Risk-Adjusted Excellence: Performance Analytics of India's Top Large-Cap Mutual Funds

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Abstract: This study evaluates the risk-adjusted performance of India's top AUM-based large-cap mutual funds over five financial years (2020–21 to 2024–25), integrating Modern Portfolio Theory and the Capital Asset Pricing Model to assess whether leading schemes generate meaningful alpha or simply mirror benchmark behaviour under SEBI's category constraints. Using Sharpe Ratio, Treynor Ratio, Jensen's Alpha, Beta, and return volatility, the analysis reveals clear differences in efficiency and managerial skill. Nippon India Large Cap Fund delivers the strongest outcomes (Sharpe 0.845, Treynor 27.10, Alpha 7.69%), followed by ICICI Prudential (Alpha 5.48%) and HDFC Large Cap (Alpha 4.97%), each demonstrating effective risk control. In contrast, SBI Large Cap shows the highest volatility (32.04%) with modest alpha (2.11%), while Mirae Asset exhibits near-benchmark behaviour. With Betas clustered between 0.91–1.00, the findings show that scale advantages are not uniform. These insights offer implications for investors, fund managers, and regulators seeking more nuanced evaluation frameworks.

Keywords: Large-cap mutual funds; Risk-adjusted performance; Sharpe Ratio; Treynor Ratio; Jensen's Alpha; Systematic risk; Beta; Portfolio efficiency; Mutual fund evaluation; Nifty 100 Index; Asset management; SEBI categorization.

I. INTRODUCTION

Large-cap mutual funds play an important role in India's growing investment landscape. These funds invest mainly in well-established, high-value companies that dominate the stock market. Because these firms are typically stable and widely traded, large-cap funds are often seen as safer long-term options for investors. However, even within this category, performance varies noticeably, raising questions about how effectively these funds manage risk and whether they actually create value beyond simple market movements.

In recent years, participation in Indian mutual funds has increased sharply due to greater financial awareness, digital access, and changing investment behaviour after the COVID-19 pandemic (Association of Mutual Funds in India [AMFI], 2023). At the same time, regulatory interventions by the Securities and Exchange Board of India (SEBI, 2017) have tightened category definitions, especially for large-cap funds. While these rules have improved transparency, they have also restricted the level of flexibility available to fund managers. This makes it especially important to study whether large-cap funds are still able to produce strong risk-adjusted returns under these constraints.

Traditional performance measures such as raw returns often fail to capture how efficiently a fund handles risk or whether excess returns reflect genuine managerial skill. Modern Portfolio Theory (Markowitz, 1952) highlights that investors care about how returns relate to volatility, not returns alone. Similarly, the Capital Asset Pricing Model (Sharpe, 1964) distinguishes between returns generated from overall market movements and returns generated by active management. Recent research on Indian mutual funds provides mixed findings: some studies report meaningful alpha generation (Kurian, 2020), while others find evidence of benchmark hugging and limited value creation in large-cap schemes (Deshpande, 2022).

This study contributes to this debate by analysing risk-adjusted performance across India's top AUM-based large-cap funds. Using Sharpe Ratio, Treynor Ratio, Jensen's Alpha, Beta, standard deviation, and annualised returns, the study offers a comprehensive view of how these funds balance risk, generate excess returns, and manage market exposure. By comparing funds operating under the same regulatory framework, the research highlights whether differences in performance arise from strategy, managerial skill, or scale-related constraints.

Overall, this study aims to provide clearer insights for investors, fund managers, and regulators. Understanding which large-cap funds truly deliver risk-adjusted excellence can support better financial decisions and encourage greater accountability and transparency within the Indian mutual fund industry.

II.   OBJECTIVES OF THE STUDY

[1]. To assess the risk-adjusted performance of the top AUM-based large-cap mutual funds in India using the Sharpe Ratio, Treynor Ratio, and Jensen's Alpha.
[2]. To estimate and compare the systematic risk (Beta) of these funds relative to the Nifty 100 Index.
[3]. To test whether high-AUM funds generate meaningful alpha.
[4]. To compare risk–return dynamics across leading large-cap schemes.
[5]. To determine whether scale enhances or constrains performance in the large-cap category.

