

**A COMPARATIVE STUDY ON EVALUATION OF  
SELECTED MUTUAL FUNDS IN INDIA**

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**Abstract:**

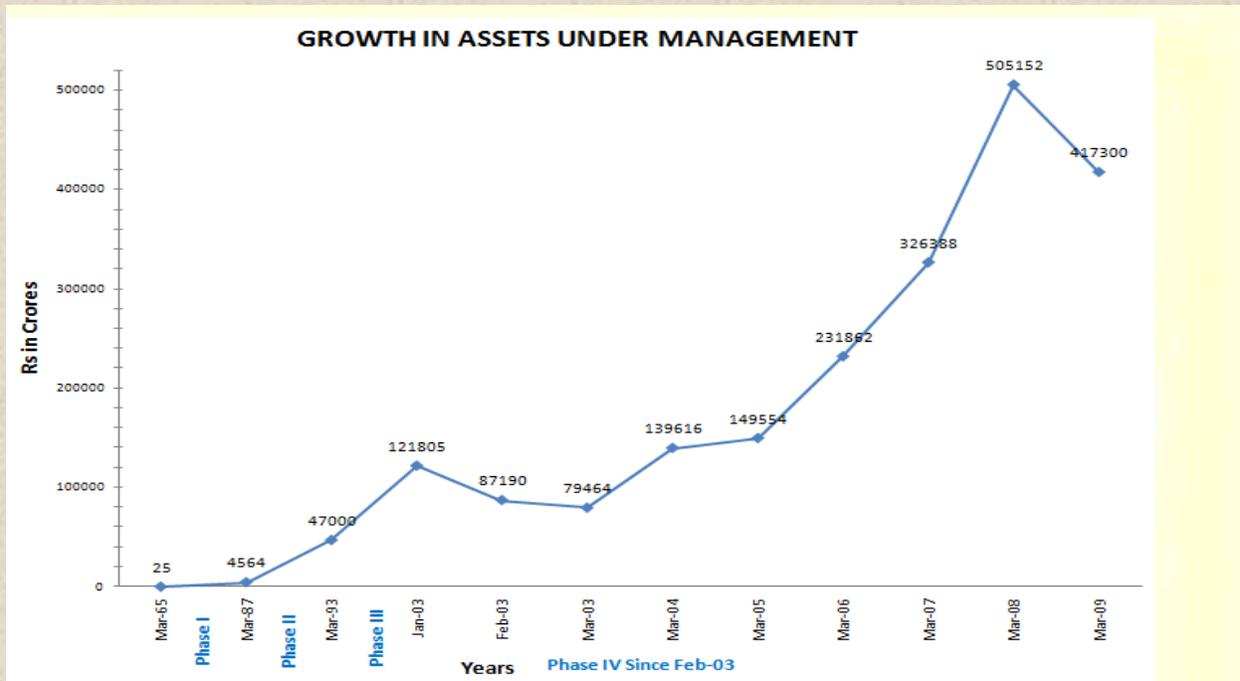
Mutual Funds industry has grown up by leaps & bounds, particularly during the last 2 decades of the 20<sup>th</sup> century. Proper assessment of fund performance would facilitate the peer comparison among investment managers, help average investors successfully identify skilled managers. Further the growing competition in the market forces the fund managers to work hard to satisfy investors & management. Therefore regular performance evaluation of mutual funds is essential for investors and fund managers also. The present study is confined to evaluate the performance of mutual funds on the basis of yearly returns compared with Bse Indices.

**Keywords:** Performance, investors, returns, Assets, long-term

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## Introduction to the study:

With the growing popularity of mutual funds, performance evaluation of investment schemes has become a fundamental critical issue. Proper assessment of fund performance would facilitate the peer comparison among investment managers, help average investors successfully identify skilled managers enables regulators to effectively monitor manager behaviour and offer researchers a powerful tool in testing the efficient market hypothesis.



## Need for the study

Mutual Funds industry has grown up by leaps & bounds, particularly during the last 2 decades of the 20<sup>th</sup> century. Moreover the entry of private mutual fund (since 1993) has injected a sense of competition and the Industry has been witnessing a structural transformation from a public sector monopoly to monopolistic Industry. A proper evaluation measure will remove confusion and help small investors to decide about the level of investment in various mutual fund schemes, so as to maximize the returns.

