

A Study On Performance Evaluation of Selected Mutual Fund Schemes

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Abstract: Mutual funds are growing investment vehicles where people with same investment objective pool their money and then invest accordingly. In the present scenario the people are still hesitant to invest in mutual funds due to lack of knowledge and awareness. Thus it is important to analyze the performance of the mutual fund schemes based on their performance and risk involved in it. This study attempts to analyze the selected mutual fund schemes in selected AMC'S using Beta, Standard Deviation, Sharpe's ratio, Treynor's ratio and Jensen Alpha for the period 2021-2022. The main theme of this study is to evaluate the performance of the mutual fund schemes and rank them.

Index terms: Risk, Return, Mutual Funds, Performance.

I. INTRODUCTION

Mutual fund is an investment vehicle that pools funds from numerous individuals to purchase securities such as stocks, bonds, money market instruments, and other assets. Professional fund managers run mutual funds, allocating the assets and attempting to generate capital gains or income for the fund's investors. The investment objectives outlined in a mutual fund's prospectus are reflected in the portfolio structure

A professionally managed portfolio of stocks, bonds, and other securities is available to small or individual investors through mutual funds. As a result, each shareholder proportionately shares the profits or losses of the fund. Mutual funds make investments in a variety of securities, and performance is typically measured as the change in the total market cap of the fund—derived by the aggregating performance of the underlying investments.

Objective of the study

- To analyse risk and return of selected mutual fund schemes in India
- To evaluate the performance of mutual funds by using the risk adjusted parameters as suggested by Sharpe, Treynor, and Jensen.
- To identify best performing Mutual Fund schemes under each selected category.

II. REVIEW OF LITERATURE

Dr. Sandeep Bansal, Deepak Garg and Sanjeev K Saini (2012), have studied “Impact of Sharpe Ratio & Treynor's Ratio on Selected Mutual Fund Schemes”. This paper examines the performance of selected mutual fund schemes, that the risk profile of the aggregate mutual fund universe can be accurately compared by a simple market index that offers comparative monthly liquidity, returns, systematic & unsystematic risk and complete fund analysis by using the special reference of Sharpe ratio and Treynor's ratio.

Dr. K. Veeraiyah and Dr. A. Kishore Kumar (Jan 2014)¹, conducted a research on “Comparative Performance Analysis of Select Indian Mutual Fund Schemes”. This study analyzes the performance of Indian owned mutual funds and compares their performance. The performance of these funds was analyzed using a five year NAVs and portfolio allocation. Findings of the study reveals that, mutual funds out perform naïve investment. Mutual funds as a medium-to-long term investment option are preferred as a suitable investment option by investors.

Dr. Yogesh Kumar Mehta (Feb 2012), has studied “Emerging Scenario of Mutual Funds in India: An Analytical Study of Tax Funds”. The present study is based on selected equity funds of public sector and private sector mutual fund. Corporate and Institutions who form only 1.16% of the total number of investors accounts in the MFs industry, contribute a sizeable amount of Rs. 2,87,108.01 crore which is 56.55% of the total net assets in the MF industry. It is also found that MFs did not prefer debt segment,

E. Priyadarshini and Dr. A. Chandra Babu (2011), have done Prediction of The Net Asset Values of Indian Mutual Funds Using Auto- Regressive Integrated Moving Average (Arima). In this paper, some of the mutual funds in India had been modelled using Box-Jenkins autoregressive integrated moving average (ARIMA) methodology. Validity of the models was tested using standard statistical techniques and the future NAV values of the mutual funds have been forecasted.

III. RESEARCH METHODOLOGY

Source of data- The data collected for the analysis is through secondary sources like company's websites like SBI mutual fund, axis mutual fund, TATA mutual fund, Canara mutual fund, Nippon mutual fund, BSC website, NSE website.

