
AMIDST LIBERALIZATION POLICES, PROSPECTS OF MUTUAL FUND INDUSTRY IN INVESTMENTS

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Abstract: The aim of this paper is to give an idea about how to calculate the overall performance of mutual funds, how it is evaluated and ranked, calculation of NAV and their returns so as to assess investment prospects. For this purpose seven favored Public and Private sector MFs equity growth schemes over a period of one year viz.2015-16 have been taken through judgment sampling and Yield on 10 year government bond has been taken as the surrogate for the risk free rate of return is 7.56% p.a. Firstly, we will go through about the basic understanding of MFs and then elaboration done with the help of example data sets. There are three most popular ratios used for the empirical study namely, Jenson's, Treynor's& Sharpe's. The study will give the data about risk and return associated with fund and ranked them depending on their performance which will act as a guide to choose the best mutual fund generating maximum return with minimum risk.

Keywords: BSE 200 Index, Mutual Funds, Beta, NAV, Jenson's, Treynor's, Sharpe's.

Introduction: Growth of world is largely depends upon economy and technological aspects of a nation which requires huge resources. We need to mobilize these resources in order to meet out the requirement of diversified fund for overall growth and to regulate the entire global economic competition various central banks acting as the apex body and various financial intermediaries have come into existence across the world. In order to achieve these internal and external objectives, government has adopted and implemented various policies and procedures of which resulted high competition in an Indian financial system and created galore openings to all players with new high breed diversified product range with high efficiency at operational level. Apart from opting various policies GOI also adopted various policies to give financial liberalization.

Upon studying the last twenty years in MF industry of India has seen the trajectory growth interims of volume and quantum of secondary trading and variety of funds offered by the issuers. Since this is huge market it is very important to regulate the industry with due to its stupendous growth MF's industry is socially bound to be transparent in quality of financial reporting; and is subject to a large amount of research which ethically contributes to our knowledge and provides appropriate answers to the everlasting issues. The ages of globalization demand for finance has grown many folds in the capital market with breed of new financial instruments which are also known as Investment Trust, Investment Company, Money Fund etc. According to the American concept which played a supportive role in bridging the gap between supply and demand in contrast to other financial instruments in the capital market and now it is widely acknowledged across the world. It worked as a connecting bridge or plays a role of a financial intermediary which is jointly managed by professional money managers and allows common investors to pool their money together with a predetermined investment objective with certain risk. According to SEBI Regulations, 1996 defines mutual funds as a fund established in the form of a trust to raise monies through the sale of units to the public or a section of the public under one or more schemes for investing in securities including money market instruments. In present volatile financial market mutual funds have become essentially investment vehicles especially for bingers. Common investors with common objective club together and pool their money in hope of future appreciation. The beauty of security or fund is, invested money in it diversify automatically in a set category of investments which are made in mutual fund are managed by fund manager who are qualified professional and are been authorized by the board with specific guidelines issued by SEBI and other regulatory bodies like open ended scheme (which do not have any fixed maturity period), close ended scheme (which have fixed maturity period).Further, SEBI approved Asset Management Company (AMC) who with following the guidelines manages the funds by making investments in various types of securities and registered the Custodian who holds the securities of various schemes of the fund in its custody. In addition these Rules, regulations and procedures for better growth and return Association of Mutual Funds in India (AMFI) is also formed to provide helping hand with the core objective to promote awareness of the MF industry, and is very

much engaged in consolidating professional standards and ethics in order to promote best industry practices in diverse areas such as valuation, disclosure, transparency etc. It has also made mandatory for all the companies to have credit rating, if they are raising or have raised funds from open market in the form of long term debt, debentures, bonds, fixed deposits, commercial papers.

