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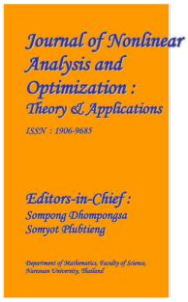

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PERFORMANCE EVALUATION OF MUTUAL FUNDS: A STUDY ON SELECTED EQUITY MUTUAL FUNDS IN INDIA

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ABSTRACT: This study uses the notion of relative performance to evaluate the performance of mutual funds in India. The returns from the fund schemes were computed using the daily closing Net Asset Value (NAV) of each plan. Market portfolios were built with NSE's Nifty as the underlying benchmark. ANOVA, Sharpe Index, Treynor Index, Standard Deviation, and risk and return analysis are used to evaluate mutual fund performance. The Indian Mutual Fund Association is the primary source of the data. The trial is slated to begin in April 2019 and end in March 2022.The statistics show that the majority of mutual funds produced positive returns during the study period. A mutual fund is the best option for investing in the stock market.
Key words:portfolio,mutual funds

I.INTRODUCTION

The mutual fund business in India has seen significant progress since its inception in 1964. The industry's structure has changed significantly over time. Given the large number of participants in various sorts of fund schemes, competition is severe. The industry has expanded significantly in terms of size, operations, investor base, and range of tactics. It is experiencing additional expansion in direct response to investor demands and market factors. Mutual fund investors must now analyze the schemes' performance before making any investment decisions. Despite the potential for unreliability in forecasting future outcomes, a large percentage of investors use recent achievements as a yardstick. Statistical metrics use historical data to systematically evaluate the effectiveness of a strategy.Mutual fund investments are managed by an experienced team of portfolio managers. Investors without capital market experience benefit from professional management, diversification, and a streamlined investment procedure. Investors now have a diverse variety of options in the mutual fund market thanks to the launch of new products. India is growing as a highly appealing investment destination among other Asian countries due to its high savings and investment rates. There is an urgent need to raise

awareness, especially in semi-rural and semi-urban areas, where a large number of people are unaware of the benefits of mutual fund investing. They continue to invest using traditional approaches.

II.REVIEW OF LITERATURE

Bharathi (2015) An analysis was conducted on 51 open-ended mutual fund schemes chosen using a pragmatic selection technique. Net Asset Values (NAVs) were gathered over a one-year period, from October 1, 2013 to September 30, 2014. A total of 18 schemes out of the 51 funds outperformed the market. The remaining 33 funds' returns were lower than the total market return.

Sharpe, William F. (1966) A metric for evaluating portfolio performance was proposed. Sharpe was one of the first institutions to use the Capital Asset Pricing Model to evaluate mutual fund performance. He assumed a linear link between a fund's risk and expected return (E (RP)). Sharpe reported that the funds fared 40 basis points poorer than the Dow Jones index. Funds that performed better nonetheless had lower expense ratios. Sharpe evaluated the performance of 34 open-end funds in the United States between 1954 and 1963. According to the findings of his analysis, performance was more strongly associated with a low expense ratio than with size. The risk measure remained consistent across all of the sample strategies.

Anand (2017) Focused on market programs offered by competitors and Birla Sunlife. The author conducted a rigorous three-year analysis of equities fund performance. They also performed literature research and used the Delphi approach to perform a SWOT analysis on Birla Sunlife. Based on a thorough financial analysis, the author believes that Birla Sunlife outperforms both the benchmark and competitors in terms of delivering higher returns from the selected stock funds.

Alka Solanki (2016) Between 2007 and 2016, the SENSEX, which represents the market index, and the comprehensive BSE National Index, which consists of 100 shares, were used to analyze the success of sample schemes. This evaluation consisted of comparing their returns and risks to a benchmark. The investigation discovered that all schemes, with the exception of Eliance Focused Large Cap Fund, had an average return that outperformed the market.

