The performance evaluation of the mutual fund industry is relatively new which kick-started with the tools developed and introduced by Markowitz, Sharpe and others in the 1950s and 1960s. This opened the flood-gates for numerous articles particularly in the Western countries.

In India, the mutual fund industry, to begin with was exclusively in the hands of the public sector, which was represented by the Unit Trust of India (UTI) has lost its monopoly power during 1987 when Government of India permitted the entry of public sector banks into mutual fund business. Further, competition grew up during 1990 when private players are also allowed to do the mutual fund business. Thus, at present mutual fund industry is experiencing a competitive environment. In other words, mutual fund in India progressed from non-competitive environment to the present competitive environment over a period of time. The purpose of the review of literature is to gain comprehensive understanding about the various concepts and research activities carried over on various dimensions of mutual fund at international and national level.

Review of literature is generally a pre-requisite for systematic research endeavours. This enables the researcher to gain comprehensive understanding about earlier research works. This in turn, provides sufficient information to trace out the research gap prevailing in a given area of research. With this in mind, researcher has carried-out the review of literature concerning the research area as under;
2.1 Review of Research Publications.

2.2 Review of Books

2.3 Review of Doctoral Theses

2.1 REVIEW OF RESEARCH PUBLICATIONS

Markowitz (1952)\textsuperscript{8} proposed how rational investors will use diversification to optimize their portfolios and how risky asset is should be priced. The modern portfolio theory models an asset's return as a random variable and models a portfolio as a weighted combination of assets; the return of a portfolio is thus the weighted combination of the assets' return. He found that assets were affected differently by economic and other forces. Risk can be reduced by investing in a diversified group of stocks, especially those whose individual movements help nullify the overall impact of the variability of the others. Stated another way, the important asset characteristic one refers to as risk depended not upon individual volatility, but on how assets behave relative to each other. Markowitz’s grand contribution was, therefore, in providing the formal conceptual framework to implement a rather simple idea. Because investors are concerned with the return on their entire portfolio of assets, the risk of any individual asset is relevant only in so far as it contributes to the risk of the overall portfolio.

Sharpe (1966)\textsuperscript{9} has developed a composite measure that considered return and risk, which is popularly known as Sharpe’s reward to variability ratio. He evaluated the performance of 34 open-ended mutual funds during the period 1954-63 by the measure developed by him. He concluded that the average mutual fund performance was distinctly inferior to an investment in the Dow Jones Industrial Average (DJIA). It was also revealed in his study that good performance was associated with low expense ratio and only low relationship was discovered between fund size and performance.

Treynor and Mazuy (1966)\textsuperscript{10} found statistical evidence to conclude that investment managers of the 57 funds had successfully outguessed the market. The results suggested that the returns for an investor in mutual fund hinges upon the fluctuations in the general market. This is not to say that a skilful management cannot provide investors with a rate of return that is higher in both bad and good times than the one provided by market averages.

Jensen (1968)\textsuperscript{11} 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 analysis of net returns indicated that 39 funds (34 percent) had above average returns. Using gross returns, 48 funds (42 percent) showed above average results and 67 (58 percent) had below average results. He concluded that evidence on mutual fund performance indicated that not only these 115 mutual funds on the average were not able to predict security prices well enough to outperform buy and hold policy, but also that there was very little evidence to show that any individual fund was able to perform significantly better than that expected return.

Williamson (1972)\textsuperscript{12} made a comparative ranking of 180 funds over the period 1961-65 with their ranking over the subsequent five year time period 1966-70. The absence of correlation between rankings over the two time periods for the entire group of 180 funds was consistent with the identical investment ability of most of the fund managers. The study also highlighted the growing prominence of volatility in the measurement of investment risk.

Fama (1972)\textsuperscript{13} 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 asserted that, return on a portfolio comprises the return for security selection and return for bearing risk. His contributions combined the concepts from modern theories of portfolio selection and capital market equilibrium with more traditional concepts of good portfolio management.

