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A Study on Performance Evaluation of Hdfc Mutual Funds In India

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ABSTRACT:

In recent years, a huge number of players have entered into mutual fund industry. The objective of this paper is to evaluate the performance of HDFC mutual funds in India by using the parameters of Sharpe ratio, Treynor ratio and Jensen performance index. The study period covers from 1st April 2012 to 31st March 2017. To evaluate the HDFC mutual fund performance, daily returns of HDFC mutual funds are comparing with NSE Nifty returns.

Keywords: Performance evaluation, Sharpe ratio, Treynor ratio, Jensen measure, risk-return and index etc.

1. INTRODUCTION:

Mutual fund industry has played a vital role in Indian economy. Among the various financial instruments, mutal fund is one of the most attractive investment instruments and provides new opportunities for investors. Mutual fund industry has restoring the confidence of investors while volatility of Indian stock market. Therefore, the mutual funds initially established for the sake of retail investors and now it has emergd as dominant players in Indian capital market. The collected money was investing in capital market instruments such as shares, debentures and other securities. The income earned by these investments has realised into capital appreciation in proportion to the number units owned by unit holders. Hence, mutual fund is the suitable investment for the person to invest in a diversified and professionally managed basket. Unit Trust of India (UTI) was established mutual fund industry in the year 1963 in India. During the last few decades, rapid changes has made in the mutual fund industry. Thus, it becomes important to examine the mutual fund performance. This paper is to evaluate the performance of HDFC mutual funds in India.

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2. REVIEW OF LITERATURE:

Sumninder Kaur Bawa and Smiti Brar (2011) measured the performance of public and private sector mutual fund schemes. They used daily NAV for the period from 1st April 2000 to 31st March 2010. They found that the private sector mutual fund i.e. ICICI Prudential Income Fund (growth option) had the maximum return as compared with other schemes. They also found that, in the point of view the standard deviation is more unpredictable for public sector income schemes when it comes to evaluating the returns.

Alekhya (2012) evaluated the performance of public and private sector mutual fund schemes for 3 years from 2009 to 2011. He found that, according to Sharpe, Treynor and Jensen measurement, by comparing all the public and private sector mutual fund schemes SBI, UTI and HDFC, JM financial funds is troubling more than other schemes.

Sarita Bahl and Meenakshi Rani (2012) investigated the performance of 29 open-ended, growth-oriented equity schemes from 1st April 2005 to 31st March 2011 on the basis of Sharpe, Treynor and Jensen's measure. Their studied revealed that, among 29 sample mutual fund schemes, 14 had outperformed the benchmark return and some of these schemes had underperformed. Their results also showed that, the Sharpe ratio was positive for all schemes, whereas, the result of Jensen measure also revealed that positive alpha which indicated superior performance of the schemes.

Poonam M Lohana (2013) attempted to study the performance of selected mutual fund schemes based on risk-return relationship models and measures like, Sharpe ratio, Treynor ratio and Jensen's alpha and compared with market returns. Her study revealed that, Reliance Banking Fund has poor performance under all three measure, whereas, Kotak Gold Fund and IDBI Fixed Maturity Fund have outperformed that the benchmark index.

Karrupasamy and Vanaja (2014) attempted to evaluate the performance of selected public and private sector mutual fund schemes by using Sharpe, Treynor and Jensen's measure. Their study revealed that majority of the public sector schemes are performed well.

Neha Kuhar (2014) analysed the performance of HDFC and ICICI mutual funds. He has found that HDFC mutual fund is most preferred than ICICI mutual funds. He also found that many investors are invested with HDFC mutual funds and believe that it provides better return than ICICI mutual funds.

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3. STATEMENT OF THE PROBLEM:

The small investors have more interested to invest in stock market particularly in mutual funds and virtually replaced with other investment avenues like post office savings, fixed deposits, GPF and other small savings. As awareness and information is increasing in more people and enjoying the benefits of mutual fund investment. The success of a mutual fund investment is depends upon the buoyancy of the investors. However, most of the investors are lacking to select in right mutual fund schemes. This paper is to evaluate the performance of HDFC mutual funds in India.

4. OBJECTIVES OF THE STUDY:

The objective of this paper is:-

- ✓ To evaluate the performance of selected HDFC mutual funds under growth schemes.
- ✓ To compare the schemes return and risk with benchmark i.e. NSE Nifty.

5. RESEARCH MATHODOLOGY:

The HDFC mutual funds schemes are selected based on regular data availability during the period of five from 1st April 2012 to 31st March 2017 have been considered for the purpose of study. The Daily NAVs are collected from www.mutualfundindia.com and www.amfiindia.com and to evaluate the performance of selected HDFC mutual funds in growth schemes in India by using Sharpe ratio, Treynor ratio and Jensen's performance index. For benchmarking and comparison purpose, NSE Nifty is used. To consider the risk free rate of return, bank rate on the average from 2012 to 2017 marked as 8.20% per annum.

