## **CHAPTER 2**

## **Literature Review**

Treynor (1965) used 'characteristic line' which explains the relation between funds expected rate of return to average market return. He measures the performance of funds with their associated risk. Apart from characteristic line which measure individual risk return relation he used portfolio possibility line to measure the performance of portfolio in terms of portfolio expected return and risk

Sharpe (1966) coined another method to show the risk and return relation. The study considers 34 open ended mutual funds from 1944 to 63 an calculated variability ratio of each scheme that are less than DJIA The correlation coefficient ratio was .0505 showing expense ratio inversely related with fund performance. Study concluded fund performance related with low expense ratio not size.

Treynor & Mazuy (1966) explain the performance of 57 fund managers on the basis of market timing ability fund managers not successfully outguessing the market. The study suggests market fluctuations impact the investor and improvement in return shows the fund managers ability to identify the underpriced companies. The study used same performance methodology which were used in Treynor's (1965)

Jensen (1968) used risk adjusted method to evaluate the performance of portfolio. He selected 115 fund managers to evaluate their ability of selecting the security for investment from 1945 to 66. The result of study based on net return shows that 39 funds

out of 115 yielding more than average return and remaining funds are yielding abnormal poor return. On gross return basis 48 funds out of 115 funds have above average return and remaining funds are resulting below the average. Study concluded fund managers are not able to anticipate the market movement and there is little avoidance that managers are performing significantly well.

Carlson (1970) examined the mutual funds performance and impact of market benchmark S&P 500, NYSE and DJIA from 1948 to 1967 and found all funds outperform the DJIA. Few funds yielding good return to S&P and NYSE benchmark index and show consistency in risk and return.

Arditti (1971) measured the performance of mutual funds and concluded that using annual rate of return as a third variable Sharpe's index got changed. The study further explains average funds performance measured by Sharpe index had on long inferior performance with DJIA and funds managers chose higher risk to get higher annual return.

Williamson (1972) studied the sample of 180 mutual funds from 1961 to 1965 and 1966 to 1970. The result shows rank between two periods have no correlation and mangers investment abilities were same. He concluded investment risk play important role in growth in investment.

Fama (1972) evaluated the factors of mutual funds performance using multi period model that measures the performance periodic and cumulative basis. The result shows funds return and risk play important role in selection of best security in volatile market.

Meyer (1977) measured the performance of mutual funds using stochastic dominance model and validated the Sharpe's notions and concluded performance of mutual funds related with past rather than future time periods.

Conrad & Terry (1996) studied the investor's perception and found inverse relation between funds size and expense ratio. The study further explains large size funds shows low expense ratio and equity mutual schemes highly based on information and follow pricing theory. A high B value, high expense ratio and high turnover related with growth funds in short run and low in long run and debt funds shows high cost related with corporate information.

Tripathy (1996) identified that 1991 economic reform results unexpected expansion of Indian capital market. The share of house hold saving in total country saving is 80 percent and only 33.33 percent household saving were available for corporate. The work suggest that mutual funds companies wins the investor confidence by offering diversified schemes that meet the investors need ,quick information, enhance operational transparency, fast consumer services and assured return by professional funds management.

Jayadev (1996) measured the performance of Mastergain and Magnum express growth oriented funds on the basic of its monthly return with benchmark return. He used Sharpe, Treynor and Jenson ratio to measure the performance of both mutual funds. The study found that performance of Mastergain fund is good as per Trenyor and Jenson Index and performance as per Sharpe index is not up to the benchmark index.

Sahadevan & Thiripalraju (1997) suggested to mutual fund investors that investment in mutual funds are better for small and medium income group. The study further explains household savings are 75% of GDP in India and investors are preferring to invest in real assets to financial assets and saving habits of investors in bank also shifting to shares, debenture and mutual funds.

Krishnamurthi (1997) studied the origin and growth of mutual funds in India and found mutual funds are good investment vehicle for lower and medium investors. Study further explain investors invest the small savings in mutual fund and receive benefits of blue chip share, avoid investment in useless shares, minimize the risk through diversification and take advantage of professionally manage funds.

Gupta & Sehgal (1998) examined the performance of mutual funds during 1992 to 1996 and evaluated 80 mutual funds schemes and found presence of less degree of diversification and consistency in samples performance.

Narasimhan & Vijayalakshmi (2001) analyzed 76 mutual fund schemes that are top holding during January 1998 to march 1999 and concluded that 26 schemes yielded positive return out of total 76 schemes.

