available in the area of mutual funds not only in India but also globally. We get a view about the significant research studies by conducting a literature review of these papers.

This research study has been conducted in three areas related to the present scenario of mutual funds in India. The study has been done to examine the selection criteria, perception and professional competency of finance professionals in this industry. First, the study evaluates the attributes as well as the combination of attributes affecting the investment decision making of the financial advisors in the Indian mutual fund industry. Second, the perception of investment advisors is being analyzed to know their ability to guide the investors in the selection of mutual fund schemes. Third, the performance evaluation of fund managers is done to know whether the performance of the funds is due to their skills or it is merely the reflection of the market movements.

As mentioned above a plethora of international as well national studies are available in the areas related to the present research study. However, the most relevant and important studies have been reviewed in four different sections. In the first section, we have included the studies related to the attributes considered for selection; the second one includes the work done on judging the perception of individuals and the third section deals with the research studies related to the performance evaluation of fund managers. The fourth section deals with the studies related to statistical techniques which can be used to examine the above mentioned areas. The last section in this chapter deals with the gaps identified from this literature review in the above areas to frame the objectives for the present research.

As a result of the literature review, the objectives are framed and illustrated in the end of this chapter for the present research study.
3.1 ATTRIBUTES CONSIDERED FOR SELECTION

The following paragraphs present the literature review briefly with regard to the attributes of mutual funds considered by investment professionals for investment in a particular mutual fund scheme.

i) Past Performance: There are several research studies which deal with the topic of persistence in performance of mutual funds. The analysis is done to know whether the future performance of the mutual funds can be predicted by the past performance or not.

The initial studies on past performance of mutual funds were contradictory to each other. [102] used the Sharpe ratio to measure fund performance. He ranked the funds over two periods 1944-1953 and 1954-1963, and found a positive relationship between these two ranking periods. Thus, past performance was able to predict the future performance.

On the contrary, [56] measured the performance of 115 mutual funds in the 1945-1964 period using the Jensen alpha measure, and showed that they do not outperform over a period of time i.e. they did not show performance persistence. [40] discovered steadiness in performance of the mutual funds. 279 funds were considered by them for the period between 1975 to 1984 utilizing 8 portfolio benchmarks with assessment periods comprising of 5 years & discovered steadiness for next five years. They found that funds which performed well in first half of the sample period kept on doing so in the second half thus, indicating superior performance was predictable to a certain extent.

[53] says that fund/scheme selection by investors depends on past performance of the funds and money flows into winning funds more rapidly than they flow out of losing funds. [37] did the analysis of 728 mutual funds in the US for the period between 1976-1988 and discovered that past mutual funds’ performances & relative rankings are valuable in predicting their future performance. They assessed style adjusted alphas on the basis of both absolute and relative and found that highest persistence was shown by funds whose alphas were higher than 10% & also by funds whose alphas ranked in the top 5% of the sample. [41] comment that mutual funds tend to purchase stocks on the basis of their returns in the past periods and as indicated by them, funds following momentum strategies obtain significant excess performance while contrarian funds do not show any alpha. This recommends that the positive results shown by the previous studies may be a simple trading rule instead of better stock picking skills.
explored performance persistence in mutual funds using absolute and relative benchmarks. Their sample indicated that relative risk adjusted performance of mutual funds persisted although it is more due to funds which lag the benchmark.

In a key paper, [8] used a different four-factor model, adding a one-year momentum factor to the Fama-French three factor model. Over the years, this model has become a standard model in most studies of equity mutual funds. In this model the momentum factor was constructed by the monthly return difference between the returns on the high and low prior return portfolios, to capture the cross-sectional return patterns. The study suggests that factors in stock returns and investment expenses almost completely explain persistence in equity mutual funds’ mean and risk adjusted returns.

[16] used semi parametric model to estimate the shape of the relationship between performance and new fund flows for growth and income funds for a period between 1982-1992. The study was done because the shape of this relation created incentives for fund managers to increase or decrease the riskiness of the funds. They showed that the mutual funds changed their riskiness depending on the relative performance by the end of the year.

[82] examined nonconventional bond funds (high-yield bonds, global issues and convertible bonds) and found that short-term performance persistence is present, but limited to the high-yield bond subsample. However, fund managers were unable to show persistence in performance on a long term basis.

[54] examined nonconventional bond funds (high-yield bonds, global issues and convertible bonds) and found that short-term performance persistence is present but that too in high-yielding bonds. Fund managers are unable to distinguish themselves in the long term, despite the diverse nature of the funds they oversee. They reconfirmed that there is no relationship between past performance and future returns as far as bond mutual funds are concerned. And thus they did not support the existence of performance persistence in the mutual funds.

For the purpose of performance evaluation, risk adjusted performance, asset size and expense ratio of the mutual funds have been studied for past five years i.e. from April 2006 to March 2011 by [36]. Multiple regression model has been used for the analysis. Results have confirmed the presence of performance persistence in mutual funds. Thus, these studies show that the past performance record is very useful in predicting the future performance of mutual fund.
ii) Expense Ratio:

Expense ratio is the percentage of total assets that are spent to run a mutual fund. In other words, expense ratio states how much you pay a fund in percentage term every year to manage your money. There are a number of studies which indicate that expense ratio is negatively related to the fund returns. Hence, to have an insight on this attribute, a number of research papers have been reviewed.

