

# PERFORMANCE EVALUATION OF MID CAP UTI AMC, SBI AND BOB MUTUAL FUNDS

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## ABSTRACT:

Mutual funds is professionally managed trust that pools money from various investors and further it invests into different securities like bonds, shares, short term securities like certificate of deposit, commercial paper and commodities like Precious metals. Unit Trust of India(UTI) Act, 1963 is framed since then mutual funds came into India. Mutual funds industry had brought good returns to the investors and the public sector.

Growth of mutual funds in India had attracted with the returns generated and many investors showed interest in investing. Small investors are provided with opportunities to invest in mutual funds without assuming the high risk. Investor should not keep his entire investing amount into single security as there is a huge chance of risk. Due to lack of resources small investors will not be able to have the diversified portfolio.

These mutual fund institutions pool the money from investors and invest the same amount in capital market and give the benefits to the investors. In this the small investors can indirectly participate in capital market by subscribing the units of mutual funds. Mutual funds institutions include professional fund managers to manage the investment activities. Investors will get the benefit of professional expertise of these managers. Daily opening and closing of NAV's are used to find the returns from the mutual fund schemes.

The main aim of this paper is to find performance evaluation of MID Cap UTI AMC, SBI and BOB mutual fund schemes. Comparison of selected public sector and selected private sector mid cap mutual fund schemes. Analysis was done by using various financial tests like Average return, Standard deviation, Sharpe Ratio, Treynor Ratio and Jenson Value.

## INTRODUCTION:

Mutual funds are popular investment options for the small and large scale investors. These mutual funds are technically called as investment companies. Mutual fund is a professionally managed type of collective investment that pools money from many investors and invest in securities like Bonds, Shares, Market instruments, long term investments etc.

With the performance evaluation it helps the investors to take decision to invest in which mutual fund scheme. Performance evaluation of mutual fund helps the fund managers and investors to take decision. Fund managers and investors use this information to evaluate and control their investment process and their clients in marketing the services offered by them and use this information and communicate to their clients effectively.

Investors use this information which is derived from performance analysis to monitor their investments regularly. On the way to achieve their goal fund managers and investors can reset their asset allocation.

## RESEARCH METHODOLOGY

### OBJECTIVES OF THE STUDY

- To study and understand selected public sector mutual fund schemes Baroda MID CAP fund, SBI Magnum and UTI mid cap fund of Indian mutual fund industry.
- To study and understand selected private sector mutual fund schemes ICICI Prudential Midcap Fund, AXIS bank midcap fund and HDFC Mid-Cap Opportunities Fund of Indian mutual fund industry.
- To examine and evaluate the specific selected mutual fund schemes that gave highest performance during 2015-2020 in mid cap sector
- To compare the selected mutual fund schemes with NIFTY150 as benchmark
- To know the best select mutual fund scheme which performed well over the past five years in Midcap sector.
- To compare select public and private sector midcap mutual fund scheme.

### HYPOTHESIS

1.  $H_{01}$ : There is no significance difference with respect to Sharpe ratio analysis of public and private sector mutual fund schemes selected.
2.  $H_{02}$ : There is no significance difference with respect to Treynor ratio analysis of public and private sector mutual fund schemes selected
3.  $H_{03}$ : There is no significance difference with respect to Jenson value analysis of public and private sector mutual fund schemes selected
4.  $H_{04}$ : There is significance difference with respect to public sector and private sector mutual fund schemes selected.

**SOURCES OF DATA**

The present values essentially depend on secondary data. Convenience samples are taken from the period 2015-2020.

**RESEARCH TOOLS USED:****STATISTICAL TOOLS:**

- Mean, median and mode
- Mean-Variance Analysis

**FINANCIAL TOOLS:**

- Sharpe Ratio
- Treynor Measure
- Jensen measure

**SAMPLE FRAMEWORK****Sample Size & Sample Design**

A period of financial year i.e., from FY 2015 to FY 2020 taken for study. With the past data considered projecting the expected values for the returns.

**DATA ANALYSIS AND RESULTS****SHARPE Ratio**

Sharpe Index (Si)=(Rp-Rf)/σp

**TREYNOR Measure-**

Treynor index (Ti)= (Rp-Rf)/βp

**JENSEN MEASURE**

Jensen Measure(α)= Rp-(Rf+βp(Rm- Rf))

**NOTE-**

- Assuming the Risk free Rate of Return is 6%.
- Here for this evaluation daily NAV's are considered and average NAV of the financial year which are mentioned are considered and used for calculating Jensen Sharpe, Treynor ratio.

