



## GAUGING PERFORMANCE OF MUTUAL FUNDS BEING SOLD THROUGH RETAIL BANKING IN INDIA

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### ABSTRACT

A Mutual Fund is a corporation and the fund manager's interest is to professionally manage the funds provided by the investors and provide a return on them after deducting reasonable management fees. Main objective of this paper is to gauge performance of mutual funds being sold through retail banking in India. For gauging the performance various Statistical tools such as Mean, standard deviation, sharpe ratio, M Squared, Leverage Factor, NAV, Jensen's Alpha, Treynor's performance Index, Sharpe performance have been used.

**KEYWORDS** : Mutual Fund, Retail Banking, Assets Under Management, Mutual Fund Agents

### INTRODUCTION

A mutual fund is a common pool of money into which investors place their contributions that is to be invested in accordance with a stated objective. In India mutual fund industry has witnessed mushroom growth since the imitation of economic reforms in 1991. The encouragement given by the Government in the form of tax concession for the investors, has made the mutual fund industry a competitive investment arena. Now a days there are n number of mutual fund schemes available for the investors it is very difficult for the small investor to select a suitable mutual fund scheme according to his or her savings. A single wrong decision of Fund Manager may put the investors in financial crisis, sometimes leading to their bankruptcy. Therefore a proper performance evaluation measure is required as it will remove confusion and help the investors in selecting suitable Mutual Funds Schemes for investment.

### Review of literature

**Goetzmann and Brown (2017)** find performance persistence in a data set relatively free of survivorship bias. There is some empirical evidence that investors do in fact make mutual fund purchase decisions on the basis of past performance.

**Patel, Zeckhauser, and Hendricks (2016)** report that previous fund performance, adjusted for risk, appears to be associated with net inflows to mutual funds.

**Barber et al., (2015)** argue that the purchase decisions of mutual fund investors are influenced by salient, attention-grabbing information. Investors are more sensitive to salient in-your-face fees, like front-end loads and commissions, than operating expenses; they are likely to buy funds that attract their attention through exceptional performance, marketing, or advertising. They found consistently negative relations between fund flows and front-end load fees.

**Massa et al., (2013)** identify a set of systematic factors that explain a significant amount of the variation in flows. They examined common component to mutual fund investor behaviour and tried to find out which asset classes may be regarded as economic substitutes by the participants in the international, are negatively correlated to flows to money market funds and precious metals funds.

**Anagol & Kim, (2011)** who have examined the claim that abolition of entry loads had hampered the penetration of mutual funds have found no evidence behind such claims.

**Agarwal, Deepak (2010):** This Study analyzed the Indian Mutual Fund Industry pricing mechanism with empirical studies on its valuation. It also analyzed data at both the fund-manager and fund-investor levels. It stated that mispricing of the Mutual funds could be evaluated by comparing the return on market and return on stock.

**Bhandari (2012):** This study describe that the Indian stock market is semi strong form efficient and one cannot outperform the market based on past data publicly available information.

### Research Methodology

Research methodology is a systematic way to solve a problem. It is a science of studying how research is to be carried out. The section would contain five distinct phases including population & sampling, description of the sample, instrumentation, data collection and data analysis.

### OBJECTIVES OF THE STUDY

1. To study the performance of mutual funds using Sharpe, Treynor, M Squared, Leverage Factor, Jensen measure of evaluation.
2. To develop a framework for performance measure of mutual funds in India.
3. To evaluate the overall performance of mutual funds being sold through retail banking.

### Research design

A research design is a framework or blue print for conducting the research project. It details the procedures necessary for obtaining the information need to structure and/or solve research problems. The research design lays the foundation for conducting the project. Research design included an outline of what the researcher will do from writing the hypothesis and its operational implication to the final analysis of data. Good researcher design is often features like flexible, appropriate, efficient, and economical.

### Sampling method

Random Sampling was used to select the sample. Random sampling includes choosing subjects from a population through unpredictable means. In its simplest form, subjects all have an equal chance of being selected out of the population being researched.

### Sample size

This study evaluates the performance of six different schemes of different fund houses. For this study past three years data of the schemes and their benchmarks have been taken into consideration.

### Method of data collection

Secondary data is used in the study which comprise daily Net asset Values (NAV) both for closed-ended and open-ended schemes. These NAV data are mainly collected from AMFI website, ICRA supported website. Other data used in the study is collected from various source specially from the journal, Mutual Funds Insight based on Value Research Magazines, and addition to others journals, magazines, articles, books, and the publisher and unpublished documents of the mutual funds have been consider in the research.

### Data analysis

Analyzing data involve reducing and arranging the data, synthesizing searching for significant patterns and discovering what was important. There are three steps involved in analyzing data: organizing, interpreting and summarizing data. Statistical tools such as Mean, standard deviation, sharpe ratio, M Squared, Leverage Factor, NAV, Jensen's Alpha, Treynor's performance Index, Sharpe performance are used in the study.

