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A Multi-Metric Performance Evaluation of Indian Mutual Funds: Evidence from Arbitrage, Hybrid, and Balanced Advantage Schemes

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Abstract: This paper examines the performance of 20 mutual fund schemes from 2020 to 2025 across Arb, Agg Hybrid, and Blc Adv categories using key risk-adjusted measures such as the Sharpe Ratio, Treynor Ratio, and Jensen's Alpha. The analysis shows that most funds failed to beat their benchmarks, with only a few displaying positive Sharpe Ratios and all reporting negative alpha. Among the categories, Blc Adv funds offered relatively better risk-adjusted results, while AFs delivered the weakest performance. Overall, the study highlights the difficulty active fund managers faced during a strong market phase and suggests that low-cost passive options and DPs may be more suitable for many investors.

Keywords: Mutual Fund Performance, Sharpe Ratio, Treynor Ratio, Jensen's Alpha, Risk-Adjusted Returns, Benchmark Comparison, Underperformance, Active Management, Passive Investment, Portfolio Strategy, Financial Benchmarking, Investment Analysis, Fund Selection, Market Returns, Risk Management.

1.INTRODUCTION

The Indian mutual fund industry has grown rapidly in recent years, offering investors a wide range of options across different risk and return levels. This study analyzes the performance of 20 mutual fund schemes from April 2020 to March 2025, covering Arb, Agg Hybrid, and Blc Adv categories. Using key evaluation tools such as the Sharpe Ratio, Treynor Ratio, and Jensen's Alpha, the research focuses on risk-adjusted returns, benchmark comparisons, and the ability of funds to generate alpha. Since this period includes a strong phase for equity markets, the study also questions how effectively active fund managers performed compared to passive investing approaches. Overall, the aim is to provide clear, data-based insights that can help investors make better portfolio decisions in the Indian market.

2. REVIEW OF LITERATURE

Mutual fund performance evaluation has a well-established academic lineage, beginning with the seminal contributions of William F. Sharpe (1966), who introduced the Sharpe Ratio to assess risk-adjusted returns by factoring in total volatility. This was complemented by Jack Treynor (1965), who emphasized systematic risk through the Treynor Ratio, and Michael Jensen (1968), whose Jensen's Alpha measured a fund manager's ability to deliver excess returns over a risk-adjusted benchmark. Together, these metrics form the cornerstone of modern fund performance analysis.

Globally, the debate over active versus passive management has been intensively researched. Burton Malkiel (1995) famously contended that actively managed funds generally fail to outperform the market net of fees, a view later reinforced by Eugene Fama and Kenneth French (2010), who found little evidence of persistent skill among fund managers after accounting for costs and risk.

In the Indian context, research has consistently highlighted the challenges of sustained outperformance. Rao and Mishra (2016) observed that while some equity funds occasionally beat their benchmarks, consistent alpha generation remains elusive. Bhide and Trivedi (2018) further noted that higher returns in Indian funds are frequently accompanied by disproportionately higher risk, underscoring the necessity of risk-adjusted evaluation.

A significant and growing area of study concerns the performance divergence between Dand RPs. Sankaran (2019) demonstrated that DPs, owing to lower expense ratios, systematically deliver superior net returns—a finding echoed by Sivakumar (2020), who showed that this return gap widens over longer investment horizons, reinforcing the critical role of cost efficiency.

Category-specific analyses have also yielded important insights. Gupta and Kohli (2020) reported that equity-oriented categories like Flexi Cap and ELSS tend to offer strong absolute returns but with elevated volatility. Conversely, Kumar (2021) found that HFs, particularly Agg Hybrid schemes, often struggle to provide competitive risk-adjusted returns compared to their benchmarks, questioning their efficacy in delivering Blc outcomes.

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Despite these contributions, scholars such as Banerjee (2022) and Sharma and Verma (2021) have identified notable gaps. Much of the existing literature examines the industry in aggregate, with limited fund-house-specific or category-concentrated studies. There is also a scarcity of research comparing Dand RPs within the same Asset Management Company (AMC) across multiple fund types. Furthermore, a significant portion of prior work relies on pre-2020 data, failing to capture the unprecedented market volatility, regulatory shifts, and economic disruptions characteristic of the 2020–2025 period.

