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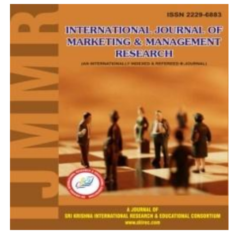

A COMPARATIVE STUDY ON DEBT SCHEME OF MUTUAL FUND OF RELIANCE, AND HDFC WITH TREYNOR MODEL

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ABSTRACT

Mutual funds are key contributors to the globalization of financial markets and one of the main sources of capital flows to emerging economies. This study provide an overview of the performance of debt scheme of mutual fund of Reliance and HDFC with the help of Treynor Index after calculating Net Asset Values, Standard Deviation and Beta. This study reveals that returns on Debt Schemes are close to Benchmark return (Crisil Composite Debt Fund Index: 4.34%) and Risk Free Return: 5.50% (average adjusted for last five year). The Treynor Index shows that the return of the selected Debt Fund Schemes is less than even from Risk-free-return rate and the Benchmark Index. Performance of Debt Scheme of Reliance is better than the performance of Debt Scheme of HDFC on the basis of data studied in this report. The average returns of about 60% selected schemes are more than the average market return or Benchmark return.

***KEYWORDS**: Mutual Fund, Performance Evaluation, Risk-Return Analysis, Net Asset Value, Asset Under Management, Beta and Standard Deviation.*

INTRODUCTION

A mutual fund is just the connecting bridge or a financial intermediary that allows a group of investors to pool their money together with a predetermined investment objective. The mutual fund will have a fund manager who is responsible for investing the gathered money into specific securities (stocks or bonds). When you invest in a mutual fund, you are buying units or portions of the mutual fund and thus on investing becomes a shareholder or unit holder of the fund.

The Indian capital market has been increasing tremendously during last few years with the reforms of economy, reforms of industrial policy, reforms of public sector and reforms of financial sector, the economy has been opened up and many developments have been taking place in the Indian money market and capital market in order to help the small investors, mutual fund industry has come to occupy an important place. Mutual funds are considered as one of the best available investments as compare to others they are very cost efficient and also easy to invest in, thus by pooling money together in a mutual fund, investors can purchase stocks or bonds with much lower trading costs than if they tried to do it on their own. But the biggest advantage to mutual funds is diversification, by minimizing risk & maximizing returns.

The most important characteristic of a fund is that the contributors and the beneficiaries of the fund are the same class of people, namely the investors. The term mutual fund means the investors contribute to the pool, and also benefit from the pool. There are no other claimants to the funds. The pool of funds held mutually by investors is the mutual fund. A mutual funds business is to invest the funds thus collected according to the wishes of the investors who created the pool. Usually, the investors appoint professional investment managers, to manage their funds. The same objective is achieved when professional investment managers create a product and offer it for investment to the investor. This product represents a share in the pool, and pre states investment objectives. Thus a mutual fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost.

In India, Mutual Fund concept took roots only in sixties, after a century old history elsewhere in the world. Realizing the needs for a more active mobilization of household savings to provide investible resources to industry, the idea of first mutual fund in India was born out of the far sighted vision of Sri T. Krishnamachari the then Finance Minister. He wrote to the then Prime Minister Pandit Jawahar Lal Nehru outlining the need for an institution which would serve as a conduit for these resources to the Indian Capital market, and RBI was entrusted to create this special Institution. While introducing Unit Trust of India (UTI) Bill in Parliament Sri Krishnamachari observed, “I would christen this attempt as an adventure in small saving and I am confident that we are embarking on this adventure with every hope of being successful”. He highlighted UTI as “an opportunity for the middle and lower Income groups to acquire without much difficulty property in the form of shares. UTI, in 1964 started with a unit scheme popular as US-64.

The Indian capital market was opened up for foreign institutional investors (FIIs) in 1992. The Indian corporate sector has been allowed to tap international capital markets through American Depository Receipts (ADRs), Global Depository Receipts (GDRs), Foreign Currency Convertible Bonds (FCCBs) and External Commercial Borrowings (ECBs). Similarly, Overseas Corporate Bodies (OCBs) and non-resident Indians (NRIs) have been allowed to invest in Indian companies. FIIs have been permitted in all types of securities including Government securities and they enjoy full capital convertibility. Mutual funds have been allowed to open offshore funds to invest in equities abroad.

