PERFORMANCE EVALUATION OF SECTORIAL SCHEMES OF MUTUAL FUND IN INDIA

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ABSTRACT

The Indian mutual fund industry is one of the faster growing sectors of the Indian capital and financial market. As a result of the new economic policy built on the pillars of financial deregulation, privatization, liberalization and globalization, the mutual fund business in India gained strength. Mutual fund industry is now emerging as one of the most vibrant segment of the Indian financial system. They play a very crucial role in an economy by mobilizing and investing the saving of the people in capital and money market. In this paper, the performance of two sectors Banking Sector and Technology Sector are evaluated. The study period for the study from 2013 to 2018. Sharpe, Treynor and Jensen Ratio are used in this study for the performance evaluation of mutual fund.

KEY WORD: MUTUAL FUND, BANKING SECTOR, TECHNOLOGY SECTOR, GLOBALIZATION, PRIVATIZATION, LIBERALIZATION

INTRODUCTION

The economic growth of any country largely depends upon the financial system of a nation. Economic growth is automatically soar up if the financial system is strong, because the financial system efficiently and effectively mobilizes resources and allocates it. The Indian mutual fund industry is one of the faster growing sectors of the Indian capital and financial market. As a result of the new economic policy built on the pillars of financial deregulation, privatization, liberalization and globalization, the mutual fund business in India gained strength. The year 1993, witnessed a stimulant by way of the opening up of the industry to the private sector and later to the foreign mutual fund companies. Mutual fund industry is now emerging as one of the most vibrant segment of the Indian financial system. They play a very crucial role in an economy by mobilizing and investing the saving of the people in capital and money market.

There are many investment approaches available for investors in the financial market. An investor can invest in bank deposits (may be time and demand deposit) but here is low return, because of interest rate continuously falls and are generally below the inflation rate. These types of investment have low risk. From above, the investors also invest in stock of companies where the returns are high and the risk is also proportionately high.

LITERATURE REVIEW

Dhanda & Chaudhary (2017) evaluated the performance of selected mutual fund growth schemes in India for the study period 2003 to 2016. The study revealed that the sector specific growth fund schemes have performed better than the benchmark index and the average performance of sample schemes outstanding

throughout the study period. Almost all the security performed better on the basis of yearly return barring 2008-2009, the year of financial crisis.

Pandow (2017) in his paper "Growth and performance of Indian mutual fund industry" concluded that the Indian mutual fund industry had recorded growth on all front even after that Indian mutual fund industry far behind the emerging economy and developed countries because industry not able to utilized its potential fully.

Das and Megaravalli (2017) evaluated the performance of 15 open ended growth oriented equity schemes for 5 years time period started from April 2010 to March 2015 and concluded that all schemes provides greater return than risk free rate of return.

Goyal & Mukta (2016) tried to examine that whether the past performance of mutual fund provides any information regarding future performance. For the study, 44 mutual fund schemes analysed for the period from April 2005 to March 2013 and concluded that the presence of performance persistence in mutual fund.

Vaddem (2015) in his paper took five types of sector specific mutual fund as a sample. The author inspected that sector fund provide substantially better return compared to other mutual fund schemes. From five types of sector specific mutual fund (Banking, FMCG, Pharmacy, Infrastructure and I.T.), the Banking and Pharma funds provide low volatility return compared to other category. Infrastructure fund schemes were under-performed compared to other sector fund because of high volatility nature.

RESEARCH METHODOLOGY:

Research methodology is the path attains the objective of the study.

NEED OF RESEARCH:

After reviewing the literature, there is no doubt that a number of researches have been conduct time to time on sector specific schemes. Almost research done before Demonetization and launch of GST. So there a need for undertaking a comprehensive study to evaluate the performance of mutual fund through certain performance measurement model in respect of Sector Specific Schemes in mutual fund.

Here the present study is going to target to fill the gap between past studies and the present economic conditions affecting the investor's priorities depending upon their risk-return analysis for different investment avenue available for investors.

OBJECTIVE

1. To study the return on sector schemes banking sector and technology sector schemes of mutual fund.
2. To analysis the performance of both sector as per Sharpe, Treynor and Jensen Ratio.
3. To compare the performance of banking and technology sector.

