

## COMPARATIVE STUDY ON PERFORMANCE EVALUATION OF MUTUAL FUND SCHEMES OF INDIAN COMPANIES

*Prof. Kalpesh P Prajapati,*

Assistant Professor,  
S.V Institute of Management,  
Gujarat Technological University,  
Ahmedabd, Gujarat, India.

*Prof. Mahesh K Patel,*

Assistant Professor,  
N.P College of Computer Studies & Management  
Hemchandracharya North Gujarat University,  
Patan, Gujarat, India.

### ABSTRACT

In this paper the performance evaluation of Indian mutual funds is carried out through relative performance index, risk-return analysis, Treynor's ratio, Sharp's ratio, Sharp's measure, Jensen's measure, and Fama's measure. The data used is daily closing NAVs. The source of data is website of Association of Mutual Funds in India (AMFI). The study period is 1<sup>st</sup> January 2007 to 31<sup>st</sup> December, 2011. The results of performance measures suggest that most of the mutual fund have given positive return during 2007 to 2011.

**Keywords:** Mutual fund, Risk-return, Sharp ratio, Treynor ratio, Jensen ratio, Fama

## **INTRODUCTION:**

Mutual Funds have become a widely popular and effective way for investors to participate in financial markets in an easy, low-cost fashion, while muting risk characteristics by spreading the investment across different types of securities, also known as diversification. It can play a central role in an individual's investment strategy. They offer the potential for capital growth and income through investment performance, dividends and distributions under the guidance of a portfolio manager who makes investment decisions on behalf of mutual fund unit holders. Over the past decade, mutual funds have increasingly become the investor's vehicle of choice for long-term investment. It becomes pertinent to study the performance of the mutual fund. The relation between risk-return determines the performance of a mutual fund scheme. As risk is commensurate with return, therefore, providing maximum return on the investment made within the acceptable associated risk level helps in segregating the better performers from the laggards. Many asset management companies are working in India, so it is necessary to study the performance of it which may be useful for the investors to select the right mutual fund.

## **LITERATURE REVIEW:**

Sapar & Narayan(2003) examines the performance of Indian mutual funds in a bear market through relative performance index, risk-return analysis, Treynor's ratio, Sharp's ratio, Sharp's measure, Jensen's measure, and Fama's measure with a sample of 269 open ended schemes (out of total schemes of 433). The results of performance measures suggest that most of the mutual fund schemes in the sample of 58 were able to satisfy investor's expectations by giving excess returns over expected returns based on both premium for systematic risk and total risk. Rao D. N (2006) studied the financial performance of select open-ended equity mutual fund schemes for the period 1st April 2005 - 31st March 2006 pertaining to the two dominant investment styles and tested the hypothesis whether the differences in performance are statistically significant. The analysis indicated that growth plans have generated higher returns than that of dividend plans but at a higher risk studied classified the 419 open-ended equity mutual fund schemes into six distinct investment styles. Agrawal Deepak & Patidar Deepak (2009) studied the empirically testing on the basis of fund manager performance and analyzing data at the fund-manager and fund-investor levels. The study revealed that the performance is affected by the saving and investment habits of the people and at the second side the confidence and loyalty of the fund Manager and rewards- affects the performance of the MF industry in India. Mehta Sushilkumar (2010) analyze the performance of mutual fund schemes of SBI and UTI and found out that SBI schemes have performed better then the UTI in the year 2007-2008. Selvam et.al (2011) studied the risk and return relationship of Indian mutual fund schemes. The study found out that out of thirty five sample schemes, eleven showed significant t-values and all other twenty four sample schemes did not prove significant relationship between the risk and return. According to t-alpha values, majority (thirty two) of the sample schemes' returns were not significantly different from their market returns and very few number of sample schemes' returns were significantly different from their market returns during the study period.

## **OBJECTIVES OF THE STUDY:**

1. To evaluate and compare the performance of equity diversified mutual fund schemes of selected companies
2. To compare the performance of equity diversified mutual fund schemes of selected companies vis-à-vis the market

## **RESEARCH METHODOLOGY:**

Secondary data is taken as a basis of analysis in this research. Top five asset management companies is selected as per AUM as on 30<sup>th</sup> September 2011. The sample AMCs are HDFC, ICICI Pru. Life, Reliance, UTI and Birla sun life. Five equity diversified mutual fund schemes each from selected AMCs is selected randomly. Daily data about the closing Net Asset Value of the selected schemes has collected from the websites [www.Amfiindia.com](http://www.Amfiindia.com) and [www.Mutualfundsindia.com](http://www.Mutualfundsindia.com). The most popular and widely tracked BSE SENSEX is used as a proxy for the market. The daily closing value of BSE SENSEX is collected from the website [www.bseindia.com](http://www.bseindia.com). The reference period for the data is taken from January 2007 to December 2011. The yield to maturity of 364 days treasury bills is taken as risk free rate of return. The data for that is collected from the official website of Reserve Bank of India. Microsoft Excel is used for all the calculations.