REVIEW OF LITERATURE

A variety of technical and quantitative measures have been developed to assess and compare the financial performance of mutual fund schemes as well as the performance of funds managers. Review of previous studies provides the need and justification for the research work to be undertaken, and research methodology explains the research process.

Reddy B.S Srinivasalu (Aug.2011) “Mutual Fund houses turn to debt schemes as interest rates rise” In this article author conveys that redemption pressures are mounting on equity mutual fund (MF) schemes in the wake of rising volatility in the equity market, though they have not reached alarming proportions yet. Besides, many fund houses are witnessing shift of money from equity schemes to debt schemes in line with the rising interest rate scenario.

Dhall Aman & Tiwari Dheeraj,(Nov 25, 2007)” Investing in debt mutual fund schemes offer many advantages” Author suggest that With the economy surging ahead at a consistent pace and the stock markets reveling in the India growth story, it appears that anything you put your hands on is turning into gold. However, analysts advise that as an investor it is pertinent to have a mix of investment instruments in your portfolio so as to avoid any risk. What investor missed despite being a risk-averse investor were other alternatives such as debt funds, which could have worked for him both ways — securing returns whilst at the same time getting the tax advantage.

Dimitri Margaritis, Roger Otten and Alireza Tourani-Rad (2007) apply data envelopment (DEA), a mathematical programming technique, to measure the performance of equity retail funds in New Zealand over the period 1998–2003. An analysis of fifty-two equity mutual funds, national and international, shows significant differences in their performances, with an average DEA efficiency score of 0.72. The application of regression analysis further shows that funds with an international asset allocation strategy have had lower efficiency scores, and that larger funds have had higher efficiency scores.

Ken L. Bechmann and Jesper Rangvid (2007) examine Danish mutual funds. The authors describe what is special about Danish mutual funds, as well as the dimensions along which Danish funds are comparable to other European funds. They discuss how Danish mutual funds have performed in absolute terms and in relation to other European mutual funds, and focus also on the costs to the investor of purchasing Danish mutual funds certificates. Finally, the authors compare Danish fund costs with the mutual fund costs in other European countries.

Agrawal Deepak and Patidar Deepak “A comparative study of debt based mutual fund of RELIANCE and HDFC” This article provides an overview of mutual fund activity in emerging markets. It describes about their size and their asset allocation. All fund managers are not successful in the formation of the portfolio and so the study also focuses on the empirically testing on the basis of fund manager performance and analyzing data at the fund-manager and fund-investor levels. The study reveled 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.

Nanavati Saurabh (Jan 19, 2012)" Risk-reward ratio in favor of debt schemes" people investing through SIPs for last five years are making negative returns. This way, retail investors will not have confidence. On the other hand, with 10 per cent return in banks' fixed deposits, why would he take risk by investing in equities? In current scenario, equities may promise 12 per cent positive returns as well as negative returns too. The risk-reward-ratio is clearly in favor of debt schemes and FDs, that's why last two year's retail has been systematically moving towards debt. Clearly, debt is a no brainer for the Indian investors at this point of time.

Rajeeva Sinha and Vijay Jog(2003) the authors examine the performance of Canadian mutual fund managers, and find that their performance is lackluster when com-pared with some well-recognized bench marks such as the TSE 300 and the 90-day T-Bill rates, and is even lower when one accounts for the timing of entry and exit by mutual fund investors. They attribute this to the lack of performance persistence. However, unlike some US studies, they do not find evidence suggesting that Canadian mutual fund investors chase winners, and are reluctant to exit from losing funds; while investors do allocate funds based on past performance, the allocations do not favor star funds disproportionately. Poor performers experience significant fund withdrawals. They attribute this to the differences in the tax treatment of retirement-related savings – the principal source of mutual funds asset growth.

Tetsuya Kamiyama(2007) "India's Mutual Fund Industry" In this study author provided an overview of the assets managed within India's mutual fund market, both now and in the past, and of the legal framework for mutual funds, and then discussed the current situation and recent trends in financial products, distribution channels and asset management companies.

Gupta & Sehgal(1998) "Investment Performance of Mutual Funds: The Indian Experience" In this research paper author tried to find out the investment performance of 80 schemes managed by 25 mutual funds, 15 in private sector and 10 in public sector for the time period of June 1992-1996. The study has examined the performance in terms of fund diversification and consistency of performance. The paper concludes that mutual fund industry's portfolio diversification has performed well. But it supported the consistency of performance.