III.   REVIEW OF LITERATURE

The evaluation of large-cap mutual funds is grounded in foundational investment theories. Modern Portfolio Theory introduced by Markowitz (1952) emphasises that investors aim to maximise returns for a given level of risk, while the Capital Asset Pricing Model developed by Sharpe (1964) highlights the role of systematic risk through Beta and introduces Jensen's Alpha as a measure of risk-adjusted excess returns. These frameworks establish that mutual fund analysis must go beyond raw returns to consider risk-adjusted performance.

Empirical studies examining Indian mutual funds present differing conclusions. Some research suggests that fund managers can generate meaningful alpha under favourable conditions or with strong stock-selection capabilities (Kurian, 2020; Bansal & Joshi, 2019). However, other studies highlight the prevalence of benchmark hugging, particularly after SEBI's (2017) reclassification norms requiring large-cap funds to invest 80% of their portfolio in the top 100 companies (Deshpande, 2022). This regulatory limitation restricts fund managers' flexibility, making it harder to outperform benchmarks consistently.

The use of risk-adjusted performance metrics has become more prominent in evaluating such funds. Sharpe Ratio, Treynor Ratio and Jensen's Alpha are widely recommended for assessing true efficiency since they reveal how well returns compensate for different types of risk (Patel & Sinha, 2021; Gupta & Sehgal, 2018). Evidence from both Indian and global markets suggests that multi-metric evaluation provides a more accurate picture of performance consistency, particularly in volatile environments.

Studies examining ETFs provide further insights due to their structural similarity to large-cap mutual funds. Research on Indian ETFs shows that performance varies despite identical benchmark mandates, pointing to differences in tracking efficiency, liquidity and risk exposure (Undabatla & Rao, 2021). These findings parallel the behaviour observed in large-cap mutual funds, where competition, scale and benchmark constraints drive variations in risk-adjusted outcomes.

Additional work on Indian financial markets reinforces the importance of risk-adjusted metrics. Analyses of sectoral performance demonstrate that volatility-adjusted returns differ significantly from raw return rankings (Undabatla et al., 2025). Similarly, the application of the Treynor Ratio in evaluating sectoral portfolios shows that systematic risk plays a critical role in performance variation, and that excess return per unit of Beta can differ substantially across investment options (Undabatla et al., 2025). These studies strengthen the conceptual basis for evaluating mutual funds using multiple measures.

Comparative ETF studies further support this approach. Research examining index-based ETFs traded on the BSE finds that tracking efficiency is affected by fund structure, liquidity and market microstructure, leading to differences in Beta, tracking error and observed returns (Rambabu et al., 2025). The evidence suggests that even funds operating under identical mandates can display performance dispersion—an insight highly relevant to the large-cap mutual fund universe. Another important area of scholarship concerns fund size and its impact on performance. International evidence highlights that very large funds may face liquidity challenges that reduce the ability to take active positions (Chen et al., 2004). Indian studies echo these findings, noting that large funds often exhibit lower active risk due to market impact costs and liquidity constraints (Mishra & Sharma, 2019). However, some research argues that large fund houses benefit from economies of scale, improved research capabilities and lower transaction costs, which can enhance performance (Raghavan, 2020). This mixed evidence indicates that the effect of AUM on performance remains an open question and warrants further examination.

Studies on market cycles provide additional context. Research indicates that large-cap funds tend to outperform during bullish phases but struggle during downturns due to high exposure to systematic risk (Verma, 2020). This underscores the importance of evaluating performance across multiple years and varying market conditions, rather than relying on single-period measures.

Overall, while existing literature provides strong theoretical foundations and diverse empirical evidence, several gaps remain. Limited research has focused specifically on the top AUM-based large-cap funds in India, and few studies integrate multiple risk-adjusted measures—including Sharpe, Treynor, Beta and Jensen's Alpha—within the same evaluative framework. The present study addresses these gaps by applying a comprehensive performance analysis to identify whether India's leading large-cap funds demonstrate genuine risk-adjusted excellence under current market and regulatory constraints.

IV. STATEMENT OF THE PROBLEM

Although large-cap mutual funds in India operate under the same SEBI mandate of investing heavily in the top 100 companies, their performance differs widely. Investors often assume that larger funds provide better stability and superior risk-adjusted returns, yet research shows inconsistent evidence of alpha generation and efficiency. Most studies rely on limited performance measures and do not specifically evaluate the largest AUM-based funds using a comprehensive risk-adjusted framework. As a result, it remains unclear whether these leading large-cap schemes truly outperform the benchmark, manage market risk effectively, or benefit from scale. This lack of clarity creates a critical gap for investors and policymakers seeking reliable insights into the actual efficiency of India's top large-cap mutual funds.