Literature Review: The main purpose of all economic entities is to maximize the wealth of its savers who belong to different sources with different quantum and have different levels of risks taking capacity, which is compensated for by the different levels of returns on investment. The main sources of capital for a company are shareholders and suppliers who forgo their present consumption and save to provide the funds for future gain and capital appreciation. The provider of funds and its users comes together in open market for their mutual benefit under certain negotiated values in form of debt, equity or mutual fund with different maturity periods. Survey of literature in this field explored its merits and limitations and highlighted important facts which became ultimate strength for MF industry. Rasheed Haron (2014), The study revealed that overall performance of the funds remains best as evaluate to market but mismanagement observed in mutual fund industry during the study period. Hence, the portfolio was not completely diversified and contains unsystematic risk. Nishant Patel (2015) examined the financial market fluctuations in term of Beta under CAPM model and found the risk and return of these plans were not in conformity with their investment objectives further sample schemes were not found to be adequately diversified. Kundu Abhijit (2011) concluded that the security manager's ability to outperform the market and to appraise the schemes in the context of post risk, return and diversification but failed to earn significant positive returns by selecting miss valued securities in the portfolios. Anand (2011) examined the components and sources of investment performance in order to attribute it to specific activities of Indian fund managers and revealed the fact that the funds failed in expectations to compensate the investors for the additional risk taken by them. The study also observed that from the selectivity, expected market risk and market return factors have shown closer correlation with the fund return, Guha (2008) the study revealed the relative performance of the funds with respect to their style benchmarks and found that it is very difficult to make a prediction of mutual fund performance in advance.

Objectives of the Study: With changing business environment investment avenues also changed to match the pace according to prevailing circumstances. MF Industry has emerged as a dark horse in financial market and adjusted itself according to its strength. It is growing with balance pace and will continue to grow in correlation with economic growth and thus invites researches to explore the market potential, its growth and draw backs. The core objectives are as:

- To gain practical insight into application of Sharpe's, Treynor's & Jensen's ratios.
- To understand the interdependence of securities & Index (BSE 200)
- To evaluate the Performance & rank/rate the funds on the basis of aforesaid ratios.

Testing of Hypothesis: The study tests the following hypothesis in respect of performance assessment of the securities or Funds:

1. There are no higher returns on earnings than the market portfolio returns in form of risks.
2. There are no advantages of diversification and better returns due to selectivity to their investors.

Research Methodology for This Study: This study makes a comprehensive assessment of mutual funds. The followings constituents for the research are as laid below:

- Research design- Empirical in nature.
- Data type and collection - The data was secondary in nature and about NAV collected from different websites and newspapers like Economic times etc.
- Sampling universe- IMFS
- Sampling technique- Judgment sampling
- Data Analysis & Interpretation - The core of the research started with the collection of raw data:-
 1. NAV (i.e., calculated on the basis of day end NAV of each selected fund).
 2. BSE 200 and its historical data have been taken as the benchmark index and used for computation of market return
 3. Yield on 10 yr. govt. bond has been taken as the surrogate and the risk free rate is assumed to be 7.56 % p.a.

- Sample size- 7 Indian mutual funds growth schemes over a period of 1 year (2015-2016). The followings funds selected are; HDFC Index fund Growth, SBI Magnum Growth, Standard Chartered Growth, ICICIPru-Growth, Canara Robecco growth, BOB Growth and Kotak growth.
- The overall research Data analysis and interpretation steps comprised the seven steps which have been discussed into two parts, Part- I and Part –II.

Part –I: Data analysis and interpretation comprises the following steps;

Step I - Calculations of:

- a) mean & standard deviation of the returns of the funds & Index(on daily basis);

$$\text{Returns} = (\text{NAV}_t - \text{NAV}_{t-1}) * 100 / \text{NAV}_{t-1}$$

$$\text{Mean return} = \sum Ri / n$$

(n=254 days & Ri = Daily returns)

- b) standard deviation (σ)of funds & index;

$$\sigma = \sqrt{(\sum (Dx)^2 / n)}$$

$$Dx = (Ri - R.\text{avg.})$$

‘σ’ denotes the degree to which the individual return is scattered away of the mean returns

Step II - Calculations of:

- a) Beta(β) denotes the sensitivity of the fund with market fluctuation:

$$(\beta) = [\text{Cov. (Ri, Rm)} / \text{Var. (Rm)}]$$

$$\text{Cov. (Ri, Rm)} = \sum (Di * Dm) / n$$

Part –II: Data analysis and interpretation comprises the next five steps;

Step III - Calculation of the Sharpe Measurement:

$$Sp = (Rp - Rf) / \sigma$$

Sp- Sharpe’s index, Rp- Return of the portfolio and Rf- Risk-free rate of return

Step IV- Calculation of Treynor’s reward –to-variability measure:

$$Tp = (Rp - Rf) / \beta p$$

βp- Beta of portfolio

Step V Calculation of Jenson’s Index:

$$ERp = Rf + \beta p (ERm - Rf)$$

ER_m- Expected market return

Step VI:

To verify the results scientifically hypothesis have tested with the help of Chi-Square test to determine the validity of the assumption, Chi-square has applied and has been made under the following formula: -

$$\chi^2 = \sum (O-E)^2 / E$$

Where,

O = Observed frequency

E = expected or theoretical frequency.