Further the growing competition in the market forces the fund managers to work hard to satisfy investors & management. Therefore regular performance evaluation of mutual funds is essential for investors and fund managers also. The present study is confined to evaluate the performance of mutual funds on the basis of yearly returns compared with Bse Indices.

### **Scope of the study:**

The present study includes 5 different mutual fund schemes. The scope of study is kept limited to two years. Among these 20 schemes, mutual fund schemes floated by different institutions have been studied. The schemes covered under the study are:

- Liquid fund schemes
- Bond fund schemes
- Balanced fund schemes
- Monthly income plans
- Long term maturity gilt funds

To evaluate the performance of funds only four performance measures are applied under this study. i.e. Sharpe Index, Treynor Index, Jensen's measure & Fama's measure.

### **Objectives of the study:**

The specific objectives of the study are as follows.

- To evaluate investment performance of select mutual funds in terms of risk, return, net selectivity and diversification.
- To appraise investment performance of mutual funds on risk adjusted returns, the theoretical parameters suggested by Sharpe, Treynor & Jensen and Fama.
- To evaluate the performance of mutual funds with the help of crisil benchmark indices.

**Research Methodology:** Study of performance evaluation of mutual funds mostly depends on desk research. The study primarily depends on secondary data.

**Data Sources:** Most of the secondary data has been collected from various financial dairies like Business Line, The Economic Times, and Business Standard etc. However a lot of data has been collected from the following websites. Lot of reports, articles has been collected from various magazines, journals, periodicals like Business India, Chartered Financial Analyst, Dalal

Street, Finance India, SEBI bulletin etc. Primary data has been collected from the brokers and experts in the market to analyze the funds performance.

**Research instrument:** Appropriate tools have been used for analysis of data collected. Excel package has been used for calculations of average return, standard deviation and beta.

**Period of the study:** The Study was undertaken for a period of two Years i:e 2009 &2010

**Data set:** Data set consists of a sample of 25 mutual fund schemes under five broad categories which were mentioned below.

<b>LIQUID FUNDS</b>
HDFC LIQUID FUND
TATA LIQUID FUND
ICICI PRUDENTIAL LIQUID FUND
KOTAK LIQUID FUND
UTI LIQUID FUND
<b>BOND FUNDS</b>
HDFC BOND FUND
TATA BOND FUND
ICICI PRUDENTIAL BOND FUND
KOTAK BOND FUND
UTI BOND FUND
<b>BALANCED FUNDS</b>
HDFC BALANCED FUND
TATA BALANCED FUND
ICICI PRUDENTIAL BALANCED FUND
KOTAK BALANCED FUND
UTI BALANCED FUND
<b>MONTHLY INCOME PLAN</b>
HDFC MIP
TATA MIP

ICICI PRUDENTIAL MIP

KOTAK MIP

UTI MIP

## **REVIEW OF LITERATURE:**

An attempt was made in this section to review the past research done in the area of mutual funds in general and its performance evaluation in particular.

**Treynor and Mazuy (1966)** devised a test of ability of the investment managers to anticipate market movements. The study used the investment performance outcomes of 57 investment managers to find out evidence of market timing abilities and found no statistical evidence that the investment managers of any of the sample fund had successfully outguessed the market. The study exhibited that the investment managers had no ability to outguess the market as a whole but they could identify under priced securities.

**Jensen (1968)** developed a composite portfolio performance evaluation methodology for evaluating the predictive ability of fund managers through successful prediction of security prices. The study concluded that fund managers on the whole were not able to predict security prices well enough to outperform a buy market and hold policy. It found little evidence that individual fund was able to do significantly better than that expected from a random chance.

**Fama (1972)** suggested alternative methods for evaluating investment performance with somewhat finer breakdowns of performance on the stock selection, market timing, diversification and risk bearing. It devised mechanism for segregating part of an observed investment return due to manager's ability to pick up the best securities at a given level of risk (selectivity) from the part that is due to the prediction of general market price movements (timing).

