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PERFORMANCE EVALUATION OF THE LARGE CAP EQUITY MUTUAL FUND

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Abstract: Investment in mutual funds is very important issues in the present time due to the increasing inflation rate in India. This investment is not tough for the investor in the long term period in the Indian financial markets. It will be simple for long term investment directly in Indian financial market on the basis of some metrics in the large cap equity mutual funds, in the maximum case, investment on the basis of metrics, the mutual funds gives hand some return for the long term investment. In this paper, Alpha, Beta, Standard deviation and Sharpe ratio are taken to identify the large cap equity mutual fund, whose returns are better in the long term investment period. Higher the ratio of Alpha, Beta, Standard deviation and Sharpe of mutual funds, have the more chances to give the higher return on large cap equity mutual fund in Indian financial market.

Keywords: Metrics, Alpha, Beta, Standard Deviation, Sharpe, Lump Sum

I. INTRODUCTION

Mutual fund (MF) investment is not hasty decision; the proper return in mutual funds builds capital appreciation in the long term investment directly in Indian financial market that helps to fulfill the objective of the investor. The different parameters of mutual fund analysis help to choose the suitable mutual funds. The mutual fund scheme that constantly beats the benchmark index in the long term period is the ideal investment to achieve the target. In that case, S & P, BSE, CRISIL indices are suitable benchmark index to compare the performance of the mutual funds schemes. Another important method is to calculate the returns on mutual funds; two most popular methods are absolute return and annualized return. The annualized return, compound annual growth rate (CAGR), is the smoothened method for the long term investment to find the steady rate on the annually compounded basis. There are other multiple metrics that help to analyze the mutual funds' performance in the long term investment; these are Alpha, Beta, Standard deviation Sharpe Ratio, etc. which are used to find the performance of mutual funds. In this paper, seven equity large cap funds, are chosen to analyses the performance of mutual funds using the CAGR and Alpha, Beta, Standard Deviation & Sharpe Ratio.

II. LITERATURE REVIEW

N. Seal & N. Mukharjee (2022) explained in their journal 'A Study on the Performance of Mutual Funds of Indian AMCs' the over view of mutual fund, performance of top equity large cap, mid cap and small cap and no relation is found between return of large cap, asset management, expense ratio and experience of management.

S. Goyal & D. Bansal (2013) discussed in their article 'A Study on Mutual Funds in India' mutual fund organization had to upgrade the skills and technology as well as sense of timing of investment and investment discipline.

M. J. Hwaran & M. Kumar T. (2017) showed in the journal, 'A Study on Growth and Performance of Mutual Funds in India', the relationship between UTI & other mutual fund and bank sponsored MF and FI sponsored MF as well as analyses of AUM in MF.

M. Malviya & P. Khanna (2020) discussed in 'Performance of Mutual Fund Industry in India' past performance of MF using annualized return, standard deviation, beta and Sharpe ratio.

B. Ravi & P. T. Basavarajappa (2018) applied in 'An Empirical Study on Indian Mutual Funds Equity Diversified Growth Schemes and Their Performance Evaluation', Sharpe ratio, Treynor Ratio and Jenson Ratio and explained interdependence of funds and index (BSE200).

E. Rokade. (2021) analyzed in the article, 'A Study on the Growth of Mutual Funds in India' the performance of selected mutual funds on risk and return basis.

III. METHODOLOGY

This paper is explanatory in nature and the secondary data of lump sum investment in mutual fund is used to describe the findings of this article. Alpha, Beta, Standard Deviation and Sharpe Ratio are used in this paper to compare the return of one year, three years, five years and ten years of selected large cap equity mutual funds. Seven mutual funds are randomly selected to analyses the return on the basis of selected ratios. These ratios and its explanation are shown below:

MULTIPLE METRICS			
SL. NO	METRIC	FORMULA	PURPOSE
1	Alpha	$\text{Alpha} = (\text{Mutual Fund Return} - \text{Risk Free Return (R}_f)) - [(\text{Benchmark Return} - \text{Risk Free Return (R}_f)) \times \text{Beta}]$	It determines how much return is expected from the MF. A higher alpha number signifies higher return.
2	Beta	$\text{Beta} = (\text{Mutual Fund Return} - \text{Risk Free Rate (R}_f)) / (\text{Benchmark Return} - \text{Risk Free Rate (R}_f))$	It determines the risk in the MF. A higher beta number signifies the higher risk.
3	Standard Deviation	Standard Deviation = $\sqrt{(\sum (x_i - \bar{x})^2) / (n-1)}$ Here- X_i is the i th point in the data set \bar{X} is the mean value of the data set N is the total number of data points in the set	It reveals the volatility. A higher standard deviation indicates the wider range of returns.
4	Sharpe Ratio	Share Ratio = $(\text{Mutual Fund Returns} - \text{Risk Free Rate}) / \text{Standard Deviation}$	It indicates the mutual fund's risk adjusted return. The higher the ratio, the better is the return.

