

PERFORMANCE EVALUATION OF SELECTED BALANCED MUTUAL FUNDS IN INDIA

Rajiv U. Kalebar¹ & Mehal K Shah²

¹*Research Scholar, Faculty of Finance, CMS B School, Jain University, Bengaluru, Karnataka, India*

²*Research Scholar, CMS B School, Jain University, Bengaluru, Karnataka, India*

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ABSTRACT

India saw the dawn of Mutual funds in the year 1963 by the formation of UTI –Unit Trust of India. Since then, it has come a long way from the entry of Private players to International players today. This paper focused on appraising the performance of Nine mutual funds on the basis of monthly returns compared to benchmark return. Jensen, Treynor, Sharpe and statistical models are used to measure the Risk adjusted performance. It is found that, most of the mutual funds are aggressive and few are moderate performers on comparison using beta. Funds have performed better using Jensen, Treynor and benchmark measures. However, few mutual funds are well diversified and have reduced its unique risk

KEYWORDS: *Mutual Fund, Diversification, Net Asset Value, Jensen, Treynor and Sharpe Ratio*

INTRODUCTION

Mutual Funds in India

India saw the dawn of Mutual funds in the year 1963 by the formation of UTI –Unit Trust of India. Since then, it has come a long way from the entry of Private players to International players today. Starting with just one player, today we have around 34 AMC's with more than 500 schemes to offer. The industry has grown in size and the AUM has crossed 22 lakh crores as on Feb 2018. (Source AMFI). Yet the assets under management as a percentage of GDP is less than 5% in India as compared to 70% in the US, 67% in France and 37% in Brazil. (Indian mutual fund industry). The Indian mutual funds industry is growing at a CAGR of about 30%. The growth is attributed to the strong retail participation and overall market gains. With a gamut of schemes to offer the investors, it often becomes difficult for the investor to choose the right scheme.

The young generation today has the ability and the willingness to bear the risk in expectation of higher returns. The conventional investment avenues might take a back seat with the kind of returns offered by them (though the safety part cannot be ignored). With the mutual funds offering returns more than the conventional schemes, they are bound to see growth in AUM's. The markets are also in support with the growth story making the MF's all the more popular. Studying an emerging market provides an excellent opportunity to test whether the consensus on the inability of mutual funds in developed and highly efficient markets to beat the market. Mutual fund is a 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 (Majid Abbasi, Elham Kalantari, & Hamideh Abbasi, 2012).

Fund Managers charge nominal amount for their professional services and for jacketing the costs incurred for trading of securities. But these charges are very low in comparison the cost incurred by individual investors if he attempts to construct similar portfolio of securities on their own. This is because of the economies of scales in transaction costs (Howells & Bain, 2005, p. 63).

This paper attempts to evaluate the top schemes with respect to questions raised on Risk, Return and Performance.

The process is to pool money from similar investors and convert it into corpus or a fund and entrust the management to a person who has time and access to extensive research and then invest on behalf of investors with similar objectives. Introduction of Mutual funds had been an obvious choice for the Securities market and they have today become an important intermediary of the Financial market. Mutual funds provides access for the retail investors participation in equity though indirectly. The Mutual funds have a three tier structure- Sponsor, Trustee and Asset Management Company. The entire process of floating a scheme to the investment of the collected corpus is done by the Asset Management Company known as AMC in short. This AMC in fact is the face of the Mutual fund Companies. They invest these funds in to the stocks and bonds. The Fund Manager invests this corpus in a diversified Portfolio of Securities. The level of diversification is solely dependent on the scheme and its attributes. The return it gets on the investment is two fold- a security can pay dividend or interest or a security can rise in value. They also contain risk as the fund can lose its value or drop in value due to market volatility. The reduced risk of Portfolio comes from the benefits of diversification by the Fund managers(Fama & French, 1993). That research on mutual fund performance based on security market line analysis is unbiased, regardless of whether funds are market timers or not ("Portfolio disclosure, portfolio selection and mutual.pdf," n.d.-a) (Alexander and Kreuzberg 2003).

