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Performance Evaluation of Top 5 Large-Cap Mutual Funds in India

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Abstract - The acceptance of mutual funds among investors has grown consistently over the years among retail and institutional investors due to the benefits they offer portfolio diversification, professional fund management, and opportunities for long-term capital growth. Assessing the performance of these investment schemes is important for helping investors make well-informed financial decisions. This study evaluates and compares the investment efficiency of choosen large-cap mutual fund schemes operating in India by applying risk-adjusted performance measures. The analysis draws upon secondary information obtained from Net Asset Values (NAVs) associated with five chosen large-cap mutual fund schemes over one-year, three-year, and five-year periods. To measure performance, the study employs widely recognized indicators such as the Sharpe, Treynor indices, and Jensen's Alpha, which assess returns while considering the degree of investment risk. Research also examines key variables including portfolio returns, market returns, the risk-free rate, beta and standard deviation to ensure a detailed assessment of the choosen mutual fund schemes. By adopting a risk-adjusted approach, the study offers a systematic comparison of mutual fund performance over varying investment time frames and provides meaningful guidance for investors, researchers and financial professionals.

Keywords: Large-Cap Funds, Risk-Adjusted Fund Performance, Sharpe Ratio, Treynor's Ratio, Jensen's Alpha.

INTRODUCTION

The mutual fund sector is instrumental in strengthening financial markets by collecting savings from investors and directing them towards productive investment avenues. Large-cap mutual funds mainly allocate funds to companies with considerable market value, making them a relatively stable investment choice due to their association with well-established businesses. With investors placing greater emphasis on investment options, that offer an optimal trade-off between risk and return, it becomes equally important to assess the risk investment pattern in generating those returns. To achieve this, performance evaluation methods such as the Sharpe, Treynor indices, and Jensen's Alpha are commonly applied to calculate the risk-adjusted returns generated by mutual fund schemes.

The research explores the outcome of chosen large-cap mutual fund plans operating in India by analyzing their risk-adjusted returns across one-year, three-year, and five-year investment periods. The findings provide a detailed comparison of investment performance, enabling investors to evaluate multiple schemes and make well-informed investment decisions.

Need for the Study

Mutual fund market in India has experienced remarkable expansion during last few years, encouraging an expanding investor base to consider fund schemes as an effective avenue for wealth creation and portfolio diversification. With the rapid growth of fund management companies and the increasing availability of investment fund schemes, selecting an appropriate investment option has become more challenging. As a result, investors require reliable methods to verify whether a fund is capable of generating satisfactory returns while maintaining an acceptable level of risk.

This sector is governed by regulatory bodies such as the Securities and Exchange Board of India and the Association of Mutual Funds in India, which work to promote transparency, investor protection, and fair market practices. Despite these regulatory safeguards, investors often find it difficult to compare schemes because of variations in investment objectives, risk profiles, fund management approaches, and historical performance.

Assessment of mutual fund performance is therefore essential for investors and portfolio management firms, and regulators. A systematic assessment enables investors to identify schemes that offer better risk-adjusted returns, supports fund managers in benchmarking their performance against competing funds, and assists regulators in monitoring the overall efficiency and transparency of this industry. Hence, this study compares selected large-cap mutual fund schemes operated in India using established risk-adjusted performance measures to evaluate their efficiency, consistency, and overall investment performance across different time horizons.

Objectives of the Study

1. To measure risk and returns of selected large cap mutual fund schemes in India
2. To evaluate the performance of selected large-cap mutual fund schemes in India.
3. To compare the performance of selected mutual fund schemes over one-year, three-year, and five-year periods.
4. To Suggest the best-performing large-cap mutual fund scheme for varied time horizon of investment

Hypothesis

1 Hypothesis

H_0: The average returns generated by the selected large-cap mutual fund schemes are the same.

H_1: The average returns generated by the selected large-cap mutual fund schemes are not the same.

2. Hypothesis

H_0: There is no significant relationship between risk and return of the selected large-cap mutual fund schemes.

H_1: There is a significant relationship between risk and return of the selected large-cap mutual fund schemes.