Table 1.1: Hypothesis Test

<p>There are no higher returns on earnings than the market portfolio returns in form of risks.</p>	<p>In both cases: The value of χ_2 for 2 d.f. at 5% level of significance is 7.81 and calculated value is 0.18. The calculated value of χ_2 is less than the table value. Therefore, the null hypothesis is rejected. Hence, the study concluded that the sample funds are higher returns on earnings than the market portfolio returns. On the other hand, There are various advantages of diversification and better returns due to selectivity to their investors</p>
<p>There are no advantages of diversification and better returns due to selectivity to their investors.</p>	

Step VII:

- Inter- Comparison of the Mutual fund’s performance with BSE 200 index.
- All the above tools & parameters have been applied to analyze & conclude the performance of the funds in the form of tables-1.2 & 1.3;

Table 1.2

Mutual Funds	HDFC	SBI	SCG	ICICI	CRG	BOB	KOTAK
RSQ	0.13	0.10	0.10	0.10	0.12	0.11	0.09

Interpretation: It’s apparent from above table that during the study period (14-Mar-15 to 14-Mar-16) HDFC has performed better with RSQ of 0.13 it has yielded maximum of 4.33% while others like SCG, SBI and ICICI etc. with RSQ of 0.10 has the least yield of (6.38) %.

Table: 1.3

Mutual funds	Rp	Σp	Bp	R ²	Sp = (Rp - Rf)/ σ		Tp= (Rp - Rf)/ βp		ERp = Rf + βp (ERm - = Rf)	
					Index	Rank	Index	Rank	Index	Rank
HDFC	0.15	1.71	0.22	0.132	0.075	5	0.57	5	0.0272	4
SBI	0.11	1.97	0.23	0.101	0.046	7	0.40	7	0.0275	2
SCG	0.21	1.67	0.19	0.097	0.110	1	0.79	1	0.0261	7
ICICI	0.20	2.30	0.26	0.101	0.077	4	0.66	3	0.0273	3
CRG	0.18	1.94	0.20	0.114	0.087	3	0.72	2	0.0281	1
BOB	0.15	1.80	0.25	0.121	0.065	6	0.65	4	0.0271	6
KOTAK	0.18	1.77	0.22	0.120	0.094	2	0.52	6	0.0272	5

Note: * Rf= 7.56)%, R=0.05%

Interpretation: According to above figures, the study found that none of the mutual funds can be straightway declared best or worst performer. On the other hand, SBI, ICICI & HDFC are the best funds, out of which ICICI has the highest beta amongst all the funds.

Finding: The findings of the study are summarized as below:

a) Risk – Return Grid:

Table: 2.1

High Return Low Risk Rp>Rm & σp< Rm	High Return Low Risk Σp<σm&Rp< Rm	High Return Low Risk Rp< Rm & σp>σm	High Return Low Risk Rp> Rm & σp>σm
HDFC	N.A	N.A	N.A
SBI			
SCG			
ICICI			
CRG			
BOB			
KOTAK			

The study found the fact that the resulted causing the Rm to reduce drastically as compared to fund return.

b) Top five funds as per above indices of performance

Table: 2.2

Rank	Index & Funds		
	Sharpe	Treynor	Jenson
1	SCG	SCG	CRG
2	KOTAK	CRG	SBI
3	CRG	ICICI	ICICI
4	ICICI	BOB	HDFC
5	HDFC	HDFC	KOTAK

- a) The HSBC appears as the best return fund over the period with highest $R^2 = 0.13$.
- b) The linear relationship between risk & return does not hold true as there are many funds in whose cases σ & β are high they have a low return e.g. SBI, HDFC, ICICI etc.
- c) A fund performs & is ranked differently under different indices of performance as is clear from the ranking table. A same fund is best as per one criteria but may be worst as per the other one e.g. SCG has first rank as per Sharpe & Treynor but seventh as per Jenson's. Thus none of these could be said to be conclusive & final criteria for the judgment of performance of the mutual funds.