V. RESEARCH GAP

Although several studies have examined mutual fund performance in India, most have focused on limited samples, single metrics, or broader fund categories. Very few studies specifically analyse the top AUM-based large-cap funds, even though these funds attract the majority of investor capital. Existing research also tends to rely on raw returns, overlooking the multidimensional nature of performance that includes Sharpe Ratio, Treynor Ratio, Jensen's Alpha, Beta, and volatility. Moreover, the impact of fund size (AUM) on risk-adjusted performance remains unclear, with conflicting evidence on whether scale enhances efficiency or reduces agility. This creates a clear gap for a comprehensive, multi-metric evaluation of India's largest large-cap mutual funds, especially in the post–SEBI reclassification era. The present study addresses this gap by providing an integrated risk-adjusted assessment of leading large-cap schemes over a five-year period.

VI. RESEARCH METHODOLOGY

This study adopts a quantitative research design to examine the risk-adjusted performance of India's top AUM-based large-cap mutual funds. The methodology is built around objective financial metrics, secondary data sources, and comparative analytical techniques consistent with established portfolio evaluation frameworks.

a. Data Source and Sample Selection

The study uses secondary data collected from AMFI, and investing.com historical data. The sample comprises the top large-cap mutual funds ranked by Assets Under Management (AUM) as of 2024–25. Selecting the largest schemes ensures that the analysis focuses on funds most relevant to investors and most influential in the Indian market. The Nifty 100 Index is used as the benchmark because SEBI mandates that large-cap funds invest predominantly in companies comprising this index.

b. Study Period

The performance evaluation covers five financial years (2020–21 to 2024–25). This multi-year horizon captures different market phases, including post-pandemic volatility, recovery periods, and stable growth cycles.

Variables and Performance Measures

To capture true performance efficiency, the study employs multiple risk-adjusted measures:

1. Annual Returns – to evaluate raw performance.
2. Standard Deviation – to measure total risk.
3. Beta – to assess systematic market risk relative to Nifty 100.
4. Sharpe Ratio – return per unit of total risk.
5. Treynor Ratio – return per unit of systematic risk.
6. Jensen's Alpha – manager's ability to generate returns above CAPM expectations.

Using a combination of these measures aligns with Modern Portfolio Theory and CAPM, offering a more complete picture than raw returns alone.

c. Data Analysis Techniques

The analysis involves the following steps:

1. Calculation of annual fund returns for each of the five years.
2. Estimation of Beta using regressions of fund returns against Nifty 100 index returns.

3. Computation of Sharpe, Treynor, and Jensen's Alpha, using the 10-year Government Bond yield as the risk-free rate.
4. Comparison across funds to determine which schemes deliver superior risk-adjusted performance.
5. AUM–performance relationship analysis to explore whether size enhances or restricts fund efficiency.
6. Descriptive statistics such as mean, standard deviation, skewness, and kurtosis are also computed to examine the distributional characteristics of fund returns.

d. Tools and Software

Microsoft Excel, statistical functions are used to compute financial ratios, run regressions, and generate tables for interpretation.

e. Research Framework

The methodology is guided by:
1. Modern Portfolio Theory (Markowitz, 1952)
2. Capital Asset Pricing Model (Sharpe, 1964)
3. Risk-adjusted performance evaluation literature

This allows the study to systematically evaluate how effectively India's largest large-cap funds transform risk into returns.

VII.   DATA ANALYSIS AND DISCUSSION

The data analysis focuses on evaluating the performance of India's top AUM-based large-cap mutual funds over a five-year period from 2020–21 to 2024–25. Using annual returns, Beta values, and risk-adjusted metrics—Sharpe Ratio, Treynor Ratio, and Jensen's Alpha—the study aims to understand how efficiently these funds convert risk into return and whether scale influences performance.

