MUTUAL FUND FINANCIAL PERFORMANCE ANALYSIS - A COMPARATIVE STUDY ON EQUITY DIVERSIFIED SCHEMES AND EQUITY MID-CAP SCHEMES

R.Kumar Gandhi
Dr.R.Perumal

Abstract

This article focused on the financial performance analysis of mutual fund schemes (equity diversified schemes and equity mid-cap schemes) of selected banks (State Bank of India, Canara Bank- Public Bank, ICICI Bank, HDFC Bank-Private Bank).The objective of this research work is to analyse the financial performance of selected mutual fund schemes through the statistical parameters (Standard Deviation, Beta and Alpha) and ratio analysis (Sharpe Ratio, Treynor Ratio, Jenson Ratio, Information Ratio).The results of the research work concern Among the Open ended – Tax Saving schemes (Canara Robeco Equity Diversified is the preferred and ranked top most, at the same time among the Open ended), Midcap schemes (HDFC Capital Builder is the preferred and ranked top most). The research findings are useful to the investors in terms of understanding the financial performance of the mutual fund schemes. Also the research findings are useful to the Mutual Fund Companies in terms of Behavioral aspects of mutual funds.

Key words: *Mutual Fund, Tax, Mid-Cap.*

Introduction

The SEBI regulations, 1993 defines a mutual fund as "a fund in the form of a trust by a sponsor, to raise money by the trustees through the sale of units to the public, under one or more schemes, for investing in securities in accordance with these regulations". A mutual fund is a professionally-managed firm of collective investments that pools money from many investors and invests it in stocks, bonds, short-term money market instruments, and/or other securities. In a mutual fund, the fund manager, who is also known as the portfolio manager, trades the fund's underlying securities, realizing capital gains or losses, and collects the dividend or interest income. The investment proceeds are then passed along to the individual investors. The value of a share of the mutual fund, known as the net asset value per share (NAV), is calculated daily based on the total value of the fund divided by the number of shares currently issued and outstanding.

Review of literature

Review of the literature plays an important role in any research, it is considering the importance of mutual funds and several academicians have tried to study the performance of various mutual funds. Literature on mutual fund performance evaluation is enormous. Herewith some of the research studies that have influenced the preparation of this study substantially are discussed in this section.

In depth financial review to identify among the selected equity funds that earns higher returns than benchmark and competitors, M.Vijay Anand (2000)[1].

R.Nithya (2004)[2] state that the values of mutual funds to the target people by identifying Asset Management Company that is performing well and identifying the top schemes in the category such as equity, balanced, Monthly Income Plan(MIP) & Income in the AMC, and it performed well and met the expectations.

Prasath.R.H in Anna University (2009)[3],emphasizes the core values of mutual fund investment, benefits of mutual funds and types of mutual funds and before choosing the mutual fund scheme, the investor should undergo fact sheet thoroughly and he has to choose the best one by calculating Sharpe Ratio, Treynor's Ratio, Jensen Ratio, IR Ratio and NAV calculation. If the investor finds difficulty of getting Rp, Rf, Standard deviation, and Beta parameters, NAV calculations are the best alternative to assess the performance.

Open ended mutual funds have provided better returns than others and some of the funds provided excess returns over expected returns based on both premium for systematic risk and total risk, Dr S Narayan Rao (2002)[4].

An Indian sponsored mutual fund seems to have outperformed both Public- sector sponsored and Private-sector foreign sponsored mutual funds, Sharad Panwar and Madhumathi.R, (2005)[5].

Mr. Kaushi k, Bhattacharjee and Prof. Bijan Roy (2008)[6], state that to understand whether or not the selected mutual funds (hence forth called funds) are able to outperform the market on the average over the studied time period and concluded that there are positive signals of information asymmetry in the market with mutual fund managers having superior information about the returns of stocks as a whole.

Jaspal Singh and Subhash (2006)[7],state that the investors consider gold to be the most preferred form of investment, followed by NSC and Post Office schemes. Hence, the basic psyche of an Indian investor, who still prefers to keep his savings in the form of yellow metal, is indicated. Investors belonging to the salaried category.

Performance is affected saving and investment habits of the people at the second side the confidence and loyalty of the fund Manager and rewards affects the performance of the MF industry in India.Deepak Agrawal (2007)[8].

Dr. S. Anand & Dr. V Murugaiah (2003)[9], indicates that the majority of schemes were showed underperformance in comparison with risk free return.

Soumya Guha Deb, Prof. Ashok Banerjee, Prof. B.B.Chakrabarti (2005)[10] stated that Indian equity mutual fund managers have not been able to beat their style benchmarks on the average

Mohit Gupta and Navdeep Agarwal (2009)[11] state that Prevalent modes of mutual fund purchase Results were found to be encouraging, as far as risk mitigation is concerned.