Conclusion and Recommendation: An excellence has been observed with constructive note in past in the Indian economy and the same is expected in future when compared on the scale of international standards. This is because of the structuralization of liberalization policies and equilibrium in the freedom provided to private financial players. The Indian economy is seen as an expanding economy in terms of growing population, rising income which is expected to have a great economical future. In order to uphold its position globally, Indian economy cannot afford to overlook global giants such as mutual funds which provides for its strategic financial position. The international players who wanted to establish a foothold in the Indian market were given a straightforward access into the market due to the relaxation in overall norms and regulatory framework. There was a need for the mutual fund industry to update itself in terms of skills, technology and a deep penetrated awareness network. In order to have a successful investing, the investors have to adjudicate their skills when it comes to timing and investment discipline. The findings of any study cannot be generalized to all because of the prevailing conditions and sample size while the study was being carried out but can provide for a few authentic directions. The study concludes that the mutual fund serves as a unique tool for investors who would like to invest in the slightest risk conditions and will serve as an important tool due to its advantages like professional management, diversification, economies of scale, liquidity, and simplicity with some drawbacks such as costs, dilution, taxes. It works well when carried out within a regulatory framework and under proper guidelines issued by SEBI and RBI. At the same time, we have to make it more investor friendly. Overall, mutual fund seems to have a bright future in India with serious investors surviving in the long run.

References:

1. Agrawal, D. (2007). Measuring Performance of Indian Mutual Funds. PrabhandanTanikniqui, 1, 1: 43-52.
2. AneelKeshwani and David Stolin, (February 2004, JEL) Determinants of Mutual Fund Performance Persistence: A Cross-Sector Analysis.
3. Agrawal G D (1992), "Mutual Funds and Investors' Interest", Chartered Secretary, Vol. 22, No. 1 (Jan), p. 23.
4. Barua, S. K., Raghunathan, V. and Verma, J. R. (1991). Master Share: A Bonanza for Large Investors. Vikalpa, 17, 1: 29-34
5. Ippolito, R. A. (1993). On Studies of Mutual Fund Performance: 1962-1991. Financial Analyst Journal, 49, 1 42: 50.
6. Ivkovich, Zoran, Clemens Sialm and Scott J. Weisbenner. (2006), "Portfolio Concentration and the Performance of Individual Investors." Available at SSRN: <http://ssrn.com abstract=568156> (Journal of Financial and Quantitative Analysis).
7. JhambMahendra (1991), "Mutual Funds Dominate Market Capital", Yojana, Vol. 35, July, 15, p. 8-9.
8. Keith Cuthbertson, Dirk Nitzsche, & Niall O' Sullivan (May 2004) "UK Mutual Fund Performance: Genuine Stock-Picking Ability or Luck".
9. Kundu Abhijit, (2009) Stock Selection Performance of Mutual Fund Managers in India: An Empirical Study, Journal of Business and Economics Issue Vol. 1 No.1 January 2009.
10. Kacperczyk, Marcin T., Clemens Sialm and Lu Zheng. (2005), "On the Industry Concentration of Actively Managed Equity Mutual Funds," The Journal of Finance, vol. 60
11. Mishra, B. and Mahmud, R. (2002). Measuring mutual fund performance using lower partial moment. Global Business Trends, Bhubaneswar, India.
12. Mohinderand M. Jaydev, "Performance of Growth Oriented Mutual Funds: An Evaluation", the ICAFI Journal of Applied Finance, January 1995. IJRIME Volume2, Issue2 ISSN: 2249-1619 International Journal of Research in IT, Management and Engineering.
13. N. P. Tripathy: An empirical study of mutual funds in India-a study on equity linked savings scheme
14. Patel, Nishant (2011) "Performance Evaluation of Mutual Fund Schemes in India- An Empirical Study" Steven Business School, Ahmadabad, Gujarat.

15. Pendaraki, K.,(2005). On the construction of mutual fund portfolios: A Multicriteria methodology and an application to the Greek market of equity mutual funds.
16. PunithavathyPadian (2007), "Security Analysis and Portfolio Management", New Delhi: Vikas Publishing House Pvt Ltd.
17. Rania Ahmed (2008), "Mutual Funds Performance: Does Gender Matter in an Emerging Market".
18. Rasheed Haroon, Qadeer Abdul (2012) Performance Evaluation of Survivorship-Biased Open-Ended Mutual Funds in Pakistan, International Research Journal of Finance and Economics ISSN 1450-2887 Issue 82.
19. Richard T. Bliss and Mark E. Potter (January 2005) "Performance Characteristics of Individual vs. Team Managed Mutual Funds".
20. Sahu R K (1992), "A Critical Review of the Mutual Fund Regulations", Chartered Secretary, Vol. 22, No. 12 (Dec), p. 1076.