**Gupta (1974)** evaluated performance of mutual fund industry by segregating in to several sub groups by their broad investment goals and objectives for the period 1962-1971. The results revealed that performance models led to identical results. The funds having higher volatility exhibited superior performance than others. It has also shown that all fund types outperformed the market irrespective of choice of market index and performance measure.

**Guy (1978)** summarized general behavior of 47- investment trust by grouping them in to equal and value weighted portfolios with monthly price and investment returns for the period 1960-70. By using traditional performance measures developed by Jensen (1968), Treynor (1965), Sharpe (1966), it found that no investment trust in any time intervals led to performance measures that were significantly different zero.

**Henrikson and Merton (1981)** developed another statistical framework for both parametric and non parametric tests of market timing ability of investment managers. It reported that when fund manager's forecasts were observable, the parametric test suggested could be used without further assumptions on distribution of security returns. If not a non-parametric test under the assumption of either capital asset pricing model or multi-factor return structure could be used. These measures allow identification and separation of gains of market timing skills from that of the micro stock selection skills.

**Kon (1983)** developed a methodology for measuring the market timing performance of investment managers and generated empirical evidences for a sample of mutual funds. It noted some evidence of significant superior timing performance at individual fund level. The multivariate tests used in the study produced results consistent with efficient market theory.

**Chang and Lewellen (1984)** empirically examined market timing and stock selection skills of 67 investment managers by employing parametric statistical procedure developed by Henrikson and Merton (1981). the study concluded that neither skillful market timing nor clever security selection abilities were evident in abundance in observed sample mutual fund return data and managers were collectively unable to outperform a passive investment strategy.

**Ippoliti (1989)** examined the performance of 143 mutual funds over the period 1965-84 with objective to evaluate the overall efficiency of mutual fund industry. The study showed that estimated alphas for the mutual fund industry was significantly greater than zero, an antithesis that mutual fund manager do not add value to portfolio management.

**Lee and Rahman (1990)** also examined market timing and selectivity performance of mutual funds by using simple regression technique and results indicated some evidence of micro and macro forecasting ability of fund managers.

**Sarkar (1991)** critically examined mutual fund performance evaluation methodology and pointed out that Sharpe (1996) and Treynor (1968) performance measures rank mutual fund similarly on performance in spite of their differences in methodology.

**Yadav and Mishra (1996)** empirically evaluated performance of 14 mutual funds over the period 1992-1995. The study indicated that the funds as a whole performed well in terms of non-risk adjusted average return and in terms of risk adjusted performance. Mutual funds in aggregate had a higher Sharpe index, but a lower Treynor index and negative average alpha. The study reported that mutual funds have done well in terms of diversification and total variability of returns.

**Graham and Harvey (1996)** studied the market timing abilities and volatility implied in investment allocation recommendations. The study investigated over 1500 asset allocation recommendations for 1980-92 period and found little evidence that hot recommendations contained adequate information regarding future market returns and some recommendations even appeared to have short run insight over the common level of predictability. **Gupta & Sehgal (1998)** studied investment performance of 80 mutual fund schemes from the Indian market over a four period (1992-1996). The study reported that mutual fund industry has performed reasonably well for the Indian market. It found lack of adequate portfolio diversification. The study produced evidence to support consistency of performance and its non-stationarity overtime was noted in relation to risk-return parameters. Finally, a significant positive risk return relationship was documented by the study when standard deviation was used as a risk measure.

**Becker, et.al. (1999)** analyzed timing abilities of investment managers using models that allow the utility function to depend on excess return. It differentiated timing performance based on public information from that on superior information. It suggested that fund managers behave like highly risk averse investors and were unable to exhibit successful market timing ability.

**Rao and Venkateswarlu (2000)** studied the market timing abilities of UTI fund managers. It reported that out of nine investment schemes only one exhibited an attempt to forecasting the market and changing the portfolio composition accordingly.

**Narasimhan and Vijay lakshmi (2001)** analyzed the performance of 76 mutual funds on the basis of portfolio holding and noticed a general shift from holding a large portfolio to lean

portfolio. The study observed that funds investing in stocks frequently had a strong positive correlation.

**Chander (2002)** empirically examined the performance of 34 mutual funds in terms of performance evaluation models developed by Sharpe, Treynor and Jensen. The study reported that a majority of sample fund schemes had outperformed the benchmark in terms of Sharpe measure.

