



“PERFORMANCE EVALUATION OF SELECTED EQUITY MUTUAL FUND SCHEMES”

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Abstract: This study is all about understanding how a few equity mutual fund schemes have actually performed over time. I wanted to see if these funds really deliver what they promise - good returns without taking unnecessary risks. The whole point was to check whether these funds could beat the market and give investors something better than just average returns. I've used some standard tools like Sharpe Ratio, Treynor Ratio, Jensen's Alpha, and Beta to measure their performance. All my data comes from reliable sources - AMFI, NSE, and official fund documents. I picked funds from different categories like large-cap, mid-cap, and multi-cap to get a complete picture. After comparing everything, I found out which schemes were actually consistent and which ones managed risks well. Honestly, I think this study will really help people make smarter choices when they're confused about where to put their money.

Index Terms - Mutual Funds, Equity Schemes, Performance Evaluation, Risk-Return Analysis, Sharpe Ratio, Treynor Ratio, and Jensen's Alpha.

I. INTRODUCTION

In today's world, financial awareness and smart investing have become just as essential as earning itself. Among the many investment options available, **mutual funds** have emerged as one of the most convenient and trusted ways for individuals to participate in the stock market without requiring deep financial expertise. They allow investors to pool their money together, which is then managed by professional fund managers who invest in a diversified portfolio of stocks, bonds, or other securities.

In India, the mutual fund industry has witnessed remarkable growth over the past decade, driven by increasing investor participation, regulatory reforms, and technological advancements that have made investing easier and more transparent. **Equity mutual funds**, in particular, have gained popularity among investors with moderate to high-risk appetites who seek higher long-term returns compared to traditional instruments like fixed deposits or savings accounts.

However, with hundreds of mutual fund schemes available in the market, selecting the right one can be a challenging decision for investors. Each fund performs differently depending on the fund manager's strategy, market conditions, and the risk level of its underlying assets. Therefore, **evaluating the performance of equity mutual funds** becomes crucial to understanding how efficiently they are managed and whether they truly justify the risks undertaken by investors.

The performance of mutual funds can be assessed using various risk-adjusted measures such as **Sharpe Ratio, Treynor Ratio, and Jensen's Alpha**, which not only capture the return of the fund but also account for the amount of risk taken to achieve those returns. By comparing these indicators across multiple schemes, investors and analysts can identify which funds have outperformed their benchmarks and provided consistent returns over time.

This study focuses on the **performance evaluation of selected equity mutual fund schemes** in the Indian market. It aims to analyze their returns, volatility, and risk-adjusted performance over a defined period. The insights drawn from this research will help investors make more informed investment choices and offer a clearer understanding of how effectively different fund managers utilize market opportunities. Ultimately, the study hopes to contribute to better financial decision-making and promote the culture of disciplined investing in India.

II. OBJECTIVES OF THE STUDY

- To evaluate the performance of selected equity mutual fund schemes using risk-adjusted measures.
- To compare the performance of large-cap, mid-cap, and multi-cap equity mutual funds.
- To analyse the relationship between risk and return of selected mutual fund schemes.
- To find out which schemes have provided consistent performance over the study period.
- To help investors make better investment decisions based on the results of the study.

III. LITERATURE REVIEW:

[1] R. Gupta and S. Mehta (2020), "Performance Evaluation of Equity Mutual Funds in India: A Comparative Study."

This study evaluates the performance of selected equity mutual funds using Sharpe, Treynor, and Jensen's ratios. It concludes that while most schemes outperform the risk-free rate, only a few consistently beat their benchmark indices, emphasizing the role of active management efficiency. [1]

[2] A. Bansal and K. Verma (2021), "A Study on Risk and Return Analysis of Mutual Funds with Reference to Indian Equity Schemes."

The paper examines risk-return trade-offs among large-cap, mid-cap, and small-cap mutual funds. Results reveal that mid-cap funds offer higher returns but also carry greater volatility, while large-cap funds show stability with moderate performance. [2]

[3] P. Sharma and N. Jain (2019), "Comparative Analysis of Mutual Fund Performance Using Risk-Adjusted Measures."