**DATA ANALYSIS:**

**Table 1: Returns on selected schemes of selected companies**

<b>Return on selected schemes</b>	<b>Average annual return</b>					
<b>HDFC</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>Average</b>
HDFC Capital Builder Fund	-26.9715	24.9275	65.4346	-79.2738	51.6222	7.1478
HDFC Core & Satellite Fund	-30.0512	24.8243	70.1695	-91.4511	34.7273	1.6437
HDFC Equity Fund	-31.0903	25.5287	71.7624	-68.3961	41.6247	7.8858
HDFC Long Term Equity Fund	-25.9228	19.8029	57.5674	-70.1055	31.8064	2.6296
HDFC Top 200 Fund	-27.8342	22.2653	66.2314	-60.1671	77.5432	15.6077
<b>Average</b>	-28.3740	19.6114	66.2331	-73.8787	47.4648	
<b>ICICI PRUDENTIAL</b>						
ICICI Prudential Discovery Fund - IP	-27.0940	24.3587	84.7972	-78.5660	32.7698	7.2531
ICICI Prudential Dynamic Plan	-22.7100	19.1976	58.4972	-59.1553	33.2607	5.8180
ICICI Prudential Service Industries Fund	-28.1453	15.6824	56.2144	-99.2349	45.2974	-2.0372
ICICI Prudential Top 100 Fund	-22.7232	16.0985	55.5050	-64.6314	35.5478	3.9593
ICICI Prudential Top 200 Fund	-32.0309	19.6235	60.8822	-80.2407	39.1552	1.4778
<b>Average</b>	-26.5407	18.9921	63.1792	-76.3656	37.2062	
<b>RELIANCE</b>						
Reliance Growth	-32.0251	15.7926	67.7225	-77.5665	55.7800	5.9407
Reliance NRI Equity Fund	-28.0870	18.7842	67.4213	-76.6637	43.6671	5.0243
Reliance Regular Savings Fund - Equity	-35.6433	97.8366	-9.5488	-78.6676	64.7633	7.7480
Reliance Short Term Equity Fund	7.5988	4.8791	8.4483	11.4118	9.2583	8.3192
Reliance Vision	-33.6102	14.1459	59.7041	-72.9243	44.2235	2.3078
<b>Average Return</b>	-24.3534	30.2877	38.7495	-58.8821	43.5384	
<b>UTI</b>						
UTI Equity Fund	-21.1871	18.4261	61.3502	-59.9970	37.9361	7.3056
UTI Master Value Fund	-28.9865	23.9353	77.3095	-87.5735	46.1876	6.1744
UTI Mid Cap Fund	-27.3370	17.2782	74.2088	-94.0731	40.4158	2.0985
UTI Opportunities Fund	-12.9068	17.6617	67.8321	-67.1332	53.1256	11.7158
UTI Equity Fund	-17.6283	12.0803	-15.0798	-79.1552	43.2071	-11.3152
<b>Average</b>	-21.6091	17.8763	53.1242	-77.5864	44.1745	
<b>BIRLA SUN LIFE</b>						
Birla Sun Life Advantage Fund	-28.1772	16.6936	58.4007	-74.1563	43.6103	3.2742
Birla Sun Life Dividend Yield Plus	-19.3394	25.0720	63.2951	-58.5499	44.2372	10.943
Birla Sun Life Equity Fund	-33.1358	12.3338	62.8623	-83.1726	51.2547	2.0284
Birla Sun Life Mid Cap Fund - Plan A	-29.6531	9.2809	77.8366	-87.3748	56.6515	5.3482
Birla Sun Life Top 100 Fund	-23.2216	16.1636	55.2481	-67.9085	37.3890	3.5341
<b>Average</b>	-26.7054	15.9088	63.5285	-74.2324	46.6285	

**Source:** calculated data

**INFERENCE:**

Table 4.1 depicts the performance of selected equity diversified schemes return for a period of 2007 to 2011. It also depicts the average Portfolio return and scheme return performance in comparison to the benchmark. The analysis of table 1.1 clearly reveals that compounded annualized percentage return since inception ranges between -94.0731 percent and 97.8366 percent. The fifth column shows the schemes-wise return for five years in which HDFC Top 200 Fund-Growth scheme of HDFC Company.

Reliance regular saving equity– Growth gives highest return of 97.8366 in the year 2010 and also from the inception. It is followed by ICICI Prudential Discovery Fund - IP- Growth, Birla Sun Life Mid Cap Fund - Plan A - Growth, UTI Master Value Fund - Growth, UTI Mid Cap Fund - Growth with, HDFC Equity Fund - Growth, with 84.7972, 77.8366, 77.3095, 74.2088, and 71.7624 return respectively. UTI Mid Cap Fund - Growth has given the minimum compounded annualized percentage return of -94.0731percent. In year 2009, all schemes outperformed compare to other years except UTI Equity Fund - Growth. In year 2008 and 2011, the

performance of all the all schemes was found to be poor with the exception of Reliance Short Term Equity Fund - Growth. In all five years duration HDFC Top 200 Fund-Growth is performed well compare to others schemes.