[70] documented that larger funds have lower expense ratios than smaller funds due to economies of scale as well as older funds have lower expense ratios than the younger funds. They also emphasized that fund objective and load charges are not related to expense ratio to a great extent.

[71] in another study on expense ratio, focused on the presence of economies of scope i.e. the funds that belong to large fund families have lower expense ratio. They also gave the argument that investors should use expense ratio rather than fund return, as a selection criterion, when selecting a mutual fund.

[89] examined empirically the relationship between operating expense ratios and fund assets. The findings in the paper point strongly to the presence of an inverse relationship between the two at the fund level. Thus, it indicated that the large equity funds generally have lower operating expense ratios than small equity funds.

[10] estimated annual trading costs for a sample of equity mutual funds and found that these costs are substantial in amount as well as vary to a great extent across the cross section. Trading costs, like expense ratios, are negatively related to fund returns and gross fund returns are not able to recover the trading costs. They found that the direct estimates of expense ratios have more explanatory power for fund returns than turnover. Thus, expense ratios may be taken as an important attribute to explain the characteristics of a fund.

[91] evaluated the expense ratios of American mutual funds vis-a-vis Canadian mutual funds to find out the reason behind the higher expense ratios of Canadian funds. It was concluded by the empirical analysis that the two main reasons behind the high value of expense ratio in Canadian funds were the absence of economies of scale and less competition in the Canadian mutual fund market. Some measurable fund attributes were also the reason behind the discrepancy in the expense ratios.
A cross sectional study on expense ratios of unit trust funds [106] examined the factors affecting the fund expense ratio as they are the most important determinant of fund return. Their findings suggested that larger funds have lower expense ratios than smaller funds due to economies of scale. The results further indicated that funds with high return volatility have low expense ratios and high portfolio turnover also results in high expense ratio. [44] inspected 66 funds with very high & 27 funds with extremely high expense ratios. They examined the association of expense ratios to descriptive performance measures by morning star category. These measures are the Sharpe ratio, Jensen alpha, Morning star rating & five star annual results. Their outcomes demonstrate that expense ratios have the expected general negative association with each of the performance measures. Thus, the expense ratio can be considered as an important attribute to judge the performance of mutual fund schemes as well as it can guide the investment advisors whether to invest in a particular scheme or not.

iii) Fund Size:

It is the total amount of capital committed by the investors of a mutual fund. In a research paper, [27] added various innovative viewpoints to the existing as well as growing body of empirical evidence on the investment performance of international mutual funds by applying a pooled cross-sectional/time-series regression methodology to a large data base of 107 mutual funds over a long period ranging from 1971-1990. It was seen that returns, adjusted or unadjusted for risk, do not show any relation to load status of the fund, as well as to its asset size, expense ratios and turnover rates. They came to the conclusion that there is no extra return for paying a load fee while investing in mutual funds. It must be noted that performance is not affected by fund size, given the explosive growth of international mutual funds. [18] explored the relationship of equity fund size to performance. They examined 182 aggressive growth funds, 248 long term growth funds and 196 growth & income funds. Their annual returns & descriptive statistics are evaluated for the period from 1982-1992. The findings of the study suggest that once the equity funds grow large in size their performance goes down as compared to their peers. Especially it is true for funds with aggressive growth objectives. It is better for them to be small in size, as investors with aggressive growth objective prefer investing in smaller
funds to maximize their wealth. Moreover, it is difficult for large fund managers to turnover their portfolios.

[17] observed the relationship between the inflows in the fund & its performance. They used a semi-parametric model to estimate the shape of flow-performance relationship for a sample of growth and income funds observed over the period of 1982-92. They have found the funds having a superior past records attract more investors but flows are less sensitive to past poor performance. They also concluded that funds with large inflows affect the fund management i.e. the portfolio liquidity are adversely affected.

[39] analyzed the performance of funds during the period 1975 – 1984 on the basis of asset size and quintile divisions. Superior performance was evident in few cases in the smallest quintile, however, there was very less significant difference in returns from that of funds in larger quintiles.

[52] examined a sample of 683 non-indexed U.S. equity funds over the 1993-95 period. They felt that funds must attain a critical size to attain satisfactory returns. However, they also found that there are diminishing marginal returns to information activities when the funds exceed a critical size, it results in negative performance of the funds. They found that 20% of non-indexed US equity funds were too small and 10% too large.


[15] likewise researched whether size is a vital element for examining the fund performance i.e. size influences the execution or not. They discovered with proof that fund size erodes performance. They also gave the suggestion that smaller funds have a tendency to outperform larger funds because of diseconomy of scale.

[31] studied the Australian market. The performance of actively managed mutual funds during 1991 – 2000 were examined by them to find out that to what extent the fund size and manager size are related to risk-adjusted return. No significant difference was observed in performance between funds of different asset size according to their study.

[30] in his research thesis, concluded that small funds prefer investing in small firms while large funds invest in large firms. They also came with a view point that small French, German and Italian domestically investing funds have a higher exposure to the market risk than larger funds. Thus, they suggested the individual investors in Europe, to buy larger funds since they perform
better than small ones (in the UK, the opposite is true). However, when the investors are considering the purchase of small cap funds, smaller funds should be preferred and should sell them when the fund has grown too large.