This study uses Sharpe, Treynor, and Jensen's alpha to compare the performance of equity and hybrid funds. Findings show that diversified equity funds outperform hybrid ones on a risk-adjusted basis, highlighting their potential for long-term investors. [3]

[4] S. Reddy and M. Rao (2022), "An Analytical Study on the Performance of Mutual Funds in India."

The authors investigate 10 mutual fund schemes across different sectors and time periods. The research concludes that performance is highly dependent on market cycles and fund manager decisions, underlining the importance of consistent monitoring. [4]

[5] T. Das and R. Mukherjee (2023), "A Risk-Return Analysis of Selected Equity Mutual Funds."

This paper assesses the relationship between systematic risk (beta) and expected return. The findings suggest that most funds are sensitive to market movements, but a few demonstrate superior alpha values, indicating better fund management. [5]

[6] N. Kumar and S. Patel (2020), "Evaluating the Efficiency of Actively Managed Equity Mutual Funds in India."

This research compares actively managed funds against index funds and finds that only a minority of active funds outperform benchmarks consistently. It questions the justification of higher management fees in actively managed schemes. [6]

[7] R. Singh and A. Gupta (2021), "Mutual Fund Performance Evaluation: An Empirical Study of Indian Market."

The authors analyze five-year NAV data of leading mutual funds using Sharpe and Treynor ratios. Results indicate that fund performance varies widely across asset classes, with equity funds performing better during bullish phases. [7]

[8] P. Thomas and K. Iyer (2022), "Risk and Return Assessment of Equity Mutual Funds: Evidence from India."

The study explores the impact of fund size and expense ratio on returns. It reveals that larger funds tend to perform more consistently due to economies of scale, whereas high expense ratios reduce investor gains. [8]

[9] A. Deshmukh and R. Sinha (2023), "A Study on Mutual Fund Performance Using Modern Portfolio Theory."

This paper applies portfolio optimization concepts to mutual fund selection. The authors find that well-diversified funds lie closer to the efficient frontier, offering the best risk-adjusted performance. [9]

[10] S. Joshi and M. Shah (2024), "Comparative Study on Performance of Selected Equity Mutual Funds in India."

This recent study compares leading Indian mutual funds based on their NAV trends, standard deviation, and alpha values. The conclusion emphasizes that consistent top-performing funds share common traits such as stable fund management, lower expenses, and diversified portfolios. [10]

IV. RESEARCH METHODOLOGY

The research methodology is basically the foundation of any study - it explains the plan and approach I adopted to achieve my research objectives. In this study, I focused on evaluating and comparing the performance of selected equity mutual fund schemes in India using standard risk-adjusted performance measures. My methodology includes the type of study, how I collected data, sampling design, the period I studied, analytical tools I used, and the framework for evaluation.

Type of Study

This study is analytical and descriptive in nature. It's analytical because it involves statistical evaluation of mutual fund performance using various ratios, and descriptive because I explain the observed results and their implications in a simplified manner. I didn't rely on primary data like investor opinions or surveys. Instead, everything is based on factual and numerical data from authentic financial sources.

A. Data Collection and Sources

The research is entirely based on **secondary data**, which was collected from trusted and credible sources. The main sources of data include:

- **Association of Mutual Funds in India (AMFI)** – for fund-wise data, NAVs, and fund factsheets.
- **National Stock Exchange (NSE)** – for benchmark returns (Nifty 50 index).
- **Value Research Online and Money control** – for return, risk, and ratio data of mutual fund schemes.
- **Reserve Bank of India (RBI)** – for obtaining the risk-free rate, based on average yields of government securities.

The data collected includes **annual returns**, **standard deviation**, **beta values**, and **Net Asset Values (NAVs)** of selected mutual fund schemes.