Khorana & Edward (1998) studied the determinants and its predictive ability on mutual funds rating using multinomial probit model. The result of study shows higher rating of funds depends on high risk adjustment, low systematic risk, higher degree of diversification, large assets ,lower portfolio turnover, long tenure of managers ,lower funds load and expanse ratio. The study also depicts that funds performance was statistically significant in short run.

Fernando (1999) the study was based on Mutual funds Share split and share price relation to marketability and found mutual fund share split did not yield superior performance and risk of funds was unchanged. But share split increases the marketability of funds because share prices come in rich of small investors.

Irissappane (2000) examined the performance of 34 close ended mutual funds and evaluated the fund's investment patterns during 1988 to 1998 of ten years. The primary data was collected from four metro pollution city Chennai, Mumbai, Pune and Delhi for analysis purpose. The findings of study explain mutual funds investors expect funds return equal to market return. The study further explains 16 funds were more risky in compare to market risk and maximum funds showed lower Beta value. The study also

showed 26 fund manager loose the chance of return in compression to increase in market returns.

Gupta (2000) measured the performance of mutual funds in India on the basis weekly NAVs data during 1994-1999. The result shows mutual fund schemes having mixed performance during the sample period.

Statman (2000) Study used socially responsible investment (SRI) as a tool in corporations and compare socially responsible stocks and socially responsible mutual funds with NSE benchmark index S&P500. The comparison shows socially responsible stocks outperform and socially responsible mutual funds underperform during 1990-1998.

Narasimhan & Vijayalakshmi (2001) measured the performance of Indian mutual funds and analysis 76 top holding mutual funds during 1998 to 1999. The result depicts 26 funds out of 76 funds were yielding positive return and top holding funds were highly risky in relation to funds return. The relation and strength between portfolio and diversification shown by correlation that is significant.

Roshni (2002) study suggested that return from equity funds have good potential in future but investors most specify there investment goal and risk bearing capacity before selecting the funds. The study further suggested that diversified equity funds are less risky to other mutual funds and Systematic Withdrawal Plan with growth option are best suited for those investors having motive of regular cash inflows.

Mishra & Mahmud (2002) evaluated the performance of mutual funds applying lower partial moment. The lower partial moment were developed by researcher to evaluate the performance of portfolio. Target rate or risk free rate was used to measure the Risk in lower partial moment model and found mutual funds performance was significant.

Bansal (2003) revealed that loyalty of investors have a myth. The investors have focus only on funds performance. Study included 2819 respondents and concluded investor of UTI fund diversifies these investment to increase their return.

Singh & Subhash (2003) studied the factors that drive investors during investment in mutual funds and found repurchase facility, prompt services, adequate information, return, portfolio selection and NAVs are important criterion for mutual funds performance. The result of ANOVA shows the variables occupation status and age are not significant impact on selection of funds and salaried and retired investors prefer to past performance on selection of funds.

Fernandes (2003) conducted a study on implementation process of index funds in India and measure the tracing error of index funds in India. The study suggested that it's possible to keep consistency and tracing error on low level of index funds in Indian scenario on the basis of well run index funds.

Anand & Murugaiah (2004) studied the marketing strategies of financial services and found old marketing strategies are not appropriate in current environment the new strategies are necessary for survival and operation. To capture the maximum opportunities that are required for survival it's important to adopt new marketing strategies and tactics on low risk to meet the competitions globally.

Ramamurthy & Reddy (2005) conducted a study on current trends of mutual funds and concluded small investors get benefits due to effective management, good return, liquidity, flexibility, SEBI regulation, low cost.

Cheng, Yuan, Syuan (2008) measured the performance of mutual funds by using both techniques qualitative and quantitative methods. The data were analyzed by modified Delphi method and Analytical Hierarchy process to assess the performance of mutual funds. The measurement of mutual funds performance was based on manly two criterion mutual funds style and market investment environment. The result indicates investor focuses on investment style and market investment environment before doing investment in mutual funds.

Beaumont, Marco, Frijns, Lehnert, & Muller (2008) studied the investors sentiment on mutual funds return and measure the volatility of US market indices manly Dow Jones industrial average, S& P 500 and NASDAQ 100. The analysis of investors sentiment measurement were based on in flow and out flow of US domestic mutual funds.

Miller, Prather, & Mazumder (2008) tried to explore association in return across mutual funds assets class at macro level by applying cross auto correlation. To find out significant association in assets class the Granger causality test and correlation are used. Study includes 20 assets class of 641 mutual funds and its 2739 days returns as a sample. The result of Granger casualty test and cross auto correlation suggests return of domestic equity assets class may forecast the future global equity returns.