**Table 2: Risk (Sigma) on selected schemes of selected companies**

<b>Risk on selected schemes</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>Average</b>
<b>HDFC</b>						
HDFC Capital Builder Fund	3.0012	1.5283	1.5283	2.1542	1.2222	1.8868
HDFC Core & Satellite Fund	0.9602	0.8166	1.8565	1.8565	1.3531	1.3685
HDFC Equity Fund	1.1503	0.8757	1.8674	2.3291	1.3584	1.5161
HDFC Long Term Equity Fund	1.0724	1.4609	1.5172	2.0269	1.2240	1.4602
HDFC Top 200 Fund	1.2000	0.8929	1.8654	2.3773	1.4088	1.5488
Average Risk	2.2491	0.8270	1.7270	2.2494	1.3133	
<b>ICICI PRUDENTIAL</b>						
ICICI Prudential Discovery Fund - IP	1.0359	0.8416	1.5087	2.3272	1.1898	1.3806
ICICI Prudential Dynamic Plan	1.0879	0.6576	1.3384	2.3078	1.2435	1.32704
ICICI Prudential Service Industries Fund	1.2741	1.0065	1.8304	2.4493	1.3249	1.5770
ICICI Prudential Top 100 Fund	1.2620	0.8777	1.8048	2.5899	1.5034	1.6075
ICICI Prudential Top 200 Fund	1.3020	0.9608	1.7493	2.5659	1.4152	1.5986
Average Risk	1.1924	0.8688	1.6463	2.4480	1.3354	
<b>RELIANCE</b>						
Reliance Growth	1.1890	0.9444	1.7038	2.2265	1.3725	1.4872
Reliance NRI Equity Fund	1.1205	0.9208	1.9790	2.6937	1.5235	1.6475
Reliance Regular Savings Fund - Equity	1.2009	6.2563	4.6582	2.3532	1.6087	3.2154
Reliance Short Term Equity Fund	0.0481	0.0324	0.1055	0.0959	0.0417	0.0647
Reliance Vision	2.0735	0.9829	1.8555	2.2753	1.4246	1.7223
Average Risk	1.1264	1.8274	2.0604	1.9289	1.1942	
<b>UTI</b>						
UTI Equity Fund	1.1169	0.8547	1.4677	1.9942	1.3011	1.3469
UTI Master Value Fund	1.0810	0.9640	1.6621	2.2075	1.2623	1.4353
UTI Mid Cap Fund	1.1245	0.9608	1.7246	2.1374	1.4472	1.4789
UTI Opportunities Fund	1.0694	0.9229	1.8355	2.1595	1.5296	1.5033
UTI Equity Fund	1.1427	0.9558	4.7910	2.4171	1.5332	2.1679
<b>Average Risk</b>	1.1069	0.9316	2.2962	2.1832	1.4147	
<b>BIRLA SUN LIFE</b>						
Birla Sun Life Advantage Fund	1.3472	1.0185	2.2601	3.0017	1.4935	1.8242
Birla Sun Life Dividend Yield Plus	0.8574	0.8147	1.4387	2.1227	1.2247	1.2916
Birla Sun Life Equity Fund	1.1785	0.9257	2.0298	2.6712	1.4923	1.6595
Birla Sun Life Mid Cap Fund - Plan A	1.0357	0.9223	2.1476	2.4629	1.3382	1.5813
Birla Sun Life Top 100 Fund	1.1442	0.9444	1.8394	2.4024	1.4573	1.5575
<b>Average Risk</b>	1.1126	0.9251	1.9431	2.5322	1.4012	

**Source:** calculated data

# INFERENCE:

Table 4.3. Reveals the Risk in terms of Standard Deviation of Return of selected schemes of selected companies and it is found that on an average HDFC and Reliance Schemes are riskier than the ICICI Prudential, UTI, and Birla Sun Life Schemes during 2007 to 2011. The variation in return is observed to be higher during 2009 as compare to others years, in case of all selected schemes.

However, in case of HDFC Capital Builder Fund-Growth (3.0012) in 2011, Reliance Regular Saving Fund-Equity-Growth (6.2563) in 2009 and (4.6582) in 2010, UTI Equity Fund-Growth (4.7910) in 2009 and Birla Sun Life Advantage Fund –Growth (3.0017) in 2008 were riskier than the market. Reliance Short Term Equity Fund-Growth is least riskier than other companies schemes from 2007 to 2011. Reliance Regular Savings Fund - Equity - Growth risk is high for all five years compare to the others schemes. This mean that if any investor want to earn good return on scheme at low risk than, that person can invest in this reliance scheme.