OBJECTIVE OF THE STUDY

In view of increasing numbers of schemes and growing competition in Mutual Fund industry, investors are finding it difficult to make a right selection of schemes. By the emergence of both private and public sectors even a single wrong decision may put the investor and his investment in trouble or crises. The proper performance evaluation with expert services removes such confusion and helps the investor in selecting right fund under right sector. It is with this fact in mind that the present study is being undertaken. The specific objective of the study is to evaluate the performances of Debt Mutual Funds of Reliance and HDFC on the basis of risk adjusted Treynor's Model. The idea behind performance evaluation is to find the returns provided by the individual schemes and the risk levels at which they are delivered in comparison with the market and the risk free rates. It is also our aim to identify the under-performers and out-performers.

RESEARCH METHODOLOGY

Return alone should not be considered the basis of measurement of performance of a mutual fund schemes, it should also include level of risk undertaken and diversification of funds. The excess of portfolio return, over the risk less return is an indication of the overall portfolio performance. The study covers following different Debt Scheme of Mutual Fund of HDFC and Reliance.

HDFC	HDFC HIGH INTEREST G HDFC CASH MANAGEMENT SAVINGS PLAN G HDFC SOVEREIGN GILT PT G HDFC SOVEREIGN GILT IP G HDFC SOVEREIGN GILT SP G HDFC LIQUID PREMIUM PLUS G
RELIANCE	RELIANCE INC GR RELIANCE LIQUID TP BONUS RELIANCE LIQ TP G RELIANCE LIQ SUPER CASH G RELIANCE LIQ CASH G

NAV has been obtained from the different sources such as:

- SEBI annual reports
- Economic Survey
- Alpha Database and Companies Annual Reports

Portfolio's return (Rn) is calculated by using the following formula:

$$R_P = \frac{(NAV_t - NAV_{t-1})}{NAV_{t-1}}$$

R_p = Portfolio return

NAV_t= Net asset value in time period t

NAV_{t-1} = Net asset value in the period t-l

TREYNOR'S MODEL

Developed by Jack Treynor, this performance measure evaluates funds on the basis of Treynor Index. This index is a ratio of return generated by the fund over and above the risk free rate of return (generally taken to be return on the securities backed by the government) during a given time period and systematic risk associated with it measured by Beta. This is called as reward to volatility ratio. Symbolically, it can be represented as:

Treynor's Index (Tp) = $(Rp - R_F) / \beta p$

Rp = Portfolio average return

R_F = Risk free rate of return

β_P = Slope of the characteristic line

RESULTS

The Table below depicts the return earned by the mutual fund schemes. Return for the individual mutual fund is calculated by using NAV of the fund.

RETURN OF SELECTED DEBT SCHEME OF MUTUAL FUND

Schemes	1 year (Jan 2010-Dec 2010)		3 years (Jan 2007-Dec 2010)		5 years (Jan 2005-Dec 2010)		Since Inception	
	Return	Rank	Return	Rank	Return	Rank	Return	Rank
HDFC CASH MANAGEMENT SAVINGS PLAN G	4.82	13	5.53	33	6.47	30	6.16	31
HDFC HIGH INTEREST G	-.065	40	7	10	9.85	11	10.96	9
HDFC LIQUID PREMIUM PLUS G	4.82	12	4.99	36	3.52	49	4.93	43
HDFC SOVEREIGN GILT IP G	-2.97	46	4.43	45	8.11	22	8.2	22
HDFC SOVEREIGN GILT PT G	-3.51	48	6.01	24	10.59	6	10.7	12

HDFC SOVEREIGN GILT SP G	2.27	32	3.69	49	5.3	38	5.61	36
RELIANCE INC GR	1.79	33	7.6	6	9.85	10	10.84	10
RELIANCE LIQ CASH G	4.26	25	4.69	39	4.86	43	4.86	45
RELIANCE LIQ SUPER CASH G	4.36	23	4.85	38	4.22	48	5.07	40
RELIANCE LIQ TP G	4.4	21	5.73	30	6.83	27	7.07	27
RELIANCE LIQUID TP BONUS	4.53	19	5.51	34	6.65	28	6.99	28

The table above shows the returns generated by various selected Debt Schemes for different time period. For the period 1 year (Jan 2010-Dec 2010) the returns varies from as low as -3.51 of HDFC SOVEREIGN GILT PT G to 4.82 of HDFC CASH MANAGEMENT SAVINGS PLAN G . Though it is clear from the table that majority of schemes have shown positive returns but compare to Risk-Free-return 5.50%, the returns of Mutual Fund is below the benchmark. The result of period (Jan 2010-Dec 2010) shows that debt scheme of Reliance Mutual Fund performs better than HDFC.