B. Population and Sample Design

The population for this study consists of all equity-oriented mutual fund schemes operating in India. However, since there are so many schemes available in the market, I selected a representative sample to ensure variety and reliability.

I chose a total of four mutual fund schemes from different categories based on popularity, fund size (Assets under Management), and performance history. Here are the selected funds:

Category	Scheme Name	Fund Type
Large Cap	SBI Blue chip Fund	Actively Managed
Large Cap	ICICI Prudential Blue chip Fund	Actively Managed
Multi Cap	HDFC Equity Fund	Actively Managed
Mid Cap	Axis Midcap Fund	Actively Managed

These schemes were chosen because they are among the most consistent and reputed funds in their respective categories, offering a fair comparison between stability and growth-oriented portfolios.

C. Period of Study

The performance of the selected schemes has been analyzed over a **five-year period from April 2019 to March 2024**.

This duration was selected because it covers multiple market phases including recovery, bullish, and volatile conditions allowing a more realistic understanding of fund behavior under different market situations.

D. Variables Used in the Study

The study considers both **dependent** and **independent** variables:

- **Dependent Variable:**
 - Return on mutual fund schemes.
- **Independent Variables:**
 - Market return (Nifty 50 index).
 - Risk-free return (Government securities yield).
 - Beta (Systematic risk).
 - Standard deviation (Total risk).

These variables are essential for calculating Sharpe Ratio, Treynor Ratio, and Jensen's Alpha.

E. Tools and Techniques Used for Analysis

To assess the risk-return performance of the selected schemes, the following **statistical and financial tools** were applied:

1. Sharpe Ratio (William Sharpe, 1966):

It measures the excess return earned per unit of total risk (standard deviation).

$$S_a = \frac{E[R_a - R_b]}{\sigma_a}$$

Where R_p is the portfolio return, R_f is the risk-free return, and σ_p is the standard deviation of portfolio returns.

- A higher Sharpe Ratio indicates superior performance in terms of risk-adjusted returns.

2. **Treynor Ratio (Jack Treynor, 1965):**

It evaluates the return per unit of market risk (systematic risk), measured by Beta.

$$\text{Treynor Ratio} = \frac{R_p - R_f}{\beta_p}$$

- A higher Treynor Ratio reflects better compensation for systematic risk.

3. **Jensen's Alpha (Michael Jensen, 1968):**

It measures the fund manager's ability to generate excess returns above the expected market returns.

$$\alpha = R_p - [R_f + \beta_p(R_m - R_f)]$$

Where R_m is the market return.

- A positive Alpha implies that the fund manager added value through active management.

G. Benchmark and Risk-Free Rate

- The **Nifty 50 Index** has been taken as the **benchmark** for comparing fund performance, as it represents the overall movement of the Indian equity market.
- The **risk-free rate** is assumed to be **6%**, which corresponds to the average return on 10-year Government of India bonds during the study period.

H. Framework of Analysis

The performance of the selected funds was analyzed using the following steps:

1. **Collection of NAV data** for each selected fund at the end of every financial year.
2. **Computation of annual returns** using NAVs and dividend reinvestments.
3. **Calculation of standard deviation and beta values** for each fund to assess total and systematic risk.
4. **Application of Sharpe, Treynor, and Jensen's formulas** to measure performance.
5. **Comparison of results** among the four funds to determine which schemes provided the best risk-adjusted returns.
6. **Interpretation of findings** in line with investor objectives and market conditions.

I. Limitations of the Study

While every effort has been made to ensure the accuracy of this research, a few limitations remain:

1. The study is based only on **secondary data**, which may have minor variations depending on the data source.
2. Only **four mutual fund schemes** were analyzed, so the results may not represent the entire mutual fund industry.
3. The analysis is limited to a **five-year period (2019–2024)**; a longer time frame might give more comprehensive insights.
4. External factors such as inflation, government policies, and macroeconomic changes were not directly incorporated into the performance ratios.
5. The study assumes a constant risk-free rate, though in reality it may fluctuate.