**Narayan Rao sapar and Shailesh j..Mehta** presented in their paper the performance evaluation of Indian mutual funds in a bear market is carried out through relative performance index, risk-return analysis, Treynor's ratio, Sharpe'sratio, Jensen's measure, and Fama's measure. 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.

**Sharad Panwar & R.Madhumathi** in their study used sample of public-sector sponsored & private-sector sponsored mutual funds of varied net assets to investigate the differences in characteristics of assets held, portfolio diversification, and variable effects of diversification on investment performance for the period May, 2002 to May, 2009. The study found that public-sector sponsored funds do not differ significantly from private-sector sponsored funds in terms of mean returns%. The study also found that there is a statistical difference between sponsorship classes in terms of e SDAR (excess standard deviation adjusted returns) as a performance measure.

**Meijun QIAN** in his empirical study found that Staleness in prices has a positive statistical bias and a negative dilution effect on fund performance. First, a spurious component of alpha is generated if the performance is evaluated with non synchronous data. Second, stale prices create arbitrage opportunities for high-frequency traders. Their trades dilute the returns of portfolios, hence funds' performance. This paper introduces a model that measures each effect directly and estimates fund performance net of these effects. Overall, funds lose about 40 basis points in annual performance due to staleness in prices during January 1973 to December 2004. Equity mutual funds will continue to beat benchmarks but they may not be able to do so with a huge margin as in the past.

Roger Otten & Dennis Bams<sup>1</sup> in their paper a comprehensive assessment of existing mutual fund performance models is presented. Using a survivor-bias free database of all US mutual funds, we explore the added value of introducing extra variables such as size, book-to-market, momentum and a bond index. In addition to that we evaluate the use of introducing time-variation in betas and alpha. The search for the most suitable model to measure mutual fund performance will be addressed along two lines. First, we are interested in the statistical significance of adding more factors to the single factor model. Second, we focus on the economic importance of more elaborate model specifications. The added value of the present study lies both in the step-wise process of identifying relevant factors, and the use of a rich US mutual fund database that was recently released by the Center for Research in Security.

### **LIMITATIONS OF THE STUDY:**

The study was limited only to selected 5 mutual fund schemes in each type. It is very difficult to analyze the whole industry in general basing on the selected mutual fund schemes.

### **DATA ANALYSIS:**

#### **Table No:1 Performance Evaluation of Liquid Funds in 2009**

Interpretation:

- The table depicts the values of average returns of the schemes selected for the study. The results indicate that HDFC (22.07%) and UTI (20.44%) liquid schemes earned better returns compared to other schemes.

Fund	return on fund (ri)	variance	$\sigma$	$\beta$	Sharpe	Treynor	Jensen	Net selectivity	Diversification
HDFC LIQUID FUND	22.07	0.01	11.85	1.404	1.3560	0.0023	15.75	0.42	15.33
TATA LIQUID FUND	18.31	0.01	9.29	0.863	1.3249	0.0011	12.36	0.04	12.32
ICICI PRUDENTIAL LIQUID	17.73	0.01	8.87	0.787	1.3218	0.0009	11.77	0.01	11.76
UTI LIQUID FUND	20.44	0.01	10.58	1.119	1.3651	0.0016	14.51	0.47	14.04
KOTAK LIQUID FUND	17.42	0.01	8.84	0.782	1.2920	0.0009	11.24	-0.25	11.50
LIQUIFEX	28.82	0.03	17.28						

- When examined in terms of systematic risk( $\beta$ ).it is noted that HDFC(1.404) and UTI(1.119) liquid funds have beta greater than one implying there by that schemes tended to hold portfolios which are high risky than the market portfolios. TATA (0.863), ICICI (0.787), and KOTAK (0.782) liquid funds have beta less than one holding portfolios which are less risky than the market portfolio.
- By Fama's method, out of total excess return of 15.75%of HDFC liquid fund .15.33% was generated due to inadequate diversification and 0.42%was generated due to superior stock selection skills of the fund manager. TATA liquid fund, 12.32% was generated due to inadequate diversification and 0.04% was generated due to the superior stock selection skills of the fund manager.
- Out of total excess return of 11.77% of ICICI prudential liquid fund, 11.76% was generated due to inadequate diversification and only 0.01% was generated due to the superior stock selection skills of the fund manager.UTI liquid fund has generated an excess return of 14.51% out of which 14.04% was generated due to inadequate diversification and 0.47% was generated due to

the superior stock selection skills of the fund manager. KOTAK liquid fund has performed very badly because its net selectivity is negative which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.