**Table 3: Beta values of selected schemes of selected companies**

<b>Scheme Name</b>	<b>Average Annual Beta</b>					
<b>HDFC</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>Average</b>
HDFC Capital Builder Fund	0.7244	0.6742	0.8867	0.6549	0.6664	0.7213
HDFC Core & Satellite Fund	0.6504	0.8166	0.7685	0.7056	0.8208	0.7523
HDFC Equity Fund	0.8283	0.7832	0.7967	0.7773	0.8245	0.802
HDFC Long Term Equity Fund	0.7746	0.6516	0.4576	0.6580	0.7245	0.6532
HDFC Top 200 Fund	0.8836	0.8439	0.6358	0.8169	0.8790	0.8118
Average Value	0.7723	0.6138	0.7091	0.7225	0.7830	
<b>ICICI Prudential</b>						
ICICI Prudential Discovery Fund - IP	0.6814	0.6992	0.5417	0.7160	0.5957	0.6468
ICICI Prudential Dynamic Plan	0.7755	0.6103	0.5775	0.7749	0.7449	0.6966
ICICI Prudential Service Industries Fund	0.9000	0.9386	0.8068	0.8117	0.7491	0.8412
ICICI Prudential Top 100 Fund	0.9132	0.8510	0.8130	0.8961	0.9397	0.8826
ICICI Prudential Top 200 Fund	0.9442	0.9264	0.7842	0.8722	0.8606	0.8775
Average Value	0.8429	0.8051	0.7047	0.8142	0.7780	
<b>Reliance</b>						
Reliance Growth	0.8157	0.8323	0.7126	0.7152	0.7698	0.7691
Reliance NRI Equity Fund	0.7896	0.8203	0.8613	0.8987	0.8982	0.8536
Reliance Regular Savings Fund - Equity	0.8226	0.2729	0.7187	0.7609	0.8474	0.6845
Reliance Short Term Equity Fund	0.043	0.02762	0.08484	0.03488	0.03256	0.0445
Reliance Vision	0.8132	0.9154	0.8189	0.7571	0.8536	0.8316

<b>Average value</b>	0.6568	0.5737	0.6392	0.6334	0.6803	
<b>UTI</b>						
UTI Equity Fund	0.7644	0.7918	0.6284	0.6633	0.7895	0.7274
UTI Master Value Fund	0.6934	0.7655	0.6022	0.6389	0.6419	0.6683
UTI Mid Cap Fund	0.6606	0.7534	0.6224	0.5967	0.7285	0.6723
UTI Opportunities Fund	0.7158	0.8463	0.7909	0.7044	0.9367	0.7988
UTI Equity Fund	0.7810	0.9008	0.7263	0.8082	0.5784	0.7589
<b>Average Value</b>	0.7230	0.8116	0.6741	0.6823	0.7350	
<b>Birla Sun Life</b>						
Birla Sun Life Advantage Fund	0.8350	0.8945	0.9386	0.8973	0.8933	0.8917
Birla Sun Life Dividend Yield Plus	0.5692	0.4458	0.5268	0.5642	0.6073	0.5426
Birla Sun Life Equity Fund	0.8345	0.6220	0.8697	0.8346	0.8673	0.8056
Birla Sun Life Mid Cap Fund - Plan A	0.6374	0.5126	0.8183	0.6842	0.7127	0.6730
Birla Sun Life Top 100 Fund	0.8291	0.6466	0.7953	0.7562	0.8944	0.7843
<b>Average Value</b>	0.7411	0.6243	0.7897	0.7473	0.7950	

**Source:** calculated data

#### INFERENCE:

Table 4.5 clearly shows that on an average, all schemes had been defensive as the average beta value is less than one. However the selected ICICI Prudential, UTI and Birla Sun Life schemes had been more defensive than the HDFC and Reliance schemes. ICICI Prudential Top 200 Fund – Growth (0.9264) in 2010 and (0.9442) in 2011, ICICI Prudential Top 100 Fund – Growth (0.9132) in 2011, Reliance Vision – Growth (0.9154) in 2010, UTI Opportunities Fund - Growth(0.9367) in 2007, UTI Equity Fund – Growth(0.9008) in 2010 and Birla Sun Life Advantage Fund – Growth(0.9386) in 2009 having beta value nearby one.

In average beta value as per scheme-wise Birla Sun Life Advantage Fund - Growth is having a higher beta value than compare to the all other schemes, while UTI Opportunities Fund - Growth scheme average beta value is lower than average because it assimilates the changes with sensex value.

**Table 4: Sharpe's values for selected schemes of selected companies**

<b>Scheme Name</b>	<b>Average Annual Sharpe Value</b>					
<b>HDFC</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>Average</b>
HDFC Capital Builder Fund	-11.5287	25.9926	39.4122	-40.2063	35.7473	9.8834
HDFC Core & Satellite Fund	-39.2428	24.1412	34.9955	-41.8675	19.8033	-0.4340
HDFC Equity Fund	-33.6592	23.3151	35.6436	-32.5168	24.8026	3.5170
HDFC Long Term	-31.2863	10.0565	34.5156	-38.2081	19.5048	-1.0835