IV. THE OBJECTIVES OF THE STUDY

In this paper, the main objectives of the article are stated below:

- To analyses the returns of selected large cap equity mutual funds.
- To compare the metrics of the Mutual funds.

V. RESULT AND DISCUSSION

These two objectives of the study are analyzed with the collected data in the following way:

a) To analyses the returns of selected large cap equity funds

In this section, returns for one year, three years, five years and ten years of lump sum investment in mutual fund are taken to make the rank on the basis of average return of one year, three years, five years and ten years.

Fund	One Year return (%)	Three Year return (%)	Five Year return (%)	Ten Year return (%)	Average return (%)	Rank
icici-prudential-bluechip-fund-direct-growth large cap	16.22	22.93	13.07	16.89	17.28	3
hdfc-top-100-fund-direct-plan-growth large cap	18.18	24.46	12.45	16.66	17.94	2
sbi-bluechip-direct-plan-growth large cap	14.46	22.02	12.87	17.67	16.76	4
aditya-birla-sun-life-frontline-equity-direct-fund-growth large cap	13.64	21.49	11.66	16.46	15.81	6
mirae-asset-large-cap-fund-direct-growth large cap	12.17	19.43	12.45	18.86	15.73	7
nippon-india-large-cap-fund-direct-growth large cap	22.87	27.66	14.13	18.78	20.86	1
canara-robeco-bluechip-equity-fund-direct-growth large cap	13.49	19.91	14.27	16.51	16.05	5

[Source: <https://www.etmoney.com/mutual-funds/filter/mutual-fund-risk-ratios>]

Findings:

The Table-I shows the average return and the rank, the return is the maximum for nippon-india-large-cap-fund-direct-growth large cap and the lowest for mirae-asset-large-cap-fund-direct-growth large cap. It happens for the better Alpha, Beta, Standard deviation and Sharpe ratio in case of nippon-india-large-cap-fund-direct-growth large cap and for the moderate Alpha, Beta, Standard deviation and Sharpe ratio in case of mirae-asset-large-cap-fund-direct-growth large cap.

c) To compare the metrics of the Mutual funds

In this division, Alpha, Beta, Standard deviation and Sharpe ratio are taken to make the rank on the basis of average ratios.

Fund	Alpha	Beta	Standard Deviation	Sharpe Ratio	Average	Rank
icici-prudential-bluechip-fund-direct-growth large cap	3.00	0.91	13.17	1.47	4.64	3
hdfc-top-100-fund-direct-plan-growth large cap	2.76	1.02	15.21	1.38	5.09	2
sbi-bluechip-direct-plan-growth large cap	1.37	0.99	14.33	1.33	4.51	4
aditya-birla-sun-life-frontline-equity-direct-fund-growth large cap	0.93	0.96	13.74	1.32	4.24	5
mirae-asset-large-cap-fund-direct-growth large cap	0.53	0.89	12.79	1.29	3.88	7
nippon-india-large-cap-fund-direct-growth large cap	5.17	1.07	16.07	1.52	5.96	1
canara-robeco-bluechip-equity-fund-direct-growth large cap	0.62	0.90	12.87	1.30	3.92	6

[Source: <https://www.etmoney.com/mutual-funds/filter/mutual-fund-risk-ratios>]

Findings:

In the Table-II, 1st rank is for nippon-india-large-cap-fund-direct-growth large cap, it occurs for the highest return during the period and the lowest rank for mirae-asset-large-cap-fund-direct-growth large cap, it occurs for the lowest return during the study period.

VI. CONCLUSION

In this study paper, the returns on the mutual funds predict on the metrics of the individual mutual fund, the better ratios supports the better return for the long term investment in comparatively higher risky large cap equity mutual funds of the financial market in India. The ratio, Alpha, Beta, Standard deviation and Sharpe ratio are the sufficient to predict the return on the investment amount in the mutual funds for the long-term investment period with some additional risk in the Indian financial market.

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