In a research study by [57], the relationship between mutual fund size and performance was analyzed on 91 Swedish mutual funds during a six year period (2006-2011). The findings also show that there is no persistence in performance for any of the size-based fund groups which helps us to draw the conclusion that past performance is not a good measure for predicting future performance regardless of the size of the funds. The results also indicate that mutual funds with a larger asset base tend to have lower management fees than smaller funds.

[62] in her study concentrated on observationally looking into what is the impact of fund size on performance of open ended balanced mutual fund/growth mutual funds in the Indian context. Twenty one Balanced Mutual Fund schemes having at least three years track record were only selected for the study and the time period taken into consideration was 3 years (1st April 2007 to 31st March 2010). The sample of 30 Balanced Mutual Funds with fund size varying from Rs. 0.91 crores to Rs. 3494.45 crores were selected and classified as Micro-, Small-, Medium- and Large sized funds. Correlation coefficients between fund size and the four parameters of performance (Return, Risk, Return/Risk, Sharpe Ratio) have been calculated to know the level of relationship between fund size and performance of select Balanced funds. Further, the concept of Momentum (Mass * Velocity), a well known concept in Physics and Mechanics, has been used in this study to introduce a new idea called Fund Momentum which is figured out by the product of Fund Size and CAGR. It is evident from the testing of the hypothesis, that the correlation coefficients of fund size and performance variables are insignificant. There is no evidence by which it can be concluded that the fund size affects performance of Balanced Mutual Funds, be it micro-, small-, medium- and large sized funds.

[95] analyzed the fund attributes that affect fund performance by studying 69 Malaysian equity mutual funds representing 44 conventional funds and 25 Islamic funds over the period of five years. The attributes analyzed include Risk, Fund Size, Management Expense Ratio, Turnover Ratio and Fund Age. The hypotheses were tested using several regression analyses to see whether there is a significant relationship of Fund Performance with Risk, Fund Size, Management Expense Ratio, Turnover Ratio and Fund Age. The
outcomes show that higher returns are shown by funds with higher risks. Those funds which spent more on research expenses give superior returns compared to those that spent less. In addition to this the observations show that young funds performed better than old ones. However, it was concluded that fund size and turnover ratios are not significantly related with fund performance. Overall, the results indicate that investors should focus on young funds and select fund based on his/her preferred risk level.

The above reviews show different conclusions about the relationship between size and performance which makes it difficult for investors to know if a small or a large fund is the best investment objective, or if the size of the fund does not matter. This shows that the results of previous researches are mixed and hence, it is believed that fund size influences fund performance to some extent.

**iv) Investment style of fund manager:**

Portfolio managers can often be identified by their investment style. These styles are commonly categorized as growth, value, and often a hybrid of the two.

The fund manager having value based style searches for cheap securities that are not very popular amongst investors. Many stocks that fit this criterion are cyclical shares towards the end of their business cycle. Managers who follow this approach look for stocks that are undervalued or where the manager feels the market may not perceive the maximum capacity for that organization or industry. The procedure is to purchase organizations when costs are depressed and sell them when their market value rises.

Growth managers search for companies with a track record of rapid growth in sales and earnings and more potential for the same. The conviction is that the future development of the company will, in a relatively short time span, justify its stock's current high price and offer even higher prices in the future.

Some portfolio managers decide not to dedicate them to any one investment style rather use aspects of both during different phases of the economic cycles.

Thus, the criteria that mutual fund managers use to select their assets vary widely according to the individual manager. So when choosing a fund, the investment advisor should look closely at the manager's investment style to make sure it suits the risk appetite of the investor.

[58] analyzed the risk and return of 123 American mutual funds during 1960–1969 by
applying Sharpe, Treynor and Jensen measures. Authors concluded that more aggressive portfolios outperform the less aggressive one i.e. they found that the mutual fund’s performance is affected by its investment objective and funds with more aggressive objectives produced better performance. This research paper, thus, indicated the importance of investment style in fund performance.

[11] confirmed from their study that fund style can be determined by size and book-to-market (value, growth). The study also shows that the investment styles adopted by most of the mutual funds are close to those of the market benchmark. There are few exceptions but they also prefer growth stocks and past winners. There is a clear evidence present in the study which shows that growth managers outperform the value managers, thus indicating the importance of investment style of fund managers in the performance of mutual funds.

In an empirical study of [87], a survey was done to evaluate the relative importance of the factors that influence the financial advisors in the selection of mutual funds. The study came with the conclusion that investment style is not considered an important factor for selection by the financial advisors.

[81] studied the behavior of 31 U.S. mutual funds over the five year period from 1997 to 2002. They found that funds investing in value stocks presented low risk estimates and were independent of risk measures criteria. They also concluded that riskier funds invested in growth stocks. This reiterates the importance of investment styles in performance of mutual funds.

[88] studied 21 growth plans and 21 dividend plans from selected open-ended equity mutual funds in India over the period from 2005 to 2006. He came to the conclusion higher returns were generated by growth schemes as compared to dividend schemes, reiterating the fact that investment style matters in performance evaluation of mutual funds.