Literature Review

Shivam Tripathi and Dr. Gurudutta P. Japee (2020) analysed evaluation of 15 equity-oriented mutual fund schemes using risk-adjusted evaluation techniques. Their findings illustrated that ten schemes performed satisfactorily and reinforced the importance of incorporating risk assessment when evaluating investment performance. Y. Maheswari (2020) examined choosen mutual fund schemes of Reliance, UTI, and Birla by applying risk-return measures. The study reported that Reliance Mutual Fund generated better results than the other selected funds and also outperformed the benchmark indices. D. Chennappa and V. Ravi (2019) assessed selected large-cap mutual funds using risk-adjusted performance indicators. Their assessment indicated that all the schemes generated returns higher than the CNX Nifty Index, with the ICICI Prudential Top 100 Fund emerging as the strongest performer. S. Siddhartha Naga Boudha and Manjunath K. R. (2024) evaluated selected large-cap mutual funds through various risk-adjusted measures. The results showed that the ICICI Prudential Bluechip Fund and Canara Robeco Bluechip Equity Fund recorded better performance than other funds included in the study. Ms. Jayalakshmi S. Saunshi and Dr. Bhargav Revankar (2019) compared ten large-cap equity mutual fund schemes and found that the Axis Bluechip scheme produced the highest overall returns, whereas the DSP Equity Fund recorded comparatively weaker performance. Nirmala Daita (2020) investigated selected large-cap mutual fund schemes using Sharpe, Treynor indices, and Jensen's Alpha. The study concluded that the outcome of mutual fund schemes varied considerably and that market returns had a significant influence on fund performance. Prithvi P. J. and Dr. VY. John (2024) analyzed selected large-cap mutual funds schemes using risk, return measures. Their findings illustrated that schemes with higher returns generally carried greater investment risk. Prabha Singh, R. Shanmugam, S. V. Pradeepa, and N. V. Suresh (2026) examined large-cap mutual funds using risk-adjusted evaluation techniques. The research demonstrated that multiple mutual fund portfolios achieved returns greater than their benchmark indices after adjusting for risk. Ms. Komal Bansidhar sharma and Mr. Shivam Tripathi (2023) comparative performance of large-cap, mid-cap, and small-cap mutual fund portfolio. The Research observed that each category exhibited distinct levels of risk and return, reflecting differences in investment characteristics. Krunal K. Bhuva and Ashok R. Bantwa (2012) analyzed large-cap and mid-cap investment schemes and reported that most of the choose schemes outperformed the market, mainly because of effective diversification and efficient stock selection strategies.

Research Gap

An examination of earlier studies primarily concentrated on assessing mutual fund performance through risk-return and risk-adjusted evaluation techniques. While several studies have explored, investigated the performance of large-cap mutual funds, only a limited number have provided a comprehensive comparison of multiple schemes using recent market data. Furthermore, rapid changes in market conditions and investment trends make periodic performance reassessment essential. To address this gap, the current study compares selected large-cap Indian mutual fund scheme by examining their performance over one-year, three-year, and five-year investment horizons (2020–2025) with the help of established risk-adjusted performance indicators.

Research Methodology

Research Design

The investigation is structured around a descriptive research design to examine the investment outcome of choosen mutual fund schemes during different investment periods. The design enables a systematic evaluation of fund performance assessed using publicly available secondary data and facilitates meaningful comparisons across the schemes.

Study also incorporates an analytical approach by employing risk-adjusted evaluation technique. These established financial indicators evaluate returns in relation to the extent of risk exposure, providing a more comprehensive assessment of investment performance.

Population and Sample

The research population covers all mutual fund schemes managed by.Asset Management Companies operating in India. As reported by the Association of Mutual Funds in India , numerous AMCs provide a numerous investment schemes to meet the diverse preferences of investors.

For the purpose of analysis, five large-cap investment schemes were selected from reputed Asset Management Companies. The selection was guided by factors such as market reputation, consistent availability of historical data, and relevance to the objectives of the study. To ensure uniformity in comparison, only direct growth plans were considered, with one representative scheme chosen from each selected AMC.

Sampling Technique

The study uses Non-Probability Sampling, specifically the Purposive Sampling Technique, where the schemes were selected intentionally based on their established their market presence, popularity, and availability of historical data.

Sources of Data

The study relies on purely secondary data collected from:

- Official websites of Asset Management Companies
- Association of Mutual Funds in India (AMFI)
- NIFTY 50 Index data
- RBI Treasury Bill data
- Published journals, articles, and financial reports

Period of Study

An evaluation was carried out to analyze the efficiency of choosen mutual fund schemes over one-year, three-year, and five-year periods.