Klemosky (1973)\textsuperscript{14} analyzed investment performance of mutual funds based on quarterly returns for 40 funds during 1966-71. The analysis identified bias in Sharpe, Treynor and Jensen measures, which could be removed by using mean absolute deviation and semi-standard deviation as risk surrogates. The resultant performance measure was claimed to be a better risk adjusted measure than composite measures derived from the CAPM.

John McDonald (1974)\textsuperscript{15} 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.

**Thomson (1978)**\(^{16}\) investigated the extent to which discounts and premiums provided information about future expected rates of return on close-end investment company shares. It was found that discounted fund shares, adjusted for risk, outperformed the market during the period 1940-1975. Funds selling at a premium appeared to have been bad investment over the same period. It concluded that on these two-parameters, CAPM is failed to describe the return generating process of close-end funds.

**Guy (1978)**\(^{17}\) summarized general behavior of forty-seven investment trusts by grouping them into equal-and-value weighted portfolios with monthly price and investment returns for the period 1960-70. By using various measures, it found that the results were significantly different from zero and also investigated two additional performance measures viz., empirical estimates of security market line and the zero-beta form of CAPM and obtained significant measures of performance.

**Ang and Chua (1979)**\(^{18}\) examined the mean-variance measure and found them unsatisfactory in evaluating investment performance in view of the systematic bias. The study attributed it, to the asymmetry of return distribution at small intervals and failure to appropriate holding period influencing systematic bias. It showed the superiority of performance measures that considered asymmetry of distributions along with mean and variance.

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Kon (1983)\textsuperscript{19} proposed an empirical methodology for measuring the market-timing performance of an investment manager and provided evidence for a sample of mutual funds. The results indicated that at the individual fund level there was an evidence of significant superior timing ability and performance. The multivariate test also produced results consistent with efficient market hypothesis. That is, fund managers as a group had no special information regarding expectations on returns of market portfolio.

Grinblatt and Titman (1989)\textsuperscript{20} reported that superior performance existed particularly among the aggressive growth funds and in those funds with smallest net asset values. Incidentally, these funds also had the highest expenses. As a result, their actual returns net of expenses did not exhibit superior performance. It indicated that investors could not take advantage of the superior abilities of portfolio managers.

Ippollito (1989)\textsuperscript{21} 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.

Vidhyashankar S. (1990)\textsuperscript{22} identified a shift from bank or company deposits to mutual funds due to its superiority by way of ensuring a healthy and orderly development of capital market with adequate investor protection through SEBI interference. The study identified that mutual funds in the Indian

Capital market have a bright future as one of the predominant instruments of savings by the end of the century.

**Lee and Rahman (1990)**\(^{23}\) empirically examined market timings and selectivity performance of mutual funds by using simple regression technique to separate stock selection ability from market timing ability. The inputs to the model were return earned on fund and those earned on market portfolio. The results indicated some evidence of micro and macro forecasting ability of fund managers.

**Sarkar (1991)**\(^{24}\) critically examined mutual fund performance evaluation methodology and pointed out that Sharpe and Treynor’s performance measures rank mutual funds similarly on performance inspite of their differences in methodology.

**Ankrim (1992)**\(^{25}\) calculated beta values for 25 small cap funds with minimum of four years standing in order to demonstrate attribution of investment manager’s excess performance among allocation, selection, and interaction effects. The study produced evidence to suggest that the risk of the portfolios of at least some managers differed from that the benchmark. For many managers, the proposed risk adjustments were found near to zero. These were the managers whose average portfolio beta was very close to the benchmark betas.

**Gangadhar V. (1992)**\(^{26}\) 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 were very popular in India due to its size, economies of operations and


for its liquidity. Investors opted for mutual funds with the expectations of higher return for a given risk, greater convenience and liquidity.

