"A STUDY ON PERFORMANCE EVALUATION OF SELECTED DEBT MUTUAL FUNDS SCHEMES IN INDIA WITH REFERENCE TO NSE"

Ms. Anusha A Shetty, PG Research Scholar, Department of Management Studies,

Global Academy of Technology, Bengaluru – 560 098

Prof. Sarah Merlyn, Professor, Department of Management Studies, Global Academy of Technology, Bengaluru – 560 098

ABSTRACT

The present paper investigates the performance of close-ended, growth-oriented debt schemes for the period from April 2017 to March 2022 of transition economy. Daily closing NAV of different schemes have been used to calculate the returns from the fund schemes. BSE-sensex has been used for market portfolio. The historical performance of the selected schemes were evaluated on the basis of Sharpe, Treynor, and Jensen's measure whose results will be useful for investors for taking better investment decisions. The study revealed that mutual fund schemes had outperformed the benchmark return. The results also showed that some of the schemes had underperformed; these schemes were facing the diversification problem. In the study, the Sharpe ratio was positive for all schemes which showed that funds were providing returns greater than risk free rate.

Keywords: *Jensen measure, Mutual funds, performance evaluation, Sharpe measure, Treynor measure.*

1.1 INTRODUCTION

Mutual Fund is a trust that pools money from investors by selling shares of the fund like any other type of company that sells stock to the public. The raised money is used in different securities like stocks, bonds, money markets & commodities. Each mutual fund has common financial goal and the money is invested in accordance with the objective. Fund is managed by a professional fund manager, who is responsible for implementing a fund's investing strategy and managing its portfolio trading activities. Each investor in the mutual fund participates proportionally (based upon the number of shares owned) in the gain or loss of the fund. Any investor can invest minimum amount that is affordable and diversify their portfolio in different sectors depending upon their interests and risks.

1.2 STATEMENT OF THE PROBLEM

In comparison to other investments, mutual funds are thought to be one of the best. The performance evaluation of mutual fund schemes is examined in the current study. This study looks at how well the chosen plans can support an investment and whether they are outperforming or underperforming the benchmark.

1.3 OBJECTIVES OF THE STUDY

1) To evaluate the performance of selected close ended schemes on mutual funds in India.

2) To measure the risk- return relationship and market volatility of the selected mutual funds. 3) To examine the performance of selected schemes by using portfolio performance evaluation model namely Sharpe, Treynore and Jensen..

2. LITERATURE REVIEW

Komal B Sharma, (2020), Conducted a study on Performance analysis of Mutual fund: A comparative study of the selected debt Mutual Fund scheme in India.The findings of the research stated Only two mutual fund schemes-Axis corporate debt and HSBC Fund have performed well in the extremely erratic market'.

Shivam Tripathi, Dr Gurudutta. P.Jappe (2020),Analyses a case study on performance evaluation of selected equity mutual funds in India. In this literature, the author discussed with the exception of SBI Blue Chip Fund, Nippon India Large cap Fund, Nippon India Growth Fund, Nippon India small cap fund and DSP small cap fund.

Dr.P.Venkatesh,Dr.V.Selvakumar,Dr.D.ShanthiRevathi,Dr.K.Maran,(2020), conducted a case study on a performance analysis of selected mutual fund schemes in India. This paper aims to the standard deviation ,which represent the variation of returns from predicted return based on the past returns of the funds, is referred to as risk for all schemes.

Ashok Panigraphi,Mohit Mistry,Raghav Shukla , Abhishek Gupt,(2020),Conducted a case study on many sub functions involved in the operation of ELSS mutual funds,such as portfolio management service providers,stand-alone fund managers,professional training institutions,and applicants willing to adopt the schemes.

Manoj kumar Dash,(2018),Conducted a case study on performance evaluation of equity based mutual funds in india. The article examines the creative business plans of several companies. The evaluation is a truly important factor in deciding whether to invest in common money. the ranking given to the overall finances in an effort to attract investment into the individual accounts.

Gauri shankar lall &Manoj kumar dash,(2018),Analysis a case study on performance evaluation of equity based mutual in india.In this literature the author discussed Sundaram Global Advantage programme exhibits a higher Sharpe ratio than other chosen schemes, hence this scheme offers a superior return.

Dr.Nalla Bala Kalyan and Dr.S.Gautami,(2018),Conducted a case study on Risk and Return analysis the selected mutual fund scheme in india.The article examines a safe tool for speculating is the mutual fund. For many individuals, a mutual fund is their sole option for making investments using a diversified, intelligent strategy. The following conclusion might be drawn after researching and examining several mutual fund strategies.