Tools Applied for the Study

- Portfolio Return (Rp)
- Standard Deviation (σ)
- Beta (β)
- Sharpe Ratio
- Treynor Ratio
- Jensen's Alpha
- T-test
- Correlation Analysis

Data Analysis and Interpretation

Table 1.1 Relative Performance Analysis of Selected Large-Cap Mutual Funds for 2024–2025

Top 5 AMC	Return on Portfolio	Sharpe Ratio	Treynor's Ratio	Jensen Alpha	Ranking
SBI Large Cap Fund-Direct Plan -Growth	7.84	0.34226	1.1616	0.21	III
ICICI Prudential Large Cap Fund(erstwhile Bluechip Fund) - Direct Plan - Growth	9.09	0.73	2.47	1.53	I
HDFC Large Cap Fund - Growth Option - Direct Plan	6.00	-0.22	-0.76	-1.7	V
Nippon India Large Cap Fund - Direct Plan	8.47	0.52	1.84	0.89	II

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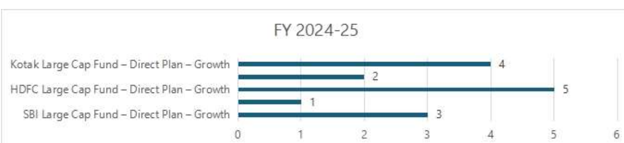
Growth Plan - Growth Option					
Kotak Large Cap Fund - Growth - Direct	7.73	0.29	0.097	0.03	IV

Analysis

The evaluation of the selected large-cap mutual fund plans indicates noticeable differences in risk-adjusted returns during the 2024–2025 period. ICICI Prudential Large Cap fund secured the first rank with highest return of 9.09, followed by Nippon India Large Cap fund in second place. SBI Large Cap Fund stood third, while Kotak Large Cap fund and HDFC Large Cap fund were placed fourth and fifth respectively based on Sharpe, Treynor and Jesnsen's Alpha metrix.

Graph 1.2 Comparison of Risk-Adjusted Performance Measures of Selected Large-Cap Funds period from 2024 to 2025



Interpretation-

The graph indicates that ICICI Prudential Large Cap fund achieved the top during 2024–2025 because of its stronger performance in comparison with other selected funds. In Sharpe, Treynor indices, and Jensen's Alpha, suggesting that fund achieved strong returns with efficient risk management. The fund had major investments in well-established large-cap companies, particularly across the banking, financial services, and technology sectors, which performed positively during the year. Favorable market movements and growth in the NIFTY 50 during the year 2024- 2025 supported these sectors, helping the fund earn better returns and earning the highest rank.

Table 2.1- Relative Performance Analysis of Selected Large-Cap Mutual Funds for 2022–2025

Top 5 AMC	Return on Portfolio	Sharpe Ratio	Treynor's Ratio	Jensen Alpha	Ranking
SBI Large Cap Fund-Direct Plan -Growth	49.56	13.28	44.91	12.92	V
ICICI Prudential Large Cap Fund (erstwhile Bluechip Fund) - Direct Plan - Growth	63.35	17.7	60.7	28.71	II
HDFC Large Cap Fund - Growth Option - Direct Plan	54.68	14.66	49.26	17.27	IV
Nippon India Large Cap Fund - Direct Plan Growth Plan - Growth Option	69.38	18.93	65.76	33.77	I
Kotak Large Cap Fund - Growth - Direct	55.73	14.53	49.32	17.33	III

Analysis

The comparative assessment of the selected large-cap schemes from 2022 to 2025 demonstrates variations in their outcome. Nippon India Large Cap fund secured the first rank with highest return of 69.38, followed by ICICI Prudential Large Cap fund in second place. Kotak Large Cap fund stood third, while HDFC Large Cap fund and SBI Large Cap fund were placed fourth and fifth respectively based on Sharpe, Treynor and Jesnsen's Alpha metrix.

Graph 2.2 Comparison of Risk-Adjusted Performance Measures of Selected Large-Cap Mutual Funds 2022-2025

Interpretation

The graph shows that Nippon India Large Cap fund secured the 1st rank during 2022–2025 because of its superior overall performance among the selected funds. The fund recorded the

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highest return along with higher Sharpe, Treynor Ratio, and Jensen's Alpha, indicating that it generated better returns by managing risk effectively. The fund had major investments in strong large-cap companies, especially in sectors like banking, energy, and technology, which performed well during this period. Positive market growth and the upward movement of the NIFTY 50 helped the fund deliver higher returns and achieve the top rank.