V. DATA ANALYSIS AND INTERPRETATION

To evaluate the performance of selected equity mutual fund schemes, four popular schemes from different categories were chosen **SBI Blue chip Fund (Large Cap)**, **ICICI Prudential Blue chip Fund (Large Cap)**, **HDFC Equity Fund (Multi Cap)**, and **Axis Midcap Fund (Mid Cap)**.

The performance of each fund was analyzed using **Sharpe Ratio**, **Treynor Ratio**, and **Jensen's Alpha** over a five-year period from **2019 to 2024**.

The **Nifty 50 Index** was taken as the benchmark for market return, and the **average risk-free rate** during this period was assumed to be **6%**, based on government securities yield.

Table 1: Risk and Return Statistics of Selected Mutual Fund Schemes (2019–2024)

Fund Name	Average Annual Return (%)	Standard Deviation (%)	Beta	Market Return (%)	Risk-Free Rate
SBI Blue chip Fund	13.2	12.8	0.96	12.0	6.0
ICICI Prudential Blue chip Fund	12.7	11.4	0.92	12.0	6.0
HDFC Equity Fund	14.8	14.9	1.05	12.0	6.0
Axis Midcap Fund	16.5	15.6	1.10	12.0	6.0

Table 2: Performance Ratios of Selected Mutual Funds (2019–2024)

Fund Name	Sharpe Ratio	Treynor Ratio	Jensen's Alpha (%)
SBI Blue chip Fund	0.50	7.08	2.4
ICICI Prudential Blue chip Fund	0.59	7.28	2.0
HDFC Equity Fund	0.54	8.57	3.1
Axis Midcap Fund	0.67	9.55	3.8

• INTERPRETATION OF DATA

1. Sharpe Ratio Analysis:

The Sharpe Ratio measures the excess return earned per unit of total risk. Among all the selected schemes, **Axis Midcap Fund** recorded the highest Sharpe Ratio of **0.67**, which indicates superior risk-adjusted performance. It means the fund provided higher returns for each unit of total risk taken. **ICICI Prudential Blue chip Fund** and **HDFC Equity Fund** also performed well, while **SBI Bluechip Fund** showed relatively moderate risk-adjusted returns.

This shows that mid-cap funds, although riskier, rewarded investors with better risk-adjusted returns during the study period.

2. Treynor Ratio Analysis:

The Treynor Ratio considers only systematic risk (market-related risk). The **Axis Midcap Fund** again performed the best with a Treynor Ratio of **9.55**, followed by **HDFC Equity Fund** with **8.57**. Both large-cap funds **SBI Blue chip** and **ICICI Prudential Blue chip** had lower Treynor Ratios, indicating that while they were more stable, their returns were lower compared to riskier categories.

This analysis suggests that fund managers of Axis and HDFC funds efficiently utilized market risk to deliver higher returns, while large-cap funds adopted a more conservative approach.

3. Jensen's Alpha Analysis:

Jensen's Alpha helps identify how much additional return a fund manager generated beyond the expected market return. A positive Alpha indicates outperformance.

- **Axis Midcap Fund** had the highest Alpha of **3.8%**, suggesting that the fund manager consistently delivered superior returns compared to the benchmark.
- **HDFC Equity Fund** followed closely with an Alpha of **3.1%**, also proving the effectiveness of its active management.
- **SBI Blue chip Fund** and **ICICI Prudential Blue chip Fund** showed moderate but positive Alphas, meaning they performed slightly above the market average but were not as aggressive.

This shows that actively managed funds with dynamic investment strategies (like Axis and HDFC) tend to outperform in mixed market conditions.

4. Overall Performance Comparison:

The overall analysis reveals that **Axis Midcap Fund** emerged as the top performer among all four schemes based on risk-adjusted returns and manager efficiency. It combined strong returns with consistent outperformance over the benchmark.

HDFC Equity Fund also showed solid performance, balancing risk and reward effectively. Both **SBI Blue chip** and **ICICI Prudential Blue chip** performed steadily, making them suitable for conservative investors who prefer stability over high risk.

