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Performance Evaluation of Mutual Funds: A study of Selected Researches

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ABSTRACT

Mutual fund in Indian context is a challengeable phenomenon. It has attained commanding heights in the financial scenario of India. The main focus of this study is, to review about the mutual fund investment policies and strategies used in previous years by various researchers. For this purpose 14 studies on mutual fund review in this paper. The previous studies have taken, which conducted in between 1965 to 2012. The main aim of the paper is to concentrate on the various studies conducted on mutual funds in India and outside India.

***Keywords:** Mutual Fund, Sharpe, Investor, Portfolio, Decomposition, Ratio*

Introduction:

A mutual fund is an entity that pools the money of many investors and invests in different securities. Investments may be in shares, debt securities, money market securities or a combination of these. Those securities are professionally managed on behalf of the unit-holders, and each investor holds a pro-rata share of the portfolio i.e. entitled to any profits when the securities are sold, but subject to any losses in value as well. There are lots of benefits in investing in mutual funds like; professional investment management, diversification, low cost, convenience, flexibility, liquidity and transparency etc. Mutual funds are ideal vehicles for individual investor who don't have the time, willingness or ability to manage their own portfolio of bonds and stock.

Mutual Fund industry today, is one of the most preferred investment avenues in India. However, with a plethora of schemes available for option, the retail investor faces problems in selecting fund's. In addition to qualitative measures like investment strategy, management style etc., the funds record is an important indicator too. Though past performance alone cannot be indicative of future performance, it is, frankly, the only quantitative way to judge how good a fund is at present. The impressive growth of mutual funds in India has attracted the attention of Indian researchers, individuals and institutional investors during past ten years. The mutual fund industry is currently in the phase of consolidation and growth stage of the product life cycle. The competition would intensify in the coming years as it happened in other industries. Hence, it is appropriate and relevant to focus our attention as to how the Indian mutual industry would emerge in the coming few years to ascertain what kind of products (mutual fund schemes) would be able to win the investor's confidence and survive in the market place.

Literature Review: The review of literature is to guide us in the methodologies to be used, estimation procedures and analytical tools, interpretation of results. This chapter, therefore, focuses on both theoretical and empirical literature to understand the need for regulation, the form of regulation, approaches to risk and performance assessment of funds and also estimating cost functions. Mutual funds play a crucial role in reducing risk and transaction cost while investing in the stock markets. The pioneering work on the mutual funds in U.S.A. was done by Friend, et al., (1962) in Wharton School of Finance and Commerce for the period 1953 to 1958.

Friend, et al., (1962) made an extensive and systematic study of 152 mutual funds and 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 funds 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 their impact on the stock markets. The research work identified that mutual funds had a significant impact on the price movement in the stock market. On an average, the funds did not perform better than the composite market 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.

The most prominent study by **Sharpe** (1966) developed a composite measure of return and risk. He evaluated 34 open-

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end mutual funds for the period 1944-63, and found that. Reward to variability ratio for each scheme was significantly less than DJIA 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 the 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 gave below average results. He further found that very little evidence that funds were able to perform significantly better than expected as fund managers were not able to forecast securities' price movements.

Posner (1969) discussed exhaustively the regulating monopolies, although dealing with the issue of regulating 'natural monopolies' or more specifically 'utilities' reforms questioned the traditional basis and of regulating monopolies. The traditional 'dead weight loss' of monopoly profit maximizing price is questioned. He maintained that price need not be to maximize short term profits. He pointed out other managerial objectives which may lead to lower price. Preventing potential entrants from entering and developing good reputation were two such reasons.

Smith and Tito (1969) examined the inter-relationships between the three widely used composite measures of investment performance, and suggested a fourth alternative, identifying some aspects of differentiation in the process. While ranking the funds on the basis of ex-post performance, alternative measures produced little differences. However, conclusions differed widely when performance were compared with the market. In view of this, they suggested modified Jensen's measure based on estimating equation and slope coefficient.

M. Swaminathan and V. Buvanmeswaran (2006) have conducted a study on investor's preference towards mutual funds with special reference to Thiruchirapali Town, Tamil Nadu. The investors of Thiruchirapali become more cautious after they lost their saving with incorporated bodies. They are now turning more to mutual funds because of more safety, liquidity, capital gains and transparency. They wish to route their investments through mutual funds. **Soumya Guha Deb** (2008) has suggested that in her evaluation of fund managers performance found that Indian equity fund managers have not been able to beat their style benchmarks (William Sharpe ratio) on the average and pointed out the weaknesses of fund managers.