For the period of last three years from Jan 2007-Dec 2010, the return varies from 3.69 of HDFC SOVEREIGN GILT SP G to 7.6 of RELIANCE INC GR. Thus all the schemes have maintained their position in the rankings. From last three years private sector performed better than the average return on Debt Schemes and according to the benchmark Risk-Free-Return 5.50%.

For the period of last five years from Jan 2005- Dec 2010 the returns varies from 3.52 of HDFC LIQUID PREMIUM PLUS G to 10.59 of HDFC SOVEREIGN GILT PT G.

Overall from the above Table it is concluded that returns on Debt Schemes are close to Benchmark return (Crisil Composite Debt Fund Index: 4.34%) and Risk Free Return: 5.50% (average adjusted for last five year).

RANKING OF SELECTED SCHEMES ON THE BASIS OF GEOMETRIC MEAN AND STANDARD DEVIATION

Schemes	Geometric mean of the monthly returns	Rank	Standard Deviation	Rank
RELIANCE LIQUID TP BONUS	0.3987	20	0.0111	4
RELIANCE LIQ TP G	0.4545	19	0.0215	7
RELIANCE LIQ SUPER CASH G	0.3451	27	0.0442	22
RELIANCE LIQ CASH G	0.2145	38	0.0088	3
RELIANCE INC GR	0.5484	14	0.0987	43
HDFC SOVEREIGN GILT SP G	0.1256	43	0.0754	38
HDFC SOVEREIGN GILT PT G	0.2225	37	0.2201	51
HDFC SOVEREIGN GILT IP G	0.1542	41	0.0253	11
HDFC LIQUID PREMIUM PLUS G	0.3655	23	0.0956	41
HDFC HIGH INTEREST G	0.9546	2	0.0298	16
HDFC CASH MANAGEMENT SAVINGS PLAN G	0.2384	35	0.0547	26

In the above table all the selected schemes have been ranked according to the geometric mean of the monthly returns and also the standard deviation shown by these schemes. The average return varies from 0.2384 of HDFC CASH MANAGEMENT SAVINGS PLAN G to 0.9546 for HDFC High Interest G Debt Fund Scheme. This table shows that the average monthly return on private sector is consistent and near to Benchmark- Crisil Composite Debt Fund Index.

RANKING OF SELECTED SCHEMES ON THE BASIS OF TREYNOR INDEX

Schemes	Treynor's Index	Rank
HDFC CASH MANAGEMENT SAVINGS PLAN G	0.08610	19
HDFC HIGH INTEREST G	0.10040	14
HDFC LIQUID PREMIUM PLUS G	0.03722	38
HDFC SOVEREIGN GILT IP G	0.04508	34
HDFC SOVEREIGN GILT PT G	0.04903	31
HDFC SOVEREIGN GILT SP G	0.05008	28
RELIANCE INC GR	0.20887	3
RELIANCE LIQ CASH G	0.09592	17
RELIANCE LIQ SUPER CASH G	0.01516	49
RELIANCE LIQ TP G	0.05076	27
RELIANCE LIQUID TP BONUS	0.10365	13
Crisil Composite Debt Fund Index	0.6055	

Above table shows the ranking of the various selected schemes on the basis of Treynor's Index and their comparison with the Benchmark Index Crisil Composite Debt Fund Index. The index varies from 0.01516 of RELIANCE LIQ SUPER CASH G to 0.20887of RELIANCE INC GR. The lower index means that the scheme is not be able to give even the risk free rate of return. Here all the schemes have positive returns. When these indices are compared with Crisil Composite than the outcome are in favor all the Private Sector Debt Schemes.

CONCLUSION

Debt schemes in Reliance Private Sector yield much higher average return than the other Sector. It means that performance of Reliance Private Sector mutual funds is better than the other mutual funds. Performance of Debt Scheme of Reliance is better than the performance of Debt Scheme of HDFC on the basis of data studied in the present paper. Investor's behavior shows declining interest in Debt Schemes because of low rate of returns.Returns on some Debt Schemes are even lower than risk free return. The overall performance of Reliance Debt Scheme of Mutual Fund is better than the Debt Scheme of HDFC.

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