Mutual funds today are one of the most studied areas in developed countries due to their efficient and effective role in reducing risk and enhancing return through professional management of funds These funds boost the incomes of small investors as well as reduce their exposure to unsystematic risks which needs to be taken into consideration for accurate results(Prof. Dr. K. N. Sheth, Himani Mittal, & Falguni Prajapati, 2017)

(Fama & French, 1993) emphasize the fact that small firm stocks consistently outperform stocks of large firms. They also argue that the stocks of firms with high book to market outperform the market. Risk adjusted returns were evaluated by Redman, Gullett and Manakyan(2000) using Sharpe, Treynor and Jensen Alpha during 3 sets of time period 1985 to 1989, 1985 to 1994, and 1990 to 1994 for 5 mutual funds with the benchmark proxy as the US market. Similarly another research was made by (Ashraf & Sharma, 2014),(Shantanu Gokhale & Dr. Madhvi Sethi, 2012) In addition to the above, Mishra (2001) evaluated performance from April 1992 to December 1996. His study included 24 public sector sponsored mutual funds. He used rate of return, Treynor, Sharpe and Jensen measure to conclude that the public sector funds failed to perform in general during the period. In a study conducted by Dr Vikas Chowdhary & Preeti Sehgal (2014) for a period of 8 years from 2005 to 2013, the results concluded that the equity funds outperformed the market and indicated superior risk adjusted performance.

OBJECTIVE OF THE STUDY

The main objective of the study is to evaluate the performance of mutual funds along with an extensive analysis on the factors which impact the price.

The considerations fundamental to the performance evaluation of mutual funds is a matter of concern to the fund managers, investors and researchers. The present paper attempts to answer two questions relating to mutual fund performance.

- Are the mutual funds earning higher returns than the market returns in term of risk.
- Are the mutual funds offering the advantages of Diversification of securities to their investors.

This paper attempts to answer the questions raised, by firstly describing some basic concepts and later by employing a methodology which was used by(Jensen, 1968), (“Treynor-Mazuy.pdf,” 1965) and(“The Sharpe Ratio,” 1966). More than 5 mutual funds are selected for the purpose of this study. The study period is the total period of those mutual funds life period. In this study, the period selected is more than 30 months and some are 12 months or less those which are new in market.

METHOD

As the topic is related with the performance of mutual funds, different types of information was required to better evaluate their performance. This research Paper has used information based on price, trade value, turnover of the mutual funds concerned and data related to the market index.

METHODOLOGY

The two questions raised in the beginning are answered with the following Methodology.

In order to answer the first question the following measures are adopted. These measures are introduced and tested by(Jensen, 1968). (“Treynor-Mazuy.pdf,” 1965.) and (“The Sharpe Ratio,” 1966). Basically, these measures are developed on the assumptions of ‘The Capital Asset Pricing Model’ (CAPM) propounded by Sharpe, Lintner and others. The CAPM specifies that in equilibrium the return and risk are in linear relationship called as Security Market Line (SML).

$$R_p = R_f + \beta(R_m - R_f)$$

where,

R_p = expected return on security portfolio.

R_f = Risk free return

R_m = Expected market return

β = The measure of systematic risk of the security or portfolio

For a well-diversified portfolio, the above relationship can be specified in terms of the total risk (σ_p) of portfolio return, called as Capital Market Line (CML).

where,

$$R_p = R_f + \sigma_p(R_m - R_f)/\sigma_m$$

σ_m is the total risk of Market Index.

Though, SML and CML are for the purpose of security return, every security of the portfolio must be plotted on SML and CML. However, well diversified portfolios plot on both the CML and SML, undiversified portfolios plot only on the SML.

The following first two measures are based on the SML, whereas the third one is based on the CML.

Jensen Measure

According to Jensen (1968), equilibrium average return on a portfolio would be a benchmark. Equilibrium average return is the return of the portfolio by the market with respect to systematic risk (volatility) of the portfolio. This is a return the portfolio should earn with the given systematic risk.

$$\alpha = R_p - [R_f + \beta(R_m - R_f)]$$

Difference between equilibrium average return and average return of the portfolio indicates superior performance of the fund. This is called as alpha (α)

If the alpha is positive, the portfolio has performed better and if alpha is negative it has not shown performance up to the bench mark, i.e., the market index.

Reward to Volatility Ratio

This is introduced by ("Treyner-Mazuy.pdf," 1965.) and similar to the above discussed Jensen measure. Here, additional returns of the portfolio over the risk free return is expressed in relation to portfolio's systematic risk;

$$ROVL_p = \frac{\text{Total portfolio return} - \text{Risk Free Rate}}{\text{Portfolio Beta}} = \frac{R_p - R_f}{\beta_p}$$

Where,

ROVL_p is reward to volatility of the portfolio

Here, an additional return of market over risk free return (R_f) is the benchmark. Greater value of the portfolio over the market indicates a superior performance of the fund.

The analysis on the basis of above two measures may lead to the same conclusion. This is so because both the measures are based on only systematic risk and exclude unique risk of the portfolio. Hence, it is necessary to evaluate the performance of the fund in terms of its total risk. The following measure is used for the purpose.

Reward to Variability

It was developed by William F. Sharpe(1966). Here, additional portfolio return over risk free return is related with the total risk of the portfolio.