Table 3.1 Relative Performance Analysis of Selected Large-Cap Mutual Funds for 2020–2025

Top 5 AMC	Return on Portfolio	Sharpe Ratio	Treynor's Ratio	Jensen Alpha	Ranking
SBI Large Cap Fund – Direct Plan – Growth	118.95	32.18	121.78	28.15	V
ICICI Prudential Large Cap Fund (erstwhile Bluechip Fund) - Direct Plan - Growth	151.18	42.54	159.88	66.25	II
HDFC Large Cap Fund - Growth Option - Direct Plan	145.02	37.35	143.64	50.01	III
Nippon India Large Cap Fund - Direct Plan Growth Plan - Growth Option	182.35	46.37	178.44	84.82	I
Kotak Large Cap Fund - Growth - Direct	128.36	34.46	129.13	35.49	IV

Analysis

The analysis revealed significant differences in the investment outcomes of the chosen large-cap schemes during the period from 2020 to 2025. Nippon India Large Cap fund secured the first rank with highest return of 182.35, followed by ICICI Prudential Large Cap fund in second place. HDFC Large Cap fund stood third, while Kotak Large Cap fund and SBI Large Cap fund were placed fourth and fifth respectively based on Sharpe, Treynor and Jesnsen's Alpha metrix.

Graph 3.2 Comparison of Risk-Adjusted Performance Measures of Selected Large-Cap Mutual Funds 2020-2025

Interpretation

The graph shows that Nippon India Large Cap fund secured the 1st rank during 2020–2025 because of its consistent performance compared to the other selected funds. The fund generated the highest return along with better Sharpe, Treynor's indices, and Jensen's Alpha, showing its strength to provide higher returns with efficient risk management. The fund was mainly invested in well-performing large-cap companies from sectors such as finance, energy, and IT, which showed strong growth during the period. Supportive market conditions and the steady upward movement of the NIFTY 50 Index supported the

scheme demonstrated better return-generating ability, allowing it to obtain the highest ranking compared with schemes.

Tabel 4.1

Table depicting One-Sample t-Test Results for Average Returns of Choose Schemes of Large-Cap Mutual Fund

1 Sample Statistics

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	Study Sample	Central value	Statistical dispersion	Mean estimation error
FY 2024_25	5	7.826	1.15716	0.5175
FY 2023_24	5	23.792	3.44534	1.5408
FY 2022_23	5	23.98	4.04594	1.8094
FY 2021_22	5	9.178	3.70664	1.65766
FY 2020_21	5	38.494	3.23939	1.4487

One Sample Test						
	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	sig (2-tailed)	Mean difference	Lower	Upper
FY 2024_25	15.123	4	0.000	7.82600	6.3892	9.2628
FY 2023_24	15.441	4	0.000	23.79200	19.5140	29.0700
FY 2022_23	13.253	4	0.000	23.98000	18.9563	29.0037
FY 2021_22	5.537	4	0.005	9.17800	4.5756	13.7804
FY 2020_21	26.571	4	0.000	38.49400	34.4718	42.5162

Interpretation

The one-sample t-test was conducted to examine whether the average returns of the selected large-cap mutual fund schemes are the same. The findings illustrated that a notable variation is observed in the average portfolio returns of the selected funds. As the p-value is below the 0.05 significance level, the null assumption is not accepted, indicating support for the alternative hypothesis. This demonstrates that the average returns of the choose schemes are not the same and that their performance differs across the schemes.

Table 5.1

Table depicting Correlation Analysis between Portfolio Return and Standard Deviation of Choose Schemes of Large-Cap Mutual Fund

Correlations		
	RP	SD
Return on Portfolio Pearson Correlation Coefficient	1	0.610
Two tailed significance value		0.275
N	5	5
Standard Deviation Pearson Correlation Coefficient	0.610	1
Two tailed significance value	0.275	
N	5	5

Interpretation

The correlation analysis was performed to assess the association between returns on the portfolio and the level of risk of the choosen large-cap schemes. The analysis illustrated a moderate positive correlation (r = 0.610), indicating that an increase in portfolio returns is generally accompanied by a rise in risk. However, the relationship is statistically insignificant. Hence, the null hypothesis is retained, implying that analysis do not provide enough evidence to confirm a statistically significant link between risk and return.