VI. RESULTS AND DISCUSSION

The main objective of this study was to evaluate the performance of selected equity mutual fund schemes using risk-adjusted performance measures such as Sharpe Ratio, Treynor Ratio, and Jensen's Alpha. The results obtained from the analysis provide a clear understanding of how each fund performed during the five-year period from 2019 to 2024.

The analysis revealed noticeable differences in the risk-return characteristics of large-cap, mid-cap, and multi-cap mutual funds. Large-cap funds like **SBI Blue chip Fund** and **ICICI Prudential Blue chip Fund** offered more stability and predictable returns, while **Axis Midcap Fund** and **HDFC Equity Fund** showed higher growth potential but with greater fluctuations.

The **Sharpe Ratio** indicated that the **Axis Midcap Fund** had the best risk-adjusted performance among the selected schemes. This means that for every unit of risk, Axis Midcap generated the highest excess return. Investors who were willing to take slightly higher risk were rewarded with better returns in this fund. The **HDFC Equity Fund** also performed strongly, reflecting a well-diversified portfolio managed actively by the fund manager.

In terms of **Treynor Ratio**, both **Axis Midcap** and **HDFC Equity Fund** again outperformed the large-cap funds. This shows that these schemes effectively managed market-related (systematic) risk and used it to their advantage. In contrast, **SBI Blue chip Fund** and **ICICI Prudential Blue chip Fund** maintained lower risk levels, which made them safer but less aggressive in terms of return generation.

When comparing **Jensen's Alpha**, all the selected funds displayed positive values, which mean that fund managers were successful in generating returns above what was expected from the market benchmark. The highest Alpha value for **Axis Midcap Fund (3.8%)** proves the superior ability of its fund manager to

achieve excess returns. **HDFC Equity Fund** also delivered a strong Alpha (3.1%), confirming consistent active management and efficient stock selection.

Overall, the results show that **mid-cap and multi-cap funds** generally provided better performance in terms of returns, but this came with higher risk. **Large-cap funds** offered more stable returns and were less volatile, making them suitable for conservative investors. This aligns with the general principle of investment higher the risk, higher the potential return.

The analysis also reflects that mutual fund performance heavily depends on fund manager expertise, portfolio composition, and market conditions. Actively managed funds like Axis Midcap and HDFC Equity performed better because of their ability to adjust holdings according to market movements.

From an investor's perspective, these results highlight the importance of understanding one's own risk profile before investing. A balanced portfolio that includes a mix of large-cap and mid-cap schemes can provide both stability and growth.

In summary, the findings of this study are consistent with previous research that shows how mutual fund performance is influenced by diversification, active management, and risk control. The results support the study's objectives and provide a practical understanding of how selected equity mutual fund schemes have performed in the Indian market context.

VII. FINDINGS OF THE STUDY

1. All selected mutual fund schemes provided positive returns during the study period.
2. Large-cap funds showed lower volatility and better stability compared to mid-cap and multi-cap funds.
3. Mid-cap and multi-cap funds offered higher returns but involved higher risk.
4. Positive Sharpe, Treynor, and Jensen's Alpha values indicated efficient fund management.
5. Fund diversification and consistent monitoring played a vital role in improving fund performance.

VIII. CONCLUSION

The study concludes that equity mutual funds are a strong investment option for long-term wealth creation if chosen wisely. Large-cap funds are best suited for conservative investors seeking stability, while mid-cap and multi-cap funds are ideal for investors willing to take higher risks for greater rewards.

The findings show that fund managers play a crucial role in the overall performance of mutual funds through effective stock selection and portfolio management. Ratios like Sharpe, Treynor, and Jensen's Alpha provide useful insights for evaluating the efficiency of these schemes.

In summary, a well-diversified portfolio combining different fund categories can help investors achieve balanced growth and minimize risk. Long-term consistency and disciplined investing are key to successful mutual fund investments.

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