CHAPTER- 2
LITERATURE REVIEW

A large number of studies on the growth and financial performance of mutual funds have been carried out during the past, in the developed and developing countries. Brief reviews of the following research works reveal the wealth of contributions towards the performance evaluation of mutual fund, market timing and stock selection abilities of fund managers.

In India, one of the earliest attempts was made by National Council of Applied Economics Research (NCAER) in 1964 when a survey of households was undertaken to understand the attitude towards and motivation for savings of individuals. Another NCAER study in 1996 analyzed the structure of the capital market and presented the views and attitudes of individual shareholders. SEBI – NCAER Survey (2000) was carried out to estimate the number of households and the population of individual investors, their economic and demographic profile, portfolio size, and investment preference for equity as well as other savings instruments. Data was collected from 30,00,000 geographically dispersed rural and urban households. Some of the relevant findings of the study are: Households preference for instruments match their risk perception; Bank Deposit has an appeal across all income class; 43% of the non-investor households equivalent to around 60 million households apparently lack awareness about stock markets; and, compared with low income groups, the higher income groups have higher share of investments in Mutual Funds signifying that Mutual funds have still not become truly the investment vehicle for small investors.

Since 1986, a number of articles and brief essays have been published in financial dailies, periodicals, professional and research journals,

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

Irwin, Brown, FE (1965) analyzed issues relating to investment policy, portfolio turnover rate, performance of mutual funds and its impact on the stock markets. They identified that mutual funds had a significant impact on the price movement in the stock market. They concluded that, on an average, funds did not perform better than the composite markets and there was no persistent relationship between portfolio turnover and fund performance.
Treynor (1965) used ‘characteristic line’ for relating expected rate of return of a fund to the rate of return of a suitable market average. He coined a fund performance measure taking investment risk into account. Further, to deal with a portfolio, ‘portfolio-possibility line’ was used to relate expected return to the portfolio owner’s risk preference.

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

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

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

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

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

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

McDonald and John (1974) examined 123 mutual funds and identified the existence of positive relationship between objectives and risk. The study identified the existence of positive relationship between return and risk. The relationship between objective and risk-adjusted performance indicated that, more aggressive funds experienced better results.
Gupta (1974) evaluated the performance of mutual fund industry for the period 1962-71 using Sharpe, Treynor, and Jensen models. All the funds covered under the study outperformed the market irrespective of the choice of market index. The results indicated that all the three models provided identical results. Return per unit of risk varied with the level of volatility assumed and he concluded that, funds with higher volatility exhibited superior performance.

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

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

Gupta Ramesh (1989) evaluated fund performance in India comparing the returns earned by schemes of similar risk and similar constraints. An explicit risk-return relationship was developed to make comparison across funds with different risk levels. His study decomposed total return into return from investors risk, return from managers’ risk and target risk.

Baruan Varuan (1991) made an attempt to evaluate the master share scheme of UTI using the data from 1987 to 1980. Their conclusion was that the Master Share Scheme outperformed the market in terms of net assets value (NAV) and the master share scheme (MSS) benefited large investors rather than small investors.
Obaidulla and Sridhar (1991) evaluated the performance of two major growth oriental mutual fund schemes - Master share and Canshare. They both concluded that both the funds provided abnormal returns. Master share out performed based on market risk.

Gupta L C (1992) attempted a household survey of investors with the objective of identifying investors’ preferences for mutual funds so as to help policy makers and mutual funds in designing mutual fund products and in shaping the mutual fund industry.

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

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

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

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

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

Conrad S Ciccotello and C Terry Grant’s (1996) study identified a negative correlation between asset size of the fund and the expense ratio. The results of the study brought out that, larger funds had lower expense acquire information for trading decision and were consistent with the theory of information pricing.

Gupta and Sehgal (1997) evaluated investment performance for the period 1992 to 1996. Aspects of Mutual fund such as fund diversification, consistency of performance, consistency between risk measures, fund objectives and risk return relation in general were studied. For the study 80 mutual fund schemes of private and public sector were taken. Out of 80 schemes, 54 were close-ended and the 26 were open-ended. Results showed that income growth schemes were the best performers with mean weekly returns of .0087 against mean weekly returns from income growth schemes of .0021 and .0023 respectively. LIC Dhansahyog, Reliance growth and Birla Income Plus were the best income growth and growth income schemes respectively.