Sample size- The sample size for the research is taken as 25 from the top 10 performing mutual fund schemes from each AMC's.
Data Collection method- The mutual fund data has been done through random sampling. The schemes are chosen based on the top market performers under each category. The following schemes are taken for the study.

Small Cap Fund

- Axis small cap fund (G)
- SBI small cap fund (G)
- Canara robeco small cap fund (G)
- Nippon small cap fund (G)
- Kotak small cap fund (G)

Mid cap Fund

- Axis mid cap fund (G)
- Kotak emerging equity fund (G)
- SBI magnum midcap fund (G)
- Nippon India growth fund (G)
- Tata midcap growth fund (G)

Large Cap Fund

- Canara robeco bluechip equity fund (G)
- Axis bluechip fund (G)
- SBI bluechip fund (G)
- Sundaram large cap fund (G)
- Kotak blue chip fund (G)

Multicap Fund

- Baroda Multicap fund (G)
- Mahindra Manulife Multi Cap Badhat Yojana (G)
- ICICI Prudential Multicap fund (G)
- Adithya Birla Sunlife Multicap fund (G)
- Invesco India multicap fund (G)

Banking and financial sector

- SBI Banking and financial services fund (G)
- Aditya Birla Sun Life Banking & Financial Services Regular (G)
- ICICI Prudential Banking and Financial Services Fund (G)
- UTI Banking and Financial services fund (G)
- TATA banking and financial services fund (G)

IV.CALCULATION

Return - Fund returns can be calculated by using today's price and yesterday's price. This return could be in the form of dividends given by the company to its share holders from time to time. Return is calculated as follows.

$$R = (\text{Closing price} - \text{Opening price}) / \text{Opening price} * 100$$

Standard deviation - It is a measure of the values of the variables around its mean or it is the square root of the sum of squared deviations from the mean divided by the number of observations.

$$SD = \sqrt{\sum(r - \bar{r})^2 / n}$$

Beta - A mutual fund's Beta can be used as a predictor of the fund's volatility, or movement in price up and down, compared to a benchmark. Investors can use Beta to determine an investment security's market risk and thus its appropriateness for a particular investor's risk tolerance.

Sharpe ratio - The Sharpe's ratio is basically the use of standard deviation to measure a mutual fund's risk adjusted returns. It provides with an idea of how well your mutual fund portfolio has performed in excess of the risk-free return (if you would have invested in government securities instead, which are almost risk-free). It is an overview of your returns whether they are due to smart investment decisions or excessive risk. Better the Sharpe's ratio, better the risk adjusted return of your mutual fund portfolio.

Jensen ratio - Jensen's ratio is a measure of an investment's performance on a risk-adjusted basis. It takes the volatility (price risk) of a security or fund portfolio and compares its risk-adjusted performance to a benchmark index. The excess return of the investment relative to the return of the benchmark index is its alpha. Simply stated, this is often considered to represent the value that a portfolio manager adds or subtracts from a fund portfolio's return

Treynor's ratio - The Treynor's ratio uses Beta to measure a mutual fund's risk adjusted returns. This ratio gives an idea of how well your mutual fund portfolio has performed in excess of the risk-free return (if you would have invested in government securities instead, which are almost risk-free). Higher the Treynor's ratio, better the risk adjusted return of your mutual fund portfolio.