Gouri Shankar Lall, (2018) The purpose of this study is to assess the performance of equity-based mutual funds in India. This will entail examining the profitability of growth-oriented mutual fund schemes, evaluating the selected mutual fund schemes, and reviewing the chosen mutual funds' return trends. This study collected daily data from Thomson Reuters on Net Asset Value (NAV), Risk Free Rate of Return, and Market Index (SENSEX) from April 2011 to March 2016. The data was evaluated with Treyner's Index and Sharpe's Index. According to the investigation, the Sundaram Global Advantage Scheme outperformed the other selected schemes in terms of Sharpe ratio, indicating stronger investment management capabilities. When compared to other plans, the Kotak Global Emerging Market Opp. EgOffsharegrowth is less volatile.

Chakrabarti (2019) Equity mutual funds in India are evaluated using quadratic optimization of William Sharpe's asset class factor model and comparing their performance to style benchmarks. From January 2012 to June 2017, mutual funds continuously produced positive monthly returns. In terms of returns, the ELSS funds underperformed the Growth funds or the aggregate of all funds.

Carlos(2019) Carlos (2019) used the asset pricing model, the linear model, the French and Fama factors, and other analytical tools to compare the effectiveness of characteristic-based versus factor-based techniques, sometimes known as benchmarks, for measuring portfolio performance. The study demonstrated that when return data was used, the right side of the equation showed accomplished performance and the passive

benchmark that duplicated the style or risk of the investigated portfolio. In addition, a linear model was supplied to modify the return based on a set of exogenous variables.

OBJECTIVES OF THE STUDY

- Research the return and risk characteristics of chosen equity mutual funds from various fund schemes in India.
- The Sharpe and Treynor technique can be used to evaluate the performance of certain equities mutual funds.

METHODOLOGY

This essay will look at and evaluate the performance of eight mutual funds that invest in Indian equities. Between April 2019 and March 2022, a detailed analysis of mutual funds was conducted. This analysis was based on secondary data obtained from a variety of sources, including websites, journals, magazines, and other publications. The mutual fund schemes will be assessed using a number of statistical and financial methods. The Treynor measure and Sharpe ratio are statistical techniques for evaluating investment performance.

Hypothesis

Ho: The Sharpe Ratio estimate indicates that the performance of the chosen mutual fund scheme did not vary considerably during the research period.

H1: The Treynor ratio estimates revealed no significant differences in the performance of the selected mutual fund scheme across the investigation period.

III.DATA ANALYSIS AND INTERPRETATION

Table 1: Equity fund schemes: 2019-20

S. No	Scheme	Return %	SD	Sharpre Index	Treynor Ratio
1	Parag Parikh Flexi Cap Fund	15	0.18	1.77	13.14
2	SBI Focused Equity Fund	14	0.93	3.67	8.98
3	DSP Flexi Cap Fund	13	0.88	2.71	12.91
4	IDFC Sterling Value Fund	13	0.91	2.55	9.33
5	ICICI Prudential Bluechip Fund	12	1.23	3.42	7.12
6	Invesco India Infrastructure Fund	11	1.09	3.29	9.89
7	PGIM India Flexi Cap Fund	10	1.12	4.88	10.01
8	Nippon India Large Cap Fund	13	0.82	2.41	9.19

Table 1 displays the return, standard deviation, Sharpe ratio, and Treynor index for the top eight equity schemes during 2019 and 2020.Equity programs are frequently designed to appeal to investors with a high risk tolerance. According to the table above, the ICICI Prudential Bluechip product is the group's underperforming stocks product. The best performing fund, however, is the Parag Parikh Flexi Cap Fund, with Sharpe and Treynor Index scores of 1.77 and 13.14, respectively.