**Table 2: Performance Evaluation of Liquid Funds in 2010**

Interpretation:

- The table depicts the values of average returns of the schemes selected for the study which

Fund	Average return	Variance	$\sigma$	$\beta$	Sharpe	Treynor	$\alpha$	net selectivity	Diversification		
HDFC LIQUID FUND	22.79	0.01	11.50	1.32	3	1.4594	0.1195	16.4	2	34.018	-17.60
TATA LIQUID FUND	25.34	0.02	13.33	1.77	8	1.4502	0.2241	19.4	5	0.00	19.45
ICICI PRUDENTIAL LIQUID	22.39	0.01	11.35	1.28	9	1.4442	0.2082	16.4	7	0.00	16.47
UTI LIQUID FUND	17.88	0.01	8.08	0.65	2	1.4712	0.1062	11.9	2	0.00	11.92
KOTAK LIQUID FUND	23.17	0.01	12.10	1.46	4	1.4192	0.2196	17.2	6	0.00	17.26
LIQUIFEX	34.02	0.04	19.90								

indicate that except UTI (17.88%) liquid schemes, all other schemes have earned better returns.

- When examined in terms of systematic risk( $\beta$ ), it is noted that HDFC(1.323), TATA(1.778), ICICI prudential(1.289) and KOTAK(1.464) liquid funds have beta greater than one implying there by that schemes tended to hold portfolios which are high risky than the market portfolios. UTI

(0.652) liquid funds have beta less than one holding portfolios which are less risky than the market portfolio.

- HDFC liquid fund has performed very badly because its net selectivity is negative which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.
- Out of total excess return of 16.47% of ICICI prudential liquid fund, 16.47% was generated only due to inadequate diversification and there was no excess return generated due to the superior stock selection skills of the fund manager.
- UTI liquid fund has generated an excess return of 11.92% which was generated only due to inadequate diversification and there was no excess return generated due to the superior stock selection skills of the fund manager.
- KOTAK liquid fund has generated an excess return of 17.26% which was generated only due to inadequate diversification and there was no excess return generated due to the superior stock selection skills of the fund manager.

**Table No.3 Performance Evaluation of Bond Funds in 2009**

Fund	Average return	variance	$\sigma$	$\beta$	Sharpe	Treynor	$\alpha$	net selectivity	diversification
HDFC BOND FUND	6283.33	1971.61	44.40	9.08	1.4137	0.0006	-535785323.17	12567.23	-535797890.40
TATA BOND FUND	35.89	0.04	0.21	2.30	1.4242	0.1301	-11936.48	59.61	-11996.09
ICICI PRUDENTIAL BOND	19.22	0.01	0.07	0.27	1.8513	0.4972	-1371.68	23.33	-1395.01
UTI BOND FUND	761.17	28.30	5.32	5.99	1.4196	0.0051	7689162.98	1508.70	-7690671.69
KOTAK BOND FUND	31.81	0.03	0.18	1.77	1.4012	0.1458	-9193.25	51.90	-9245.15
COMPBEX	-1017.02	52.16	7.22	27.2					

**Interpretation:**

- The table depicts the values of average returns of the schemes selected for the study which indicate that HDFC (6283.33%) bond fund has generated earned return as compared to other schemes and market average returns. Average returns were calculated basing on the returns provided in annexure I(b)
- When examined in terms of systematic risk( $\beta$ ).It is noted that HDFC ,TATA,UTI and KOTAK bond funds have beta greater than one implying there by that schemes tended to hold portfolios which are high risky than the market portfolios. ICICI prudential (0.27) bond funds have beta less than one holding portfolios which are less risky than the market portfolio.
- HDFC bond fund has performed very badly because it has negative inadequate diversification which indicates that a part of returns that should have been earned due to superior stock selection skills and has lost due inadequate diversification.
- Out of total excess return of 16.47% of ICICI prudential liquid fund , 16.47% was generated only due to inadequate diversification and there was no excess return generated due to the superior stock selection skills of the fund manager.
- KOTAK bond fund has generated an excess return of 17.26% which was generated only due to inadequate diversification and there was no excess return generated out of superior stock selection skills of the fund manager.