6. MUTUAL FUND PERFORMANCE EVALUATION MEASURES:

6.1. Return on Portfolio:

The return on portfolio has calculated by taking daily Net Asset Values (NAV) from 1st April 2012 to 31st March 2017. The following formula is using to calculate the portfolio return.

$$R_{pt} = \frac{NAV_t - NAV_{t-1}}{NAV_{t-1}} X\ 100$$

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Where,

R_{pt} = portfolio return for two consecutive days

NAV_t = Net Asset Value in time period t

NAV_{t-1} = Net Asset Value in time period t-1

6.2. Sharpe ratio:

$$S = \frac{R_p - R_f}{\sigma_p}$$

----------2

Where,

R_p = portfolio return

R_f = risk free rate of return

σ_p = standard deviation of portfolio

6.3. Treynor ratio:

$$T_n = \frac{R_p - R_f}{\beta_p}$$

----------3

Where,

R_p = average return on Portfolio

R_f = risk free rate of return

β = a measure of systematic risk

6.4. Jensen Performance Index:

$$J_p = \alpha + \beta (R_m - R_f)$$

----------4

Where,

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R_p = average return on portfolio

α = the intercept

R_f = risk free rate of return

β = a measure of systematic risk

R_m = average market return

7. RESULTS AND DISCUSSION:

Table 1- List of Mutual Funds Schemes Studied

HDFC floating rate income fund – short term plan – retail option
HDFC floating rate income fund – short term plan – wholesale option
HDFC income fund
HDFC multiple yield fund – plan 2005
HDFC regular savings fund
HDFC equity savings fund
HDFC liquid fund
HDFC tax saver

Table 1 indicates the list of HDFC mutual funds growth schemes launched in different dates. Therefore, this paper is to covers the period from 1st April 2012 to 31st March 2017 for the purpose of performance evaluation of HDFC mutual funds in India.

Table 2 - Average Daily Returns of Selected HDFC Mutual Fund Schemes

S. No	Schemes	2012-13	2013-14	2014-15	2015-16	2016-17
1	HDFC floating rate income fund – short term plan – retail option	-0.05	-0.05	-0.05	-0.05	-0.03
2	HDFC floating rate income fund – short term plan – wholesale option	-0.05	-0.05	-0.05	-0.05	-0.04
3	HDFC income fund	-0.04	-0.07	-0.02	-0.06	-0.03
4	HDFC multiple yield fund – plan 2005	-0.06	-0.04	-0.02	-0.06	-0.02
5	HDFC regular savings fund	-0.04	-0.06	-0.04	-0.04	-0.03
6	HDFC equity savings fund	-0.06	-0.05	-0.04	-0.07	0.01
7	HDFC liquid fund	-0.05	-0.06	-0.06	-0.07	-0.04

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8	HDFC Tax saver	-0.08	-0.06	0.07	-0.12	0.05

Table 2 shows that average daily returns earned by the various schemes of HDFC mutual funds. From the analysis, in all the years of study period HDFC tax saver schemes is having a maximum average return of -0.12 in the year 2015-16 as compared to all schemes and the other hand, HDFC equity savings fund is having the minimum of - 0.01 in the year 2016-17.

Table 3 – Standard Deviation of Selected HDFC Mutual Fund Schemes

S. No	Scheme	2012-13	2013-14	2014-15	2015-16	2016-17
1	HDFC floating rate income fund – short term plan – retail option	0.02	0.06	0.02	0.02	0.04
2	HDFC floating rate income fund – short term plan – wholesale option	0.03	0.04	0.04	0.02	0.04
3	HDFC income fund	0.12	0.48	0.19	0.20	0.28
4	HDFC multiple yield fund – plan 2005	0.14	0.17	0.23	0.22	0.17
5	HDFC regular savings fund	0.03	0.15	0.05	0.05	0.06
6	HDFC equity savings fund	0.15	0.21	0.34	0.43	0.41
7	HDFC liquid fund	0.01	0.02	0.01	0.02	0.01
8	HDFC Tax saver	0.74	1.06	1.12	1.22	0.94

From the above table 3 shows, the standard deviation of selected HDFC mutual fund schemes is to measure the risk of fund return. Higher value of standard deviation indicates the greater risk carried by the funds wheread the mininmum value of standard deviation shows the lower risk involved by the funds. It is observed that the HDFC Tax saver scheme is having high risk i.e. 1.22 in the year 2015-16 as compared with other schemes of HDFC mutual funds and the other hand, HDFC liquid fund is having minium standard deviation of 0.01 in the years of 2012-13, 2014-15 and 2016-17 respectively.

Table 4 – Beta of Selected HDFC Mutual Fund Schemes

S. No	Scheme	2012-13	2013-14	2014-15	2015-16	2016-17
1	HDFC floating rate income fund – short term plan – retail option	0.0007	0.0046	0.0021	0.0028	-0.0045

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2	HDFC floating rate income fund – short term plan – wholesale option	-0.0023	0.0026	-0.0019	0.0026	-0.0062
3	HDFC income fund	-0.0018	0.0181	0.0228	0.0191	-0.0435
4	HDFC multiple yield fund – plan 2005	0.0072	0.0027	0.0205	0.0231	-0.0059
5	HDFC regular savings fund	0.0035	0.0088	0.0100	0.0068	-0.0028
6	HDFC equity savings fund	0.0083	-0.0050	0.0265	0.0582	0.2578
7	HDFC liquid fund	0.0004	0.0030	0.0008	0.0025	-0.0053
8	HDFC Tax saver	0.1462	0.1655	0.7467	0.3867	0.5759

From the above table 4 shows, Beta of selected HDFC mutual fund schemes is to measure the market force. The market beta is one is standard. It is clear that, HDFC tax saver fund has more risk i.e. 0.7467 as compared with other schemes and HDFC income fund has -0.0018. This indicates that they belonged to low risk category as against benchmark.