Another study by [67] on the investment style of fund managers of emerging market, Malaysia, shows that most of the funds do not outperform the passive style benchmarks. Other than having a moderately high level of style, funds that hold large-cap stocks together with a relatively high portion of liquid asset class tend to have higher alpha, resulting into higher information ratio. It could be inferred that liquid asset class empowers fund managers to put resources in stocks that enhance their values in economic cycles. It is evident that majority of the funds focused on large-cap stocks, followed by medium-capital
and government bonds. It also indicates that index funds have the lowest information ratio, implying that these funds are not actively managed as compared to others. Thus, this paper highlights the importance of the investment style of fund managers in bridging the gap between emerging capital markets and developed markets.

The empirical study of [94] based on a large database of 4178 Italian open-ended mutual funds, proved that domestic funds differ significantly from their foreign counterparts in terms of performance behavior and that dissimilarities across funds were associated to different investment styles. Thus, it emphasized the importance of investment style on mutual fund performance.

v) **Fund manager's experience:** The investment decisions of fund managers are based on their personal abilities and professional knowledge. These personal and professional skills of the fund managers are known as the human capital of a mutual fund company. It can be measured in the form of age, experience and professional qualification of the fund manager. Hence, fund managers’ experience and professional skills are important factors in the success of a mutual fund company.

[38] studied the sample of 530 mutual funds having different fund objectives to know the impact of manager characteristics on fund performance. He concluded that manager’s age, educational qualification and tenure have a direct effect on mutual fund’s risk-adjusted performance. He concluded that younger managers (less than 46 years of age) with longer experience (more than 7 years) are able to give better results. Thus, it shows that managers with superior ability get higher fees from fund investors as they produce better returns.

[60] reinforced [38] on the importance of management. Kallberg examined a sample of 44 Real Estate Mutual Funds (REMF) from 1987-1998 and the results showed that the sampled funds have positive average abnormal returns. This confirmed that due to the skills and experience of fund managers the sampled mutual funds outperformed the benchmarks during down markets as compared to rising markets. Thus, it emphasizes the importance of fund managers’ experience, as a factor for fund selection by financial advisors.

[4] studied the performance of the mutual fund managers using the database of 2086 managers of equity mutual funds during their tenure from 1992-1999. He concluded that it is very difficult to separate the performance of fund managers from that of funds. He
further concluded that in most of the cases the performance of mutual fund is due to the characteristics of fund managers and can be credited to the fund manager.

[83] used a sample of 63 REMFs from 2001 to 2003 to analyze individual-manager-characteristics’ effect on fund performance. By formulating three equations, they examined the effects of mutual fund manager’s characteristics and fund characteristics on funds risk-adjusted returns, market risk and management fees. They found that team-managed funds have lower risk-adjusted returns than solo-managed funds with the help of their study on the Real Estate Mutual Fund (REMF). Managers with longer job duration tend to pursue higher market risk levels, and there was no relation between characteristics of the manager and management fees.

[26] executed a detailed analysis to know the relation between the performance and governance structure of open-end, domestic-equity mutual funds during the period between 1985 to 2002. Their study demonstrated that experienced large-fund portfolio managers outperform their size, book-to-market, and momentum benchmarks, but that experienced small-fund portfolio managers underperform their benchmarks which indicated the presence of managerial entrenchment in the mutual fund industry. Thus, it confirmed that experienced large-fund managers performed much better than their less experienced counterparts.

vi) **Ratings:** Investors select mutual funds on the basis of some tools which are in turn based on fund rating system. Thus, fund rating system plays a very pivotal role in asset management industry.

[63] found that fund ratings show persistence in performance for a period of thirty-month i.e. highly rated funds tend to continue outperforming in the future while poorly rated funds continue to underperform relative to their peers.

[6] found different results. They found that funds showing low ratings demonstrate poor performance in future, while there is minimal evidence that the highest-rated funds perform better than the medium-rated funds. Moreover, the ratings do not seem to be a good predictor of performance as compared to the fund’s past average monthly returns.

[23] found that an initial Morningstar 5-star rating results in six months of abnormal flows (53% above the normal expected flow). They also found significant abnormal flow in the case of changes in the ratings, with positive cash flows for rating upgrades and negative
flows for rating downgrades.

[1] also present significant evidence that investors withdrew money from mutual funds that lost stars, but did not proportionately bought funds that gained stars.

[75] showed that three years after a fund receives its initial Morningstar 5-star rating, fund performance falls off severely.

Research paper by [2] showed that the ratings are a simple technique to evaluate and compare the risk and return of funds. However, the various ratings do not offer the same properties in terms of performance evaluation and risks taken into account. The research paper gave a comparative analysis of a selection of leading rating systems that are very familiar to investors, including Standard & Poor’s star rating, the Morningstar rating, and the Lipper Leader rating, and also addresses the required properties for an optimal rating system.

A research study was done by [46] on ratings of mutual funds and their performance to show the persistence of mutual fund performance as well as the importance of rating system in this sector. They used Markov chain modeling to study the rating system. The results showed that the fund rating system is not homogenous with time and the styles of mutual funds are important when their ratings are compared.

3.2 PERCEPTION OF INVESTMENT ADVISORS

A number of empirical studies have been conducted on mutual funds in the western countries as well as in India. The perception of individuals towards various objects is being studied in different research studies to improve upon the product differentiation and marketing strategies of various companies.