Equity Fund						
HDFC Top 200 Fund	-29.5528	19.2109	32.7171	-28.3969	49.4100	8.6776
Average Value	-29.054	20.54326	35.4568	-36.2391	29.8536	
<b>ICICI Prudential</b>						
ICICI Prudential Discovery Fund - IP	-33.5185	22.8694	52.7596	-36.9140	20.8751	5.2143
ICICI Prudential Dynamic Plan	-27.8877	21.4198	39.8205	-28.8131	20.3687	4.9816
ICICI Prudential Service Industries Fund	-28.0785	10.5028	27.8703	-43.5125	28.2019	-1.0032
ICICI Prudential Top 100 Fund	-24.0502	12.5184	27.8735	-27.7889	18.3687	1.3843
ICICI Prudential Top 200 Fund	-28.0785	15.1048	31.8309	-34.1325	22.0622	1.3573
Average Value	-28.3227	16.48304	36.03096	-34.2322	21.97532	
<b>Reliance</b>						
Reliance Growth	-33.3517	11.3097	36.6951	-38.1344	34.8621	2.2761
Reliance NRI Equity Fund	-31.8744	14.8493	31.4412	-31.1847	23.4553	1.3373
Reliance Regular Savings Fund - Equity	-36.0337	14.8211	-3.1661	-36.5491	35.3278	-5.12
Reliance Short Term Equity Fund	-0.6244	-7.1732	30.8027	42.4573	31.8052	19.4535
Reliance Vision	-19.8887	9.1917	29.3737	-35.2761	25.4745	1.77502
<b>Average value</b>	-24.3546	8.59972	25.02932	-19.7374	30.18498	
<b>UTI</b>						
UTI Equity Fund	-25.7993	15.5788	38.2580	-33.7656	23.0613	3.46664
UTI Master Value Fund	-33.8716	19.5270	43.3841	-42.9953	30.3056	3.26996
UTI Mid Cap Fund	-31.0946	12.6640	40.0144	-47.4455	22.4454	-0.6832
UTI Opportunities Fund	-19.2032	13.5996	34.1219	-34.4852	29.5460	4.7158
UTI Equity Fund	-22.1023	7.2916	-27.9206	-35.7846	23.0076	-11.1017
<b>Average Value</b>	-26.4142	13.7322	25.57156	-38.8952	25.67318	
<b>Birla Sun Life</b>						
Birla Sun Life Advantage Fund	-35.4712	9.0297	25.7514	-32.6507	23.8885	-1.8904
Birla Sun Life Dividend Yield Plus	-31.4551	24.5020	40.3815	-31.0397	29.6437	6.4064
Birla Sun Life Equity	-34.5900	11.6120	28.4076	-33.8842	29.0302	0.1151



Fund						
Birla Sun Life Mid Cap Fund - Plan A	-35.9957	4.5209	33.8218	-38.4562	36.4056	0.0592
Birla Sun Life Top 100 Fund	-26.9614	11.7035	27.2087	-31.3214	20.2134	0.1685
<b>Average Value</b>	-32.8947	12.27362	31.1142	-33.4704	27.83628	

**Source:** calculated data

#### INFERENCE:

Table 4.7 reflects Sharpe's Index value for the selected schemes of selected company's scheme during 2007 to 2011. In year 2007, 2009 and 2010, the performance of all schemes is poor in the market on the basis of Sharpe's Index. Only Reliance Regular Saving Fund - Equity – Growth (-3.1661) in 2009 and Reliance Short Term Fund – Growth (-7.1732) in 2010 Schemes were having a good performance. Reliance Short Term Equity Fund - Growth sharp value is higher, these mean scheme risk premium is high compare to other schemes. And portfolio value of HDFC Company is higher in year 2010.

In year 2008 and 2011, on basis of Sharpe's Index and return, the performance of various schemes of all five companies is not found good because overall market condition was not favorable. HDFC Top 200 Fund – Growth (49.4100) in 2007, ICICI Prudential Discovery Fund – IP- Growth (52.7596) in 2009 and UTI Master Value Fund – Growth (43.3841) in 2009 performed well compare to others selected schemes. Reliance Short Term Fund – Growth (-0.6244) in 2011 is near on par performance as compared to the market.

**Table 5: Treynor values for selected schemes of selected companies**

Scheme Name	Average Annual Treynor Value					
	2011	2010	2009	2008	2007	Average
<b>HDFC</b>						
HDFC Capital Builder Fund	-47.7611	29.3917	67.9314	-132.2609	65.5632	-3.4271
HDFC Core & Satellite Fund	-57.9317	28.2964	84.5318	-140.0134	32.6437	-10.4946
HDFC Equity Fund	-46.7450	26.0707	83.5489	-97.4316	40.8622	1.2610
HDFC Long Term Equity Fund	-43.3128	22.5476	114.4280	117.7012	32.9543	1.7831
HDFC Top 200 Fund	-40.1347	20.3260	95.9869	-82.6399	79.1970	14.5470
Average Value	-47.1771	25.3264	89.2854	-66.9289	50.2440	
<b>ICICI Prudential</b>						
ICICI Prudential Discovery Fund - IP	-50.9614	27.5278	146.9374	-119.9725	41.6955	9.0453
ICICI Prudential Dynamic Plan	-39.1201	23.0800	92.2834	-85.8104	34.0010	4.8867
ICICI Prudential Service Industries Fund	-39.7497	11.2627	63.2274	-131.3037	49.8820	-9.3362
ICICI Prudential Top 100 Fund	-33.2357	12.9108	61.8746	-80.3199	29.3866	-1.8767
ICICI Prudential Top 200 Fund	-35.7741	15.6658	71.0027	-100.4128	36.2810	-2.6474



