EVALUATINGMUTUAL FUND SCHEMES IN AN INDIAN MARKETTO ENCORAGE THE INVESTORS INTEREST

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Abstract:

Mutual funds are one of the most favored investment routes for the small and medium investors across the world. It provides opportunities for investors to participate in the capital market without assuming a very high degree of risk. An important principle of investment in capital market is that do not put all the eggs in one basket that is diversification. However, a mutual fund pools together the savings of such investors and invests the same in the capital market and passes the benefits to the investors.

Our survey focuses on Indian market where the mutual industry started in1963. The results of our survey point to three important factors which dominate the choice of mutual funds. These are consistent past performance, size of funds and costs of transaction. Factors which relate to fund managers and investment style are not considered to be relatively important.

Keywords:AMC, NAV, NRI, CNX NIFTY, NSE, UTI, SBI.

INTRODUCTION

A Mutual fund is trust that pools the savings of a number of investors who share a common financial goal. The money collected from investors is invested in capital market instrument such as shares, debentures and other securities. The income earned through these investments and the capital appreciations realized are shared by its unit's holder in proportion to the number of units owned by them. Thus a mutual fund is the most suitable investment to the common man as it offers an opportunity, to invest in a diversified, professionally managed basket of securities at relatively low cost.

A mutual fund is a set up in the form of trust, which has sponsor, trustee, assets management company (AMC) and custodian. Thus, investors can indirectly participate in the capital market by subscribing to the units of mutual funds. Mutual funds employ professional fund managers to manage the investment activities. Therefore, investors also get benefits of professional expertise of these managers.

OBJECTIVES OF THE STUDY

1. To study about the factors responsible for the selection of mutual funds as an investment option in India.
2. To find the mutual funds sensitivity to the market fluctuation in terms of Beta.
3. To examine the performance of Indian mutual funds with regards to risk and returns of funds with the help of Sharp and Jensen models.

SIGNIFICANCE OF THE STUDY

Evaluation of historical performance of mutual funds is important both for investors as well as portfolio managers. It enables an investor to access as to how much return has been generated by the portfolio manager and what risk has been assumed in generating such returns. Further, an investor can also appraise the comparative performance of different fund managers. The evaluation also provides a mechanism for identifying strengths and weaknesses of fund managers in the investment process, which helps them to take corrective actions.

PERIOD OF STUDY

The growth and dividend oriented schemes, which have been floated by the selected funds during the period April 2003 to March 2013, have been considered for the purpose of the study. Yearly Net Asset Value (NAV) has declared by the relevant mutual funds from the April 1st 2003 of a particular scheme to 31stMarch 2013 have been used for the purpose.

COLLECTION OF DATA

This study examines 20 open-ended schemes being launched by selected 4 mutual fund public and private sectors namely UTI, SBI, Reliance and JM Mutual funds. These sectors have been selected on the basis of regular data availability during the period of April 2003 to March 2013 and yearly NAV data has been used and the period of the data considered is from the above date.

LIMITATIONS OF THE STUDY

For the purpose of study on performance evaluation, these schemes have been selected which are in operation since last 10 years. These schemes related to only four mutual fund companies namely UTI, SBI, Reliance and JM Finance. As well as we considered only open ended schemes for this purpose because of non-availability of sufficient data. In this four mutual fund companies we selected 20 schemes, out of 20 schemes 8 schemes are equity oriented 9 schemes are debt oriented and 3 schemes are balanced oriented schemes.

TABLE 1.1
LIST OF MUTUAL FUND SCHEMES

SL NO	Name of MF Schemes	Date of Launch
	Equity Schemes	
1	UTI Equity Large & Mid cap	May 1992
2	UTI Equity Tax Saving	Dec 1999
3	SBI Magnum Tax Gain	March 1993
4	SBI Contra	July 1999
5	SBI Nifty Index	Jan 2002
6	Reliance Vision	Oct 1995
7	Reliance NRI Equity	Nov 2002
8	JM Equity	Dec 1994
	Debt Schemes	
9	UTI CRTS81	Oct 1981
10	SBI Magnum Floating Rate	July 2002
11	Reliance MIP	Dec 2002

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12	Reliance Short Term Plan	Dec 2002
13	JM Short Term Plan	April 2003
14	JM Income Plan	Dec 1994
15	JM Floater Short Term	Jan 2003
16	JM High Liquidity Plan	Dec 1997
17	JM Growth plan	Sep 1999
	Balanced Schemes	
18	UTI Balanced Plan	March 1995
19	UTI CCP Balanced	July 1993
20	SBI Magnum Balanced Plan	Oct 1995

The above table shows that the different scheme launch in different dates therefore, for the purpose performance evaluation the period covers April 2003 to March 2013. The parameters like average return, standard deviation, coefficient of determination, Beta, Sharpe ratio and Jenson's measures has been calculated separately for all the schemes.