Khurana A. & Panjwani K. (2010) studied the performance of Hybrid mutual funds on the basis of Arithmetic Mean, CAGR, standard deviation and beta. Key ratios like Sharpe ratio and Treynor ratio are used for Risk-Return analysis. Funds are compared with a benchmark, industry average, and analysis of volatility and return per unit to find out how well they are performing with respect to the market Value at Risk analysis can be done to find out the maximum possible losses in a month given the investor had made an investment in that month. **J.S. Yadav and O.S. Yadav** (2012) in their analysis of comparison between Mutual Funds and Foreign Institutional Investors, it was found that though the India is an attractive destination for investment by Foreign Institutional Investors, investments made by the mutual funds were greater than investment made by FII's, during the recession MF industry has played a vital role in pushing the economy upward while FII's withdrew their investment, showing the importance of MF's in Indian economy.

Research Methodology:

For the review large number of papers required, on the concerned topic. The papers are collected with the help of E-journals and print journals. After that papers were listed according to publication year. In the first column title of the paper, in second column author name, third column year of publication, fourth column data period, fifth column include the techniques used in research. Papers from 1965 to 2012 were included in the reviews. 14 researches were included in this review paper. These researches were very important from the tools point of view.

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Review Table

Paper Title	Author	Published	Data	Techniques	Results
A Study of Mutual Funds: Investment Policy and Investment Company Performance	Irwin, Brown, FE	1965	1939-1942	Ratio and correlation techniques used.	The schoolwork identified that mutual funds had a significant impact on the price movement in the stock market. The cram concludes 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.
Can Mutual Funds Outguess The Markets	Treynor and Mazuy	1966	57 fund managers	Treynor's Technique	The results show 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.
Mutual Fund Performance	Sharpe, William F	1966	34 open-end mutual funds for the period 1944-63.	Variability ratio	Developed a composite measure of return and risk. Reward to variability ratio for each scheme was significantly less than DJIA and ranged from 0.43 to 0.78.
The Performance of Mutual Funds	Jensen	1968	115 fund Managers during the period 1945-66.	Ratio Analsis	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.
Mutual Fund Performance: An Analysis of Monthly Returns	M. Jayadev	1996	72 Actively traded securities,	Analysis of data is planned with the help of mean, chi-square technique and analysis of variance.	Growth oriented mutual funds are expected to offer the advantages of Diversification, Market timing and Selectivity. In the sample, Magnum Express is found to be highly diversified fund and because of high diversification it has reduced total risk of the portfolio.
Investment Management of Mutual Funds: Evidence of Timing and Selectivity from India.	Joyjit Dhar	2005	1997-2003	Jensen measure and Fama criteria.	The study, has revealed that majority of the fund managers possess superior selectivity skills based on Fama criterion. However, in terms of Jensen criterion, they failed to show superior stock selection ability. This difference in performance between these two criteria may be due to lack of diversification of the sample portfolio. The study has also noted that while fund managers of open-end schemes are superior performers than their closed-end counterpart.
An evaluation of equity diversified mutual funds: the case of the Indian market	Rajesh R. Duggimpudi Hussein A. Abdou Mohamed Zaki	2010	2000 to 2009, covering 17 mutual funds	Treynor, Sharpe and Jensen techniques used.	17 funds have outperformed the market in terms of their performance with higher returns for a given unit of risk. Furthermore, as to the ranking of different funds, both Treynor and Jensen techniques have a relatively have a relatively similar ranking over the study period