Table No: 4 Performance Evaluation of Bond Funds in 2010

FUND	Return on fund	variance	$\sigma$	$\beta$	Sharpe	Treynor	Jensen's	net selectivity	Diversification
HDFC BOND FUND	-26.89	0.044	0.21	0.0004	-1.5666	-932.69	-32.8911	46.50	-79.39
TATA BONDFUND	2.90	0.001	0.02	0.0000	-1.2562	-6360.53	-3.1014	0.97	-4.07
ICICI PRUDENTIA L BOND	-29.93	0.066	0.26	0.0005	-1.399	-680.86	-35.9315	6.44	-42.37
UTI BOND FUND	-44.31	0.121	0.35	0.0010	-1.4447	-518.58	-50.3016	7.15	-57.45
KOTAK BOND FUND	20.83	0.010	0.10	0.0001	1.51207	1926.71	14.8337	31.02	-16.18
COMPBEX	-8.35	0.008	0.09						

Interpretation:

- The table depicts the values of average returns of the schemes selected for the study which indicate that HDFC (-26.89%) ,ICICI(-29.93%) and UTI(-44.31%) bond fund has generated negative return as compared to other schemes . Average returns were calculated basing on the returns provided in annexure I(b).
- When examined in terms of systematic risk( $\beta$ ).It is noted that all balanced funds have beta less than one implying there by that schemes tended to hold portfolios which are less risky than the market portfolios.
- HDFC liquid fund has performed very badly because it has negative inadequate diversification which indicates that a part of returns that should have been earned due to superior stock selection skills and has lost due inadequate diversification.

- Again for TATA liquid fund, -4.07% was generated only due to inadequate diversification and 0.97% was generated due to the superior stock selection skills of the fund manager.
- Out of total excess return of ICICI prudential liquid fund, -42.37 was generated due to inadequate diversification and 6.44% was generated due to the superior stock selection skills of the fund manager.
- KOTAK liquid fund has generated an excess return out of which -16.18% was generated only due to inadequate diversification and only 31.02% was generated due to the superior stock selection skills of the fund manager.

FUND	Average return	variance	$\sigma$	$\beta$	Sharpe	Treynor	Jensen's	net selectivity	diversification
HDFC BALANCED FUND	178.68	1.04	1.0213	2.774	1.69	0.6224	-5.03	0.20	-5.23
TATA BALANCED FUND	65.30	0.06	0.2505	0.167	2.37	3.5517	0.60	0.22	0.38
ICICI PRUDENTIAL BALANCED	146.84	0.59	0.7678	1.568	1.83	0.8982	1.50	0.26	1.24
UTI BALANCED FUND	37.95	0.00	0.0494	0.006	6.47	49.2944	0.32	0.25	0.07
KOTAK BALANCED FUND	76.50	0.06	0.2478	0.163	2.85	4.3172	0.71	0.34	0.38
BALANCE EX	249.44	2.66	1.6309						

Table No:5 Performance Evaluation of Balanced Funds in 2009

Interpretation:

- The table depicts the values of average returns of the schemes selected for the study. The results indicate that HDFC (178.68%) and ICICI prudential (146.84%) balanced schemes earned better returns compared to other schemes. TATA (65.30%), UTI (37.95%) and KOTAK (76.50%) balanced funds have also generated better returns during the period. Average returns were calculated basing on the returns provided in annexure I(c)
- When examined in terms of systematic risk( $\beta$ ), it is noted that HDFC(2.774) and ICICI prudential(1.568) balanced funds have beta greater than one implying there by that schemes tended to hold portfolios which are high risky than the market portfolios. TATA (0.167), UTI (0.006), and KOTAK (0.163) balanced funds have beta less than one holding portfolios which are less risky than the market portfolio.
- By Fama's method, out of total excess return of -5.03% of HDFC balanced fund, -5.23% was generated due to inadequate diversification and 0.20% was generated due to superior stock selection skills of the fund manager.
- Out of total excess return of 1.50% of ICICI prudential balanced fund, 1.24% was generated due to inadequate diversification and only 0.26% was generated due to the superior stock selection skills of the fund manager.
- UTI liquid fund has generated an excess return of 0.32% out of which 0.07% was generated due to inadequate diversification and 0.25% was generated due to the superior stock selection skills of the fund manager.