Table 1. Annual Returns of Large-Cap Funds and Nifty 100 Index (2020–21 to 2024–25)

Year	Nifty 100 Index Return	HDFC Large Cap Fund	Nippon India Large Cap Fund	ICICI Prudential Large Cap Fund	SBI Large Cap Fund	Mirae Asset Large Cap Fund
2020–21	76.1921%	73.7538%	75.4739%	76.5683%	81.8566%	76.4251%
2021–22	17.7902%	20.0200%	24.2376%	21.4993%	15.7354%	18.4333%
2022–23	–3.8779%	5.1351%	5.9951%	2.6072%	2.3694%	–0.9789%
2023–24	33.0684%	35.6954%	45.6786%	42.5269%	30.0204%	26.5554%
2024–25	4.1121%	4.8845%	6.5739%	7.0493%	8.1264%	8.7273%
Average Return	**25.4570%**	**28.6898%**	**31.5918%**	**30.0503%**	**27.6181%**	**25.8325%**

Source: Authors calculations

Table 2: Descriptive Statistics of Annual Returns (2020–21 to 2024–25)

Fund / Index	Mean (%)	Std. Dev (%)	Minimum (%)	Maximum (%)	Skewness	Kurtosis
Nifty 100 Index	25.4570	31.6501	–3.8779	76.1921	1.2566	1.4432
HDFC Large Cap Fund	27.8978	28.6068	4.8845	73.7538	1.2891	1.2919
Nippon India Large Cap Fund	31.5918	29.4077	5.9951	75.4739	0.8924	–0.3596
ICICI Prudential Large Cap Fund	30.0502	30.3104	2.6072	76.5683	1.0346	0.2331
SBI Large Cap Fund	27.6216	32.0398	2.3694	81.8566	1.7020	2.9402
Mirae Asset Large Cap Fund	25.8324	30.1095	–0.9789	76.4251	1.5999	2.8850

Source: Authors calculations

Table 3: Risk-Adjusted Performance Metrics of Large-Cap Mutual Funds Compared With Nifty 100 Index

Fund Name	Sharpe Ratio	Treynor Ratio	Jensen's Alpha (%)	Beta	Std. Dev (%)	Average Return (%)	Performance Interpretation
HDFC Large Cap	0.759	23.29	4.97	0.9486	28.61	28.69	Strong performer; stable; moderate alpha; good balance of risk & return
Nippon India Large Cap	**0.845**	**27.10**	**7.69**	**0.9171**	29.41	**31.59**	Best risk-adjusted performer; highest alpha; strong manager skill
ICICI Prudential Large Cap	0.769	24.48	5.48	0.9525	30.31	30.05	Very strong and consistent; high alpha; efficient on both Sharpe & Treynor
SBI Large Cap	0.651	20.83	2.11	1.0027	**32.04**	27.62	Most volatile; near-market beta; modest alpha
Mirae Asset Large Cap	0.634	20.24	1.43	0.9435	30.11	25.83	Stable but lower alpha; moderate efficiency
Nifty 100 Index	—	—	0.00	1.000	31.65	25.46	Benchmark for comparison

Source: Authors calculations

Table:4 Systematic Risk (Beta) Comparison of Large-Cap Funds

Fund Name	Beta	Interpretation of Market Exposure	Compared to Nifty 100 (β = 1.00)	Inference on AUM Influence
HDFC Large Cap Fund	0.9486	Slightly defensive; moves less than market	Lower than index	Large AUM does not increase Beta
Nippon India Large Cap Fund	0.9171	More defensive; lower sensitivity to market swings	Much lower than index	Large AUM does not increase Beta; remains conservative
ICICI Prudential Large Cap Fund	0.9525	Near-market movement but still slightly defensive	Slightly lower than index	Large AUM has mild impact; stable Beta
SBI Large Cap Fund	1.0027	Moves almost exactly with market; pure market-tracking	Almost equal to index	Higher AUM shows highest Beta → closer to market behaviour
Mirae Asset Large Cap Fund	0.9435	Defensive; lower systematic risk	Lower than index	Scale does not push Beta upward
Nifty 100 Index (Benchmark)	1.0000	Market risk	—	—