Average Value	-39.7682	18.0894	87.0651	-103.564	38.2492	
<b>Reliance</b>						
Reliance Growth	-48.6105	12.8340	87.7440	-118.7244	62.1527	-0.9208
Reliance NRI Equity Fund	-45.2352	16.6690	72.2437	-93.4693	39.7860	-2.0011
Reliance Regular Savings Fund - Equity	-52.6016	339.808	-20.5224	-113.0302	67.0655	44.144
Reliance Short Term Equity Fund	-0.6985	-8.4034	38.2887	116.7648	40.7345	37.3372
Reliance Vision	-50.7142	9.8699	24.7893	-106.0141	42.5177	-15.9103
<b>Average value</b>	-39.572	74.1556	40.5086	-62.8946	50.4512	
<b>UTI</b>						
UTI Equity Fund	-37.6981	16.8139	89.3578	-101.5212	38.0054	0.9915
UTI Master Value Fund	-52.8080	24.5896	119.7503	-148.5572	59.5951	0.5139
UTI Mid Cap Fund	-52.9306	16.1486	110.8672	-169.9508	44.5924	-10.2546
UTI Opportunities Fund	-28.6901	14.8305	79.1862	-105.7180	48.2485	1.57142
UTI Equity Fund	-32.3400	7.7362	-27.9206	-107.0232	60.9833	-19.7129
<b>Average Value</b>	-40.8934	16.0237	74.24818	-126.554	50.2849	
<b>Birla Sun Life</b>						
Birla Sun Life Advantage Fund	-49.6834	9.6916	60.6017	-105.4497	39.9386	-8.9802
Birla Sun Life Dividend Yield Plus	-47.3757	44.7799	110.2812	-116.7793	59.7840	10.1380
Birla Sun Life Equity Fund	-48.8479	11.6120	66.3031	-108.4433	49.9541	-5.8844
Birla Sun Life Mid Cap Fund - Plan A	-58.4911	8.1344	88.7661	-138.4386	68.3603	-6.3337
Birla Sun Life Top 100 Fund	-37.2087	17.0944	62.9336	-99.5120	32.9364	-4.7512
<b>Average Value</b>	-48.3214	18.2624	77.7771	-113.725	50.1946	

**Source:** calculated data

#### INFERENCE:

Table 4.9 reveals the risk adjusted measure of Treynor for market during year 2007 to 2011. In the year 2007, 2009 and 2010, the performance of all the schemes is found to be poor. But Reliance Regular Saving Fund - Equity – Growth (-20.5224) in 2009 and Reliance Short Term Fund – Growth (-8.4034) in 2010 and UTI

Equity Fund – Growth (-27.9206) in 2009 Schemes were perform better on systematic risk adjusted return. During 2008 and 2011, none of the schemes had underperformed. The performance of HDFC Long Term Equity Fund – Growth (114.4280) in 2009, ICICI Prudential Discovery Fund – IP- Growth (146.9374) in 2009, Reliance Regular Saving Fund - Equity – Growth (339.8087) in 2010, UTI Master Value Fund – Growth (119.7503), UTI Mid Cap Fund – Growth (110.8672) in 2009 is more compare to others selected schemes. In year 2007, 2009 and 2010, 90% of selected schemes give even a return equal to risk free return. Year 2008 and 2011 was really bad as 100% of selected schemes did not give even a return equal to risk free return because Its Treynor Index is more than benchmark as its beta value is negative. Here we can see that Reliance Short Term Equity Fund - Growth Treynor value is high compare to other companies schemes.

**Table 6: Jensen alpha values of selected companies of selected schemes**

<b>Scheme Name</b>	<b>Average Annual Jension Value</b>					
<b>HDFC</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>Average</b>
HDFC Capital Builder Fund	-8.4928	10.4080	12.4365	-33.3293	3.7751	-3.0405
HDFC Core & Satellite Fund	-14.3150	12.1250	23.5386	-41.3804	2.5200	-3.5023
HDFC Equity Fund	-8.9640	11.8867	23.6167	-12.4881	9.3079	4.6718
HDFC Long Term Equity Fund	-5.7245	7.5948	27.6977	-23.9078	2.4492	1.6218
HDFC Top 200 Fund	-4.0767	7.9613	26.7565	-1.0407	43.7505	14.6701
Average Value	-8.3146	9.9951	22.8092	-22.4293	12.3605	
<b>ICICI Prudential</b>						
ICICI Prudential Discovery Fund - IP	-10.2466	11.6317	50.3972	-27.6438	7.2209	6.2718
ICICI Prudential Dynamic Plan	-2.4795	7.4385	22.1652	-3.4443	3.2981	5.3956
ICICI Prudential Service Industries Fund	-3.4441	11.2627	7.5220	-40.5411	15.2125	-1.9976
ICICI Prudential Top 100 Fund	2.4540	1.7180	6.4797	0.9373	-0.1758	2.2826
ICICI Prudential Top 200 Fund	1.9542	4.4222	13.4087	-16.6126	5.7726	1.7890
Average Value	-2.3524	7.29462	19.99456	-17.4609	6.26566	
<b>Reliance</b>						
Reliance Growth	-10.3499	1.6160	24.1131	-26.7178	25.0808	2.7484
Reliance NRI Equity Fund	-7.3526	4.7386	15.7966	-10.8787	9.1725	2.2952
Reliance Regular Savings Fund - Equity	-13.7205	89.7536	-53.4871	-24.0949	31.7706	6.0443
Reliance Short Term Equity Fund	1.5147	-0.5329	-4.7432	6.9102	0.3634	0.7024