Duguleana, Dumitrachel, Grimm,& Fischer (2009) measured the performance of mutual funds on the basis of two factor market timing and selection ability of fund manager. Analysis based on 117 monthly return data that collect from 1999 to 2008 and separated market timing and funds selection ability of funds manager and study depicts both factors were significant for performance of mutual funds.

Singh & Jha (2009) examined the acceptability and awareness about mutual funds and found investors were not aware about SIP and investor invest decision in mutual funds based on return potential, liquidity and safety. Further study shows that investors also acknowledge the factors that influence invest decision in mutual funds.

Walia & Ravi (2009) critically studied the current structure of mutual funds and further scope of expansion to redesigning the services offered by mutual funds and found gaps by introducing Investor Service Quality Arrangements to understand the behavioural aspect of investor before introducing innovative financial instruments.

Comer, Larrymore & Rodriguez (2009) carried out a study was to evaluate the active fund management on balance funds. The attribution return methodology was used at the place of traditional risk adjusted measure to access the ability of active fund management and compare the actual monthly return to return earned by indexing strategy. Study found active fund management strategy was significant.

Nilsson (2009) studied the influence of financial return and social responsibility of investor on investment decision on socially responsible investment mutual fund. A cluster analysis was used to analyze 563 response of socially responsible investor on the basis of respondent perception. The investors were segmented on different category on the basis of financial return and social responsibility and discriminate analysis and chi squire test apply to profile the segment.

Banko, Beyer, Dowen (2010) analyzed the economics of scale, economics of scope, market concentration and relative size of mutual funds as an in dependent variable and expense ratio as a dependent variable. The analysis based on secondary data from 1997 to 2006 taken from Morningstar Principal Database. The result shows positive correlation between market concentration and expense ratio of fund under management under a given Morningstar style box related with equity fund and Debt Funds. The result also indicates mutual funds cost was partly related with economic of scope of debt funds.

Rodriguez Javier (2010) evaluated the performance of socially responsible mutual funds and matched conventional funds data from 1997 to 2005 duration. Sample data were analysis using risk adjusted performance methodology including measures that measures and compares the performance with an efficient and volatility match benchmark portfolio. The analysis found socially responsible mutual funds were performed better than market benchmark index but out performance of funds were not significant when risk considered in analysis.

Trinor (2010) analyzed the performance of individual mutual funds using risk adjusted technique that helps the investor to invest in assets class. The result of study explains top ranked funds out performing in one period and bottom ranked funds yielding an average return of 2.7 present annually.

Kausik,anita & Scott (2010) also analyzed the managers investment style related with market timing and factors influencing the cyclical performance of sectoral funds to examine whether funds managers applying different marketing timing strategy in different business cycle. The NSE benchmark index used to check the influence on sectoral funds and result showing great influence.

Yankow, Swythe, Lesseig, & Jones (2011) examined Fixed income and equity mutual funds and segregated load and no load fund by using empirical models. The study found that investors response are different between equity fund and debt funds and direct or no load funds and brokers or load funds.

Aharma, Loothra & Ashish (2011) Aimed to examine the performance of capital market safety measure in investment focusing the investors. Study includes eight mutual fund schemes for analysis purpose and with the help of statistical tools like sharp ratio, Standard Deviation, Beta, Alpha, and Coefficient of determent concluded Reliance Regular Saving yield increasing return from observation period and Birla Sun Life Dividend Yield Plus provide maximum return on minimum risk.

Kumar Vikas (2011) evaluated the performance using Sharpe, Treynor and Jenson's model on twenty open ended mutual funds and found only five funds namely Reliance growth fund, ICICI prudential tax fund, HDFC top 200 fund, Reliance vision fund and Birla sun life equity fund yielding better return in than BSE benchmark index (Sensex) and also less risky than BSE benchmark index (Sensex).

Poornima & Theivanayaki (2010) examined the performance of share market and mutual funds and test the correlation of performance of mutual funds and capital market indices like SENSEX and NIFTY and found strong and positive correlation.

Prajapati & Patel (2012) attempted to measure the performance of Indian mutual funds using relative strength index, risk adjusted return method, Treynor's, Sharpe's, Jenson's ratio and Fama's measure. The sample includes daily net assets value and result showed significant relation with benchmark return.

The study carried out by HsuLi,Ou Shang,Yank & OuYih (2012) was based on Taiwan's 30 equity mutual funds performance measurement. The sample data related from November 2006 to October 2008 that covers 500 trade days and depicts two main findings. First shows different measures of performance led to deviation in ranking of mutual in different market. And second, result of persistence test show when bull market shift in bear market

Patro Archana & Kanagaraj (2012) analyzed the heard behavior of fund manager by using lakonishok et al. (1992) measure of herding. The study try to find out whether Indian fund managers are doing herd behavior or not. The study also analyses previous studies and Indian capital market maturity and compare the results and found strong evidence of heard behavior.