V.ANALYSIS AND INTERPRETATION

Table 1: Return analysis of mutual funds

S.No.	SCHEME NAME	RETURN
I	SMALL CAP FUND	
1	Axis small cap fund (G)	18.43
2	SBI small cap fund (G)	23.79
3	Canara robeco small cap fund (G)	42.85
4	Nippon small cap fund (G)	33.44
5	Kotak small cap fund (G)	29.63
II	MID CAP FUND	
1	Axis mid cap fund (G)	17.05
2	Kotak emerging equity fund (G)	22.56
3	SBI magnum midcap fund (G)	26.33
4	Nippon India growth fund (G)	18.27
5	Tata midcap growth fund (G)	17.45
III	LARGE CAP FUND	
1	Canara robeco bluechip equity fund (G)	11.27
2	Axis bluechip fund (G)	8.7
3	SBI bluechip fund (G)	14.12
4	Sundaram large cap fund (G)	15.01
5	Kotak blue chip fund (G)	13.77
IV	MULTI CAP FUND	
1	Baroda Multicap fund (G)	22.61
2	Mahindra Manulife Multi Cap Badhat Yojana (G)	24.32
3	ICICI Prudential Multicap fund (G)	20.11
4	Adithya Birla Sunlife Multicap fund (G)	16.30
5	Invesco India multicap fund (G)	19.39
V	BANKING AND FINANCIAL SECTOR	
1	SBI Banking and financial services fund (G)	2.29
2	Aditya Birla Sun Life Banking & Financial Services Regular (G)	3.19
3	ICICI Prudential Banking and Financial Services Fund (G)	9.48
4	UTI Banking and Financial services fund (G)	7.68
5	TATA banking and financial services fund (G)	2.67

INTERPRETATION

It is inferred from the above table that return from **Small cap fund** is highest in Axis small cap fund - R (G) 31.86% and lowest being SBI Small cap fund- R (G) 26.48%

In **Mid cap fund** highest return is recorded is by SBI Magnum mid cap fund 26.33% and lowest being Axis midcap fund- R (G) 17.05% which

In **Large cap fund** highest return is recorded is by Sundaram Large cap fund-R (G) 15.01% and lowest being Axis bluechip fund 8.70%

In **Multi cap fund** highest return is recorded is y Mahindra Manulife Multi Cap Badhat Yojana –R (G)24.32 % and lowest being Axis bluechip fund-R (G) 8.70%.

In **Banking and financial sector** highest return is recorded by ICICI Prudential Banking and Financial Services Fund (G) 9.48 % and SBI Banking and financial services fund (G) 2.29

Table 2: Standard deviation of mutual funds

S.NO	SCHEME NAME	STANDARD DEVIATION
I	SMALL CAP FUND	
1	Axis small cap fund (G)	18.43
2	SBI small cap fund (G)	23.33
3	Canara robeco small cap fund (G)	20.66
4	Nippon small cap fund (G)	21.12
5	Kotak small cap fund (G)	18.68
II	MID CAP FUND	
1	Axis mid cap fund (G)	17.66
2	Kotak emerging equity fund (G)	19.06
3	SBI magnum midcap fund (G)	25.17
4	Nippon India growth fund (G)	20.13
5	Tata midcap growth fund (G)	20.38
III	LARGE CAP FUND	
1	Canara robeco bluechip equity fund (G)	20.08
2	Axis bluechip fund (G)	19.28
3	SBI bluechip fund (G)	21.66
4	Sundaram large cap fund (G)	20.57
5	Kotak blue chip fund (G)	21.14
IV	MULTI CAP FUND	
1	Baroda Multicap fund (G)	20.95
2	Mahindra Manulife Multi Cap Badhat Yojana (G)	21.12
3	ICICI Prudential Multicap fund (G)	20.97
4	Adithya Birla Sunlife Multicap fund (G)	19.75
5	Invesco India multicap fund (G)	20.66
V	BANKING AND FINANCIAL SECTOR	
1	SBI Banking and financial services fund (G)	27.36
2	Aditya Birla Sun Life Banking & Financial Services Regular (G)	23.87
3	ICICI Prudential Banking and Financial Services Fund (G)	27.64
4	UTI Banking and Financial services fund (G)	24.47
5	TATA banking and financial services fund (G)	26.51

INTERPRETATION

It is inferred from the above table that Standard deviation in **Small cap fund** which is an indicator of volatility from the mean of the price highest is recorded by SBI small cap fund (G) 23.33 and lowest being Axis small cap fund (G) 18.43 33 which indicates the movement of price from mean

