ISSN: 2349-8269
Dimapur Government College Journal • Vol. II • Issue No. 3 • 2022
An Annual Peer-Reviewed Journal

Performance Analysis of Mutual Fund: A Comparative Study of Mid Cap Fund

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Abstract

Markets are being divided into two components i.e., Primary market and Secondary market. The secondary market is also known as capital market. Capital market contains of numerous investment avenues like Stocks, Debentures, Bonds, Mutual Fund, and many others. Mutual fund is also one of the important instruments of the capital market because the investor's gets appreciation of their budget invested and additionally diversify risk. It also offers the possibility to the retail investor to put money into securities and capital market device.

This paper aims at comparing Indian mutual fund with the mid cap category in terms of risk- return relationship. The paper will also attempt to examine monetary overall performance of selected mutual fund schemes through the statistical tools such as alpha, beta, standard deviation, and Sharpe ratio. The findings of this research paper can be beneficial to buyers, AMC fund houses, financial advisor and so on, for future investment.

Keywords: Mutual fund, capital market, sharpe ratio, mid cap fund.

Introduction

Mutual fund can be said as one of the instrument of Capital Market in which an investor can get wealth appreciation and good return from the invested amount as well. The Mutual fund gives the advantage of fund diversification on the invested amount, so that the risk gets diversified and investor can be free of some risk avenues. In simple words, Mutual Fund is one of the medium by which a retail investor can enter into capital market through small amount of investment from their savings and can get a good return as well as wealth maximisation.

One of the scheme characteristics of Mid cap fund, according to Securities Exchange Board of India (SEBI) mentioned about minimum investment in equity and equity related instruments with 65% of total assets. Another growth fund category of Mid cap fund is imparting appreciation in the fund or capital invested through the traders. It is stated to be as growth finances. The growth charge variety goals at appreciation of the capital in choice to regular profits on the rate range invested via the investor but, increase fund involves better threat than income rate range.

Meaning of Mid Cap Fund- "Mid-cap fund can be said as the fund in which the minimum investment of equity and equity related instruments is 65% of total assets by mid-cap companies."

Asset Management Company (AMC)

One of the organisation that manages the fund houses is the Asset Management Company (AMC). It really manages the price range of the various schemes. The AMC employs

a big wide variety of specialists (Fund Manager) to make investments, carry out research and to do agent and investor servicing. In fact, the fulfilment of any mutual fund relies upon the performance of this AMC. The AMC submits a quarterly document on the functioning of the mutual fund to the trustees who will guide and manage the AMC.

Statement of the problem

Any investor who wants to invest in mutual fund needs to know about the market trend and every investor is not aware about the various tools by which they can get the update about the market. For that reason, it becomes very important for the researcher to work on the performance of mutual fund. So that a layman investor gets idea about various risk- return and their relationship.

SEBI has classified various funds according to their characteristics. Therefore, in this paper the researcher made an attempt to analyse the performance with simple manner with the statistical tools. The main aim of this paper is that any layman investor who has desire to start investing in capital market can read the paper and can get some knowledge of the mutual fund.

This paper emerges with the need to study the performance of Indian Mutual Fund companies with their NAV and benchmark return with risk and return relationship of selected three companies i.e., ICICI, SBI & HDFC with the category of Mid cap funds.

Objectives of the study

The objectives are as follows:

1. To analyse the performance of mid cap fund of selected Indian companies in terms of risk-return relationship.

2. To compare the performance of Indian mutual fund of mid cap funds of selected Indian companies on the basis of benchmark Index.

Hypothesis of the study

The working hypothesis of the study is followed by:

There is no significant difference between the return and Benchmark index of Mid-cap equity fund.

Research methodolgy

Secondary data is taken as a basis of analysis in this research paper like online factsheet data, online journals and online material. The samples are selected on a random sampling method. The sample for the research paper includes only three AMC Fund houses according to 1st quarter report ICICI, SBI and HDFC. Three equity diversified mutual fund schemes are chosen for the study for their comparison on the same mid cap category. The most popular and widely tracked Nifty benchmark for midcap category is used as a proxy for the market collected from the website www.nifty.com. The reference period is financial year for the data is taken from 2018-2020. Yearly fixed deposit rate of SBI is taken as risk free rate of return. The data for the study is taken from the factsheet been published journal of the fund houses. Microsoft Excel is used for all the calculations.