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

Ronay and Kim (2006) have pointed out that there is no difference in risk attitude between individuals of different gender, but between the groups, males indicate a stronger inclination to risk tolerance. Gender difference was found at an individual level, but in groups, males expressed a stronger pro-risk position than females.

Sapar, Narayan R. and Madava, R. (2003) conducted a research on the performance evaluation of Indian mutual funds in a bear market. The period of study was September 1998 to April 2002 (bear period). They started with a sample of 269 open ended schemes (out of total schemes of 433) for computing relative performance index. Then after excluding the funds whose returns are less than risk-free returns, 58 schemes were used for further analysis. Mean monthly (logarithmic) return and risk of the sample mutual fund schemes during the period were 0.59% and 7.10%, respectively, compared to similar statistics of 0.14% and 8.57% for market portfolio. The results of performance measures suggest that most of the mutual fund schemes in the sample of 58 were able to satisfy investor's expectations by giving excess returns over expected returns based on both premium for systematic risk and total risk.

Rao, D. N. (2006) classified 419 open-ended equity mutual fund schemes and analyzed the financial performance of selected open-ended equity mutual fund schemes for the period 1st April 2005 to 31st March 2006 pertaining to the two dominant investment styles and tested the hypothesis whether the differences in performance was statistically significant or not. The variables chosen for analyzing financial performance were monthly compounded mean return, risk per unit return and Sharpe ratio. A comparison of the financial performance of
the 21 Open-ended Equity growth plans and 21 Open-ended Equity dividend plans was made in terms of the chosen variables. The analysis indicated that Growth plans generated higher returns than that of Dividend plans but at a higher risk. Further, 17 Growth plans generated higher returns than that of corresponding Dividend plans offered by the same Asset Management Companies (AMC) and only one Dividend plan could generate higher return than its corresponding Growth plan. However, three Growth plans and the corresponding Dividend plans had the same returns. Out of the 21 Growth plans, 4 Growth plans had higher Coefficient of Variation (Risk per unit Return) than the corresponding Dividend plans and 13 Dividend plans had higher Coefficient of Variation (Risk per unit Return) than the corresponding Growth plans offered by the AMC. Three Growth plans and three Dividend plans had almost equal Risk per unit return. A comparison of the Sharpe ratios of Growth plans and the corresponding Dividend plans indicated that 18 Growth plans out of 21 (approximately 90%) had better risk adjusted excess returns highlighting the fact that Growth plans are likely to reward the investors more for the extra risk they assumed.

Pearson's correlation coefficient between the returns of the two plans was found to be moderate (0.5290) and F-test (1-tailed test) indicated a low probability (0.3753) of the variances of the returns of the two plans. Further, Student's t-test (1-tailed test) led to the rejection of Null Hypothesis and acceptance of Alternate Hypothesis at confidence levels ranging from 0.40 to 0.0005 implying that Equity Growth funds provide higher returns than that of Equity Dividend funds and the differences were statistically significant.

Chang and Lewellen (1984) used the method processed by Henryksson Merton and studied 67 mutual funds between 1971 and 1979. They divided data into up and down market components and computed two separate slope coefficient b1 and b2. Of the 67 mutual fund studied, only
in 5 cases, data displayed statistically significant difference between b1 and b2. Majority of them were in the negative direction, suggesting poor market timings and they concluded that neither skillful market timing nor clever security selection abilities are evident in abundance in the observed mutual fund return data.

De Bondt and Thaler (1985) while investigating the possible psychological basis for investor behavior, argue that mean revision in stock prices is an evidence of investor overreaction where investors overemphasize recent firm performance in forming future expectations.

William Fung and David A. Hsieh (1988) explored the investment styles in mutual fund hedge funds. The results indicated that there were 39 dominants mutual fund styles that were mixed or specialized subsets of 9 broadly defined user classes. There was little evidence of market timing of asset class rotation in these dominants mutual fund styles.

