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PERFORMANCE EVALUATION OF BANKING SECTOR MUTUAL FUNDS IN INDIA

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Abstract
As an investment avenue Mutual Funds (MFs) has become one of the most attractive choices for the common man in India. Being professionally managed and well diversified the portfolio offered by mutual funds reduces the risk of the investor at a very low cost. The Indian mutual fund industry is regulated by Association of Mutual Funds in India (AMFI) and as of now there are 44 Asset Management Companies (AMC) registered with AMFI. Mutual funds play an important role in the economic development of nations by donning the role of a financial intermediary which mobilise capital required for the different business units of the country. This paper is an attempt to evaluate the performance of selected banking and financial services sector funds for five years by using risk adjusted return measures namely Sharpe ratio, Treynor Ratio and Jensen's Alpha. Five years closing Net Asset Values of the funds and Nifty 50 was taken to evaluate the performance of the funds. The research paper concludes that two of the scrips namely Kotak bank and IndusInd bank have outperformed the market during the period of.

Keywords: *Mutual Funds, Sharpe Ratio, Treynor Ratio, Jensen's Alpha, Nifty 50.*

Introduction

Mutual Funds (MFs) play a vital role in the economic development of the concerned countries. Worldwide, their active involvement in the economic development of nations can be noted in their dominant presence in the money and capital markets of the respective nations. However, they have relatively better presence in the economically advanced nations. The period of study is from 2009 to 2016, which was the period after the global financial crisis of 2008. The study is thus significant in terms of the impact financial crisis had on the banking and financial services sector of the economy.

Background Study

A Mutual Fund (MF) is a trust which pools the savings of large number of investors who all share a common financial goal. The money so raised is invested by the fund managers in diverse types of securities depending upon the objectives of the MF scheme concerned. 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 portfolio at a relatively low cost. Anyone having an investable surplus, even if as little as a few thousands of rupees, can very well invest in MFs. Since the early 2000s in India, MFs have growingly become the investors' choice for long-term investments. MF industry in India has a total corpus of over Rs 17 Lakh Crores collected from more than 4 Crores investors. Each Mutual Fund scheme has a defined investment objective and strategy, mutual fund is the ideal investment vehicle for today's complex and modern financial scenario. Markets for securities like equity shares, bonds, various fixed income instruments, real estate, derivatives etc. have already matured and are now information driven. Price changes in these markets are growingly driven by global developments – often taking place in faraway places. With all these developments it has become very difficult for investors to select the suitable fund which meets their demand.

National Stock Exchange (NSE) of India

NSE was incorporated in 1992 to provide a modern, fully automated screen based trading system with national reach. It is owned by a set of leading Indian and International financial institutions, banks, insurance companies, private equity funds, mutual funds, venture capital funds etc. As on March 2015, the number of companies listed is 1427. NSE helps companies to access equity capital, by providing a liquid and well regulated market. NSE offers easy and efficient trading platform for different securities like Wholesale Debt Market (WDM) segment, Capital market segment, Futures and Options (F&O) segment and Currency derivatives segment.

Stock Market Index

Any index refers to a statistical measure of changes relating to any representative group of individual data points. Index provides information relating to price movements in markets. Stock market index is created by selecting a group of stocks that are representative of the whole market or a specific sector of the market. Any index is computed with reference to two specific bases viz. (i) Base Period, and (ii) Base Index Value.

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Nifty 50

Nifty 50 is a market index representing 13 sectors of the Indian economy. It consists of 50 stocks selected based on its free float market capitalization. The index uses base year as 3rd November, 1995 and the base value as 1000. The Nifty 50 index can represent nearly 66.17 percent of the free float market capitalization of the stocks listed on NSE as on 31 March, 2015.

Nifty Bank

The Nifty Bank index comprises of 12 banking scrips which trade on the National Stock Exchange. The Nifty Bank index is calculated with base date January 1, 2000 indexed to base value of 1000. Nifty Bank index represent about 16.35% of the free float market capitalization of stocks listed on NSE. In addition to the Nifty Bank index, the NSE also includes Nifty PSU Bank Index and Nifty Private Bank index.

Objective of the Study

1. To identify the best banking and financial services sector mutual fund scheme based on past performance from the sample.
2. To evaluate the performance of funds using Sharpe, Treynor and Jensen's Ratios.
3. To study the extent of association between the individual funds and the sectoral index BANK NIFTY using Correlation analysis.