Table No:6 Performance Evaluation of Balanced Funds in 2010

FUND	return on fund	variance	$\sigma$	$\beta$	Sharpe	Treynor	Jensen's	Net selectivity	Diversif ication
HDFC BALANCED	61.5766	0.279	0.5285	0.0011	-1.28	-604.922	-0.6761	-2.98	2.30
TATA BALANCEDFUND	20.8570	0.012	0.1078	0.0000	1.38	3197.159	0.1486	-0.32	0.47
ICICI PRUDENTIAL BALANCED	20.8312	0.131	0.3615	0.0005	-0.74	-513.343	-0.2683	-1.84	1.58
UTI BALANCED FUND	18.8892	0.097	0.3112	0.0004	-0.80	-642.531	-0.2489	-1.60	1.36
KOTAK BALANCED FUND	23.9508	0.154	0.3923	0.0006	-0.76	-486.511	-0.2995	-2.01	1.71
BALANCE EX	34.5745	0.004	0.07						

**Interpretation:**

- The table depicts the values of average returns of the schemes selected for the study. The results indicate that HDFC (-61.57) ,ICICI prudential (-20.83%) KOTAK(-23.95%)and UTI(-18.88%) balanced schemes earned negative returns compared to the previous period . TATA (20.85%) balanced fund is the only one which has generated positive returns during the period. Average returns were calculated basing on the returns provided in annexure I(c)
- By Fama’s method ,HDFC balanced fund has performed very badly because its net selectivity is negative which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.
- Again TATA balanced fund has performed very badly because its net selectivity is negative which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.
- ICICI prudential balanced fund has performed very badly because its net selectivity (-1.84%)is negative which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.
- UTI balanced fund has performed very badly because its net selectivity (-1.60%) is negative

	return on fund	variance	$\sigma$	$\beta$	Sharpe	Treynor	Jensen’s	net selectivity	diversification
HDFC MIP fund	0.8673	0.2449	0.495	4.2137	1.6314	0.1915	-24.01	0.10	-24.12
TATA MIP FUND	1.0104	0.4357	0.660	7.4963	1.4400	0.1267	-43.21	0.00	-43.22
ICICI PRUDENTIAL MIP	1.0493	0.4508	0.671	7.7561	1.4735	0.1275	-44.70	0.03	-44.73
UTI MIP FUND	1.8803	1.5573	1.248	26.7954	1.4587	0.0679	-156.02	0.04	-156.06
KOTAK MIP FUND	2.0700	1.9216	1.386	33.0653	1.4500	0.0607	-192.76	0.04	-192.80
MIPEX	5.9504	17.2068	4.148						

which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.

- KOTAK balanced fund has performed very badly because it's net selectivity (-2.01%) is negative which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.

**Table No:7 Performance Evaluation of Monthly Income plan Funds in 2009**

Interpretation:

- The table depicts the values of average returns of the schemes selected for the study. The results indicate that TATA (101.04%), ICICIprudential (104.93%), UTI(188.03%) and KOTAK(207.00%) monthly income plan schemes earned better returns. HDFC (86.73%), child gilt fund has generated better returns during the period. Average returns were calculated basing on the returns provided in annexure I(d)
- By Fama's method ,HDFC monthly income plan has performed very badly because its diversification(-24.12%) is negative which indicates that a part of returns that should have been earned due to net selectivity has lost the compensation for the extra risk possessed by the portfolio.
- ICICI prudential monthly income plan fund has performed very badly because its adequate diversification (-44.73%) is negative which indicates that a part of returns that should have been earned due to net selectivity has lost the compensation for the extra risk possessed by the portfolio.
- UTI balanced fund has performed very badly because its adequate diversification (-156.06%) is negative which indicates that a part of returns that should have been earned due to net selectivity and has lost the compensation for the extra risk possessed by the portfolio..
- KOTAK monthly income plan fund has performed very badly because it's adequate diversification (-192.80%) is negative which indicates that a part of returns that should have been

earned due to net selectivity has lost the compensation for the extra risk possessed by the portfolio.