**SBI Magnum MIDCAP FUND - DIRECT PLAN – GROWTH:**

Mean: 60.5825547167 Median: 75.5464 Mode: 73.402

Average NAV= $\frac{\text{SUM OF THE OBSERVATIONS}}{\text{NUMBER OF OBSERVATIONS}}$

Average Return= $\frac{\text{Current year - previous year}}{\text{Previous year}} * 100$

NAV of SBI Magnum:

YEAR	AVERAGE NAV	AVERAGE RETURN(X)
2015-16	60.0064875	-
2016-17	69.43571076	15.71%
2017-18	82.52833543	18.86%
2018-19	76.93818807	-6.77%
2019-20	74.58660655	-3.06%

Mean = 6.18%

NIFTY		
YEAR	AVERAGE NIFTY	AVERAGE RETURN(Y)
2015-16	4263.585	-
2016-17	4877.49	14.40%
2017-18	6444.52	32.13%
2018-19	6404.126	-0.63%
2019-20	6106.639	-4.65%

Mean= 10.31%

Standard deviation	12.97%
Risk free Rate	6%
Beta	0.71212615455787

SHARPE MEASURE	
2016-17	0.748925837
2017-18	0.991180572
2018-19	-0.984847472
2019-20	-0.698254256

TREYNOR RATIO	
2016-17	0.136403824
2017-18	0.180526313
2018-19	-0.179372849
2019-20	-0.127174876

JENSEN VALUE( $\alpha$ )	
2016-17	0.037326692
2017-18	-0.057505354
2018-19	-0.080544949
2019-20	-0.01475702

**MEAN VARIANCE ANALYSIS:**

$$\text{Mean} = \frac{\text{sum of observations}}{\text{number of observations}}$$

$$\text{variance} = \frac{1}{n-1} \sum F^2$$

$$\text{Standard deviation} = \sqrt{\text{variance}}$$

Year	Return(C)	Average return(C*)	F=(C-C*)	F <sup>2</sup>
2015-16	60.0064875	67.29654703	-7.29006	53.14497
2016-17	69.43571076	67.29654703	2.139164	4.575985
2017-18	82.52833543	67.29654703	15.23179	232.0074
2018-19	76.93818807	67.29654703	9.641641	92.96124
2019-20	74.58660655	67.29654703	7.29006	53.14497
mean(c*)	67.29654703		Total	106.2899

Variance=26.57      Standard deviation=5.15

**BARODA MID-CAP FUND- PLAN B (DIRECT) - GROWTH**

Mean=97.79430976 Median=98.4253 Mode=79.2675

YEAR	AVERAGE NAV	AVERAGE RETURN(X)
2016-17	7.626966811	-
2017-18	9.665129823	26.72%
2018-19	9.573449363	-0.95%
2019-20	9.201752268	-3.88%
Mean(a)	7.30%	
Beta	0.837118	
Standard deviation	16.89%	
Risk free Rate	6%	

SHARPE MEASURE	
2016-17	-
2017-18	1.286375409
2018-19	-0.352255825
2019-20	-0.525998998
TREYNOR RATIO	
2016-17	-
2017-18	0.259498769
2018-19	-0.071060091
2019-20	-0.106109066
JENSEN VALUE( $\alpha$ )	
2016-17	-
2017-18	-0.009860568
2018-19	-0.012382761
2019-20	-0.008083773

**Mean variance analysis:**

Year	Return(C)	Average return(C*)	F=(C-C*)	F <sup>2</sup>
2016-17	7.626966811	8.41435954	-0.78739	0.619987
2017-18	9.665129823	8.41435954	1.25077	1.564426
2018-19	9.573449363	8.41435954	1.15909	1.343489
2019-20	9.201752268	8.41435954	0.787393	0.619987
mean(c*)	8.41435954		Total	1.239975

Variance=0.4133 Standard Deviation=0.6429

**AXIS BANK MIDCAP FUND:**

YEAR	AVERAGE NAV	AVERAGE RETURN(X)
2015-16	25.87125	-
2016-17	26.87	3.86%
2017-18	33.189	23.52%
2018-19	37.5358	13.10%
2019-20	40.8954	8.95%
Mean		12.36%