TABLE 1.2
AVERAGE RETURN FOR EACH MF SCHEME

SL NO	Name of MF Schemes	Average Return %
	Equity Schemes	
1	UTI Equity Large & Mid cap	18.75
2	UTI Equity Tax Saving	15.21
3	SBI Magnum Tax Gain	26.26
4	SBI Contra	24.07
5	SBI Nifty Index	14.68
6	Reliance Vision	17.52
7	Reliance NRI Equity	10.30
8	JM Equity	12.00
	Debt Schemes	
9	UTI CRTS81	8.71
10	SBI Magnum Floating Rate	6.13
11	Reliance MIP	9.73
12	Reliance Short Term Plan	8.53
13	JM Short Term Plan	4.20
14	JM Income Plan	3.14
15	JM Floater Short Term	5.44
16	JM High Liquidity Plan	6.22
17	JM Growth plan	9.84
	Balanced Schemes	
18	UTI Balanced Plan	13.28
19	UTI CCP Balanced	10.07
20	SBI Magnum Balanced Plan	18.77

Table 1.2 shows the average return earned by the various schemes. For calculation of average return earned by the schemes growing in the value for each year over the previous year has been divided by the value of the previous year. Then the average of the full series has been taken. In equity schemes UTI equity large & midcap 18.75, SBI Magnum tax gain 26.26, SBI contra 24.07 and Reliance Vision 17.52 are the higher return earners as against CNX Nifty return of 15.59 % of average and Reliance NRI Equity scheme as a return with 10.30 % which shown the worst performance as underperformer in the market, it could be seen here that 4 out of 8 of the equity schemes has underperform in the market.
In Debt scheme, JM Growth plan is the best performer and JM Income plan is the worst performer as against the NSE market Index return of 5.53%, it could be seen that here 6 out of 9 of Debt schemes are performed more than the Index return and 3 out of 9 of Debt schemes performance is less than the Index Return.
In Balanced schemes, SBI Magnum Balanced plan is the best performer and UTI CCP Balanced scheme is the worst performer as against the NSE Market Index return of 11.97%.
Out of 20 schemes studied, 6 schemes showed average return is higher than the NSE Market Index average return out of which 6 are the Debt schemes.

Table 1.3 shows the standard deviation of selected schemes, it is the most common expression to measure the risk of the mutual fund return. Higher the value of standard deviation of the fund returns, greater will be the total risk carried by the funds. It observed that the maximum deviation of funds return is shown by Reliance vision plan 21.67 %

followed by JM Equity scheme with a standard deviation of 21.28 % and SBI Nifty Index scheme with a standard deviation of 19.22 % which are more risk taking schemes. JM High Liquidity Plan was least risky scheme with lowest standard deviation of 0.19 %.

TABLE 1.3
STANDARD DEVIATION

SL NO	Name of MF Schemes	Standard Deviation
	Equity Schemes	
1	UTI Equity Large & Mid cap	16.62
2	UTI Equity Tax Saving	16.48
3	SBI Magnum Tax Gain	16.59
4	SBI Contra	18.03
5	SBI Nifty Index	19.22
6	Reliance Vision	21.67
7	Reliance NRI Equity	18.68
8	JM Equity	21.28
	Debt Schemes	
9	UTI CRTS81	5.88
10	SBI Magnum Floating Rate	0.22
11	Reliance MIP	5.45
12	Reliance Short Term Plan	1.82
13	JM Short Term Plan	1.43
14	JM Income Plan	3.58
15	JM Floater Short Term	0.23
16	JM High Liquidity Plan	0.19
17	JM Growth plan	4.30
	Balanced Schemes	
18	UTI Balanced Plan	13.50
19	UTI CCP Balanced	7.36
20	SBI Magnum Balanced Plan	13.56

All the schemes selected for the study less risky compared to NSE Index standard deviation. It means all the schemes are less risky except Equity schemes are comparatively more risky than the Debt scheme and balanced schemes.

TABLE 1.4

RISK& RETURN RELATIONSHIP OF MUTUAL FUND SCHEMES

TABLE 1.4(1)

I.	High Return and Less Risk
1	SBI magnum Tax gain plan
2	UTI CRTS 81 Plan
3	SBI Magnum Floating Rate Plan
4	Reliance MIP Plan
5	Reliance Short Term Plan
6	JM Floater Short Term Plan
7	JM High Liquidity Plan
8	JM Growth Plan
9	UTI CCP Balanced Plan
10	SBI Magnum Balanced Plan

In the above table classification of the sample schemes in to high return and low risk in this 10 schemes are falls in this category. Out of 10 schemes, 1 Equity scheme, 7 are Debt schemes and 2 are balanced schemes.