[99] carried out a survey of individual investors with the objective to study on what information source does investor depend and he concluded that economical, sociological and psychological factors controls the investment decisions.

[82] studied investors’ perception towards mutual funds and analyzed their preference and importance assigned to different attributes for which they targeted 80 respondents. Authors found that the perception of investors is that the mutual funds have cheated the common investors and were unsatisfied with mutual fund schemes except UTI. This study also revealed that the mutual fund organizations should launch awareness campaigns and
aggressive integrated marketing programs for enhancing the investment in mutual funds. [69] did the first survey study in Greece on respondents’ recognition, perception and the function of management of finances in terms of stock market forecasting and stock selection. Their outcomes demonstrate that individual investors rely more on media reports and disturbance in the market, whereas the professional experts depend more on fundamental and technical analyses and less on portfolio analysis.

A research study by [92] examined investors’ perception about the mutual fund industry. Investors’ opinion and perception has been studied relating to various issues like type of mutual fund scheme, main objective behind investing in mutual fund scheme, role of financial advisors and brokers etc. The present investigation revealed that mostly the investors have positive approach towards investing in mutual funds. In order to maintain their confidence in mutual funds they should be provided with timely information relating to different trends in the mutual fund industry.

[73] studied the perceptions of advisors and investors towards Indian mutual fund industry in terms of the innovations. The study came with a conclusion that there is a distinctive preference of the distributors for innovative products. But it is seen that among distributors, service based innovations are preferred over other innovations. The investors on the other hand prefer product based innovations.

[85] in their paper made an attempt to identify various factors affecting perception of investors regarding investment in mutual funds. The findings of this study suggested that diversification of portfolio and tax benefits are the main factors of mutual fund that allure the investors. Monthly Income Plans are the most preferred schemes for investing in mutual funds and the reason is consistent returns given by these funds. This will help mutual fund companies to identify the areas required for improvement in order to create greater awareness among investors regarding investment in mutual funds.

[103] in his paper showed the impacts of various demographic factors on investors’ attitude towards mutual fund. For analyzing the various factors responsible for investment in mutual funds, ranking was done on the basis of weighted scores and scoring was also done on the basis of scale.

A research study by [106] has made an attempt to understand the financial behavior of mutual fund investors in connection with the preferences of brand (AMC), products, and
channels etc. The study revealed that the most vital problem in the mutual fund market is the unawareness of the Indian investors about the benefits of the mutual fund products. Hence, they should be made aware about the benefits offered by the mutual funds, which no other single option could offer, by the financial advisors. It also emphasized that the mutual fund companies need to give the training of the individual financial advisors about the fund/scheme and its objective, because they are the main source to influence the investors. 

Another paper by [55] examined the investor buying behavior and their perception for financial instruments which was oriented towards mutual funds. It was revealed by the study that the factors that influence the buying behavioral pattern of rural and urban investors are as follows: age, gender, occupation, educational qualification, income etc. It also came out with the conclusion that investor considers financial planner as the most important factor in selection of a mutual fund scheme and then the risk and return profile of the scheme are considered; past performance, tax consideration and brand name come next in their priority list for selecting a mutual fund scheme. 

Study by [80] explains about awareness and perceptions of investors towards mutual funds, their preferences and the extent of satisfaction attained by them from mutual funds. It was suggested by the study that efforts should be made to increase the awareness of investors towards mutual funds and appropriate measures should be taken by mutual funds in order to maximize the returns. 

A latest study by [101] revealed that perception of investors towards mutual funds as an investment avenue depends on their demographic profile which includes their age, marital status, occupation etc. Further it revealed that liquidity, flexibility, tax savings, service quality and transparency of the mutual funds are the factors which have a higher impact on perception of investors. This study, thus, shows that the competency of the fund managers depends on analyzing and understanding the behavior and expectations of the investors, thereby enhancing the expected features for attracting more investors towards mutual fund schemes.

3.3 PERFORMANCE EVALUATION OF FUND MANAGERS

In India, in the past few years, mutual funds have emerged as a very promising financial
instrument for establishing the financial strength of the investors. Mutual fund performance is an extensive area of study both for academicians as well as fund managers as it is a product meant for institutional as well as retail investors.

A large number of studies have been done in this context which are reviewed and presented in the following paragraphs:

[102] evaluated the performance of equity mutual funds over two time periods i.e. 1944-1953 and 1954-1963. He used the Sharpe ratio to measure the performance of mutual funds and concluded that a positive relationship existed between these two periods.

On the contrary, [56] measured the performance of 115 mutual funds in the period between 1945-1964. He derived a measure i.e. Jensen’s alpha to evaluate them. The forecasting ability of the fund manager is estimated in this study to know whether it contributes in the rate of return of the mutual fund or not. The conclusion of his study was quite different from the previous studies. He concluded that there was minimal evidence of any fund performing significantly better than expectations.

Another study was done by [109] to judge the ability of fund managers to analyze the market. They examined 57 open-ended mutual funds for the period from 1953 to 1962. The study concluded that the fund managers are not able to foresee changes in the financial market climate. Thus, they do not have the ability to time the market.