Table 5 – Sharpe Ratio of Selected HDFC Mutual Fund Schemes

S. No	Scheme	2012-13	2013-14	2014-15	2015-16	2016-17
1	HDFC floating rate income fund – short term plan – retail option	-2.2920	-0.7854	-2.0908	-1.6711	-0.7519
2	HDFC floating rate income fund – short term plan – wholesale option	-1.5706	-1.0259	-1.0817	-1.5711	-0.8413
3	HDFC income fund	-0.3525	-0.1621	-0.0993	-0.2865	-0.0977
4	HDFC multiple yield fund – plan 2005	-0.4478	-0.2555	-0.0982	-0.2924	-0.1071
5	HDFC regular savings fund	-1.3758	-0.3693	-0.9180	-0.9315	-0.5207
6	HDFC equity savings fund	-0.4281	-0.2244	-0.1186	-0.1805	0.0346
7	HDFC liquid fund	-5.7787	-3.2755	-4.3996	0.0638	-4.4456
8	HDFC Tax saver	-0.1103	-0.000	0.0641	-0.1033	0.0558

Table 5 indicates the Sharpe ratio of selected HDFC mutual fund schemes. Based on Sharpe ratio, an HDFC tax saver scheme has obtained 0.0641 and the other mutual funds schemes were shows in the table.

Table 6 – Treynor Ratio of Selected HDFC Mutual Fund Schemes

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S. No	Scheme	2012-13	2013-14	2014-15	2015-16	2016-17
1	HDFC floating rate income fund – short term plan – retail option	34.7387	5.6151	13.6719	9.2689	-6.1396
2	HDFC floating rate income fund – short term plan – wholesale option	-12.6297	11.1949	-16.998	10.8206	-6.3118
3	HDFC income fund	-27.9186	-2.0036	4.4654	-0.0811	-1.0361
4	HDFC multiple yield fund – plan 2005	0.1590	16.0190	4.6223	-0.6436	-28.0324
5	HDFC regular savings fund	9.0948	1.7109	4.7280	4.9978	-10.1975
6	HDFC equity savings fund	-0.8707	-8.232	2.0604	-0.6401	0.5431
7	HDFC liquid fund	24.2905	4.0406	12.2740	39.4227	-20.5853
8	HDFC Tax saver	-0.3066	0.9330	0.4247	-0.4303	0.4263

Table 6 indicates the Treynor ratio of selected HDFC mutual fund schemes. Based on Treynor ratio, an HDFC liquid fund scheme has obtained 39.4227 and the other mutual funds schemes were calculated and identified in the above table.

Table 7 – Jensen's Performance Index of Selected HDFC Mutual Fund Schemes

S. No	Scheme	2012-13	2013-14	2014-15	2015-16	2016-17
1	HDFC floating rate income fund – short term plan – retail option	28.5400	50.2538	111.2664	-82.5266	54.0575
2	HDFC floating rate income fund – short term plan – wholesale option	28.5250	50.2365	111.1883	-82.5231	54.0574
3	HDFC income fund	28.5274	50.3689	111.6709	-82.7784	53.5277
4	HDFC multiple yield fund – plan 2005	28.5718	50.2377	111.6263	-82.8402	54.0813
5	HDFC regular savings fund	32.1516	50.2896	111.4203	-82.5886	54.0679
6	HDFC equity savings fund	36.6585	50.1712	129.4731	-80.4994	38.7812
7	HDFC liquid fund	35.3903	53.5421	111.2414	-134.897	36.9072
8	HDFC Tax saver	26.2358	71.5718	125.7676	-104.085	65.5091

Table 7 shows the Jensen's performance index of selected HDFC mutual fund schemes. Based on Jensen's performance index, an equity savings fund scheme has obtained 129.4731 and the other mutual funds scheme are represented in the above table.

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8. CONCLUSION:

This paper investigated the performance of selected HDFC mutual fund schemes under growth schems during the five years study period from 1st April 2012 to 31st March 2017. In order to measure the performance daliy closing NAV of selected schemed have been used to calculate the fund returns. NSE Nifty has used for comparing benchmarking and the bank rate has been used as risk free rate. To evaluate the performance of HDFC mutual fund schemes, Sharpe ratio, Treynor ratio and Jensen's performance index are used and that will be useful to the investors for taking better decisions at the time of investment. From the analysis, showed that all the selected schemes of HDFC mutual funds, HDFC tax saving schemes has outperformed than other schemes. In this paper, Treynor ratio and Jensen's performance index was mostly postive for all the schemes on the otherhand Sharpe ratio shows negative results during the study period.

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