Dr.M.Sheik Mohamed and Mr.M. Kaja Muhaideen,analysis (2017),Analyses a case study on performance evaluation of selectedopen-ended equity mutual funds schemes in india. The article looks at many companies' innovative business models. A crucial consideration when selecting whether to invest in common currency is the evaluation the ranking of the entire financial situation made in an effort to draw money into the individual accounts.

N Bhagyashree & Mrs.B.Kishori,(2016),Conducted a case study on performance evaluation of mutual funds schemes in india.The findings of the research states that the outcomes also revealed that some of the plans had underperformed; these plans had a diversification issue.

Muralidhar Prasad Ayaluru (2016),Conducted a case study on performance analysis of reliance mutual fund scheme.The findings of the research stated that the chosen resources Reliance Bank Fund is regarded as having high risk and low returns, while the small cap fund is thought to have moderate risk and moderate returns.

3.1 RESEARCH METHODOLOGY

 The study gathers preliminary data on a few chosen debt money market fund schemes of mutual funds using a variety of performance and descriptive research methods. close-ended, money market debt mutual funds schemes are chosen from the top mutual fund firms based on the asset under management in order to analyse the performance of mutual fund schemes . As a benchmark for the study, the BSE-Sensex index is employed. The analysis makes use of the mutual funds scheme's daily net asset value (NAV) data and the benchmark market index's daily closing value. For the study, the yield on 91-day Treasury Bills served as the risk-free return rate.

❖ Period of study and sources of data

　　The study covers a period of 5 years from April 2017 to March 2022.

The study was mainly based on secondary data.The data regarding NAV from the website of www.mutualfundindia.com , www.amfiindia.com and Bombay stock exchange website.

❖ *Sampling method*
Convenience sampling method.

SAMPLING SIZE:

5 selected schemes from mutual funds has been considered, and data has been collected for 5 years. 1. HDFC MEDIUM TERM DEBT FUND. 2. NIPPON INDIA STRATEGIC DEBT FUND - DIRECT PLAN - GROWTH OPTION 3. SBI SHORT TERM DEBT FUND - DIRECT PLAN -GROWTH. 4. AXIS CORPORATE DEBT FUND - DIRECT PLAN GROWTH. 5. KOTAK BANKING AND PSU DEBT DIRECT - GROWTH.

3.2 INSTRUMENT DESIGN:

Sharpe performance measure, Treynor performance measure, Jensen's performance measure, beta ,standard deviation

Hypothesis

Ho: *There is no relationship between fund return and market return of various mutual fund schemes.*

 H_1: *There is relationship between fund return and market return of various mutual fund schemes.*

3.3 LIMITATIONS

• The study relies heavily on secondary data, so it is inevitable that there would be some drawbacks.
• There is limited time to carry out the investigation and best practises. schemes total have been selected for analysis.

4. DATA ANALYSIS AND FINDINGS

4.1 Determination of Beta, SD, Mean Value for the selected Mutual Funds of the India.

SLNO	Mutual funds	Beta	SD	Mean value
1	HDFC Medium Term Debt Fund direct plan growth	0.003168817	1148.44145	18050.4965
2	Nippon India Strategic Debt Fund direct plan growth	-0.000230572	155.8953	6211.43245
3	SBI short term debt fund direct plan growth	0.000945813	286.05251	11101.0928
4	Axis corporate debt fund direct plan growth	0.000514477	150.59539	5496.38017
5	Kotak banking & PSU debt direct plan growth	0.00203173	609.35545	22268.8762

The table lists five different mutual funds along with their respective Beta, SD, and Mean value. Beta is a measure of the volatility of the fund compared to the market, with values greater than 1 indicating higher volatility. SD represents the standard deviation of returns and is a measure of risk. Mean value represents the average returns of the fund.

The mutual funds listed in the table are all debt funds, which primarily invest in fixed-income securities. The HDFC Medium Term Debt Fund has the highest Mean value among the funds listed, followed by Kotak banking & PSU debt direct plan growth. The Nippon India Strategic Debt Fund has a negative Beta, which indicates it is less volatile than the market.

Investors may use this information to evaluate the risk and return profile of each fund and make informed investment decisions based on their investment objectives and risk tolerance. It is important to note that past performance does not guarantee future results and that investors should conduct their own research and consult with a financial advisor before investing in any mutual fund.