Lal C. and Sharma Seema (1992)\(^{27}\) 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.

Anagol (1992)\(^{28}\) identified the urgent need for a comprehensive self-regulatory regime for mutual funds in India, in the context of divergence in its size, constitution, regulation among funds and sweeping deregulation and liberalization in the financial sector.

Batra and Bhatia (1992)\(^{29}\) in their presentation, they appreciated the performance of various funds in terms of return and funds mobilized. UTI, LIC and SBI Mutual Funds are in the capital market for many years declaring dividends ranging from 11 percent to 16 Percent. The performance of Canbank Mutual Fund, Indian Bank Mutual Fund and PNB Mutual Fund were highly commendable. The performance of many schemes was equally good compared to industrial securities.

Blake et. al., (1993)\(^{30}\) examined two samples of bond funds using linear and non-linear models and found that bond funds have underperformed relevant indices-post expenses. The result was robust across choice of models. On average, the study noted that a percentage point increase in expenses led to a percentage point decrease in performance. It found no evidence of predictability of future performance based on past performance.

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

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

Shashikant (1993) critically examined the rationale and relevance of mutual funds operations in the Indian money market. It was pointed out that Mutual funds would definitely be able to offer investors a reliable medium for short-term investment and therefore, could emerge as low-risk and low-return investment avenues for conservative investors.

Grinblatt and Titman (1994) concluded that mutual fund performance evaluation measures generally yield similar inferences with the same benchmark and that inferences vary even from the same measure, with different benchmarks. The analysis of determinants of fund performance revealed that test employing fund characteristics such as net asset value, load, experience, portfolio turnover and management fee reported better performance of the fund managers to earn abnormal returns.

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Shah Ajay and Thomas Susan (1994)\textsuperscript{35} studied the performance of 11 mutual fund schemes on the basis of market prices. Weekly returns computed for these schemes since their launch of the scheme of April-1994 were evaluated using Jensen and Sharpe measures. They concluded that, except UTI UGS 2000, none of the sample schemes earned superior returns than the market due to very high risk and inadequate diversification.

Shukla and Singh (1994)\textsuperscript{36} tested the proposition whether portfolio manager’s advance professional education resulted in superior performance and found that equity mutual funds managed by professionally qualified managers were riskier but better diversified than the others. It was also pointed out that these fund managers outperformed others as a group, although performance difference was not considered statistically significant.

Saha and Murty (1994)\textsuperscript{37} highlighted the relevance and importance of mutual funds and discussed an analytical framework for performance evaluation and justified the use of portfolio selection techniques in stock selection and portfolio composition. They emphasized that the performance evaluation models provided effective decision support system and thus facilitated informed judgment.

Kaura and Jayadev (1995)\textsuperscript{38} evaluated the performance of five growth oriented schemes in the year 1993-94, by employing the Sharpe, Treynor and Jensen measures. According to them, Master Gain 91, Can Bonus and Ind-Sagar had performed better than the market in terms of systematic risk but not in terms of total risk.


Khorana (1996)\textsuperscript{39} found an inverse relationship between probability managerial replacement and fund performance by taking growth rate in fund asset base and its portfolio returns as two separate measures of performance.

Malhotra and McLeod (1997)\textsuperscript{40} conducted an empirical analysis of mutual fund expenses. The results of their analysis of equity funds suggest that expense-conscious investors should look at the fund size, age, turnover ratio and cash ratio as key determinants of expenses. Their analysis of bond funds suggests that, the key factors are the fund’s sales charge, weighted average maturity and size.

Wenchi Kao, Louis Cheng (1998)\textsuperscript{41} in their article examines the selectivity and market-timing ability of international mutual fund managers. Ninety-seven international mutual funds with a minimum of five-year return history selected from the Morningstar database have been analyzed. The study concludes by saying that managers for European funds show poorer performance than those managing the other three international fund groups.

Gupta and Sehgal (1998)\textsuperscript{42} 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.