Research gap

Based on the literature study it is found that so far some researchers deal with statistical tools or quantitative tools to analyze the performance of the mutual fund. All research has used one or two methods to compare the mutual funds of one or two schemes only. Some of the research focused only on particular fund and identified the advantages and disadvantages of the funds. No research has focused on comparing the similar type of open ended schemes in various banks. Research Methodology the present research study has been under taken to fill the gap to compare selected two schemes and four banks by using of different statistical and ratio analysis.

Analysis – 1: Statistical Analysis of *Equity Diversified Schemes*

Table 1: Performance analysis based on statistics parameters

Name of the Fund	Beta(β)	Alpha (α)	Standard Deviation(σ)
SBI Magnum Equity Fund	0.679	0.020	3.177
Canara Robeco Equity Diversified	0.880	0.060	3.020
HDFC Equity Fund	0.7488	0.0325	2.9086
ICICI Prudential Growth Plan	0.888	-0.002	3.018

Inference

All the funds are having beta less than one during the last one year, which shows they are less risky compared to their benchmark index during this period. Out of these four funds ICICI Prudential Growth Scheme comes out to be the most aggressive with a beta of 0.888 and SBI Magnum Equity Fund is the least aggressive (beta of 0.679).All the funds are studied ICICI having negative Alpha. The riskiest fund during the period is SBI Magnum Equity Fund having standard deviation of 3.177 and the least risky fund is HDFC Equity Fund which is having standard deviation of 2.9086.

Table 2: Performance analysis of Equity Mid-Cap Schemes based on statistics parameters

Name of the Fund	Beta(β)	Alpha (α)	Standard Deviation(σ)
Canara Robeco Emerging Equities- Growth	0.6255	-0.0573	2.981
SBI Magnum Emerging Business- Growth	0.7921	-0.0740	2.949
HDFC Capital Builder-Growth	0.6398	-0.0203	2.9087
ICICI Prudential Emerging S.T.A.R. -Growth	0.7261	-0.1240	3.065

Inference

- All the funds are having beta less than one during the last one year, which shows they are less risky compared to their benchmark index during this period.
- Out of these four funds HDFC Capital Builder fund(G) comes out to be the most aggressive with having beta of 0.7921 and Canara Robecco Emerging Equities(G) is the least aggressive (beta of 0.6255) and All the funds are having negative Alpha.
- The riskiest fund during the period is ICICI Prudential Emerging S.T.A.R fund(G) having standard deviation of 3.065 and the least risky fund is HDFC Capital Builder Fund (G) which is having standard deviation of 2.9087.
- For Canara Robeco Emerging Equities- Growth Fund, the 52 week high NAV is 16.79 (on 02-Jun-08) and 52 week low NAV is 6.75 (on 12-Mar-09). For SBI Magnum Emerging Business-Growth Fund, the 52 week high NAV is 32.65 (on 02-Jun-08) and 52 week low NAV is 11.5 (on 09-Mar-09). For ICICI Pru Emerging S.T.A.R Growth Fund - the 52 week high NAV is 29.9 (on 02-Jun-08) and 52 week low NAV is 11.89 (on 09-Mar-09). For HDFC Capital Builder - Growth Fund - the 52 week high NAV is 73.862 (on 02-Jun-08) and 52 week low NAV is 40.55 (on 09-Mar-09).

Analysis – 2: *Equity Diversified Schemes*

Table 3: Performance analysis of *Equity Diversified Schemes* based on ratio analysis and ranking *Treynor Ratio Comparison*

Scheme Name	Treynor Ratio	Rank
Canara Robeco Equity Diversified	0.101	1
HDFC Equity Fund	-0.0329	2
ICICI Prudential Growth Plan	-0.058	3
SBI Magnum Equity Fund	-0.060	4

Table 4: Midcap Schemes Treynor Ratio Comparison

Scheme Name	Treynor Ratio	Rank
Canara Robeco Emerging Equities	-0.1952	3
HDFC Capital Builder	-0.1228	1
ICICI Pru Emerging S.T.A.R	-0.2414	4
SBI Magnum Emerging Business	-0.1784	2

Inference

- As Treynor Ratio represents mutual fund's excess return to its standard deviation high Treynor ratio indicates more attractive fund.
- All the Ratio for the schemes compared are low , they are relatively ranked accordingly
- HDFC offered HDFC Capital Builder schemes has a higher Treynor's ratio & expected to perform well among the other Equity – Mid Cap Schemes
- Canara Bank sponsored Canara Robeco Equity Diversified has a higher Treynor's ratio & expected to perform well among the other Equity Diversified Schemes.