Standard deviation	12.66%
Beta	0.75743836951251
Risk free return	6%

SHARPE MEASURE	
2016-17	-0.256403347
2017-18	2.099239265
2018-19	0.85052176
2019-20	0.35357626

TREYNOR RATIO	
2016-17	-0.071092653
2017-18	0.582053592
2018-19	0.235823164
2019-20	0.098035672

JENSEN VALUE( $\alpha$ )	
2016-17	-0.046671599
2017-18	0.096537597
2018-19	0.090914483
2019-20	0.061540792

**MEAN VARIANCE ANALYSIS:**

Year	Return(C)	Average return(C*)	F=(C-C*)	F2
2015-16	25.87125	33.383325	-7.51208	56.43127
2016-17	26.87	33.383325	-6.51333	42.4234
2017-18	33.189	33.383325	-0.19432	0.037762
2018-19	37.5358	33.383325	4.152475	17.24305
2019-20	40.8954	33.383325	7.512075	56.43127
mean(c*)	33.383325		Total	112.8625

Variance=28.2156

Standard Deviation=5.3118

**ICICI PRUDENTIAL MIDCAP FUND:**

Mean=237.21 Median=237.215

YEAR	AVERAGE NAV	AVERAGE RETURN(X)
2015-16	228.961	-
2016-17	359.277	56.92%
2017-18	313.71	-12.68%
2018-19	393.5029	25.44%
2019-20	318.087	-19.17%

Mean=12.63%

SHARPE RATIO	
2016-17	1.434985243
2017-18	-0.52654687
2018-19	0.547748315
2019-20	-0.709239157

TREYNOR RATIO	
2016-17	-11.91064033
2017-18	4.370435459
2018-19	-4.546411336
2019-20	5.886814903

JENSEN VALUE( $\alpha$ )	
2016-17	0.512752797
2017-18	-0.175660466
2018-19	0.191519569
2019-20	-0.256203401

Standard deviation	35.48%
Beta	-0.0427485357226
Risk free return	6%

**MEAN VARIANCE ANALYSIS:**

Year	Return(C)	Average return(C*)	F=(C-C*)	F2
2015-16	228.961	273.524	-44.563	1985.861
2016-17	359.277	273.524	85.753	7353.577
2017-18	313.71	273.524	40.186	1614.915
2018-19	393.5029	273.524	119.9789	14394.94
2019-20	318.087	273.524	44.563	1985.861
mean(c*)	273.524		Total	3971.722

Variance=992.93

Standard Deviation=31.51

**HDFC MID-CAP OPPORTUNITIES FUND:**

YEAR	AVERAGE NAV	AVERAGE RETURN(X)
2015-16	37.7125	-
2016-17	44.4669	17.91%
2017-18	61.9421	39.30%
2018-19	57.4037	-7.33%
2019-20	55.6983	-2.97%

Mean=11.73%

Standard deviation	21.43%
Beta	1.26200865369829
Risk free return	6%

SHARPE RATIO	
2016-17	0.555812815
2017-18	1.553973646
2018-19	-0.621921013
2019-20	-0.418642617

TREYNOR RATIO	
2016-17	0.09437528
2017-18	0.263859871
2018-19	-0.105600245
2019-20	-0.071084209

JENSEN VALUE( $\alpha$ )	
2016-17	0.01310886
2017-18	0.003258403
2018-19	-0.049637683
2019-20	0.044634959

**Mean Variance Analysis:**

Year	Return(C)	Average return(C*)	F=(C-C*)	F2
2015-16	37.7125	46.7054	-8.9929	80.87225
2016-17	44.4669	46.7054	-2.2385	5.010882
2017-18	61.9421	46.7054	15.2367	232.157
2018-19	57.4037	46.7054	10.6983	114.4536
2019-20	55.6983	46.7054	8.9929	80.87225
mean(c*)	46.7054		Total	161.7445

Variance=40.436

Standard Deviation=6.358

**FINDINGS**

Comparing the three different kind of selected mutual funds present in the MID Cap sector. The following are the points can be considered for finding the performance of Public sector mutual funds-