Fernando, Chitru S. (1999)\textsuperscript{43} observed that splitting did not exhibit any superior performance nor any change in the risk characteristics of funds but

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enhance the marketability of fund’s shares due to positive response from small investors.

**Kumar, V.K. (1999)**\(^{44}\) analyzed the roles, products and the problems faced by the IMFI. He suggested the turnaround strategies of awareness programmes, transparency of information, district marketing and distribution systems to rebuild confidence.

**Statman, Meir (2000)**\(^{45}\) emphasizes that, socially responsible investing has to be taken as a tool by the corporations. He further identified that, socially responsible stocks out-performed while socially responsible mutual funds under-performed the S&P 500 Index during 1990-98.

**Agarwal, Ashok Motilal (2000)**\(^{46}\) opined that mutual funds had made a remarkable progress during 1987-95. The cumulative investible funds of the mutual fund industry recorded a skyrocketing growth since 1987 and reached ₹.8,059 crores by December 31, 1995 from ₹.4,564 crores during 1986-87.

**Kaminsky, Lyons, Schmukler (2001)**\(^{47}\) have provided an overview of mutual fund activity in emerging markets. It describes their size, asset allocation, country allocation and then focuses on their behavior during crises in emerging markets in the 1990s. It analyses data at both the fund-managers and fund-investor levels. Due to large redemptions and injections, fund flows are not stable. Withdrawals from emerging markets during recent crises were large, which is consistent with the evidence on financial contagion.


Gupta and Amitabh (2001)\textsuperscript{48} evaluated the performance of 73 selected schemes with different investment objectives, both from the public and private sector using Market Index and Fundex. NAV of both close-end and open-end schemes from April-1994 to March-1999 were tested. The sample schemes were not adequately diversified, risk and return of schemes were not in conformity with their objectives, and there was no evidence of market timing abilities of mutual fund industry in India.

Roshni Jayam’s (2002)\textsuperscript{49} study brought out that, equities had a good chance of appreciation in future. The researcher was of the view that, investors should correctly judge their investment objective and risk appetite before picking schemes, diversified equity funds were typically safer than other and index funds were the best when market movements were not certain. The research suggested that, Systematic Withdrawal Plan (SWP) with growth option was more suitable for investors in need of regular cash inflows.

Gupta and Amitabh’s (2004)\textsuperscript{50} assessed the investment performance of 57 growth schemes for the period April-1999 to March-2003. With the application of different evaluation measures like Sharpe, Treynor and Jensen apart from a regression analysis, the study found no conclusive evidence suggesting the point that the performance of sample mutual fund was superior to the market but some funds did perform better.

Venkateshwarlu M. (2004)\textsuperscript{51} had analyzed investors from the twin cities of Hyderabad and Secunderabad. Investors preferred to invest in open-end schemes with growth objectives. Chi-squared value revealed that, the size of income class is independent of preference pattern, and dependent on the


choice of fund floating institution. Reasonable returns and long-term strategy adopted by the scheme were the criteria of scheme selection. Investors perceived that too many restrictions led to the average performance of mutual funds in India.

Anson, Mark (2005)\textsuperscript{52} have stated that, Institutional portfolio management possess two main goals: 1) to implement the policy risk of the institutional fund as efficiently as possible, and 2) to add value. While these two goals may be accomplished by beta drivers and alpha drivers, asset managers often attempt to extract alpha from beta drivers. This leads to expensive products that add more beta than alpha. To better manage institutional portfolios, beta products must be separated from alpha products, so that the two goals can be accomplished more effectively. This has implications both for the types of products produced by money managers and the types of products purchased by the institutional investor’s staff.