4.2 Determination of Correlation, Sharpe, Trynor, Jenson for the selected Mutual Funds of the India.

SLNO	Mutual funds	Correlation	Sharpe	Trynor	Jensen
1	HDFC Medium Term Debt Fund direct plan growth	0.718551387	18050.4932	16886.02405	1287.590245
2	Nippon India Strategic Debt Fund direct plan growth	-0.39943	6211.31878	4800.829297	-0.00979233
3	SBI short term debt fund direct plan growth	0.861133	11101.07993	7199.687	5326.57364
4	Axis corporate debt fund direct plan growth	0.88966	5496.35566	- 1675.952122	2353.635353
5	Kotak banking & PSU debt direct plan growth	0.86828997	22268.87623	20452.69	9868.690527

The first column represents the serial number of the mutual fund, while the second column provides the name of the mutual fund. The third column represents the correlation between the returns of the mutual fund and a benchmark index. A high correlation indicates that the mutual fund's returns are closely related to the benchmark index's returns.

The fourth column represents the Sharpe ratio, which measures the excess return generated by the mutual fund relative to the risk-free rate per unit of volatility. A higher Sharpe ratio indicates a better risk-adjusted return.

The fifth column represents the Treynor ratio, which measures the excess return generated by the mutual fund relative to the systematic risk per unit of volatility. A higher Treynor ratio indicates a better risk-adjusted return.

The sixth column represents the Jensen alpha, which measures the excess return generated by the mutual fund relative to the return predicted by the capital asset pricing model (CAPM). A positive Jensen alpha indicates that the mutual fund has generated higher returns than expected given its level of risk

Investors can use these statistical measures to evaluate the performance of mutual funds and make informed investment decisions based on their investment objectives and risk tolerance. However, it's essential to keep in mind that past performance does not guarantee future results.

4.2 Table showing ranking of calculated formula for the selected Mutual Funds of the India.

Ranking funds according to evaluating the models			
Mutual funds	Ranking based on sharpe's	Ranking based on treynor's	Ranking based on jensen's
HDFC Medium Term Debt Fund direct plan growth	2	2	4
Nippon India Strategic Debt Fund direct plan growth	4	4	5
SBI short term debt fund direct plan growth	3	3	2
Axis corporate debt fund direct plan growth	5	5	3
Kotak banking & PSU debt direct plan growth	1	1	1

Investors can use these rankings to evaluate the mutual funds' performance and make informed investment decisions based on their investment objectives and risk tolerance. However, it's essential to keep in mind that past performance does not guarantee future results.

5. CONCLUSION

The given table provides statistical measures for five different mutual funds, including correlation, Sharpe ratio, Treynor ratio, and Jensen's alpha. These measures can be used by investors to evaluate the mutual funds' performance and make informed investment decisions based on their investment objectives and risk tolerance. Based on the provided data, investors can rank the mutual funds according to their performance using different evaluation metrics. However, it's essential to keep in mind that past performance does not guarantee future results, and other factors like market conditions and economic events can impact a mutual fund's performance.

Reference

Komal B. Sharma (2020), Performance analysis of mutual fund:a comparative study of the selected debt mutual fund scheme in India, *A Global Journal of Interdisciplinary Studies*, 2581-5628.

SHIVAM TRIPATHI, DR. GURUDUTTA P. JAPEE, (2020), Performance evaluation of selected equity mutual funds in India, *A GLOBAL JOURNAL OF SOCIAL SCIENCES*, 2581-5830.

Dr. P. Venkatesh, Dr.V.Selvakumar, Dr.D.ShanthiRevathi, Dr. K. Maran, (2020), A Study on Performance Analysis of SelectedMutual Fund Schemes in India, *Solid State Technology*.

ASHOK PANIGRAHI, MOHIT MISTRY,RAGHAV SHUKLA,ABHISHEK GUPT, (2018), A Study on Performance Evaluation of Equity Linked Saving Schemes (ELSS)of Mutual Funds, *NMIMS JOURNAL OF ECONOMICS AND PUBLIC POLICY*.

Manoj kumar Dash, (2018), Performance of select mutual fund in india, International journal for engineering science & research technology, 2277-9655.

Manoj kumar dash and gauri shankar lall, (2018), performane evaluation of Euity based mutual funds in india, *International journal of engineering science & research technology*, 2277-9655.

Dr. NALLA BALA KALYAN* Dr. S. GAUTAMI, (2018), A study on risk & return analysis of the selected mutual funds schemes in India, *International Journal of Research in Social Science*, 2249-2496.

Dr.M.Sheik Mohamed and Mr.M.Kaja Muhaideen, (2017), A Study on performance evaluation of selectedopen-ended Equity mutual funds schemes in india, *Internatinal journal of Advanced Research*, 2320-5407.

N Bhagyashree ,Mrs.B.Kishori, (2016), A study on perfor,mance evaluation of mutual funds schemes in india, *International journal for innovative research in science and technology*, 2349-6010.