In **Mid cap fund** highest standard deviation is recorded is by SBI Magnum mid cap fund 26.33% and lowest being Axis midcap fund- R (G) 17.05 which indicates the movement of price from mean

In **Large cap fund** highest standard deviation is recorded is SBI bluechip fund (G) 21.66 and lowest being Axis bluechip fund 19.28 which indicates the movement of price from mean

In **Multi cap fund** highest standard deviation is recorded is by Mahindra Manulife Multi Cap Badhat Yojana –R (G) 21.12 and lowest being Adithya Birla Sunlife Multicap fund (G) 19.75 which indicates the movement of price from mean

In **Banking and financial sector** highest return is recorded by ICICI Prudential Banking and Financial Services Fund (G) 27.64 and Aditya Birla Sun Life Banking & Financial Services Regular (G)23.77 which indicates the movement of price from mean

Table 3: Beta of mutual funds

S.No.	SCHEME NAME	BETA
I	SMALL CAP FUND	
1	Axis small cap fund (G)	0.71
2	SBI small cap fund (G)	0.81
3	Canara robeco small cap fund (G)	0.89
4	Nippon small cap fund (G)	0.85
5	Kotak small cap fund (G)	0.74
II	MID CAP FUND	
1	Axis mid cap fund (G)	0.77
2	Kotak emerging equity fund (G)	0.86
3	SBI magnum midcap fund (G)	0.96
4	Nippon India growth fund (G)	0.82
5	Tata midcap growth fund (G)	0.92
III	LARGE CAP FUND	
1	Canara robeco bluechip equity fund (G)	0.90
2	Axis bluechip fund (G)	0.83
3	SBI bluechip fund (G)	0.96
4	Sundaram large cap fund (G)	0.87
5	Kotak blue chip fund (G)	0.93
IV	MULTI CAP FUND	
1	Baroda Multicap fund (G)	0.93
2	Mahindra Manulife Multi Cap Badhat Yojana (G)	0.98
3	ICICI Prudential Multicap fund (G)	0.88
4	Adithya Birla Sunlife Multicap fund (G)	0.78
5	Invesco India multicap fund (G)	0.84
V	BANKING AND FINANCIAL SECTOR	
1	SBI Banking and financial services fund (G)	0.97
2	Aditya Birla Sun Life Banking & Financial Services Regular (G)	0.47
3	ICICI Prudential Banking and Financial Services Fund (G)	1.18
4	UTI Banking and Financial services fund (G)	0.56
5	TATA banking and financial services fund (G)	0.88

INTERPRETATION

It is inferred from the above table that in **Small cap fund** the volatility of the scheme to its benchmark is recorded highest by Canara robeco small cap fund (G) 0.89 and lowest being Axis small cap fund (G) 0.71 in relative to its benchmark

In **Mid cap fund** the volatility of the scheme to its benchmark is recorded highest by SBI Magnum mid cap fund 0.96 and lowest being Nippon India growth fund (G) 0.82

In **Large cap fund** the volatility of the scheme to its benchmark is recorded highest is by SBI bluechip fund (G) 0.96 and lowest being Axis bluechip fund 0.83

In **Multi cap fund** the volatility of the scheme to its benchmark is recorded highest by Mahindra Manulife Multi Cap Badhat Yojana –R (G) 0.98 and lowest being Adithya Birla Sunlife Multicap fund (G) 0.78

In **Banking and financial sector** the volatility of the scheme to its benchmark is recorded highest SBI Banking and financial services fund (G) 0.97 and lowest being TATA banking and financial services fund (G) 0.88