Leibowitz, Martin L., (2005)\textsuperscript{53} had studied the search for incremental returns-“alphas” in current parlance-has become the holy grail of active investment. This article begins by drawing a distinction between two broad classes of alphas: (1) “allocation alphas” that are broadly available, on a non-zero-sum basis, by moving the strategic portfolio toward a more balanced return-risk structure and (2) truly active-skill-based return enhancements derived from opportunistic inefficiencies. Inefficiencies can be hard to discern and even harder to exploit, which may help explain both why some investors are able to consistently produce positive alpha and also why they are so few in number.


George Comer (2006)\textsuperscript{54} examined the stock market timing ability of two samples of hybrid mutual funds. It found that the inclusion of bond indices and a bond timing variables in a multifactor Treynor-Mazuy model framework leads to substantially different conclusions concerning the stock market timing performance of these funds relative to the traditional Treynor-Mazuy models. Results from the multifactor model fund less stock timing ability over the 1981-91 time period and provided evidence of significant stock timing ability across the second fund sample during the 1992-2000 time period.

Acharya and Sidana (2007)\textsuperscript{55} attempted to classify hundred mutual funds employing cluster analysis and using a host of criteria like the 1 year total return, 2, 3, 5 years annualized return, alpha, beta, R-squared, Sharpe’s ratio, mean and standard deviation etc., The data is obtained from Value research online. They do find evidences of inconsistencies between the investment style / objective classification and the return obtained by the fund.

Morningstar (2007)\textsuperscript{56} defined the methodology for the calculating of the Morningstar Risk-Adjusted Return based on expected utility theory, a framework that recognizes that investors are risk-averse and willing to give up some portion of expected return in exchange for greater certainty of return. Morningstar calculates risk-adjusted return by adjusting total return for sales loads, the risk-free rate and risk.

Eleni Thanou (2008)\textsuperscript{57} examined the risk adjusted overall performance of 17 Greek Equity Mutual Funds between the years 1997 and 2005. He evaluated the performance of each fund based on the CAPM performance


methodology, calculating the Treynor and Sharpe indices for the nine year period as well as for three sub-periods displaying different market characteristics. Then compare the rankings obtained by the two indices and find significant difference in rankings between up and down market conditions. Results indicate that the majority of the funds under examination followed closely the market, achieved overall satisfactory diversification and some consistently outperformed the market, while the results in market timing are mixed, with most fund displaying negative market timing capabilities.

Afza and Rauf (2009)\textsuperscript{58} in their study on open-ended Pakistani mutual funds performance using the quarterly data for the period of 1996-2006, by measuring the fund performance by using Sharpe ratio with the help of pooled time-series and cross sectional data and also focused on different attributes such as fund size, expenses, age, turnover and liquidity. The results found significant impact on fund performance.

Debasish (2009)\textsuperscript{59} evaluated the performance of selected schemes of mutual funds based on risk and return models and measures. The study covered the period from April 1996 to March 2005 (nine years). The study revealed that Franklin Templeton and UTI were the best performers and Birla Sun Life, HDFC and LIC mutual funds showed poor performance.

Sondhi and Jain (2010)\textsuperscript{60} 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 confirmed with the empirical evidence produced by Fama (1992) that high beta funds (market risks) may not necessarily produce high returns. The study revealed that, the category, size and ownership have been significant determinants of the performance of mutual fund schemes.

Bilal, Amir, Saifullah (2011)\textsuperscript{61} evaluated the performance of close and open end mutual funds in Pakistan. It provides guidance to the investors on how risk-adjusted performance evaluation of mutual funds can be done and how they can use performance analysis at the time of investment decision making. The risk adjusted performances of both types of mutual funds have been measured through traditional measures such as Sharpe, Sortino, Treynor, Jensen differential measure and Information measure. The results of all measures indicated that mutual fund industry is below as compared to market portfolio performance.