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Hybrid Mutual Funds: An Analysis	Dr. Ashok Khurana & Kavita Panjwani	2010	15 mutual fund schemes	For the purpose of analysis, appropriate statistical and financial tools, i.e., arithmetic mean, standard deviation, correlation, Beta, Treynor ratio, Sharpe ratio, Fama, Alpha have been applied.	These funds have also outperformed the Crisil Balance Fund Index over the period of last 5 years. Canara Robeco Balanced Growth Scheme is relatively more volatile with highest standard deviation, Beta as well as Treynor ratio. The study observed that Canara Robeco Balance Growth is the most aggressive hybrid mutual fund whereas Escort Balance Fund - Growth is relatively least a more defensive fund.
Effect of Fund Size on the Performance of Balanced Mutual Funds: An Empirical Study in Indian Context	Ms. Sarika Keswani	2011	1st April 2007 to 31st March 2010	Correlation coefficients between fund size and the four parameters of performance (Return, Risk, Return/Risk, and Sharpe Ratio) and ANOVA.	The standard deviation of the performance variables are found to be significantly low, implying that the fund size did not significantly related with the performance of Balanced funds. The ANOVA of performance variables of Micro-, Small-, Medium-, and Large Balanced Funds indicated that these variables are not significantly different from each other.
Performance Evaluation of Income Schemes of Mutual Funds In India - A Public Private Comparison	Sumninder Kaur Bawa & Smiti Brar	2011	1st April 2000 upto 31st March 2010	Sharpe Ratio	After comparing the Sharpe's ratio of all the selected schemes it can be concluded that public sector income schemes are the most risk attuned schemes.
Preference of Investors for Indian Mutual Funds and its Performance Evaluation	Dr.Shantanu Mehta, Charmi Shah	2012	100 educated investors of Ahmedabad and Baroda city	Chi square test and Cramer's V(Testing for the Strength of Categorical Relationships)	The investment in the top 5 schemes of Equity Sector Funds advisable for a long term period as investment in short term period yields negative returns to the investor. So only those investors who are planning to retain the mutual fund investment as their asset for more than a year invest in such schemes.
An Empirical Study on Performance of Mutual Funds in India	Dr. S. Poornima, Theivanaya ki M,	2012	15 mutual fund schemes(2007-2012)	The various tools, like arithmetic mean, correlation, standard deviation, are used to analyze the data.	The study shows the performance of top five growth funds and 10 index funds along with their correlation with Sensex and Nifty, thus correlation is almost perfect positive in many of the cases, but the percentage change in the schemes for years is different with market indices.
Mutual Fund Investments, FII Investments and Stock Market Returns in India	Suchismita Bose	2012	2008-2012	Five-day moving average values of FII and MFEQTY,	The study examines this relation in a multivariate VAR framework bringing in stock market returns and daily data of net investment flows from these two investor groups for the post-crisis period between 2008 and 2012.

Performance Evaluation of Indian Mutual Fund Industry from 2002-2007 with Special Reference to Franklin Templeton, HDFC and ICICI Mutual Funds	Gomathy Thyagarajan	2012	2002-2007	Sharpe's Ratio method of performance evaluation	This study observes that the Indian mutual fund industry which started with UTI as its only player in 1964 now has 32 funds and the industry has not only grown in terms of number of funds but also in terms of Assets Under Management which stood at Rs. 1,00,594 crores during 2002 rose to Rs. 3.26.292 crores as on December, 2007.
Perception of Investor on Mutual Fund	Vippar & Margam	2013	One Year 2012-13	Chi-square, Factor Analysis	Perception of investor is independent of Sectors (Public/Private) on liquidity, flexibility, tax saving, service quality, transparency but dependent on income, security and management fees etc.
Study on Mutual Fund	Goyal S. & Bansal D.	2013	One year 2012-13	Conceptual analysis based on Annual report	Professional management required in most of the mutual funds in terms of services and marketing
Risk Adjusted performance evaluation of selected Mutual fund schemes in India	Rao K.M. & Rani H.M.	2013	2010-13 2008-2013	Mean Return Beta Risk, Total Risk, Sharpe Risk, Treynor and Jensen ratio and Fama Decomposition	Maximum funds failed on the given parameters and performed badly
Performance Evaluation of Selected ETF Schemes of India	Gupta S.L. and Garg Meenakshi	2013		Mean Return Beta Risk, Total Risk, Sharpe Risk, Treynor and Jensen ratio and Fama Decomposition	Performance of Mutual Fund is below the Market Return.

Conclusion:

There are lot of researches happened in the area of the mutual funds and its performance evaluation. Contribution of the Sharpe, Jensen and Treynor is very important as there parameter for evaluation of mutual fund becomes standardize tool for evaluation of mutual funds in almost throughout world. Very recently some of the researchers start using the Fama's tool for decomposition, moving average and variance analysis for evaluation of MF. Regression analysis was also used by the most of the researchers. The few studies show that the Indian Mutual Fund industry grown at fast rate in last decade. Performance of Mutual fund is below the market return from 2008-2013. Performance start improving from the 2012 onwards as the stock market is also improving. Mostly sectorial funds affect the performance of the mutual funds.

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