Table 5: Equity Diversified Schemes - Sharpe Ratio Comparison

Scheme Name	Sharpe Ratio	Rank
Canara Robeco Equity Diversified	0.029	1
HDFC Equity Fund	-0.0085	2
ICICI Prudential Growth Plan	-0.017	4
SBI Magnum Equity Fund	-0.013	3

Table 6: Midcap Schemes Sharpe Ratio Comparison

Scheme Name	Sharpe Ratio	Rank
Canara Robeco Emerging Equities	-0.0410	2
HDFC Capital Builder	-0.0270	1

ICICI Pru Emerging S.T.A.R	-0.0577	4
SBI Magnum Emerging Business	-0.0479	3

Inference

- As Sharpe Ratio represents mutual fund's excess return to its standard deviation high Sharpe ratio indicates more attractive fund.
- All the Ratio for the schemes compared are low , they are relatively ranked accordingly
- HDFC offered HDFC Capital Builder schemes has a higher Sharpe's ratio & expected to perform well among the other Equity – Mid Cap Schemes
- Canara Bank sponsored Canara Robeco Equity Diversified has a higher Sharpe's ratio & expected to perform well among the other Equity Diversified Schemes

Table 7: Midcap Schemes Information Ratio Comparison

Scheme Name	Information Ratio	Rank
Canara Robeco Emerging Equities	-0.0192	2
HDFC Capital Builder	-0.0070	1
ICICI Pru Emerging S.T.A.R	-0.0404	4
SBI Magnum Emerging Business	-0.0251	3

Table 8: Equity Diversified Schemes Information Ratio Comparison

Scheme Name	Information Ratio	Rank
Canara Robeco Equity Diversified	0.0200	1
HDFC Equity Fund	0.0112	2
ICICI Prudential Growth Plan	-0.0010	4
SBI Magnum Equity Fund	0.0060	3

Inference

- A high information ratio means a manager can achieve higher returns more efficiently than one. All the ratio in the compared schemes are negative.

- Relatively HDFC Capital Builder scheme has a higher Information ratio and is expected to achieve higher returns compared to the other schemes. Canara Bank sponsored Canara Robeco Equity Diversified has higher Information ratio & expected to performs well among the other Equity Diversified Schemes

Comparison and ranking of mutual fund based on variance and standard deviation:

Table 9: Midcap Schemes Variance and Standard Deviation Comparison

Fund Name	**Variance**	**Standard deviation**	**Rank**
Canara Robeco Emerging Equities-Growth	8.884	2.981	3
SBI Magnum Emerging Business-Growth	8.4600	2.9086	1
HDFC Capital Builder-Growth	9.09	3.014	4
ICICI Prudential Emerging S.T.A.R.	8.694	2.949	2

Table 10: Equity Diversified Schemes Variance and Standard Deviation Comparison

Fund Name	**Variance**	**Standard deviation**	**Rank**
Canara Robeco Equity Diversified	9.118	3.020	3
HDFC Equity Fund	8.4600	2.9086	1
ICICI Prudential Growth Plan	9.106	3.018	2
SBI Magnum Equity Fund	10.092	3.177	4

Inference

As standard deviation represents risk involved in the mutual fund, a fund with low standard deviation is preferred when the investor is more concerned with their investment.SBI Sponsored SBI Magnum Emerging Business- Growth scheme has a lower Variance and Standard deviation and is expected to be less risky among the mid cap schemes. HDFC offered HDFC Equity Fund scheme has a lower Variance and Standard deviation and is expected to be less risky among the Equity diversified schemes.

Table 11: Comparison and ranking of mutual fund based on jensons alpha

Midcap Schemes Jenson Alpha Comparison

Scheme Name	**Jenson Alpha**	**Rank**
Canara Robeco Emerging Equities	-0.0573	2

HDFC Capital Builder	-0.0203	1
ICICI Pru Emerging S.T.A.R	-0.1217	4
SBI Magnum Emerging Business	-0.0740	3

Table 12: Equity Diversified Schemes Jenson Alpha Comparison

Scheme Name	Jenson Alpha	Rank
Canara Robeco Equity Diversified	0.060	1
HDFC Equity Fund	0.0325	2
ICICI Prudential Growth Plan	-0.002	3
SBI Magnum Equity Fund	0.020	4

Inference

All the ratios in the compared schemes are negative and few have positive alpha. HDFC offered HDFC Capital Builder has the lowest negative Alpha value of -0.0203 implies that the fund return has underperformed the benchmark index by -0.0203% over the last one year. Canara Bank offered Canara Robeco Equity Diversified has the positive Alpha value of 0.060 implies that the fund return has over performed the benchmark index by 0.060% over the last one year.

Conclusion

This study also creates awareness among the investor community. Before choosing the mutual fund scheme, the investor should study the fact sheet thoroughly and he has to choose the best one. Among the Open ended – Midcap schemes, HDFC Capital Builder (G) is the preferred and recommended one for the investors based on the past performance analysis using Treynors, Sharpe, and Information ratio, Alpha index. And Among the Open ended – Equity Diversified schemes, Canara Robeco Equity Diversified (G), is the preferred and recommended one for the investors based on the past performance analysis using Treynors, Sharpe, and Information ratio.

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About the Authors

R.Kumar Gandhi, Research Scholar in Management, Alagappa University, Karaikudi: rrkkgg@gmail.com

Dr.R. Perumal, Professor in Management, Alagappa University, Karaikudi. He is the Research Supervisor of Kumar Gandhi