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

The bench mark is additional return of market over risk free return related with market portfolio's total risk.

Table 1: Fund and Market Return

Mutual Fund Scheme Name	Category	Average Monthly Return	Average Monthly Risk Free Return	Average Monthly Market Return	Risk of Fund σp	Risk of Market σm	Volatility of Mf Scheme with Market (Beta)
Reliance Equity Hybrid Fund	Balanced	0.02	0.0054	0.01	11.14	9.19	0.95
Kotak Equity Hybrid Fund	Balanced	0.01	0.0054	0.01	10.76	9.19	0.89
Principal Equity Savings Fund	Balanced	0.01	0.0054	0.01	4.65	9.19	0.33
L&T Hybrid Equity Fund	Balanced	0.02	0.0054	0.01	10.36	9.19	0.85
Tata Retirement Savings Fund	Balanced	0.02	0.0054	0.01	12.14	9.19	0.94
HDFC Balanced Advantage fund	Balanced	0.01	0.0054	0.01	15.52	9.19	1.09
SBI Equity Hybrid Fund	Balanced	0.01	0.0054	0.01	9.7	10.7	0.8
Edelweiss BAF	Balanced	0.01	0.0054	0.01	8.2	10.7	0.69
Sundaram Equity Hybrid Fund	Balanced	0.01	0.0054	0.01	9.42	10.7	0.79
LIC Equity Hybrid Fund	Balanced	0.01	0.0054	0.01	12.87	10.7	1

Self-evaluation and www.valueresearchonline.com report

Table 1 presents return and risk of the nine mutual funds along with market return and risk. From the table, it is evident that, most of the funds are earning on average 1.00 percent monthly return, which is moderate comparing among the mutual funds. But if it is comparing with the market return, it is good monthly return by all mutual funds considered for study. Reliance Equity Hybrid Fund, Tata Retirement Savings Fund- Regular Plan have performed more than the average performance all the fund considered for study.

Though, with vary limited performance data, they are performed under the average market return.

However, moderate volatility and risk of mutual funds indicates that investors might have benefited because low risk on portfolio of monthly return against the market return. Further, some mutual fund like L&T Hybrid Equity Fund, Kotak Equity Hybrid Fund, Reliance Equity Hybrid Fund, Tata Retirement Savings Fund, LIC Equity Hybrid Fund, HDFC Balanced Advantage fund - Regular Plan mutual fund are more risk bearing fund than the market risk and volatility

Diversification

Table 2: Risk and Diversification

Mutual Fund Scheme Name	Category	Risk of MF Scheme	Systematic Risk (Beta)	Diversification (R ²)
Reliance Equity Hybrid Fund	Balanced	11.14	0.95	0.84
Kotak Equity Hybrid Fund	Balanced	10.76	0.89	0.84
Principal Equity Savings Fund	Balanced	4.65	0.33	0.61
L&T Hybrid Equity Fund	Balanced	10.36	0.85	0.75
Tata Retirement Savings Fund	Balanced	12.14	0.94	0.87
HDFC Balanced Advantage fund	Balanced	15.52	1.09	0.76
SBI Equity Hybrid Fund	Balanced	9.7	0.8	0.83
Edelweiss BAF	Balanced	8.2	0.69	0.87
Sundaram Equity Hybrid Fund	Balanced	9.42	0.79	0.87
LIC Equity Hybrid Fund	Balanced	12.87	1	0.75

Self-evaluation and value research report

The low R2 value of mutual fund represented the less diversification of the portfolio and the high R2 value indicates the well diversified portfolio. Here, (Table 02) most of the funds indicate higher R2 value like SBI Equity Hybrid Fund(0.83),Reliance Equity Hybrid Fund (0.84),Kotak Equity Hybrid Fund (.87),Tata Retirement Savings Fund (0.87),Edelweiss BAF(0.87),Sundaram Equity Hybrid Fund(0.87). As the portfolio well diversified its unique risk and is low unsystematic risk is high but the total risk is very low.

Ratios and Regression

Table 3: Ratio and Regression

Mutual Fund Scheme Name	Category	Sharpe Ratio	Alpha	Standard Deviation
Reliance Equity Hybrid Fund	Balanced	0.43	2.01	11.14
Kotak Equity Hybrid Fund	Balanced	0.29	0.05	10.76
Principal Equity Savings Fund	Balanced	0.31	-0.32	4.65
L&T Hybrid Equity Fund	Balanced	0.37	1.84	10.36
Tata Retirement Savings Fund	Balanced	-0.37	3.6	12.14
HDFC Balanced Advantage fund	Balanced	0.36	1.5	15.52
SBI Equity Hybrid Fund	Balanced	0.37	1.26	9.7
Edelweiss BAF	Balanced	0.07	-2.28	8.2
Sundaram Equity Hybrid Fund	Balanced	0.37	1.08	9.42
LIC Equity Hybrid Fund	Balanced	-0.22	-5.86	12.87

Self-evaluation and value research report

Some of the participants in the market have given abnormal return i.e. it indicated that such funds have not yet saturated in the market.