Source: Authors calculations

Table:5 Jensen's Alpha Comparison of Large-Cap Funds

Fund Name	Jensen's Alpha (%)	Interpretation (Manager Skill)	Compared to Benchmark (0%)	Does it Show Meaningful Alpha?
HDFC Large Cap Fund	4.97%	Strong positive skill; outperforms expected CAPM return	Higher	Yes – meaningful alpha
Nippon India Large Cap Fund	7.69%	Excellent skill; highest alpha; strong active management	Much higher	Strongest alpha among all funds
ICICI Prudential Large Cap Fund	5.48%	High managerial effectiveness; consistently beats market expectation	Higher	Yes – meaningful alpha
SBI Large Cap Fund	2.11%	Mild but positive skill; slightly above expected return	Slightly higher	Small but not strong
Mirae Asset Large Cap Fund	1.43%	Weak alpha; nearly market-tracking	Slightly higher	Not meaningful
Nifty 100 Index	0.00%	Market return benchmark	—	—

Source: Authors calculations

Table:6 Risk–Return Dynamics of Large-Cap Funds

Fund Name	Average Return (%)	Standard Deviation (%)	Beta	Risk–Return Position	Interpretation
HDFC Large Cap Fund	28.69	28.61	0.9486	Moderate return – Low volatility	Balanced; efficient risk management
Nippon India Large Cap Fund	31.59	29.41	0.9171	High return – Mid volatility	Best performer; strong return with reasonable risk
ICICI Prudential Large Cap Fund	30.05	30.31	0.9525	High return – Moderate volatility	Consistent; strong risk–return balance
SBI Large Cap Fund	27.62	32.04	1.0027	Low return – High volatility	Riskier; highest volatility but no return advantage
Mirae Asset Large Cap Fund	25.83	30.11	0.9435	Low return – Moderate volatility	Lower return without risk compensation
Nifty 100 Index	25.46	31.65	1.000	Benchmark	Used for comparison

Source: Authors calculations

Table:7 Scale Effect Analysis

Fund Name	Beta	Std. Dev (%)	Sharpe Ratio	Alpha (%)	Return vs Index	Scale Effect (Interpretation)
HDFC Large Cap	0.9486	28.61	0.759	4.97	Higher	**Scale supports performance →** stable, low Beta, moderate alpha
Nippon India Large Cap	0.9171	29.41	**0.845**	**7.69**	Highest	**Scale enhances performance** → top alpha, low Beta, high return
ICICI Prudential Large Cap	0.9525	30.31	0.769	5.48	Higher	**Scale helps** → very strong alpha & returns despite AUM constraints
SBI Large Cap	**1.0027**	**32.04**	0.651	2.11	Moderate	**Scale constrains performance** → highest volatility, Beta ≈ 1, weak alpha
Mirae Asset Large Cap	0.9435	30.11	0.634	1.43	Lowest	**Scale limits performance** → low alpha, near-index behaviour
Nifty 100 Index	1.000	31.65	—	0.00	—	Benchmark

Source: Authors calculations

Table 1 shows that all large-cap funds experienced substantial fluctuations across the five-year period, reflecting the volatility of Indian equity markets after the pandemic. The strongest returns for all funds were recorded in 2020–21 and 2023–24, years characterised by post-pandemic recovery and strong market momentum. Conversely, 2022–23 shows negative or low returns, aligning with the broader economic slowdown and global uncertainties. Nippon India Large Cap and ICICI Prudential Large Cap stood out with consistently higher returns, particularly in 2023–24 where both significantly outperformed the Nifty 100. Mirae Asset and SBI Large Cap recorded more modest performance, especially during market downturns. HDFC Large Cap remained relatively stable across all years. The benchmark Nifty 100 exhibited similar volatility patterns, indicating that most funds moved closely with the market. However, the variation in returns suggests that fund managers' stock selection and strategy still played a meaningful role despite SEBI's portfolio restrictions.

Table 2 provides statistical insights into the distribution and volatility of fund returns. Nippon India Large Cap demonstrated the highest mean return (31.59%), while Mirae Asset and Nifty 100 recorded the lowest averages. Standard deviation values were generally high across all funds, reflecting the volatility of the five-year period. Skewness values are positive for all funds, indicating a longer right tail and the presence of occasional high-return years, particularly 2020–21. Kurtosis values show that SBI and Mirae Asset funds have the heaviest tails, meaning they experienced more extreme return movements than a normal distribution would predict. Overall, the descriptive statistics confirm that although the funds belong to the same category, their return distributions differ meaningfully. This reinforces the need for risk-adjusted evaluation to capture quality of performance beyond average returns.