Sharma (2012) in his study examined the investor perception towards mutual fund in India and analyses the data and found three categories which derives benefits from mutual funds investment. Category one related to funds attributes that includes safety of invested fund in mutual funds, favorable credit rating from top credit rating agencies, full discloser of information and updates of daily trading. Category two related to monitory benefits of funds that includes capital appreciation, Liquidity, ROI, early bird incentives, fringe benefits and low cost of investment. Category third related with sponsor attributes.

Batra, Laxmi & Gupta (2012) focused on investors' expectations of liking and disliking during investment. The study focuses on factors work as determinant of mutual fund investment and level of individual investor awareness of mutual funds schemes.

Singh (2012) found the factor affecting investor attitude related with age, sex, income, race, gender and culture on mutual fund investment. To draw the conclusion data were analyzed and tested with Chi-squire test to know the factors responsible for investment and factors are ranked on the basis of weighted score and scale was used for factor scoring.

Hossain, Rahman & Rajib (2013) evaluated the dynamics of mutual funds in reference to stock market and applied autoregressive casualty test. Analysis based on January 2008 to December 2010 and are selected that are DSE (Dhaka Stock Exchange) index return, DSE index turnover, mutual funds return and turnover 714 days data and found variables are in different order of integration.

Annapoorna & Gupta (2013) analyzed the State Bank of India fixed deposit rates with CRISIL ranked 1 mutual fund schemes return to find out the performance of funds. Result of analysis show the most of the mutual funds schemes are fail to provide the return as compare to SBI fixed deposit return.

Pojanavatee (2014) carried out the study based on optimum lagged model to forecast the price trend of equity mutual funds and stock market index on the basis of past price data

and also know the future price improvement of selected equity mutual funds. The result shows that price movement of stock mutual funds and stock market index are correlated in long run.

Nandy Subhashis (2014) evaluated the return of index ETFs and matched mutual funds and assumed their returns are independent. The result of analysis explains that medium value of Sharpe ratio and risk adjusted buy and hold returns of index ETFs and matched mutual funds are same. Its indicate investors expected financial return are equal either they invest in ETFs index fund or matched mutual funds.

Pala & Chandnib (2014) in their study included the income and debt mutual funds and examine their performance on the basic of its daily Net assets value ranging from October 2007 to October 2012. The analysis show the HDFC Mid Cap Opportunity, Birla Sun Life MNC Fund and Quantum Long-Term Equity were best performer funds.

The study done by Ahmad & Nor (2015) was based on pension funds of Malaysia ,Singapore , Hong Cong and South Korea and find that the majority of Malaysia ,Singapore ,Hang Kong , and South Korea's pension funds provides less rate of return in compression to inflation rate.

Lean (2015) in his study based on Eugene Fama and Kenneth French(1993) three factor model to find out impact of active management on equity mutual funds and concluded the evidence that active management did not out perfume the market.

Tan (2015) The study was conducted on performance of Taiwanese's equity mutual funds. The analysis based on 15 Equity mutual funds from quantitative easing period and depicts managerial skill is significant in selection of equity funds.

Goyal (2015) evaluated the performance of top 10 mutual funds (as per Crisil ranking in September, 2014) and compared it with the benchmark index NSC-Nifty. Various absolute and relative performance measures like Sharp measure, Treynor measure and Jensen Alpha were used to compare the performance and found that overall all schemes provides higher and better average return than the market.

The study by Islam & Dewari (2016) was based on mutual funds performance measurement. The analysis includes 128 funds and found a positive correlation among fund size, funds return, funds payout and price to earning ratio with funds performance and funds age and net assets value have a negative correlation with funds performance.

Samarin & Javadi (2016) done a study based on active investment funds in Tehran Stock Exchange. They measured the performance of funds by applying Shorting Ratio considered as one the modern portfolio evaluation approach. The study included 24 active investment funds in Iran from 2011to 2013 and found Sina Mutual fund was best performer and Omit mutual fund was lest performer as per Shorting Ratio among 24 funds.

## **Gap of the Study**

Past studies related with the performance of mutual funds are found in research papers. Further studies are also highlighting funds mangers ability and investor perceptions. But the changing financial environment and investor perception make essential to do more research in particular area to understand dynamic of capital market and investor perception towards investment. The research is related with particular area that helps to financial intuition and fund managers to understand the investor perception and also helps investors during decision making the research further helps in understanding of Indian capital market and mutual funds and its relation and impact of mutual funds on capital market.