Research Methodology

The period under study is from the financial years 2009 to 2016. The daily closing values of the broader market index Nifty 50, sectoral index Bank Nifty and sample for the study. The performance evaluation is done by calculating the Sharpe, Treynor and Jensen's measaure during the period of study. Correlation study was conducted for the selected mutual funds to the broader market under Nifty 50 and Nifty Bank based on the closing price and indices during the period of the study.

Sharpe Ratio

The Sharpe ratio is the average return earned in excess of the risk free rate per unit of total risk or simply it is the reward to variability. The risk free rate used is the 91 day treasury bill yield, which is 6.5%. The ratio is calculated using the equation:

$$\mathbf{Sr = (Ri - Rf)/\sigma i}$$

Where Sr represents Sharpe Ratio, Ri represents return on fund, Rf is risk free rate of return, σi is standard deviation of fund return.

Treynor Ratio

The Sharpe ratio is the average return earned in excess of the risk free rate per unit of diversifiable risk or simply it is the reward to volatility. The risk free rate used is the 91 day treasury bill yield, which is 6.5%. The ratio is calculated using the equation:

$$\mathbf{Ti= (Ri-Rf)/\beta i}$$

Where Ri represents return on fund, Rf is risk free rate of return and βi is beta of fund

Jensen's Alpha

It is risk adjusted performance measure that represents the average return on the respective fund above or below that predicted by the CAPM (Capital Asset Pricing Model) given the fund's beta and the average Nifty 50 return. Jensen's alpha is calculated using the equation:

$$\mathbf{\alpha p = Rp - [Rf + \beta p(Rm - Rf)]}$$

Where αp represents Jensen's Alpha, Rp is Average Portfolio Return, Rf the Risk free rate of return, βp Beta of the portfolio and Rm the Average return on market index.

Review of Literature and Research Gap

Pala and Chandnib (2014) [8], in their study evaluated the performance of selected income and debt MF schemes on the basis of their daily NAVs, their period of study being Oct. 2007 to Oct. 2012. This study revealed that the best three MF schemes were HDFC Mid Cap Opportunity, Birla Sun Life MNC Fund and Quantum Long-Term Equity, in that order.

Kumar and Poddar (2014) [6] evaluated the performance of 10 HDFC open- ended equity schemes with the growth option. The rates of return were compared with the return on the BSE National Index over the sample period of April 2008 to March 2013. The performance was evaluated in terms of rate of return, Sharpe and Treynor‟s measures of performance. Besides, the study sought to address the instability issues associated with Beta. This study reported that some of the sample schemes could outperform the relevant benchmark portfolio.

Prajapati and Patel (2012) [10], in their study analyzed the performance of different diversified equity MFs in India for the period 2007 to 2011. It was observed that MFs could give positive returns on an overall basis. The best performer was found to be HDFC mutual fund and was followed by Reliance mutual fund as the second best managed MF.

Dhanda (2012) [2], made an attempt to study the performance evaluation of selected open ended schemes in terms of risk and return relationship by using rate of return, Beta, Standard Deviation, Sharp Ratio and Treynor Ratio. BSE-30 has been used as a benchmark to study the performance of mutual fund in India and the study period has been taken from April 1, 2009 to March 31, 2011. It was found that only three scheme could perform better than the benchmark.

Kumar Lenin Nooney and Devi Rama Vengapandu (2011) [5], evaluated the performance of selected mutual funds using average rate of return, standard deviation, Risk/Return, Sharpe ratio, Treynor ratio, Jenson Ratio and tested the hypothesis with ANOVA analysis. The sample for the study consisted of 340 MFs of diverse types like Money market, Debt, Equity and Balanced, and included both Public funds and Private funds. The findings of the study revealed that there was no significant difference between the returns of private and public MFs.

Srivastava and Gupta (2010) [12] attempted to determine the performance of growth oriented equity schemes of Indian mutual funds on the basis of monthly returns compared to benchmark returns. The findings of the study revealed that majority of the MF schemes outperformed the market benchmarks. It is found that, Sahara mutual fund and Birla Sun life outperformed the others in all the evaluation techniques employed. The results suggest that although the funds outperformed the benchmarks but even then the Indian fund managers are required to put more efforts for diversifying their portfolios as they are not diversified properly.

Monica M V and Manoj P K (2014) [7] in their joint study "Determinants of Valuation: An Empirical Study of Mergers and Acquisitions in Indian Mutual Fund Industry" in International Journal of Business and Administration Research Review (IJBARR) have studied in detail the commonalities noticed in the Mergers and Acquisitions (M&As) in the mutual fund (MF) industry in India during the 25 years period (1985-20012). The elements that contribute towards value creation have been identified by the authors. The authors have suggested a few strategies for healthier growth of MF industry in India.