Elton and Gruber, Grindblatt and Titman (1989) found that there is some empirical evidence that mutual fund investors make purchase decision on the basis of past performance et al (1990). Some studies reveal that there is only a slight positive relationship or no relationship at all between previous performance and current returns Blake et al (1993) Bogle (1992) Brown and Goetzman (1995) raised the question of why poorly performing funds still survive. Harless and Peterson (1998) explained that investors tend to choose funds based on previous performance but stick to these funds despite their poor return in a recent study of consumers rationally and the mutual fund purchase decision.

Ippolito (1992) documents the reaction of investors to performance in mutual fund industry. His findings have shown that poor relative performance results in investors shifting their assets into other funds.
Sitkin and Pablo (1992) developed a model of determinants of risk behavior. They found that personal risk preferences and past experiences form an important risk factor in which social influence also affects the individual’s perception. Sitkin and Weingart (1995) extended this model leading to the definition that risk perception and propensity are the mediators in risk behaviors of uncertain decision-making. In this hypothesis, past investment establishes the frame for the propensity to risk, risk transfer, and risk awareness which impact decision-making behavior. Thus risk orientation and risk perception are reduced to antecedent variables in decision-making behavior under risk.

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

Sujit Sikidar 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 revealed that the salaried and self employed formed the major investors in mutual fund primarily due to tax concessions. UTI and SBI schemes were popular in that part of the country then and other funds had not proved to be a big hit during the time when survey was done.

Shyama 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 revealed that awareness about Mutual Fund concept was poor during that time in small cities like Visakapatnam.

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

Block, Stanley B. and French, Dan W. (2000) conducted a study on Portfolios of equity mutual funds. They proposed two-index model using both the value-weighted and an equally weighted index. Estimated models using a sample of 506 mutual funds show that the two-index model provides a better fit than the single-index model and identifies a larger set of funds with abnormal performance.

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

Borensztein, E. and Gelos, G. (2001) explores the behavior of emerging market mutual funds using a novel database covering the holdings of individual funds over the period January 1996 to March 1999. An examination of individual crises shows that, on an average, funds withdrew money one month prior to the events. The degree of herding among funds is statistically significant, but moderate. Herding is more widespread among open-ended funds than among closed-end funds, but
not more prevalent during crisis than during tranquil times. Funds tend
to follow momentum strategies, selling past losers and buying past
winners, but their overall behavior is more complex than often
suggested.

Gavin Quill (2001) examined the evidence that investor behavior is
frequently detrimental to the achievement of investors’ long-term goals.
The picture that emerges from this analysis is one of investors who have
lost a good portion of their potential returns because of the excessive
frequency and poor timing of their trading activities. They established
that investors trade much more than they realize and much more than is
conducive to the achievement of their financial plans. Investors think
long-term in theory, but act according to short-term influences in
practice. This excessive turnover, combined with a propensity to buy
relatively over-valued investments and ignore relatively under-valued
ones, has caused the average mutual fund investor to underperform
substantially over the past decade.

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

Karthikeyan (2001) conducted research on Small Investors Perception
on Post office Saving Schemes and found that there was significant
difference among the four age groups, in the level of awareness for
Kisan Vikas Patra (KVP), National Savings Scheme (NSS), and Deposit
Scheme for Retired Employees (DSRE). The Overall Score confirmed
that the level of awareness among investors in the old age group was higher than in those of young age group. No differences were observed among male and female investors.

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

Dwyer et. al. (2002) used data from nearly 2000 mutual fund investors and found that women take less risk than men in their mutual fund investments. According to Prince, (1993); Lunderberg et al., (1994), men tend to be more confident, trade more frequently, rely less on brokers and believe that returns are more predictable and anticipate higher returns than women. Hinz et al (1997) conducted a study in US by using data from the Federal Government’s Thrift Saving Plan. Their findings showed women are less likely to hold risky assets and more likely to allocate assets towards fixed income alternatives. This is also supported by Prince (1993), Lunderberg et al (1994).According to them men are more confident than women.