Table 4.4 Sharpe, treynor ,jensen ratio of mutual funds

S.No.	SCHEME NAME	SHARPE RATIO	TREYNOR'S RATIO	JENSEN RATIO
I	SMALL CAP FUND			
1	Axis small cap fund (G)	1.30	0.34	13.09
2	SBI small cap fund (G)	1.01	0.31	12.87
3	Canara robeco small cap fund (G)	1.31	0.30	10.14
4	Nippon small cap fund (G)	1.16	0.29	12.11
5	Kotak small cap fund (G)	1.40	0.35	14.61
II	MID CAP FUND			
1	Axis mid cap fund (G)	1.10	0.20	5.38
2	Kotak emerging equity fund (G)	1.00	0.16	3.31
3	SBI magnum midcap fund (G)	0.78	0.23	4.62
4	Nippon India growth fund (G)	0.92	0.24	8.92
5	Tata midcap growth fund (G)	0.82	0.18	0.61
III	LARGE CAP FUND			
1	Canara robeco bluechip equity fund (G)	0.69	0.15	3.34
2	Axis bluechip fund (G)	0.59	0.14	1.10
3	SBI bluechip fund (G)	0.56	0.13	0.91
4	Sundaram large cap fund (G)	0.66	0.09	4.86
5	Kotak blue chip fund (G)	0.60	0.11	1.11
IV	MULTI CAP FUND			
1	Baroda Multicap fund (G)	0.77	0.17	2.42
2	Mahindra Manulife Multi Cap Badhat Yojana (G)	0.93	0.20	1.15
3	ICICI Prudential Multicap fund (G)	0.73	0.18	0.82
4	Adithya Birla Sunlife Multicap fund (G)	0.67	0.10	2.69
5	Invesco India multicap fund (G)	0.84	0.11	0.11
V	BANKING AND FINANCIAL SECTOR			
1	SBI Banking and financial services fund (G)	0.33	0.10	0.27
2	Aditya Birla Sun Life Banking & Financial Services Regular (G)	0.15	0.25	0.35
3	ICICI Prudential Banking and Financial Services Fund (G)	0.26	0.06	0.65
4	UTI Banking and Financial services fund (G)	0.20	0.04	0.14
5	TATA banking and financial services fund (G)	0.30	0.09	0.12

INTERPRETATION

It is inferred from the above table that with the help of Sharpe, Treynor and Jensen ratio Kotak small cap fund has good performance in relation to risk and return under **Small cap fund** category.

In **Mid cap fund** with the help of Sharpe, Treynor and Jensen ratio it is found that Nippon India growth fund has good performance in relation to risk and return.

In **Large cap fund** with the help of Sharpe, Treynor and Jensen ratio it is found that Canara Robeco bluechip equity fund has good performance in relation to risk and return

In **Multi cap** with the help of Sharpe, Treynor and Jensen ratio it is found that Mahindra Manulife Multi Cap Badhat Yojana (G) has good performance in relation to risk and return

In **Banking and financial sector** with the help of Sharpe, Treynor and Jensen ratio it is found that SBI Banking and financial services fund (G) has good performance in relation to risk and return

VI.CONCLUSION

In small cap fund with the help of the analysis it is found that **Kotak small cap fund** performs well

In mid cap fund with the help of the analysis it is found that **Nippon India growth fund** performs well

In large cap fund with the help of the analysis it is found that **Canara roboeco bluechip equityfund** performs well

In multi cap fund with the help of the analysis it is found that **Mahindra Manulife Multi CapBadhat Yojana** performs well

In banking and financial sector fund with the help of the analysis it is found that **SBI Bankingand financial services fund** performs well

VII.REFERENCES

[1] S.Kevin, second eastern economy edition, "Security Analysis and Portfolio managment" Pearson Education

[2] Punithavathy Pandian, "Security Analysis and Portfolio managment" second edition, Vikas Publishing house.

[3] C. Nirosha (2012) Study of Performance Analysis of Indian Mutual Funds-With Special Reference to Open-Ended Equity Diversified Scheme, International Res Jour Managt Socio Human

[4] Prof. Kalpesh P Prajapati and Prof. Mahesh K Patel (Jul 2012) Performance Evaluation of Indian Equity Mutual Fund Schemes, International Journal of Scientific Research and Review Volume 7, Issue 2, 2018 ISSN NO: 2279-543X