In view of the foregoing discussions, it may be noted that studies that focus on the performance of banking sector mutual funds in India are very scarce. Hence this study seeks to bridge the above research gap and accordingly makes performance evaluation of major banking sector mutual funds in India for the period 2009 to 2016, using primarily the secondary data relating to operational performance of major banking sector mutual funds.

Data Analysis

Table No. 1: Details of Funds Selected for the Study

SI. No.	Name of the fund	Launch	Category	Benchmark
1.	ICICI Prudential Banking and Financial Services fund.	22 August 2005	Equity	Nifty 50, Nifty Bank
2.	Invesco India Banking Fund.	14 July, 2008	Equity	Nifty 50, Nifty Bank
3.	Sahara Banking and Financial Services	16 September,	Equity	Nifty 50, Nifty

	Fund.	2008		Bank
4.	UTI Banking Sector Fund	07 April, 2004	Equity	Nifty 50, Nifty Bank
5.	Reliance Banking Fund	26 May, 2003	Equity	Nifty 50, Nifty Bank

Table No. 2: Performance Analysis of Funds and Market Indices

Funds	Absolute Return (%)	CA (%	Sharpe Ratio	Treynor Ratio	Jensen's Alpha	Std dev	Beta
Nifty 50	13.09	13.31					
Nifty Bank	17.42	17.44					
ICICI	28.24	22.42	0.494	20.62	14.78	40.94	1.054
Invesco	18.6	18.62	0.305	11.26	5	34.64	1.074
Sahara	23.04	20.07	0.291	9.45	5	51.65	1.75
UTI	18.17	17.47	0.259	9.5	3.57	39.25	1.227
Reliance	21.23	20.45	0.326	11.51	6.28	40.5	1.28

Source: Secondary data

Table No.3: Ranking of MFs Based on Sharpe, Treynor and Jensen's Ratio

Name Of the Fund	Rank
ICICI Prudential Banking and Financial Services Fund	1
Invesco India Banking Fund	3
Sahara Banking and Financial Services Fund	5
UTI Banking Sector Fund	4
Reliance Banking Fund	2

Table No. 4: Correlation Coefficient

	NIFTY50	BANKNIFTY	ICICI	INVESCO	SAHARA	UTI	RELIANCE
NIFTY50	1	0.986	0.969	0.974	0.972	0.968	0.976
BANKNIFTY	0.986	1	0.976	0.987	0.983	0.984	0.988

Source: Secondary data

Findings of the Study

1. ICICI Prudential Banking and Financial Services fund is the best performing fund from the selected banking sector funds for the period 2009-2016.
2. All the funds have beaten the market index Nifty 50 and sectoral index Bank Nifty in terms of Absolute return and CAGR.

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3. In terms of Absolute return, ICICI Prudential Banking and Financial Services Fund have outperformed both the market and its peers.
4. In terms of CAGR, ICICI Prudential Banking and Financial Services Fund is the leader closely followed by Reliance Banking fund .
5. All funds have beta greater than one with ICICI Banking and Financial Services having the lowest beta and Sahara Banking and Financial Services fund having the highest beta.
6. ICICI Prudential Banking and Financial Services fund has given the best reward to variability whereas UTI Banking sector fund has given the least.
7. Reward to volatility is also highest for ICICI Prudential Banking and Financial Services and again UTI Banking sector fund was the worst performer.
8. Jensen's measure revealed that the fund manager's predictive capability was highest for ICICI Prudential Banking and Financial Services Fund.
9. The correlation study revealed that all of the five funds were highly correlated with NIFTY50 and BANK NIFTY.

Concluding Remarks

The process of selecting mutual funds has been skewed towards evaluating the historical performance of the scheme, assuming that past performance will be replicated in future results, this is a common approach among investors when it comes to making investments. The first step for any investor is to decide on the objective of the investment in terms of returns expected and the time at hand. Once this is determined, one needs to gauge the risk taking appetite, since investments in stock markets and therefore equity funds may go through ups and downs in the short term. Having worked out one's investments goals, choosing a scheme becomes a relatively easy task. Keeping the above in mind an investor should make his investment decision. For taking a decision to invest in mutual funds, the evaluation plays a major role. The rankings given to the mutual funds attract investments. In this project an analysis of the funds using measures like Beta, Standard deviation, Sharpe, Treynor, Jensen are carried out to analyse the performance. By using these tools, we can decide which fund to invest in. ICICI Prudential Banking and Financial Services Fund have performed the best among the five selected funds analyzed for the period 2009 to 2016.

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