Table 2: Equity fund schemes: 2020-21

S. No	Scheme	Return %	SD	Sharpre Index	Treynor Ratio
1	Parag Parikh Flexi Cap Fund	13	0.9	0.99	10.42
2	SBI Focused Equity Fund	11	0.89	0.77	-2.94
3	DSP Flexi Cap Fund	14	0.97	0.64	8.81
4	IDFC Sterling Value Fund	13	0.88	0.13	9.83
5	ICICI Prudential Bluechip Fund	15	0.81	0.44	6.98
6	Invesco India Infrastructure Fund	13	0.97	0.54	13.56
7	PGIM India Flexi Cap Fund	15	0.73	0.91	15.04
8	Nippon India Large Cap Fund	14	0.77	0.94	-3.18

Table 2 displays the return, standard deviation, Sharpe ratio, and Treynor index for the top eight equity strategies throughout the 2020-21 period. Equity programs are frequently designed to appeal to investors with a high risk tolerance. After studying the data, it is evident that the Parag Parikh Long Term Equity Fund has the greatest Sharpe Index (0.99), while the PGIM India Flexi Cap Fund has the highest Treynor Index (13.56). These figures indicate that these two equity funds performed extremely well. The SBI Focused Equity Fund performed the lowest among the group, with a Treynor Index of -2.94. Similarly, the IDFC Sterling Value Fund has a Sharpe Index of 0.13, indicating that it underperformed.

Table 3: Equity fund schemes: 2021-22

S. No	Scheme	Return %	SD	Sharpre Index	Treynor Ratio
1	Parag Parikh Flexi Cap Fund	12	1.09	2.55	4.33
2	SBI Focused Equity Fund	11	0.12	2.88	2.07
3	DSP Flexi Cap Fund	10	0.97	2.73	1.04
4	IDFC Sterling Value Fund	13	0.89	3.22	1.56
5	ICICI Prudential Bluechip Fund	11	0.73	3.28	1.37
6	Invesco India Infrastructure Fund	14	0.17	2.67	1.99
7	PGIM India Flexi Cap Fund	13	0.69	1.79	1.73
8	Nippon India Large Cap Fund	10	1.22	5.72	3.22

Table 3 depicts the return, standard deviation, Sharpe, and Treynor Index for the top eight equity schemes in 2021-22.Equity plans are designed for risk-taker investors. The table shows that Parag Parikh Flexi Cap Fund outperforms all equity funds with the highest Sharpe and Treynor Indexes of 2.55 and 4.33, while DSP Flexi Cap Fund and Nippon India Large Cap Fund have the lowest Treynor Indexes of 1.04 and 5.72 respectively.

Table 4: ANOVA – Sharpe Index

Table 4: ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1156.711	4	166.179	13.120	.000[b]
	Residual	1683.219	47	8.930		
	Total	2839.93	51			

As a result, it has been determined that samples were gathered from populations with a wide range of variations. As a result, no two programs provide similar macroeconomic outcomes. As a result, the program's performance is not suited to individual needs and varies in some ways due to the additional risk incurred. Based on the data presented in Table 4, the researcher concludes that the null hypothesis is rejected because the estimated value exceeds the critical value.

Table 5: ANOVA – Treynor Index

Table 5: ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2089.019	4	881.24	11.581	.000[b]
	Residual	891.884	47	18.02		
	Total	2980.94	51			

As a result, it has been determined that samples were gathered from groups with varying degrees of variability. As a result, no two programs will produce the same macroeconomic outcomes. As a result, the program's performance is not suited to each individual and varies based on the amount of additional risk taken. Based on the data supplied in Table 5, the researcher concludes that the null hypothesis is rejected because the estimated value exceeds the critical threshold.

IV.CONCLUSION

It is natural that all eight of the selected equity funds fared well during the study period, as evidenced by their previous performance analyses. The chosen funds' performance has been impacted by the NIFTY index's decline throughout 2020. Finally, it can be stated that the majority of the funds performed wonderfully in an extremely turbulent market. After examining the various mutual fund schemes, it is decided that when making an investment decision, risk and return should come first, followed by safety and liquidity. Investors wishing to invest in less risky funds might look for higher Treynor rankings. Investors looking to diversify their portfolios and increase their rate of return should consider getting a better Sharpe ranking. Individuals with a modest level of proficiency should consider directing their wealth to mutual funds. To ensure that mutual funds in India perform consistently, investors and potential investors should analyze crucial characteristics such as the Sharpe ratio, Treynor ratio, beta, and standard deviation. These measures provide unique performance evaluations from a variety of angles, rather than relying primarily on net asset value (NAV) and total return.

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