**Findings for the financial year 2016-2017**

- Depending upon Jenson value SBI Magnum midcap fund - direct plan – growth stood at first place with 0.037326692 and UTI Mid Cap Fund-Growth Option with -0.045443737 stood next to SBI
- According to Sharpe ratio SBI Magnum midcap fund - direct plan – growth stood at first place with 0.748925837 and UTI Mid Cap Fund-Growth Option with 0.143487842 stood next to SBI
- According to Treynor measure SBI Magnum midcap fund - direct plan – growth stood at first place with 0.136403824 and UTI Mid Cap Fund-Growth Option with 0.023991369 stood next to SBI

**Findings for the financial year 2017-2018**

- Depending upon the Sharpe ratio, Baroda Mid-cap Fund- Plan B (Direct) - Growth Option stood at first place with 1.286375409, UTI Mid Cap Fund-Growth Option stood at second place with 1.124997839 and SBI Magnum midcap fund - direct plan – growth stood at third place with 1.000462537.
- Based on Jenson measure Baroda Mid-cap Fund- Plan B (Direct) - Growth Option stood at first place with -0.009860568, UTI Mid Cap Fund-Growth Option stood at second place with -0.033616978 and SBI Magnum midcap fund - direct plan – growth stood at third place with -0.042606584.
- In the similar way for Treynor measure Baroda Mid-cap Fund- Plan B (Direct) - Growth Option with 0.259498769 as return had performed well as compared to UTI Mid Cap Fund-Growth Option and SBI Magnum MIDCAP FUND - DIRECT PLAN – GROWTH

**For the Financial year 2018-2019**

- Baroda Mid-cap Fund- Plan B (Direct) - Growth Option stood at 1<sup>st</sup> position when compared to UTI Mid Cap Fund-Growth Option and SBI Magnum MIDCAP FUND - DIRECT PLAN – GROWTH while calculations are done with Jenson Value
- The returns generated are different but Baroda Mid-cap Fund- Plan B (Direct) - Growth Option was in the first position while comparing with UTI Mid Cap Fund-Growth Option and SBI Magnum MIDCAP FUND - DIRECT PLAN – GROWTH
- The calculation are made by using the different methods like Sharpe Ratio and Treynor Ratio

**For financial year 2019-2020:**

- Baroda Mid-cap Fund- Plan B (Direct) - Growth Option is at the first place and SBI Magnum MIDCAP FUND - DIRECT PLAN - GROWTH is at 2<sup>nd</sup> place and UTI Mid Cap Fund-Growth Option is at 3<sup>rd</sup> place
- In this any kind of method is used for calculating the returns by using Sharpe, Treynor and Jenson Ratio
- Though the returns generated are in the negative but the loss present in this kind of investment is almost near to zero
- In Sharpe and Treynor and Jenson all the three kind of methods made the same result of position in the investing

**COMPARISON BETWEEN PUBLIC SECTOR AND PRIVATE SECTOR:**

- In the year 2016-2017, when compared with selected mutual funds private sectors performed better than public sector. The various models like Sharpe, Jenson and Treynor is used to analyze the public and private sector.
- In the year 2017-2018, evaluations are done between all the mutual funds selected. Performance of ICICI mutual funds had done better when compared with the remaining mutual funds selected.
- For the year 2018-2019, for this financial year Axis bank had given better performance when compared between public and private sector mutual funds.

- FY. 2019-2020, there was tough competition between Axis and ICICI bank mutual funds. On the whole private sector mutual funds performed well throughout the year.
- In this mutual funds selected, the performance of private sector mutual funds had done better than the public sector mutual funds.

### CONCLUSION

- When compared between selected public sector mutual funds SBI midcap performed well when compared with other mutual funds.
- In private sector mutual funds ICICI bank performed more when compared with other private sector mutual funds
- Private sectors performed well when compared with public sector mutual funds.
- SBI midcap mutual fund and NIFTY 150 gave equal returns approximately when compared with other mutual fund schemes selected.

### SUGGESTIONS

- When compared with public sector and private sector midcap mutual funds it clearly states that investing in private sector gives more returns.
- Currently more number of investing into midcap funds because of changes in SEBI guide lines.
- Investing in ICICI and Axis bank mutual funds chances of losses in the investment are less.
- ICICI bank is generating more profits when compared with other mutual funds.
- In case of Public sector SBI mutual fund gave more returns when compared with other selected public sector mutual funds.

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