Nanadhagopal, Varadharajan, Ramya, (2012)\textsuperscript{62} in their article opined that, in the past few years Mutual Fund has emerged as an effective tool for ensuring one's financial well being. Mutual Funds have not only contributed to India’s growth story but have also helped the individual investor tap into the success of the Indian Industry. In this study, three categories were chosen such as Equity, Income and Gilt Funds. Four mutual fund schemes from each category were selected for evaluating their performance during the period 2006-2009. The analysis of the study includes various performance measures and statistical tools. Also a rank correlation was used to figure out the interdependence between the funds. Suggestions given at the end will help the investors to sort out the errors committed by them in making investment decisions.


Kalpesh, Mahesh (2012) evaluated the performance of Indian mutual funds through relative performance index, risk-return analysis, Treynor’s measures, Sharpe’s measure, Jensen’s measure and Fama’s measure. The data used is daily closing NAVs. The source of data is website of Association of Mutual Funds in India (AMFI). The study period is 1st Jan 2007 to 31st Dec 2011. The results of performance measures suggest that most of the mutual fund have given positive return during 2007 to 2011.

Sarita Bahl, Meenakshi Rani (2012) study investigates the performance of 29 open ended, growth-oriented equity schemes for the period from April-2005 to March-2011 (six years) of transition economy. Monthly NAV of different schemes have been used to calculate the returns from the fund schemes. BSE Sensex has been used for market portfolio. The study revealed that 14 out of 29 sample mutual fund schemes had outperformed the benchmark return. The results also showed that some of the schemes had underperformed and these schemes were facing the diversification problem. The Sharpe ratio was positive for all schemes which showed that funds were providing returns greater than risk free rate. Results of Jensen measure revealed that 19 out of 29 schemes were showed positive alpha which indicated superior performance of the schemes.

Sandeep, Sanjeev, Surender (2012) the study evaluates the performance of 12 selected mutual fund schemes with the application of Sharpe model and also brings out which scheme is outperforming or underperforming during the study period from May-2005 to April-2009. The result shows that three out of twelve selected mutual fund schemes have more standard deviation

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than market index and only three mutual fund schemes, out of twelve, shows positive value of Sharpe Index. On the basis of the study it can be concluded that most of the selected mutual fund schemes during the study period are underperforming.

Sahit Chowdary G. (2012) had studied the objective in this exercise is to provide a benchmark or guide to investors to select the creamy layer of equity mutual funds. So, in this pursuit, he had categorized mutual funds into Large Cap, Mid Cap and Sectoral based on their AUM and sector specificity and ranked them based on their risk adjusted return values using a new index based approach.

Jyothi T., (2012) in her research paper investment can be described as perfect if it satisfies all the needs of all investors. The present paper is based basically on secondary data. The research makes attempts to analyze total resource mobilization by the mutual funds for last seven years period i.e. from March 2006 to March 2012. The study further focuses upon sector-wise, nature-wise and category-wise resource mobilization and percentage-wise share of each sector in total resource mobilization. The study also attempts to calculate growth rates to show trends in total resource mobilization and number of schemes of mutual fund industry under various types. The paper concludes that the Gold ETFs schemes which have been started from the year 2007 has started growing rapidly during the period.

Poornima, S., (2013) in their research paper they described the mutual fund industry in India was started in the year 1963 with the formation of Unit Trust of India. This industry was privatized in the year 1993. This led to growth of mutual fund companies from 1 to 42 companies in number. The wide variety of schemes floated by these mutual fund companies gave wide investment choice for the investors. Among wide variety of funds equity diversified fund is

considered as substitute for direct stock market investment. In this research paper an attempt is made to analyze about the performance of the growth oriented equity diversified schemes by using Sortino ratio. 102 growth oriented equity diversified schemes which were performing during the period April 2006 to March 2011 were selected for the study. The analysis using Sortino ratio depicts that out of 102 funds, 97 funds were able to produce return more than minimum acceptable rate of return. Whereas 5 funds were found to produce return less than minimum acceptable rate of return. This research paper clearly reveals the fact that careful evaluation using appropriate performance measure will lead the investor in selecting the best funds.