[45] judged the market-timing ability of fund managers with the help of parametric and non-parametric tests. If the manager’s forecasts were observable, the parametric test could be used without further assumptions on distribution of security returns. In case they were not, the parametric test under the assumption of either Capital Asset Pricing Model (CAPM) or multi-factor return structure could also be used. These specifications permitted identification and separation of gains of market-timing skills from the gains of micro stock selection skills.

[64] concluded in his study that at the individual fund level, the fund managers showed superior timing ability and performance but at group level they did not exhibit any special information regarding the expectations on the returns of the market portfolio.

[13] used parametric statistical procedure developed by Henriksson and Merton that allowed a joint test for the presence of either superior market-timing or security selection skills in the managed portfolios of 67 mutual funds for the period between 1971-1979.
The results of the study suggest that the fund managers of most of the schemes neither have skillful timing nor clever stock selection ability and thus, the mutual funds are not able to outperform the market.

[68] in their study on fund managers’ performance showed that in some cases the fund managers exhibited superior forecasting ability at the individual fund level. [42] evaluated performance of 80 mutual fund schemes over four years (1992-96) to analyze the market timing abilities of fund managers. The study tested it through the proposition relating to fund diversification, consistency of performance, parameter of performance and risk-return relationship. The study noticed the absence of adequate portfolio diversification and consistency in performance among the sample schemes. It was concluded that only 3 schemes out of 80 showed market timing abilities of fund managers. [43] in his research study, evaluated the selected schemes with respect to the broad based BSE National Index to find out whether the schemes were able to beat the market or not. It also examined whether the returns were able to match the risk undertaken by the fund managers or not. The market timing abilities of the fund managers were also tested by the study. The results showed that 38 schemes (52%) earned higher returns as compared to the market return while the rest of the 35 schemes (48%) generated lower returns than that of the market. The results related to the market timing abilities of fund managers according to the two models, Treynor and Mazuy and Henriksson and Merton did not show any positive signs to the hypothesis that the Indian fund managers are able to time the market accurately.

[78] made an empirical analysis of portfolio diversification and market timing performance of 76 mutual fund schemes of around 25 fund houses. The study employed two alternative methods to examine this issue. In the first case, the portfolio return and risk were calculated. Not only this, the correlation between the securities in the portfolio of each scheme was calculated and compared with each other. The second methodology was to examine the correlation between the frequently appearing stocks in the portfolio. The study when compared the average returns, standard deviation and co-efficient of variation of these stocks, it was found that in almost all cases the risk level is high as compared to the returns. The study also examined the fund managers’ ability to identify and invest in stocks that were expected to perform both currently as well as in near future. These portfolios of
funds were compared with the top 100 performers of the relevant period for this purpose. The results showed that there was a general shift in the investment strategy according to which investment was done in predictive winning stocks of that period rather than holding a diversified portfolio and optimizing the risk-return of investments.

[90] evaluated a sample of 89 funds over the period between 1999-2003 by using both non-conditional and conditional performance evaluation methods. The conditional performance evaluation method was a framework supported by Ferson and Schadt. The results indicated that the use of conditioning lagged information variables improved the performance of mutual fund schemes in the Indian context.

[109] examined the performance of 31 tax-saving schemes for a period between 1994-1995 to 2001-2002 in India and came with the conclusion that the fund managers do not exhibit any superior stock selection ability rather they were timing the market in the wrong direction.

[12] evaluated the timing skills & stock selection abilities of 80 Indian mutual fund managers over a period of five years from January 1998 to December 2002 by using Fama (1992), TM (1966) and HM (1981) models. The conclusion of the research was that the Indian fund managers were not having the market timing ability although it revealed significant stock selection abilities of fund managers as well as persistence of such skills.

[3] made an attempt to examine the investment performance in order to attribute it to specific activities of Indian fund managers. They also attempted to identify the return which was due to the stock selection ability of the fund managers at given level of risk. For this purpose, Fama’s methodology was adopted here. The study covered the period between April 1999 and March 2003 and evaluated the performance of mutual funds based on 113 selected schemes having exposure more than 90% of corpus to equity stocks of 25 fund houses. The empirical results reported here revealed 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 concluded that the influence of market factor was more severe during negative performance of the funds while the impact of selectivity skills of fund managers was more than the other factors on the fund performance in times of generating positive return by the funds. The study also observed that from the selectivity, expected market risk and market return factors have shown closer correlation with the fund
[21] employed both conditional and unconditional approaches to find the stock selectivity and market-timing abilities of 96 Indian mutual fund managers. The study exhibited presence of stock-selection abilities but absence of market-timing abilities among the fund managers in both conditional as well as unconditional approaches.

[96] evaluated the performance of selected 59 equity based mutual funds during 2000-2004 in India. They examined both stock-selection skills and timing abilities of the fund managers and argued that multi-factor benchmarks provide better selectivity and timing measures compared to one factor CAPM as they control for style characteristics such as size, value and momentum. They showed the improved evidence of stock selectivity amongst Indian mutual fund managers by using daily returns i.e. high frequency data against monthly returns.

[65] in his study examined the fund manager’s ability to outperform the market and appraised the schemes in the context of ex-post risk, return and diversification and found that mutual fund schemes on an average have failed to outperform the market even after taking a risk higher than that of the market and concluded that the fund managers though have succeeded to some extent on the diversification front, but failed to earn significant positive returns by selecting mis-valued securities in their portfolios.