Statistical Tools

Alpha: Alpha is the extra return of any portfolio an investor past the restriction of its benchmark index considering the risk involved in it. It is a statistical device for calculating the actual gain minus the only predicted via the beta value of the fund. The method used for the calculation of alpha is:

Alpha = INTERCEPT (Average return of Portfolio, Average return of benchmark index)

Beta: Beta denotes the sensitiveness of the portfolio toward the market motion. it is a statistical device through which we can predict the fund overall performance in correlation with its index. The system used for the calculation of beta is:

Beta = SLOPE (Average return of Portfolio, Average return of benchmark index)

Standard deviation: Standard Deviation is a financial parameter device which allows us to expect the fund overall performance in correlation with its mean. The method used for the calculation of popular deviation is:

S.D. = STDEV.P (Average return of the portfolio)

Sharpe ratio: Sharpe ratio is the ratio that's used to measure the performance of a portfolio with the evaluation to a chance loose charge, after taking into the chance component. The formula used for the calculation of Sharpe ratio is:

Sharpe ratio = (Average Return of Fund – Returns of Risk Free Rate)/Standard Deviation.

Results and analysis

1. Comparative Statement of NAV and Total Return for the Selected Mutual Fund Schemes

The table below explains about the comparative NAV (Net Asset value) for the selected mutual funds schemes. Firstly, for the year 2018 NAV (Rs) & TOTAL RETURN (%) for selected schemes (ICICI Prudential Midcap Fund 46.09 & 8.01%, SBI Magnum Midcap Fund 19.11 & 14.16%, HDFC Midcap opportunities fund 34.78 & 0.57%) which shows that all the funds has positive growth rate in the year 2018 and SBI

has highest growth rate than ICICI and HDFC. Secondly, in 2019 NAV (Rs) & TOTAL RETURN (%) for selected schemes (ICICI Prudential Midcap Fund 49.32 & 7%, SBI Magnum Midcap Fund 21.18 & 10.83%, HDFC Midcap opportunities fund 32.69 & -6.01%) which shows that ICICI & SBI has a positive growth rate in 2019 but HDFC has negative rate which indicates that the fund has underperformed. Thirdly, in 2020 NAV (Rs) & TOTAL RETURN (%) for selected schemes (ICICI Prudential Midcap Fund 50.34 & 2.07 %, SBI Magnum Midcap Fund 22.31 & 5.34%, HDFC Midcap opportunities fund 30.93 & -5.39%) which shows that ICICI & SBI has performed well in 2020 consecutively but HDFC has underperformed for continuously two year which is quite dissatisfactory for the investor.

Table (I) Comparative Statement of NAV and Total Return for the Selected Mutual Fund Schemes

Scheme name	NAV 2018 (rs)	Total return for 2018 (%)	NAV 2019 (rs)	Total return for 2019 (%)	NAV 2020 (rs)	*Total return for 2020 (%)*
ICICI Prudential mid-cap fund	46.09	8.01	49.32	7	50.34	2.07
SBI Magnum mid-cap fund	19.11	14.16	21.18	10.83	22.31	5.34
HDFC mid-cap opportunities fund	34.78	0.57	32.69	-6.01	30.93	-5.39

Source: Data Compiled from Bulletin

2. Performance Analysis Based On Statistic Parameters

Table (II) reveals about the statistical parameters which is used to analyse the performance of the selected mutual fund scheme:

- ICICI Prudential Midcap Fund - it has beta value of fund 0.07 and alpha value of fund -1.73 the fund has less volatile to its benchmark indices and the poor price of alpha implies

that it's been below preformed to the market movements wherein else it has an general deviation of fund is 2.60 it indicates that the funds is more strong or much less sensitive than the index and provide common return to the investors.

- SBI Magnum Midcap Fund - it has beta value of fund 0.19 and alpha value of fund is 2.20 which says that the fund is less unstable to benchmark indices and it has achieved properly by using offering an higher go back to the investors while it's general deviation of fund is 3.64 it suggests that the funds hazard component is below common typical the fund is presenting common return to the investor and carried out exact.
- HDFC Midcap opportunities fund - it has beta value of fund 0.23 and alpha fee of fund -3.61 the fund has much less volatile to its benchmark indices and the poor value of alpha implies that it has been below preformed to the marketplace moves wherein else it has an preferred deviation of fund is 2.97 it indicates that the budget is extra stable or much less sensitive than the index and provide common return to the investors.