RESEARCH DESIGN: It is a framework of executing research. Research design is the way of collection of data systematically and analysis, which is appropriate to the objective of research project.

Descriptive Research Design applied for present study & secondary source of data used for collection of data.

PERIOD OF STUDY: For performance evaluation of sector specific mutual fund scheme the study period is six years. From January 2013 to December 2018.

SAMPLE SELECTION OF THE STUDY: There are lots of schemes related to sector specific. For the study we select two sectors; Banking and Finance, Technology.

DATA CONSISTANCY: All the schemes are related to open-ended category and equity scheme. Thus per day closing NAV data was used for the study. All schemes belong to growth category.

SOURCE OF DATE: Study based on secondary data. Data collect from different website like Association of Mutual Fund in India (AMFI), bluechipindiamutualfund, money control, and economic times. Books, Newspapers and Magazines, Research Article are the huge source of mutual fund data. Benchmark index data collected from related stock exchange.

SAMPLE SIZE: For the study 3 schemes related to Banking Sector and 3 schemes related with Technology Sector are take on the basis of availability of data for study period started from 1 January to 31 December.

ANALYTICAL TOOLS:

1. For evaluating investment performance, NAV of the schemes along with value of market index for the period from 1 January 2013 to 31 December 2018 were collect from bluechipindiamutualfund and stock exchange website.
2. The data is sorted and calculation of return or R value by using Microsoft Excel.
3. For Risk free rate of return 364 days Treasury bill have been used.
4. Sharpe, Treynor and Jensen Ratio were used for performance analysis of mutual fund.
5. For calculate return following formula used:

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

Where, r = Return on Mutual Fund

I_t = Income at period‘t’

NAV_t = Net Asset Value at the Time period‘t’

NAV_{t-1} = Net Asset Value at time period‘t-1’

6. Sharpe Ratio: The ratio measure reward to variability. This ratio developed by William Sharpe. It is the ratio of risk premium to the variability of return/risk as measured by the standard deviation of return. The formula for calculating Sharpe ratio is:

$$S = \frac{(R_p - R_f)}{\sigma_p}$$

Where, S = Sharpe ratio of the fund

R_p= Annualized average rate of return of the fund

R_f = Annualized risk-free rate of return

σ_p = Standard Deviation of average retune of the fund

7. Treynor Ratio: This ratio developed by Jack Treynor is referred to as Treynor ratio/reward to volatility ratio. The ratio of the reward/risk premium to the volatility of return as measured by the portfolio beta. The formula for calculating Treynor ratio is:

$$T = \frac{(R_p - R_f)}{\beta_p}$$

Where, T = Treynor ratio

R_p = Portfolio return

R_f = Risk-free return

β_p = Portfolio beta

8. Jensen Ratio: This ratio also known as Jensen Alpha. It measures the differential between the actual return earned by a portfolio and the return expected from a portfolio given level of risk. It helps in evaluating the ability of the fund manager.

$$\alpha = (R_p - R_f) - \beta_p(R_b - R_f)$$

Where, α = the Jensen measure (alpha)

R_p = portfolio return

R_f = riskless return

B_p = portfolio beta

RISK-RETURN ANALYSIS: This part is dividing in two sections. Section first is related with Banking and Financial Sector and other section related with Technology Sector.

Section-I

Table No. 1.1 shows the performance of Invesco India Banking and Financial fund for the period of 2013-2018.

Table No. 1.1

INVESCO INDIA BANKING AND FINANCIAL FUND

Year	SRs	SRm	P	TRs	TRm	P	JR	P
2013	-5.0941	-0.1321	U	-9.3383	-22.9300	O	-0.0824	U
2014	-7.0866	-0.0079	U	-9.4658	-1.0581	U	-0.0847	U
2015	-6.0265	-0.1993	U	-9.4421	-31.5385	O	-0.0741	U
2016	-5.8258	-0.1011	U	-9.2367	-15.9181	O	-0.0664	U
2017	-8.3824	-0.1230	U	-7.1891	-9.4402	O	-0.0627	U
2018	-7.0664	-0.0857	U	-8.6427	-9.4961	O	-0.0693	U
Average	**-6.5803**	**-0.10818**	**U**	**-8.88578**	**-15.0635**	**O**	**-0.07327**	**U**

SOURCE: Data compiled from scheme data & BDE data

The above table indicates that as per Shapre Ratio the fund offered highest return in the year 2013, i.e. -5.0941 and benchmark offered highest return in 2014 was -0.0079. The ove
rall return of the fund as well as benchmark during study period was negative. But benchmark returns was more than fund return. So the scheme performs poorly.