[100] studied the stock selectivity strategies of equity mutual fund managers in India by using conditional and unconditional Jensen’s measure. The study evidenced the relevance of using conditional evaluation measures for Indian fund managers to assess their selectivity performance.

[87] in their research study aimed at identifying the timing ability of fund managers of equity mutual fund schemes in India. They selected 17 schemes for this study for a period between 1st April 2000 to 31st March 2010. They used Treynor and Mazuy Model (1966) and Henriksson and Merton Model (1981) for the study. The results of the study indicate fund managers are successful in timing the market by earning returns in excess of the market.

[61] evaluated the performance of Indian equity mutual funds and did the attribution analysis of performance of mutual fund managers on the parameters of diversification, timing and selectivity for the period 2008-10. For this study top ten open ended growth
funds have been selected and evaluated using Sharpe index, Treynor index and Jensen alpha. The Treynor-Mazuy model is used to test the timing and Fama measure is used to test the selectivity skills of mutual fund managers. The research findings show that on an average mutual funds track their benchmark and it is beneficial for the investors to invest in these less risky investments. Further, the attribution analysis shows that ‘managerial acumen’ is present.

[104] evaluated the performance of mutual funds using different measures one of them was market timing ability. This study attempted to find out the evidence of market timing ability of Croatian funds, by using Treynor-Mazuy and Henriksson-Merton model over the sample of ten mutual funds. The results, as expected, indicated a lack of market timing abilities in the selected funds. It also indicated a lack of good forecasting abilities and a presence of a defensive behavior in the fund managers.

[24] in his research study evaluated the investment management of mutual fund managers of India in terms of their selectivity skills. The period of their study was May 31, 2000 to March 31, 2012. The results pertaining to the selectivity skills of fund managers, as found in the study, revealed that although majority of the schemes have shown positive alpha they are not statistically significant. Only some of the fund managers (around twenty five percent) possess superior selectivity skills based on both unconditional and conditional Jensen model.

Another study by [25] has also adopted conditional performance evaluation measure in order to evaluate the timing skills of Indian mutual fund managers. The results of the study which is related to the market timing skills of fund managers, based on unconditional Treynor-Mazuy(TM) and Henriksson-Merton(HM) models, revealed that majority of the fund managers were unable to time the market correctly during the period under consideration.

[111] examined whether Indian fund managers follow an active portfolio strategy. In addition to this he also addressed the issue of the impact of asset size and market capitalization on fund performance and the fund managers’ ability to add value to the fund they managed. The study revealed that fund managers exhibit poor stock-selection skills and do not seem to exhibit any remarkable ability in timing the market. It signals that they are unsuccessful in determining the right time to enter/exit the market.
3.4 LITERATURE REVIEW FOR STATISTICAL TECHNIQUES

This section discusses the statistical techniques used in the past literature for studying the behavior i.e. the criteria for selection of mutual fund schemes and perception of investment advisors towards mutual funds. The performance measurement techniques used in the previous studies to analyze the fund managers’ performance are also discussed here.

3.4.1: TECHNIQUES FOR STUDYING FUND SELECTION BEHAVIOR

The academic literature shows that various statistical tools and techniques have been used for evaluating the selection criteria of individuals for mutual funds and its relationship with the attributes which in turn governs their behavior.

[79] used **conjoint analysis** to investigate the relative importance of the attributes considered by portfolio managers in selecting mutual funds in Turkey. The findings of the study indicated that the attributes that are considered the most important by them are expense ratio, past of the fund appear to be of moderate importance. Thus, they came with a conclusion that there are many factors that affect the selection of mutual funds.

[87] analyzed the comparative importance of factors taken into consideration by investment professionals in Malaysia. They also used **conjoint analysis** for their study. Three important factors were demarcated by the study that influence the choice of mutual funds. These were past performance, fund size and transaction cost /expense ratio.

As a result of the review of different evaluation techniques adopted for finding out the relative importance of factors affecting the mutual fund selection, **conjoint analysis** is considered the most appropriate technique in the present scenario.

3.4.2: TECHNIQUES FOR STUDYING PERCEPTION

The following research papers were reviewed to decide the technique employed, to study the perception of investment advisors:

A research paper by [32] explained how **multidimensional scaling (MDS)** can be used in depicting perception of the respondents. With the help of MDS, the data is being analyzed in a way that depicts the distance-like data in the form of a geometrical picture.

A research study by [81] is done with the objective of depicting the use of **MDS** in brand positioning of mutual funds. The study aimed at analyzing the perception of individual investors
towards the mutual fund industry. It has shown how the use of multidimensional scaling technique can judge the perception of individuals and represent it in a graphical form.

Another study by [33] aims at finding out the utility of positioning models to know the perceptual structure of markets and improve strategic planning. Hence, these positioning models were applied in the study to understand, measure and manage brand uncertainty.

Research paper by [34] aimed at providing the use of multidimensional scaling procedure to analyze survey data. Firstly, the functions of data collection and data transformation are explained. Then, the guidelines are given for data analysis using the ALSCAL procedure found in SPSS.

On the basis of these studies, it was concluded that multidimensional scaling technique can be the best technique to judge the perception of individuals and represent it in a graphical form.

3.4.3: TECHNIQUES FOR MEASURING PERFORMANCE

The academic literature shows that various statistical tools and techniques have been used for evaluating the performance of mutual fund managers.