Satya Sekhar.G.V. (2013) in this article the mutual fund organizations are taking active part in financial inclusiveness and they are promoting investment habit among the investors. At present there are 37 Asset Management Companies (AMCs) comprise the mutual fund industry and manage assets over ₹8075 billion. This industry has undergone spectacular growth in recent years, making this study one of extreme interest. In this context, this paper is intended to examine the role of mutual fund organization in financial inclusiveness with reference to performance through public and private sector.

2.2 REVIEW OF BOOKS

Gupta L.C. (1992) in his book entitled Mutual Funds and Asset Preference has carried out 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.

Haslem John A. (2003)\textsuperscript{71} provides summaries of existing research with practical guidelines for mutual fund analysis. The book cover a broad range of topics, including understanding the advantages and disadvantages of mutual funds and long and short term investing, evaluating stock / bond allocations within fund portfolios, assessing fund diversification risk, measuring fund returns and risk, and making fund buy / sell decisions.

Sundar Sankaran (2007)\textsuperscript{72} provides Indian mutual funds handbook – A guide for industry, professionals and intelligent investors to make use of this book to remove obstacles in their path. It consist 19 chapters these introduces the basics of mutual funds industry; legal structure of mutual funds; mutual funds in India permitted to invest in equity markets, debt markets and derivates; spreads the overview of these markets and issue related to security valuation; pearls of wisdom; alternate asset classes; finally, the subject of taxation is dealt in last chapter.

2.3 REVIEW OF DOCTORAL THESES

A large number of doctoral theses on the performance of mutual funds have been identified during the past. Brief reviews of the following research works are presented to highlight the contributions made by researcher in this field.

Shome (1994)\textsuperscript{73} based on growth schemes examined the performance of the mutual fund industry between April-1993 to March 1994 with BSE Sensex as market surrogate. The study revealed that, in the case of 10 schemes, the average rate of return on mutual funds were marginally lower than the market return while the standard deviation was higher than the market. The analysis also provided that performance of a fund was not closely associated with its size.

Gathering data from 36 investor’s families of Chennai, Mumbai, Pune, and Delhi along with 400 different schemes of mutual funds consisting of UTI, Canara bank and LIC  A. Irissappane. D (2000)\textsuperscript{74} examines scheme wise returns of unit holders with regard to close-ended mutual fund schemes over a period of 10 years from June 1988 to July 1998. Using monthly net Asset value (NAV) of select sample funds, their performance has been compared with that of BSE sensex and BSE National Index of 100. Chi-square, time series analysis, Kendall’s concordance test of hypothesis was employed to test the reliability of the data. Researcher founds that, fund managers could not cope up with investor’s expectations due to their inherent fear for facing risk as some funds are generating negative returns on their investment.

J.L.Barros Fernandes in his Ph.D. thesis (2007)\textsuperscript{75} identifies behaviour of individuals in choosing their portfolios in terms of risk and returns. In order to do so, researcher considers daily index stock data from 26 countries over the period from 1995 to 2007. Researcher considers (BRATE – Behaviour Resample Technique) against the traditional Markowitz technique to test the behaviour of individuals. Researcher finds that BRATE as an alternative asset allocation model for analyzing the behaviour of individual. Further, this study proposes to incorporate mental accounting, loss aversion, and asymmetric risk-taking behaviour, in portfolio optimization for individual investors.

Christian de la Torre (2010)\textsuperscript{76} in this thesis finds persistence in the abnormal returns of actively managed US mutual funds for the period 1984–2008. Persistence is found among both the best and the worst performers. A considerable part of this persistence is explained by momentum. Abnormal

\textsuperscript{74} Aravazhi Irissappane. D, Paradigm Shifts in the Performance of Indian Mutual Funds: An Analysis With Reference to Close-Ended Funds of Select Institutions, Department of Commerce, Pondicherry University, Pondicherry - 605 014, April 2000.