Findings

- There exists noticeable differences among the choosen schemes of Mutual funds in terms of performance throughout the observation period, displaying that not all funds perform equally under varying market environment.
- The Nippon India large-cap scheme emerged as the most reliable performer and top-performing fund, especially in the 3-year (2022–2025) and 5-year (2020–2025) periods. This demonstrates its effectiveness in producing competitive returns while effectively managing the associated risk and efficient portfolio management.
- The ICICI Prudential Large Cap scheme also demonstrated strong and stable performance, consistently securing the second position. This reflects its ability to maintain a well-balanced risk–return profile, making it a dependable investment choice
- HDFC and Kotak Large Cap scheme showed moderate performance. Although they generated reasonable returns, their risk-adjusted measures were comparatively lower, indicating less efficiency in converting risk into returns.
- SBI Large Cap Fund consistently ranked last in many of the periods due to lower Sharpe, Treynor, and

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Jensen values, reflecting weaker performance regarding risk-adjusted returns.

- The analysis illustrates that schemes recording higher values for the Sharpe Ratio, Treynor Ratio, and Jensen's Alpha tend to achieve superior risk-adjusted performance.
- The analysis also demonstrates the performance improves over longer investment horizons, emphasising the advantages of a long-term investment approach in mutual funds.
- Market conditions such as economic recovery, sectoral growth, and post-pandemic expansion played a crucial role in influencing fund performance, especially benefiting funds with strong large-cap exposure.
- The One-Sample t-Test indicates that the average returns of the choosen schemes of large-cap mutual fund are not the same. This shows that the performance of the funds differs, as some schemes generate higher returns compared to others.
- Correlation analysis between portfolio return and risk showed a moderate direct relationship, revealing that schemes with higher total risk generally generated higher returns. However, the relationship was not statistically significant.

Conclusion

The study evaluated the performance of selected large-cap mutual fund schemes using risk-adjusted performance measures over one-year, three-year, and five-year periods. The findings reveal that the choose schemes differed in their ability deliver returns corresponding to the risks undertaken.

Among the selected schemes, Nippon India Large Cap maintained strong performance throughout medium- and long-term periods, while ICICI Prudential Large Cap scheme performed exceptionally well during the one-year period. The findings demonstrate that funds capable of effectively managing risk while generating higher returns tend to achieve better overall performance.

The results of the One-Sample t-Test show that the average returns of the selected large-cap schemes differ from one another. This means that the performance of the funds varies, with some schemes generating higher returns than others. Further, The correlation analysis illustrates a direct link between portfolio return and total risk. This suggests that as the risk level increases, the returns also tend to increase, and vice versa.

Overall, the study emphasises the importance of considering both return and risk-adjusted measures when evaluating mutual fund performance. Investors should evaluate not only the return potential but also on consistency, risk management, and long-term performance while selecting mutual fund schemes. Such an approach can support informed investment decisions and contribute to long-term wealth creation.

Suggestions

- The study shows that earning higher returns alone should not be the only criterion for selecting a mutual fund. Investors are advised to consider risk-adjusted performance measures such as the Sharpe Ratio, Treynor Ratio, and Jensen's Alpha to understand how efficiently a fund generates returns in relation to the level of risk assumed.
- Since the selected large-cap mutual funds performed more consistently over the three-year and five-year periods, investors with long-term financial goals may benefit from staying invested for a longer duration rather than focusing on short-term market fluctuations.
- Before investing, individuals should analyse mutual fund scheme on their historical performance, risk level, portfolio composition, and consistency. This enables investors to make well-informed investment choice that support their financial goals.
- Asset Management Companies should continue to improve their portfolio management strategies by maintaining proper diversification, selecting quality stocks, and responding effectively to changing market conditions. These measures can improve long-term fund performance and investor confidence.
- As market environment have a considerable influence on mutual fund performance, investors should regularly monitor economic developments, interest rate movements, and sectoral trends while reviewing their investment portfolios.

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- Financial advisors and investment professionals should Improve investor knowledge regarding the value of balancing risk and return. Educating investors on risk-adjusted performance measures can assist them in making better investment choices instead of relying only on past returns.
- The findings indicate that Nippon India Large Cap scheme and ICICI Prudential Large Cap scheme delivered comparatively better risk-adjusted performance in the period covered by the study. However, investors should always select a mutual fund based on their own investment horizon, financial goals, and risk tolerance rather than depending solely on rankings.

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