Table 3 highlights clear differences in risk-adjusted efficiency. Nippon India Large Cap emerges as the strongest performer on Sharpe Ratio (0.845), Treynor Ratio (27.10), and Alpha (7.69%), indicating superior excess return relative to both total and systematic risk. ICICI Prudential Large Cap also performs remarkably well, with strong Sharpe and Treynor ratios and a high Alpha. HDFC Large Cap maintains stable, moderate performance, showing balanced risk-return efficiency. Mirae Asset and SBI Large Cap lag behind on all risk-adjusted metrics, especially SBI, which has the highest volatility and a relatively low alpha. Together, the risk-adjusted metrics reveal that not all large-cap funds deliver the same quality of performance even when raw returns appear similar. Managerial skill plays a significant role for top performers.

Table 4 shows that all fund Betas are close to 1, which is expected given SEBI's mandate of investing predominantly in large-cap stocks. However, variations still exist. SBI Large Cap has the highest Beta (1.0027), indicating that its movements are almost identical to the Nifty 100. Nippon India, HDFC, and Mirae Asset maintain Beta values below 1, making them slightly defensive. The results show that high AUM does not automatically translate to higher Beta, as most large funds maintain controlled market exposure. This implies that fund managers use defensive strategies despite scale.

Table 5 presents the most direct indicator of fund manager skill. Nippon India Large Cap produces the highest Alpha (7.69%), signalling strong active management and meaningful outperformance relative to CAPM expectations. HDFC and ICICI Prudential also generate substantial positive Alphas, indicating persistent value creation. On the other hand, SBI and Mirae Asset deliver only marginal positive Alphas, suggesting benchmark-like behaviour with limited active skill. This supports the argument that while some large-cap funds generate genuine alpha, others remain closer to passive portfolios.

Table 6 compares return levels with risk indicators. Nippon India and ICICI Prudential funds achieve high returns without excessively high volatility, making them efficient choices. HDFC also shows a balanced risk-return profile with moderate volatility. SBI Large Cap stands out as the riskiest fund (highest standard deviation) but does not compensate investors with higher returns, making it inefficient on a risk-return basis. Mirae Asset shows moderate volatility but lower returns, indicating weaker performance relative to peers. These patterns reinforce the importance of evaluating volatility alongside average returns.

Table 7 evaluates whether fund size enhances performance. The results show no uniform advantage of higher AUM. Nippon India, ICICI Prudential, and HDFC benefit from scale through superior Sharpe, Alpha, and lower Beta. Their size appears to enhance research capability and risk control. In contrast, SBI and Mirae Asset show weaker performance metrics despite their scale. SBI's higher volatility and near-market Beta suggest that large size may limit agility, supporting literature that scale sometimes constrains active management.
Thus, the scale effect is fund-specific:
- Scale enhances performance → Nippon, ICICI, HDFC
- Scale constrains performance → SBI, Mirae

This mixed evidence aligns with existing research that finds no consistent relationship between AUM and performance.

VIII.   CONCLUSION

This study assessed whether India's top AUM-based large-cap mutual funds deliver genuine risk-adjusted outperformance by analysing five years of returns through Sharpe Ratio, Treynor Ratio, Jensen's Alpha, Beta, and volatility. The findings show that only a few funds truly excel. Nippon India Large Cap Fund emerged as the strongest performer with a Sharpe Ratio of 0.845, Treynor Ratio of 27.10, and the highest Alpha of 7.69%, reflecting exceptional manager skill. ICICI Prudential Large Cap Fund also delivered strong results, supported by a Sharpe Ratio of 0.769, Treynor Ratio of 24.48, and Alpha of 5.48%. HDFC Large Cap Fund demonstrated balanced performance with Alpha of 4.97% and a slightly defensive Beta of 0. 9486.In contrast, SBI Large Cap Fund showed the highest volatility (Std. Dev. = 32.04%) and only modest alpha (2.11%), while Mirae Asset Large Cap Fund generated the weakest alpha (1.43%), indicating near-benchmark behaviour. Beta values for all funds remained tightly clustered between 0.91 and 1.00, confirming SEBI-driven constraints on active risk-taking. Overall, the results make clear that only Nippon India, ICICI Prudential, and to some extent HDFC deliver strong risk-adjusted performance, while SBI and Mirae Asset lag behind despite their scale. This highlights the importance of evaluating funds using multi-metric risk-adjusted frameworks rather than relying solely on raw returns.

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