The Treynor Ratio shows the overall performance of fund was also negative with negative benchmark but the fund performed well almost all study period except in the year of 2014 due to global downfall.

The Jensen Ratio shows that the fund underperformed entire of the study period. In the year 2017 the fund performance was better among other year. The analysis concludes that overall performance was negative, indicating the poor managerial ability of fund manager.

Table No. 1.2 represent the performance of Reliance Banking Fund study period started from January 2013 to December 2018.

Table No. 1.2

RELIANCE BANKING FUND

Year	SRs	SRm	P	TRs	TRm	P	JR	P
2013	-4.9175	-0.1321	U	-8.9829	-22.0424	O	-0.0824	U
2014	-6.8014	-0.0079	U	-9.5099	-1.0657	U	-0.0845	U
2015	-5.8789	-0.1993	U	-9.1103	-30.3447	O	-0.0757	U
2016	-5.3915	-0.1011	U	-8.2184	-14.1649	O	-0.0663	U
2017	-7.9063	-0.1230	U	-6.8981	-9.0490	O	-0.0607	U
2018	-6.3327	-0.0857	U	-9.7163	-10.6632	O	-0.0696	U
AVERAGE	**-6.2047**	**-0.1082**	**U**	**-8.7393**	**-14.555**	**O**	**-0.0732**	**U**

SOURCE: Data compiled from scheme data & BDE data

The above table outline that as per Sharpe Ratio the fund were achieved highest return in the year 2013 after that this were stood at -6.8014, -5.8789, -5.3915 in the years 2014, 2015 and 2016 respectively. But in next year (2017) the fund performance goes down and stood at -7.9063 due to demonetization in late 2016. The benchmark return was highest in the year 2014 i.e. -0.0079.

But the Treynor Ratio shows the opposite result from the Sharpe Ratio. As per Treynor Ratio the fund was over-performed entire of the study period except in the year 2014. But overall performance of fund was favorable then benchmark index.

The application of Jensen Ratio was negative of the fund. It indicates that the managerial ability was inferior.

Section-II

Table No. 2.1 depicts the performance of ABSL New Millennium Fund for the study period from January 2013 to December 2018.

Table No. 2.1

ABSL NEW MELLINNUM FUND

Year	SRs	SRm	P	TRs	TRm	P	JR	P
2013	-6.7602	-0.0836	U	-7.4858	-6.8635	U	-0.0815	U
2014	-8.3425	-0.1718	U	-8.4668	-15.142	O	-0.0843	U
2015	-7.2921	-0.2403	U	-8.0337	-23.6283	O	-0.0736	U
2016	-6.4041	-0.2044	U	-7.1414	-20.2645	O	-0.0661	U
2017	-7.8047	-0.1233	U	-7.8593	-12.1081	O	-0.0613	U
2018	-6.6832	-0.1791	U	-7.9657	-19.7458	O	-0.0679	U
AVERAGE	**-7.2145**	**-0.1671**	**U**	**-7.8255**	**-16.2920**	**O**	**-0.0725**	**U**

SOURCE: Data compiled from scheme data & BDE data

The above table shows the Sharpe Ratio of fund was highest in the year 2016 i.e., -6.4041. In 2013 the fund return was -6.7602 and benchmark return was -0.0836. Due to general election in country the fund return go down in the year 2014 and stood at -8.3425 with the benchmark return -0.1718. In 2015 fund return was -7.2921. Next three years the fund returns were -6.4041 and -7.8047, -6.6832. The study revealed that the average performance of fund stood at -7.2145. By comparing the fund return with benchmark return the study conclude that fund underperformed.

As per Treynor Ratio the table shows that fund return was not so much fluctuated but the market return were fluctuate from -6.8635 to -23.6283. The matter of relief for investors was the performance of fund compared with benchmark was higher. Application of Treynor Ratio indicates that fund performed favorable all of study period except in the year of UPA government (2013) after the new government and stabilized government the fund performance was improved.