In addition, Sharpe ratio, and Jensen Alpha is calculated in order to evaluate the performance of the ten mutual funds. Sharpe ratio is the returns generated over the risk free rate, per unit of risk. Risk in this is taken to be the funds' standard deviation. LIC Equity Hybrid Fund and Tata Retirement Savings mutual funds considered for study under SHARPE ratio are negative and all others have performed positive. These high value represents the superior performance in the market.

Jensen Alpha of Principal Equity Savings Fund, Edelweiss BAF and LIC Equity Hybrid Fund being negative indicate the funds are not performing in accordance of CAPM

CONCLUSIONS

The study in this paper indicates that few mutual fund schemes selected have given additional returns in the market over the risk free return. Returns of Sundaram Equity Hybrid Fund, SBI Equity Hybrid Fund, Kotak Equity Hybrid Fund and L&T Hybrid Equity Fund - Regular Plan have given exceptional returns. HDFC Balanced Advantage fund, LIC Equity Hybrid Fund, Tata Retirement Savings Fund, Reliance Equity Hybrid Fund, Kotak Equity Hybrid Fund - Regular Plan are more risk bearing funds whereas SBI Equity Hybrid Fund, Sundaram Equity Hybrid Fund, Edelweiss BAF, Principal Equity Savings Fund- Regular Plan has less risk.

Funds with higher R^2 value, i.e well diversified portfolio have given lesser returns compared to funds with lower R^2 value. SBI Equity Hybrid Fund, Reliance Equity Hybrid Fund, Kotak Equity Hybrid Fund, Tata Retirement Savings Fund, Edelweiss BAF, Sundaram Equity Hybrid Fund- Regular Plan have well diversified portfolio reducing Total Risk. Most of the funds have given better returns and have performed well in the market.

REFERENCES

1. Ashraf, S. H., & Sharma, D. (2014). *Performance Evaluation of Indian Equity Mutual Funds against Established Benchmarks Index. International Journal of Accounting Research*, 2(1). <https://doi.org/10.4172/2472-114X.1000113>
2. Fama, E. F., & French, K. R. (1993). *Common risk factors in the returns on stocks and bonds. Journal of Financial Economics*, 33(1), 3–56. [https://doi.org/10.1016/0304-405X\(93\)90023-5](https://doi.org/10.1016/0304-405X(93)90023-5)
3. Jensen, M. C. (1968). *THE PERFORMANCE OF MUTUAL FUNDS IN THE PERIOD 1945-1964. The Journal of Finance*, 23(2), 389–416. <https://doi.org/10.1111/j.1540-6261.1968.tb00815.x>
4. Majid Abbasi, Elham Kalantari, & Hamideh Abbasi. (2012). *Effect of Fund Size on the Performance of Mutual Funds.pdf. Journal of Basic and Applied Scientific Research*.
5. *Portfolio disclosure, portfolio selection and mutual.pdf. (n.d.)*.
6. Prof. Dr. K. N. Sheth, Himani Mittal, & Falguni Prajapati. (2017). *Performance Evaluation of Public & Private Mutual Fund Schemes in India. International Journal for Scientific Research & Development*, 5. Retrieved from https://www.researchgate.net/profile/Dr_Sheth/publication/320395639_Performance_Evaluation_of_Public_Private_Mutual_Fund_Schemes_in_India/links/59e1d8afaca2724cbfd14/Performance-Evaluation-of-Public-Private-Mutual-Fund-Schemes-in-India.pdf

7. Shantanu Gokhale, & Dr. Madhvi Sethi. (2012). *Performance Evaluation of Indian Mutual Funds*. *IIMB Management Review*, 24(4), IFC. [https://doi.org/10.1016/S0970-3896\(12\)00106-1](https://doi.org/10.1016/S0970-3896(12)00106-1)
8. *The Sharpe Ratio*. (1966). Retrieved March 22, 2018, from <https://web.stanford.edu/~wfs Sharpe/art/sr/sr.htm>
9. *Treynor-Mazuy.pdf*. (n.d.). Retrieved from <https://users.business.uconn.edu/jgolec/Treynor-Mazuy.pdf>
10. Bain, K., & Howells, P. (2005). *The Economics of Money, Banking and Finance—A European Text*, 3. Aufl., London et al.