Table (II) Performance Analysis Based On Statistic Parameters

Scheme name	BETA	AIPHA	S.D.
ICICI Prudential mid-cap fund	0.07	-1.73	2.60
SBI Magnum mid-cap fund	0.19	2.20	3.64
HDFC mid-cap opportunities fund	0.23	-3.61	2.97

Source: Data Compiled through Ms Excel

3. Performance Analysis Based On Sharpe Ratio Analysis and Ranking

The table III explains about the performance of a selected Indian mutual fund of large cap category based on Sharpe

ratio and ranking of the fund is made on their highest ratio. A higher Sharpe ratio is therefore better as it represents a higher return generated per unit of risk.

In SBI MAGNUM MIDCAP FUND Sharpe Ratio is 1.30% which gives good return at high risk and have 1st rank whereas ICICI PRUDENTIAL MIDCAP FUND has 1.19% which means it has high risk with average return having 2nd rank and HDFC MID CAP OPPORTUNITIES FUND has 1.0% which is less risky than other fund having the 3rd rank.

Table (III) Performance Analysis Based On Sharpe Ratio Analysis and Ranking

Scheme Name	Sharpe Ratio	Rank
ICICI Prudential Midcap Fund	1.19	2
SBI Magnum Midcap Fund	1.30	1
HDFC Mid Cap Opportunities Fund	1.0	3

Source: Data Compiled through Ms Excel

4. Comparative Analyses between Fund and Bench Mark Return

The table below explains about the comparison made between funds return and its benchmark return. Firstly, ICICI PRUDENTIAL MIDCAP FUND has its benchmark Nifty Midcap 100 Index TRI in its fund return 8.51% as but it has its benchmark return as 13.62% in 3 years. The difference between the return was -5.11%. This shows that fund has outperformed then its benchmark index in this 3 year period. Secondly, SBI MAGNUM MIDCAP FUND has its benchmark Nifty Mid Small cap 400 Index its fund return 12.62% as but it has its benchmark return as 11.80% in 3 years. The difference between the return was 0.82%. This shows that fund has performed well then its benchmark index in this 3 year period. Lastly, HDFC MID CAP OPPORTUNITIES FUND has its

benchmark in NIFTY Midcap 100 its fund return 10.16% as but it has its benchmark return as 12.82% in 3 years. The difference between the return was -2.66%. This shows that fund has outperformed then its benchmark index in this 3 year period.

Table (IV) Comparative Analyses between Fund and Bench Mark Return

Scheme Name	Benchmark	3 year Return (%)	Benchmark Return (%)
ICICI Prudential Midcap Fund	Nifty Midcap 150 Index TRI	8.51	13.62
SBI Magnum Midcap Fund	Nifty Mid Small cap 400 Index	12.62	11.80
HDFC Mid Cap Opportunities Fund	NIFTY Midcap 100	10.16	12.82

Source: Data Compiled from Bulletin

Result of the working hypothesis

The hypothesis of the study is rejected as there is significant difference between the return and Benchmark index of Mid-cap equity fund.

Conclusion

The research paper anatomized the performance of selected Indian mutual funds companies of Mid-cap category. In this paper, the researcher have taken the help of NAV and Total Return in order to use statistical tools like alpha, beta, and standard deviation, Sharpe ratio to compare the funds and to come into conclusion. The above study clears that SBI MAGNUM MIDCAP FUND have performed good beyond its benchmark index in 3 year period of the study as compared to ICICI PRUDENTIAL MIDCAP FUND and HDFC MID CAP OPPORTUNITIES FUND as they have underperformed during the period of study. According to Sharpe ratio SBI

MAGNUM MIDCAP FUND has the highest value than ICICI PRUDENTIAL MIDCAP FUND and HDFC MID CAP OPPORTUNITIES FUND. So, the above tools should be taken into isolation and apart from that, the expense ratio and turnover ratio of particular portfolio should be taken into consideration while investing in mutual funds.

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