Reliance Vision	-12.0278	-0.9359	10.3624	-18.6621	11.0485	-2.0429
<b>Average value</b>	-8.38722	18.9278	-1.59164	-14.6887	15.48716	
<b>UTI</b>						
UTI Equity Fund	20.3360	4.7908	22.2786	-13.3684	6.6566	8.1387
UTI Master Value Fund	-11.7076	10.4853	-241.131	-42.3468	19.2715	-53.0858
UTI Mid Cap Fund	-11.2353	3.9599	35.4574	-52.8600	10.9405	-2.7475
UTI Opportunities Fund	5.1771	2.9453	19.9980	-17.1546	17.4924	5.6916
UTI Equity Fund	2.7981	-2.8436	-59.4287	-20.7304	18.1685	-12.4072
<b>Average Value</b>	1.07366	3.86754	-44.5653	-29.292	14.5059	
<b>Birla Sun Life</b>						
Birla Sun Life Advantage Fund	-11.5874	-1.6914	6.9468	-21.4950	9.3972	-3.6859
Birla Sun Life Dividend Yield Plus	-6.5859	14.7979	30.0695	-19.9837	18.4396	7.3474
Birla Sun Life Equity Fund	-10.8837	0.0176	11.3948	-22.6042	17.8088	-0.8533
Birla Sun Life Mid Cap Fund - Plan A	-14.4594	-1.7675	29.1029	-39.0502	27.7528	0.3157
Birla Sun Life Top 100 Fund	-1.1631	3.5637	7.7400	-13.7253	3.1455	-0.0878
<b>Average Value</b>	-8.9359	2.98406	17.0508	-23.3717	15.30878	

**Source:** calculated data

#### INFERENCE:

Table 4.11 presents value of Jensen's absolute measure. i.e., Alpha for selected schemes of selected companies during 2007 to 2011. In 2008 and 2011, all schemes performed poor compare to all other years. Table also show that Jensen alpha values for HDFC is higher than others schemes.

In year 2009 and 2010, most of the schemes outperformed except Reliance Regular Saving Fund - Equity – Growth (-53.4871), Reliance Short Term Fund – Growth(-4.7432), Reliance Vision – Growth(-0.9359), UTI Master Value Fund – Growth(-241.1316), Birla Sun Life Advantage Fund – Growth(-1.6914), Birla Sun Life Mid Cap Fund – Plan - A – Growth(-1.7675). Here Jensen Alpha value is more in HDFC Top 200 Fund-Growth scheme 14.67 than other companies.

**Table 6: Fama values of selected schemes of selected companies**

<b>Scheme Name</b>	<b>Average annual FAMA value</b>					
<b>HDFC</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>Average</b>
HDFC Capital Builder Fund	47.0211	11.5873	56.3684	-26.4616	20.3871	21.7804
HDFC Core & Satellite Fund	-11.6505	10.8993	10.8993	-32.9043	0.9969	-4.3518
HDFC Equity Fund	-7.5348	10.9653	20.6051	-9.5199	7.7921	4.4615
HDFC Long Term Equity	-4.4796	-1.0768	15.0292	-19.8205	0.5877	-1.952

Fund						
HDFC Top 200 Fund	-2.9323	7.5161	15.1236	0.0776	42.8872	12.5344
Average Value	4.08478	7.97824	23.60512	-17.7257	14.5302	
<b>ICICI Prudential</b>						
ICICI Prudential Discovery Fund - IP	-7.1635	10.1468	42.7245	-19.7449	2.4210	5.6767
ICICI Prudential Dynamic Plan	-1.3970	6.9573	20.4834	-0.8853	1.9005	5.4117
ICICI Prudential Service Industries Fund	-1.8792	-0.3115	6.1387	-37.3800	12.4567	-4.1950
ICICI Prudential Top 100 Fund	3.2224	1.4966	6.0584	1.6592	-0.6484	2.3576
ICICI Prudential Top 200 Fund	3.0355	4.1241	12.7943	-14.7804	4.6167	1.9580
Average Value	-0.83636	4.48266	17.63986	-14.2263	4.1493	
<b>Reliance</b>						
Reliance Growth	-7.7086	0.4431	20.9562	-21.7436	21.9632	2.7820
Reliance NRI Equity Fund	-5.6096	3.7148	13.9796	-7.5925	7.0465	2.3077
Reliance Regular Savings Fund - Equity	-11.0067	27.051	-128.565	-19.2561	26.5394	-21.0474
Reliance Short Term Equity Fund	1.2381	-0.5709	0.7000	6.8198	0.5331	1.7440
Reliance Vision	14.4720	-1.6207	9.0126	-15.7224	9.4236	3.1130
<b>Average value</b>	-1.7229	5.8035	-16.7833	-11.499	13.1011	
<b>UTI</b>						
UTI Equity Fund	-0.3400	4.1937	20.3131	-10.6414	5.2513	3.7553
UTI Master Value Fund	-9.0000	8.4138	-319.559	-31.4522	14.3476	-67.4501
UTI Mid Cap Fund	-6.2394	1.7919	26.8981	-40.6458	5.0568	-2.6276
UTI Opportunities Fund	6.7828	2.5846	17.8124	-13.0776	16.0927	6.0389
UTI Equity Fund	3.9352	-3.3523	-136.557	-17.7779	6.1893	-29.5127
<b>Average Value</b>	-0.97228	2.7263	-78.2188	-22.719	9.38754	
<b>Birla Sun Life</b>						
Birla Sun Life Advantage Fund	-10.4009	-2.2493	4.8872	-15.9429	7.8433	-3.1725
Birla Sun Life Dividend Yield Plus	-4.1814	10.696	24.2308	-8.3542	13.4801	7.1742
Birla Sun Life Equity Fund	-9.4423	-3.3045	9.8825	-18.1109	15.5101	-1.0930
Birla Sun Life Mid Cap	-9.7543	-6.3194	22.0838	-27.9591	23.7787	0.3659