\textsuperscript{75} José Luiz Barros Fernandes, Risk Taking In Financial Markets: A Behavioral Perspective, Department of Business Administration, Getafe, Sept-2007.

\textsuperscript{76} Torre, C. 2010. Mutual Fund Performance. Master thesis in Finance, Ulm University, Faculty of Mathematics and Economics, Ulm.
returns appear to be persistent even after being adjusted for momentum. The estimated momentum-adjusted abnormal return of mutual funds with the highest t-statistic of one-year mean return is around twice the expense ratio, suggesting the presence, to some extent, of skills among best performers. Evidence of predictive power is found in the following variables: one-year mean return, t-statistic of the mean return, three-factor alpha, t-statistic of the three-factor alpha, one-year mean return gap and t-statistic of the mean return gap. The variable expenses does not show strong predictive power. The three-factor alpha shows the strongest predictive power for the first post-ranking month. The t-statistic of one year mean return presents the strongest predictive power regarding the following post-ranking months, i.e., sorts on this variable identify the widest cross-sectional variation in abnormal returns up to the eighth post-ranking month. There is evidence of one-year persistence in the return gap, which drives some of the persistence in mutual fund performance.

Considering Risk-adjusted and multidimensional regression technique T.UPPA-AIM in his Ph.D. thesis (2010) assesses style and strategy to be employed by mutual fund managers in Thailand. In order to test the aforesaid objective researcher considers weekly and monthly data of both equity and flexible funds. Further researcher identifies past performance, longevity, fund size and family fund size along with several models to compare the results of Thailand market with that of other developed markets. Finally, researcher feels that this study is helpful to individuals, FII’s and fund managers in identifying their positions and also gives ideas on selecting the best strategies, which they should follow in order to maximize their returns.

Using 700 samples Suyash Bhatt (2010) in his doctoral thesis analyzes impact of technology on sales of mutual fund, to do so researcher

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78 Suyash Bhatt and Dr. Pradip Manjrekar “An Empirical study of Factors Affecting Sales of Mutual Fund Companies in India”, Dr. D.Y. Patil University, Department of Business Management, June 2010.
identifies net asset value, asset under management, brand name, customer satisfaction and service quality as a proxy to measure the effect of technology on sales of mutual fund. Further, researcher identifies standard deviation, Z and T test to analyze the data. Researcher emphasize that every company can make use of such decisions to reduce its cost of funds.

**Chetna T. Parmar** in her doctoral thesis *(2010)*\(^79\) identified 44 five star rating monthly Equity diversified Balanced, Index and Income schemes suggested by Value research magazine. The study compares the Net Assets Value and Expense Ratio of funds over a period of two and half years from January 2005 to December 2009. Standard deviation, Beta, R\(^2\), Sharpe ratio, EPS, Jenson, Fame and P/B ratio were used as proxy to measure the performance of funds. Researcher founds that, risky schemes does not provided high returns even though it has high alpha and along with high beta.

**Rajesh Kumar** in his Ph.D. thesis *(2012)*\(^80\) he attempts to analyze the growth and performance of Equity and Hybrid Schemes of 10 Mutual funds from 2002-03 to 2010-11. The study is based on both primary and secondary information. In primary studies 200 respondents were selected and for analysis of data various statistical tools and techniques alongwith performance evaluation models were used to evaluation select schemes performance. After evaluation of the select schemes it is noted that most of the schemes are outperformed the benchmark indices from 2002-03 to 2005-06. However, from 2006-07 to 2010-11, most of the schemes have underperformed the benchmark indices. Accordingly the researcher has offered suitable suggestions in the light of findings.

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\(^80\) *Rajesh Kumar*, ‘Performance Evaluation of Mutual Funds in India – A Study of Equity and Hybrid Scheme’ Dept. of Commerce, Punjabi University, Patiala, November-2012.