Jensen Ratio shows that the fund getting a negative returns in all over study period. So it can be concluding that the fund was not taking the advantages of stabilized government in country.

Table No. 2.2 highlights the performance of ICICI Pru. Tech Fund for the study period from 2013 to 2018.

Table No. 2.2

ICICI PRU. TECH. FUND (DIRECT)

Year	SRs	SRm	P	TRs	TRm	P	JR	P
2013	-7.8255	-0.0836	U	-11.0695	-10.1877	U	-0.0814	U
2014	-8.4394	-0.1718	U	-9.9550	-17.8362	O	-0.0865	U
2015	-7.4381	-0.2403	U	-8.3434	-24.4536	O	-0.074	U
2016	-7.2740	-0.2044	U	-8.1403	-23.0898	O	-0.0663	U
2017	-8.7280	-0.1233	U	-8.8234	-13.573	O	-0.0615	U
2018	-6.4492	-0.1791	U	-7.7736	-19.3035	O	-0.0678	U
AVERAGE	**-7.6924**	**-0.1671**	**U**	**-9.0175**	**-18.0740**	**O**	**-0.0729**	**U**

SOURCE: Data compiled from scheme data & BDE data

The above table indicates that as per Sharpe Ratio the fund higher return was -6.4492 in the year 2018 and benchmark highest return was -0.0836 in the year 2013. The scheme and benchmark performance was negative during entire of study period. Analysis indicates that the scheme has offered lower return than benchmark in entire of study period.

As per Treynor Ratio the scheme performance negative almost all study period except the year 2013. Analysis indicates that the scheme has offered highest return as compared to benchmark.

As Jensen Ratio the scheme underperformed during 2013 to 2018. It indicates the poor managerial ability of the fund manager.

FINDING AND CONCLUSION:

From above analysis it can be concluded that, the all schemes of banking as well as technology sector perform poor than market index as per Sharpe Ratio. All schemes return negative all over the study period and it perform poor because the return of market is less than benchmark return. The schemes of banking as well as technology sector perform outstanding as per Treynor Ratio. The average return of the schemes of banking sector is more than the market return. So the performance is well. The technology sector also performs well as per Treynor Ratio. All schemes of technology sector perform outstanding. As per Jensen Ratio the performance of scheme poor due to poor management ability.

If compare the performance of both sector i.e, Banking sector and Technology Sector, the study found that the performance of Banking sector as per Sharpe Ratio is outstanding than the Technology Sector.. The Treynor Ratio shows that the performance of Technology Sector is well than the Banking sector, because the average performance of both schemes of the Technology sector is i.e, -8.4225 is well than the average performance of both schemes of Banking sector i.e, -8.8125. As per Jensen Ratio, both sector underperformed but the average performance of Technology Sector i.e, -0.0727, is well than the average performance of Banking Sector i.e, -0.0732. It indicates the Technology sector managerial ability is well than the Banking sector.

REFERANCE'S:

Chandra, Prasanna (2002), "Investment Analysis and Portfolio Management," Tata McGraw-Hill, New Delhi.

Kevin, S. (2015), "Security Analysis and Portfolio Management", PHI Learning Pvt. Ltd. 6

Khan, M.Y. (2006), "The Indian Financial System", Tata McGraw Hill Education.

Dhanda & Chaudhary (2017), " Performance Evaluation of selected mutual fund growth schemes in India", EPRA International Journal of Economic & Business Review, Vol.5, Issue-5.

Pandow (2017), "Growth and performance of Indian mutual fund industry",

Das & Megaravalli (2017), " Evaluation of mutual fund schemes: An empirical Evidence", Asian Journal of Research in Banking and Finance, Vol. 7, No. 3, pp. 43-58.

Goyal and Mukta (

Veddem (2015), "Performance Evaluation of sectorial mutual fund in India", International Journal of Engineering and Management Sciences, Vol, 6(3), pp. 164-166.

WEBSITES:

1. http://www.mutualfundindia.com

2. http://www.amfiindia.com

3. http://www.nseindia.com

4. http://www.bseindia.com

5. http://www.valueresearchonline.com

6. http://www.sebi.gov.in

7. https://www.pwc.com/gx/en/issues/the-economy/assets/ world-in-2050-february-2015.pdf