**Table No:8 Performance Evaluation of Monthly Income plan Funds in 2010**

Interpretation:

- The table depicts the values of average returns of the schemes selected for the study. The results indicate that TATA (-38.44%), HDFC (-24.36%) monthly income plan schemes earned better returns. ICICI prudential monthly income plan (26.55%) has also generated better returns during the period. Average returns were calculated basing on the returns provided in annexure I (d).
- By Fama's method ,HDFC MIP fund has performed very badly because its net selectivity is negative which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.
- TATA MIP fund has performed very badly because its net selectivity is negative which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.
- ICICI prudential MIP fund has performed very badly because its net selectivity is negative

	return on fund	variance	$\sigma$	$\beta$	Sharpe	Treynor	$\alpha$	net selectivity	diversification
HDFC MIPFUND	-0.2436	0.0686	0.262	6.85	-1.1595	-0.0443	-0.51	-8.75	8.24
TATA MIP FUND	-0.3844	0.0932	0.305	9.32	-1.4555	-0.0476	-0.72	-10.29	9.57
ICICI PRUDENTIAL MIP	0.2655	0.0097	0.098	9.69	2.0876	0.0212	-0.08	-2.97	2.88
UTI MIP FUND	-0.4675	0.1399	0.374	1.399	-1.4102	-0.3770	-0.57	-12.59	12.02
KOTAK MIP FUND	-0.1204	0.0235	0.153	2.35	-1.1768	-0.0767	-0.25	-5.13	4.87
MIPEX	0.0904	0.0000	0.001						

which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.

- UTI MIP fund has performed very badly because its net selectivity is negative which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.
- KOTAK MIP fund has performed very badly because its net selectivity is negative which indicates that a part of returns that should have been earned due to inadequate diversification has lost due to poor stock selection.

### **FINDINGS OF THE STUDY:**

The following are findings of the study:

- In 2009 all the liquid funds have generated higher excess return ( $\alpha$ ) due to the superior stock selection skills of the fund manager and also due to the inadequate diversification.
- In 2010 all the liquid funds have generated higher excess return ( $\alpha$ ) due to inadequate diversification but failed to generate returns due to superior stock selection skills of the fund manager.
- All the sample bond funds in 2009 has failed to generate the excess returns on account of negative inadequate diversification even though there was superior stock selection skills of the fund manager.
- All the bond funds have performed well in terms of superior stock selection skills of the fund manager but failed to generate excess return due to inadequate diversification.
- The samples of balanced funds have generated excess returns in terms of superior stock skills of the fund manager and due to inadequate diversification in 2009.
- In 2010 majority of the sample of balanced funds have failed to generate excess return due to superior stock selection skills of the fund manager even though they earned inadequate diversification.

- In 2009MIP schemes failed to generate excess returns ( $\alpha$ ) on the funds because of inadequate diversification even though the fund manager has superior stock selection skills .
- By the end of March 2010, Assets under management were Rs.2, 31,862 crores..
- Combined with rising per capita income, improving awareness of capital market investing and pension fund reforms will make mutual fund investing a viable long term investment vehicle.
- The listing of open ended schemes allowed investors the flexibility to adjust their fund exposures, while regulations against fund managers use of derivatives have been relaxed, allowing them to hedge their positions.

### **SUGGESTIONS:**

- The investment managers whose performance is below benchmark index should have a relook at their investment strategy and asset allocations.
- They should have to redesign their investing styles according to up & down swings of market to generate superior performance.
- The best performers should be rewarded by introducing variable fee funds, where fee is linked with the funds performance, which is the outcome of investment managers selectivity and timing skills.
- The regulator should allow the use of derivatives by fund managers, the biggest advantage of using derivatives on a regular equity/debt portfolio is the opportunity to link the downside by hedging,
- To increase the efficiency and popularity of mutual funds ,the regulator should set the standard criteria of benchmarks which will be helpful to asset management companies.

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