TABLE 1.4(2)

II.	Less Return and High Risk
1	UTI Equity Tax Saving Plan
2	SBI Nifty Index Plan
3	Reliance Vision Plan
4	Reliance NRI Equity Plan
5	JM Equity Plan

In the above table classification of sample schemes in to Less Return and high Risk. In these there are 5 schemes falls in this category. All of 5 are belongs to the Equity Schemes.

TABLE 1.4(3)

III.	High Return and High Risk
1	UTI Equity Large & Mid cap Plan
2	SBI Contra Plan
3	UTI Balanced Plan

In the above table shows the schemes which belong to High Return for Higher Risk, in these there are only 3 schemes falls in this category and 2 Equity Schemes and 1 balanced scheme.

TABLE 1.4(4)

IV.	Less Return and Less Risk
1	JM Short Term Plan
2	JM Income Plan

In the above table shows the relation of Less Return for Less Risk, in these only 2 out of 20 schemes falls in this category and these two schemes are belong to the Debt Scheme.

TABLE 1.5
CO-EFFICIENT OF DETERMINATION (R^2)

SL NO	Name of MF Schemes	R^2
	Equity Schemes	
1	UTI Equity Large & Mid cap	0.96
2	UTI Equity Tax Saving	0.96
3	SBI Magnum Tax Gain	0.93
4	SBI Contra	0.90
5	SBI Nifty Index	1.00
6	Reliance Vision	0.87
7	Reliance NRI Equity	0.93
8	JM Equity	0.98
	Debt Schemes	
9	UTI CRTS81	0.76
10	SBI Magnum Floating Rate	0.0667
11	Reliance MIP	0.75
12	Reliance Short Term Plan	0.821
13	JM Short Term Plan	0.627
14	JM Income Plan	0.423
15	JM Floater Short Term	0.412
16	JM High Liquidity Plan	0.408
17	JM Growth plan	0.321
	Balanced Schemes	
18	UTI Balanced Plan	0.93
19	UTI CCP Balanced	0.88
20	SBI Magnum Balanced Plan	0.89

Table 1.5 shows that the co-efficient of determination **(R^2),** the coefficient measure to extent to which market index has been able to explain the variation in mutual fund. The table 1.5 remains that in the Equity schemes the maximum value of $R^2$where found in case of SBI Nifty Index plan (1.00), JM Equity plan (0.98) respectively. The high value of R^2shows that high diversification of the portfolio that can be easily contains the market variability. So all the Equity schemes have a more variability in the market.

In the Debt schemes we found that the minimum value of $R^2$where found in the case of SBI Magnum Floating Rate (0.0667) and followed by JM Growth plan (0.321). The low value of R^2indicates that the market does not explain substantial part of variation in the return of a particular scheme. This calculation suggests that the portfolio of the scheme is inadequately diversified in Debt scheme. In Debt schemes generally a low **(R^2)** value for majority of the schemes that portfolio of is the scheme is generally confined to investment in shares of particular type of companies only.

TABLE 1.6
CALUCLUATION OF BETA

SL NO	Name of MF Schemes	B
	Equity Schemes	
1	UTI Equity Large & Mid cap	0.85
2	UTI Equity Tax Saving	0.84
3	SBI Magnum Tax Gain	0.83
4	SBI Contra	0.89
5	SBI Nifty Index	1.00
6	Reliance Vision	1.05
7	Reliance NRI Equity	0.94
8	JM Equity	1.09
	Debt Schemes	

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9	UTI CRTS81	0.36
10	SBI Magnum Floating Rate	0.056
11	Reliance MIP	0.98
12	Reliance Short Term Plan	0.87
13	JM Short Term Plan	0.68
14	JM Income Plan	0.523
15	JM Floater Short Term	0.492
16	JM High Liquidity Plan	0.120
17	JM Growth plan	0.36
	Balanced Schemes	
18	UTI Balanced Plan	0.91
19	UTI CCP Balanced	0.48
20	SBI Magnum Balanced Plan	0.89

Table 1.6 presents the systematic risk of 20 schemes. Considered for the purpose of this study in all the scheme have beta less than 1, it implying there by that these schemes tended to hold portfolios that were less risky than the market portfolio except 3 Equity schemes which are more riskier than the others and compare to all other 17 schemes Debt schemes are less risky schemes because all Debt schemes are comparatively less beta value in that SBI Magnum Floating Rate plan beta of 0.056.