Saha, Tapas Rajan (2003) identified that Prudential ICICI Balanced Fund, Zurich Equity Fund were the best among the equity funds while Pioneer ITI Treasury scheme was the best among debt schemes. He concluded that, the efficiency of the fund managers was the key in the success of mutual funds.
Byrne (2005) shows that risk and investment experience tend to indicate a positive correlation. Past experience of successful investment increases investor tolerance of risk. Inversely, unsuccessful past experience leads to reduced tolerance to risk. Therefore past investment behavior affects future investment behavior.

Corter and Chen (2006) studied that investment experience is an important factor influencing behavior. Investors with more experience have relatively high risk tolerance and they construct portfolios of higher risk.

Mostafa Soleimanzadeh (June 2006) in his article, “Learn how to invest in Mutual Funds” discussed the risk and return in mutual funds. He stated that the risk and return depend on each other, the greater the risks, the higher the potential return; the lower the risk, the lower the expected return. Mutual funds try to reduce their risk by investing in a diversified group of individual stocks, bonds, or other securities. He concluded that the investment in stocks can get more return than mutual funds but by investing in mutual funds, the risk is lower.

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

Panwar, S. and Madhumathi, R. (2006) conducted a study on public-sector sponsored and private-sector sponsored mutual funds to investigate the differences in characteristics of assets held, portfolio diversification, and variable effects of diversification on investment performance for the period May 2002 to May 2005. The study found that public-sector sponsored funds do not differ significantly from private-sector sponsored funds in terms of mean returns. However, there is a significant difference between public-sector sponsored mutual funds and private-sector sponsored mutual funds in terms of average standard deviation, average variance, and average coefficient of variation (COV). The study also found that there is a statistical difference between sponsorship classes in terms of ESDAR (excess standard deviation adjusted returns) as a performance measure. When residual variance (RV) is used as the measure of mutual fund portfolio diversification characteristic, there is a statistical difference between public-sector sponsored mutual funds and private-sector sponsored mutual funds for the study period. The model built on testing the impact of diversification on fund performance found a statistical difference among sponsorship classes when residual variance is used as a measure of portfolio diversification and excess standard deviation adjusted returns as a performance measure. RV, however, has a direct impact on fund performance measure.

Kum Martin (October 2007) in his article, “Basics about Mutual Funds” discussed about different types of mutual funds. He stated that the equity funds involve just common stock investments. They are extremely risky but can end up earning a lot of money. He concluded that the low risk in investment will not earn a lot of returns. Mutual fund managers have to use various investment styles depending upon investor’s requirement.
Most of the empirical evidences showed that mutual fund investor’s purchase decision is influenced by past performance.

Kozup, John C., Elizabeth Howlett and Michael Pagano (2008) explored whether a single page supplemental information disclosure impacts investors fund evaluations and investment intentions. Results indicated that while investors continue to place too much emphasis on prior performance, the provision of supplemental information, particularly in a graphical format, interacts with performance and investment knowledge to influence perceptions and evaluations of mutual funds.

Rao, D.N. and Rao, S. B. (2009) analyzed the performance of the 47 Balanced and 72 Income Funds in terms of Return, Risk, Return per Risk and Sharpe ratio over the past three years (2006, 2007 and 2008) during which period the Indian Stock Market had witnessed much volatility. Further, the performance of these funds was compared with that of the Market and Benchmark Indices. The Null Hypotheses were rejected leading to the acceptance of Alternate Hypothesis in all the six cases, leading to conclude that Market outperformed both the Balanced and Income Funds over Bull run and 3-year periods while both the funds outperformed the Market over Bear run period which confirms the popular belief of the Investors and Fund Managers in India.

The review of earlier studies focuses mainly on subject of performance of Mutual Funds and Portfolio of Mutual Fund. The existing “Behavioral Finance” studies are very few and very little information is available about investor perceptions, preferences, attitudes and behaviour. All efforts in this direction are fragmented. The present study is an attempt mainly to study the perceptions of investors in cities of Surat, Ahmedabad and Vadodara in Gujarat.