A number of studies have used rate of return measure; risk adjusted performance measure such as Sharpe(1966) ratio, Treynor (1965) ratio and Jensen (1968) ratio; Multifactor models of risk and return as Carhart four factor model and Fama & French three factor model. The above methodologies are studied in detail and three techniques are shortlisted for this study.

The techniques that are shortlisted are as follows:

**Jensen’s Model** – Jensen’s model helps to evaluate the selectivity skills of fund managers i.e. their ability to identify undervalued or overvalued securities. The superior returns earned out of the ability of stock selection can be known from Jensen’s alpha.

**TM Model:** [108] added a quadratic term (squared term) to the excess - return version of the Jensen’s single index model to detect the market timing skills of the portfolio managers.

**HM Model:** [45] developed a simpler model to assess the market timing abilities of the fund managers. According to this model, the fund manager allocates the funds in risk-free assets and equities depending on its ability to forecast the excess market returns in future i.e. his market timing ability. Thus, he will select the assets with higher value of \( \beta \) when the market is expected to perform better i.e. \( R_m \geq R_f \) and similarly, will select those assets whose \( \beta \) value is low when the market is expected to go southwards i.e. \( R_m \leq R_f \).
3.5 SUMMARY OF LITERATURE REVIEW

A plethora of studies were reviewed in this chapter and the key features that have emerged from the review are as follows:

Various factors affecting selection of mutual funds and perception of investors regarding investment in mutual funds were identified, which gave an insight to the trend prevailing in the industry.

The financial behavior of mutual fund investors were also studied by different authors in connection with the preferences of brand (AMC), products, and channels etc. These studies revealed that the most vital problem in the mutual fund market is the unawareness of the Indian investors about the mutual fund products and their benefits.

It was suggested by one of the study that efforts should be made to increase the awareness of investors towards mutual funds and appropriate measures should be taken by mutual funds in order to maximize the returns.

The conclusion of some of the research studies was that the Indian fund managers were not having the market timing ability although they revealed significant stock selection abilities of fund managers.

The empirical results reported in few studies revealed 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. It was observed that the influence of market factor was severe during negative performance of the funds.

Thus, the new angle which has emerged after all this discussion is that the need of the hour is to provide adequate training of the individual financial advisors about the fund/scheme and its objective, which should be provided by the mutual fund companies. This is because these financial advisors are the main source to influence the investors.
3.6 GAPS IDENTIFIED FROM LITERATURE REVIEW

The above mentioned studies indicate that the researchers, academicians, fund managers and financial analysts are all interested to evaluate mutual funds in India to a large extent. This topic has been considered very important in the field of financial management and economics. For Indian mutual fund industry, some studies have analyzed the relationship of mutual fund’s attributes and their selection by investors but have not considered the viewpoint of financial advisors. Hence, it is imperative to study the selection criteria of mutual funds adopted by financial advisors and the attributes governing their financial decisions.

It is obvious that many researchers have contributed their work in various dimensions to assess the performance of mutual fund schemes by using the traditional methods of Sharpe Ratio, Treynor Ratio etc. Most of them have made efforts to evaluate the performance of mutual funds in terms of risk and return analysis. But few of the studies have focused on performance of mutual fund schemes during pre-recession period and post-recession period. The gap has been filled in the present study by taking into consideration both the periods.

The reviews of earlier studies show that they have briefly looked at factors affecting the financial decision making as well as the perception of the financial advisors regarding the mutual fund schemes. Similarly, selectivity skills and market timing ability of the fund managers are also less researched areas in the Indian scenario.

As we know that the knowledge about the factors affecting the investment behavior of fund advisors as well as their perception and understanding on the mutual fund schemes, is of crucial importance for the mutual fund companies, policy makers and the investors. Moreover, it has not obtained due attention by the researchers in India. Thus, this was identified as a research gap and the researcher has chosen this topic to fulfill the research gap. This will not only help the mutual fund companies to design the new products accordingly but also enlighten the policy makers and governing bodies about the abilities of the fund managers.
3.7 OBJECTIVES OF THE STUDY

On the basis of literature review and gaps found in the review, following objectives have been framed for the study-

➢ To know the key criteria/significant attributes that influence the investing behavior and decision making of financial advisors/ investment professionals to invest.

➢ To find out the attributes as well as the levels of these attributes as considered by the investment professionals.

➢ To know the order of relative importance attached to the attributes with the preference order for each level.

➢ To establish an ideal combination on the basis of preference order, which can be used to design mutual fund schemes.

➢ To predict the preference for combinations that were not rated by the respondents.

➢ To understand the perception of mutual fund advisors regarding few selected funds in terms of identified attributes and to compare it with the real statistics to know whether the perception of mutual fund advisors is based on facts or personal preferences.

➢ To judge the performance of selected mutual funds schemes and to analyze that whether it is due to the fund managers’ skills or it is market driven.

The above text shows that the literature review for the attributes, perception, performance analysis and statistical techniques has helped the researcher to know the gaps in the past research studies. Thus, it has enabled to narrow down the objectives for the present study and has also helped to select the most appropriate research methodologies to fulfill the objectives.

The research methodologies including the data collection, tools and techniques etc. for meeting the above objectives have been discussed in the next chapter.