TABLE 1.7
SHARPE OF THE SCHEMES

SL NO	Name of MF Schemes	Sharpe Measure
	Equity Schemes	
1	UTI Equity Large & Mid cap	-0.09
2	UTI Equity Tax Saving	-0.33
3	SBI Magnum Tax Gain	-0.32
4	SBI Contra	-0.55
5	SBI Nifty Index	-0.20
6	Reliance Vision	-0.54
7	Reliance NRI Equity	-0.19
8	JM Equity	-0.39
	Debt Schemes	
9	UTI CRTS81	0.17
10	SBI Magnum Floating Rate	10.95
11	Reliance MIP	-0.16
12	Reliance Short Term Plan	0.34
13	JM Short Term Plan	0.77
14	JM Income Plan	-0.03
15	JM Floater Short Term	6.15
16	JM High Liquidity Plan	11.91
17	JM Growth plan	0.14
	Balanced Schemes	
18	UTI Balanced Plan	-0.33
19	UTI CCP Balanced	-0.21
20	SBI Magnum Balanced Plan	-0.26

Table 1.7 shows the depicts value of Sharpe's reward to variability ratio. It is an excess return earned over risk involved, i.e. per unit of standard deviation. Positive value of the index shows good performance it could be seen thatonly 7 out of 20 schemes have recorded better Sharpe index than the NSE market Index. This indicates 35% schemes have outperformed the NSE market Index and other 13 schemes performed less than NSE market Index. It shows the less return earned over the risk involved in this JM High Liquidity Plan have a 11.91 which is have a highest of Sharpe Index followed by SBI Magnum Floating Rate Plan of 10.95.

Table 1.8 shows the Jenson's Measures. It is the regression of excess of return of the scheme with excess return of the market, acting as dependent and independent variables respectively. Higher positive value of alpha posted by the scheme indicates its better performance and negative value of alpha by the schemes indicate its performance is worst in the market. The analysis of the table reveals that 7 of the schemes have positive Jenson's Measures in this 3 Equity schemes, 2 Debt schemes and one balanced scheme. In this 7 schemes 2 Debt schemes are have a Higher value of Jenson's Measure, they are Reliance Short Term Plan 0f 2.17 and followed by UTI CRTS81 of 2.17 and 13 schemes have negative value of Jenson's Measure in this lowest I found that against the SBI Magnum Floating Rate Plan -7.72 and followed by Reliance Vision plan -7.55.

It shows the value of Jenson's measures is higher negative which is indicates that bad market timing is happened that the managers should wait for investment in securities.

TABLE 1.8
JENSEN'S MEASURE

SL NO	Name of MF Schemes	Jensen Measure
	Equity Schemes	
1	UTI Equity Large & Mid cap	1.87
2	UTI Equity Tax Saving	-2.24
3	SBI Magnum Tax Gain	-2.05
4	SBI Contra	-6.42
5	SBI Nifty Index	0.05
6	Reliance Vision	-7.55
7	Reliance NRI Equity	0.09
8	JM Equity	-3.98
	Debt Schemes	
9	UTI CRTS81	2.17
10	SBI Magnum Floating Rate	-7.72
11	Reliance MIP	0.09
12	Reliance Short Term Plan	2.17
13	JM Short Term Plan	-3.93
14	JM Income Plan	-7.43
15	JM Floater Short Term	-5.79
16	JM High Liquidity Plan	-3.32
17	JM Growth plan	-5.52
	Balanced Schemes	
18	UTI Balanced Plan	-1.53
19	UTI CCP Balanced	-0.58
20	SBI Magnum Balanced Plan	0.04

PERFORMANCE APPRAISAL

- Out of the total 20 schemes studied, 12 schemes (60%) showed an average return higher than the market return while the remaining 6 schemes (40%) generated lower returns than the market. The 12 schemes top performer are SBI Magnum Tax Gain plan and SBI contra plan schemes which are related to Equity scheme.
- The Sharpe measurement ratio is important from the point of investor's view that can see diversification through mutual funds, it is supposed to protect the investors' interest on the investment of stock market and the fund managers of the following schemes have done well to protect the investors. They are UTI CRTS81, SBI Magnum Floating Rate, Reliance Short Term Plan, JM Short Term Plan JM Floater Short Term, JM High Liquidity Plan and JM Growth plan.
- The Jensen's measure is the regression of excess return of the scheme with excess return of the market. Higher positive value of alpha posted by the schemes indicates its better performance. The analysis of the schemes shows UTI Equity Large & Mid cap, UTI CRTS81, Reliance MIP, Reliance Short Term Plan, Reliance NRI Equity and SBI Magnum Balanced Plan which have highest positive alpha.

CONCLUSION

The analysis of the listed different schemes shows that out of 20 only 7 schemes which are relating to Debt scheme namely UTI CRTS81, SBI Magnum Floating Rate plan, Reliance Short Term Plan, JM Short Term Plan, JM Floater Short Term plan, JM High Liquidity Plan and JM Growth plan schemes performs better in comparison to benchmark Index of NSE market Index in terms of yearly average return and risk involved in these schemes less than the market. In respect of models suggested by Sharpe and Jenson's measures these schemes also performed better than the other 13 schemes.

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