Fund - Plan A						
Birla Sun Life Top 100 Fund	-0.4387	0.3125	6.7502	-10.1317	2.2973	-0.24208
<b>Average Value</b>	-6.84352	-0.1729	13.5669	-16.0998	12.5819	

Source: calculated data

### INFERENCE:

Fama's measure, whose positive value indicates superior stock selection skills of the managers, is presented in Table 4.13 for selected schemes of selected companies during 2007 to 2011. In 2007, managers all of the schemes portrayed superior stock selection skills. Only the manager of ICICI Prudential Top 100 Fund – Growth (-0.6484) is not having a superior stock selection skills. HDFC Top 200 Fund – Growth (0.0776), ICICI Prudential Top 100 Fund – Growth (1.6592), Reliance Short Term Fund – Growth (6.8191) in 2008 and HDFC Capital Builder Fund – Growth(47.0211), ICICI Prudential Top 100 Fund – Growth(3.2224), ICICI Prudential Top 200 Fund – Growth(3.0355), Reliance Short Term Fund – Growth(1.2381), Reliance Vision – Growth(14.4720), UTI Opportunities Fun – Growth(6.7828) and UTI Equity Fund – Growth(3.9352) in 2011, have a positive value of Fama's measures which means that the managers of the schemes have really done superior stock selection. In 2009 and 2010, 70% of selected schemes have a positives value of Fama's measures. Fama value is higher in this HDFC Capital Builder Fund – Growth for last five years as compare to the others schemes

### CONCLUSION:

Overall, all selected mutual fund companies have positive return during 2007 to 2011. HDFC and Reliance mutual fund have performed well as compared to the Sensex return. ICICI prudential and UTI Mutual fund has lower level of risk compare to HDFC and Reliance mutual fund. Beta is less than one to all selected mutual fund companies which means the funds are less volatile than the Index. Funds with beta close to one, means the fund's performance closely match the benchmark index. Sharpe's Index of HDFC Mutual fund is higher than the other, so it shows good performance compared to other funds. Treynor's Index result revealed that the HDFC and Reliance mutual fund offers better return in comparison to ICICI Prudential, UTI, and Birla Sun Life Mutual funds for the same level of risk exposure.

### REFERENCES:

- [1] Agrawal, D. (2006). Measuring Performance of Indian Mutual Funds. *Prabandhan* , 179-185.
- [2] Guha, S. (2008). Performance of Indian Equity Mutual Funds vis-a-vis their Style Benchmarks. *The ICFAI Journal of Applied Finance* , 49-81.
- [3] Madhumathi, S. P. (2005). Characteristics & performance evaluation of selected Mutual Funds in India . *9th Indian Institute of Capital Market Conference*.
- [4] Michael, C. J. (1967). The Performance of Mutual Funds in the period 1945-1964. *Journal of Finance* , 389-416.
- [5] Sharpe, W. (1966). Mutual Fund Performance. *The Journal of Business* , 119.
- [6] Treynor, J. (1965). How to Rate Management of Investment Funds? *Harvard Business Review* , 63-75.
- [7] Sagar, Narayan Rao and Madava, Ravindran, Performance Evaluation of Indian Mutual Funds. Available at SSRN: <http://ssrn.com/abstract=433100> or <http://dx.doi.org/10.2139/ssrn.433100>
- [8] Rao, D. N., Investment Styles and Performance of Equity Mutual Funds in India (August 6, 2006). Available at SSRN: <http://ssrn.com/abstract=922595> or <http://dx.doi.org/10.2139/ssrn.922595>
- [9] Selvam, Murugesan and Palanisamy, Bhuvanewari, Analysis of Risk and Return Relationship of Indian Equity (Dividend) Mutual Fund Schemes (2011). Available at SSRN: <http://ssrn.com/abstract=1862214>
- [10] Agrawa, D. (2009). A Comparative Study of Equity Based Mutual Fund of Reliance and HDFC. *Prabandhan* , 145-154.
- [11] <http://www.amfiindia.com>
- [12] <http://www.bseindia.com>
- [13] <http://www.rbi.org.in>
- [14] <http://www.mutualfundsindia.com>

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