## Analysis & Interpretation

### Average Return

The table 1 above average monthly returns of the mutual fund schemes for 2009-10, 2010-11 and 2011-12. During the period of analysis, it was in the year 2011-12, that the funds have yielded the maximum return. Among them, the top return was provided by ICICI Prudential Discovery Fund with a value of 7.5%. The lowest return giving fund for the year was UTI Opportunities Fund and the value was 4.14%.

### Standard Deviation

As shown in table 2 standard deviation of 10% was highest among all for Reliance RSF Fund and Sundaram BNP Paribas SMILE REG-G meaning that the fund's return fluctuated in either direction (up or down) by 10% from its average return, whereas HDFC Equity fund showed minimum deviation of 8%.

### Beta

Beta measures the sensitivity of the stock to the market. For example if  $\beta = 1.5$ ; it means the stock price will change by 1.5% for every 1% change in Sensex. As shown in table 3 high risky fund for the financial year 2011-12 was Sundaram BNP Paribas SMILE REG-G Fund with the Beta value of 1.1 next was Reliance RSF Fund with beta of 1.02. Low risk fund for this year was IDFC Equity Plan A with beta value of 0.71.

### Sharpe Ratio

The performance of all selected mutual fund schemes was really low during the financial year 2010-11. Table 4 shows funds were even having negative Sharpe ratio. The lowest risk adjusted performance was shown by Reliance RSF Fund and the value was -3.64. UTI Opportunities Fund which showed the risk adjusted performance with a Sharpe ratio of -3.23 which was best among all. In the year 2009-10, IDFC Premier Equity Plan A is the fund which has shown the maximum Sharpe ratio of 6.11. It means that the fund has provided the maximum risk adjusted return as compared to other funds. The fund having the least Sharpe value is ICICI Prudential Discovery Fund with a value of 0.63.

### Treynor Ratio

As shown in table 5 Some schemes showed even a negative Treynor's ratio. ICICI Prudential Discovery Fund is the fund which showed the maximum Treynor's ratio during this financial year. The value was -0.32 and the least performing fund was SUNDARAM BNP Paribas SMILE REG- G Fund. Its value was -0.47. In the year 2009-10, IDFC Equity Plan A Fund is having the maximum Treynor's ratio of 0.60. It means that the scheme has a better risk adjusted performance as compared to other schemes. The scheme having the lowest Treynor ratio is ICICI Prudential Discovery Fund. The ratio is 0.07. This shows that the fund is having a low risk adjusted performance.

### Jensen Alpha

Jensen's performance index is used as a measure of absolute performance of the portfolio. The table 6 shows the Jensen's alpha measure for the financial years 2011-12, 2010-11 and 2009-10. In the year 2009-10, the highest risk-adjusted performance is shown by IDFC Premier Equity Plan A with a value of 0.0693. The lowest risk-adjusted performance was shown by ICICI Prudential Discovery Fund and the value was -0.0207. During the financial year 2010-11, the least value was shown by Reliance RSF Fund and the value was -0.0342. The highest risk adjusted performance for this financial year was shown by IDFC Premier Equity Plan A and the value was 0.0097. For the year 2011-12, the highest Jensen's measure is for ICICI Prudential Discovery Fund and the value is 0.0377. The lowest value is for UTI Opportunities Fund and it is -0.0111.

### — Squared

The M-squared is a performance measurement using return per unit of total risk as measured by the standard deviation. The table 7 shows that in the year 2009-10 IDFC Premier Equity Plan A fund scored high on it with a value of 0.5952 and ICICI Prudential

Discovery Fund showed least value with 0.10. In 2010-11 all the funds showed negative performance as the markets were down too. Among all UTI Opportunities Fund showed best performance with value of -0.3225 and IDFC Equity Plan A gave the minimum value of -0.4399. For the year 2011-12 IDFC Premier Equity Plan A Fund showed highest values of 1.5624 among all the funds. And UTI Opportunities Fund had the minimum values of 0.98.

### Leverage Factor

It reports the comparison of the total risk in the fund with the total risk in the market portfolio and can be used in making investment decisions. The table 8 shows the leverage factor of various schemes for the financial years 2011-12, 2010-11 and 2009-10. In 2009-10 leverage factor is highest for HDFC Equity fund this means that it has low fund standard deviation compared to market standard deviation and hence investor should consider leveraging this fund by investing more in it. Similarly for IDFC Premier Equity plan A in 2010-11 and 2011-12 investor should consider to invest more as they are having leverage factor more than one.

### CONCLUSION

It may be concluded that almost all the equity diversified schemes were affected in the year 2010-11. Values for average returns, Sharpe and Treynor were lowest. Whereas in the year 2009-10 when the market were recovering and investors were again showing faith in the market schemes showed good risk adjusted performance, as most of the schemes were having positive values in case of the performance measures. Schemes like IDFC Equity Plan A and HDFC Equity Fund were the top performing schemes in different parameters for 2009-10. In 2010-11 UTI Opportunities Fund, IDFC Equity Plan A and ICICI Prudential Discovery Fund were the best of all and in 2009-10 IDFC Equity Plan A and ICICI Prudential Discovery Fund performed the best.

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