The present study Dly addresses these gaps by conducting a focused, multi-metric performance evaluation of 20 mutual fund schemes from BOI and Axis Mutual Fund across three distinct categories: Arb, Agg Hybrid, and Blc Adv. By analyzing both Dand RPs within the same AMCs and employing Sharpe, Treynor, and Jensen's Alpha metrics, this research provides a granular, up-to-date assessment of fund performance during a period marked by exceptional market movements. This targeted approach not only enriches the academic discourse on AMC-level performance but also delivers actionable insights for investors navigating post-pandemic financial landscapes.

3. STATEMENT OF THE PROBLEM

Although mutual fund options and investor participation have grown rapidly in India, there is still a lack of clear, multi-metric evaluation of how different fund categories truly perform. A key issue highlighted in this study is the consistent inability of actively managed funds to beat their benchmarks, with all 20 schemes under review lagging during the 2020–2025 period. This raises important questions about whether these funds deliver enough risk-adjusted returns to justify their active strategies and fees. Another challenge is the conflicting results produced by different performance metrics—for example, AFs may show strong Treynor Ratios but weak Sharpe Ratios, making it hard for investors to interpret their actual performance. The problem is further amplified in a strong market environment, where high benchmark returns make it difficult for fund managers to add value. Additionally, the gap between Dand RPs suggests that expenses significantly influence investor outcomes. Overall, the study aims to determine whether active mutual funds in India truly offer value or whether passive alternatives may serve investors better.

4. RESEARCH GAP

Although many studies have explored mutual fund performance globally, notable gaps still remain in the Indian context, especially when it comes to evaluating different fund categories using a consistent, multi-metric approach. There is limited research focusing on the post-pandemic period (2020–2025), a time marked by sharp volatility and strong market recovery, making recent analysis particularly important. Most existing studies tend to examine funds individually or within a single category, leaving a lack of comparative evidence across Arb, Agg Hybrid, and Blc Adv schemes. Another gap arises from the heavy reliance on a single performance measure such as the Sharpe Ratio, even though different metrics—like Treynor Ratio and Jensen's Alpha—can lead to contrasting interpretations, especially for strategies such as Arb. Additionally, benchmark selection is rarely discussed in depth, despite its significant influence on performance evaluation. There is also limited research connecting academic findings to practical insights that investors can use when building portfolios. This study addresses these gaps by providing a broad, multi-metric comparison of 20 funds, offering updated and relevant insights for both researchers and investors

5. OBJECTIVES OF THE STUDY

1. To compare the risk-adjusted performance of Arb, Agg Hybrid, and Blc Adv funds using Sharpe and Treynor ratios.
2. To evaluate whether fund managers generated excess returns by calculating Jensen's Alpha for each scheme.
3. To measure how each fund performed relative to its benchmark index over the 2020–2025 period.
4. To identify and explain inconsistencies between different performance metrics used in the analysis.
5. To assess the impact of expense ratios by comparing returns of Dand RPs.
6. To offer practical investment recommendations based on the overall performance findings

6. RESEARCH DESIGN

1 Research Approach

This study follows a quantitative and analytical approach to examine how 20 mutual fund schemes performed between April 2020 and March 2025. The research is based on a post-positivist perspective, relying on real financial data and established theories to evaluate fund performance objectively. Rather than testing hypotheses, the study focuses on describing trends and comparing outcomes across different fund categories. This allows for a clear and structured assessment of how each fund behaved under varying market conditions.

2 Data Collection

The study uses historical NAV data from fund fact sheets and reliable financial databases as its primary source. Secondary information, such as benchmark index returns and government bond yields used as the risk-free rate, supports the analysis. The time frame covers five financial years, from April 1, 2020, to March 31, 2025. A purposive sample of 20 schemes was selected across three fund types—Arb, Agg Hybrid, and Blc Adv—to ensure meaningful category-wise comparison.

3 Analytical Framework

A multi-metric evaluation system is used to measure performance from different angles. A returns help assess absolute

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performance, while the Sharpe Ratio and Treynor Ratio capture risk-adjusted outcomes based on total and systematic risk. Jensen's Alpha is used to determine whether fund managers generated returns beyond CAPM expectations. Together, these metrics provide a Blc and comprehensive view of how each fund performed.

4 Variables Considered

The study's dependent variables include all major performance measures such as A returns, Sharpe Ratio, Treynor Ratio, and Jensen's Alpha. Independent variables include fund type, plan structure (Dvs R), and expense ratios, which can influence performance outcomes. Market conditions, benchmark index movements, and the risk-free rate are treated as control variables to maintain analytical consistency.

5 Analytical Procedures

The analysis begins with cleaning and organizing NAV data to compute A returns for each scheme. Descriptive statistics like averages and standard deviations are then used to understand overall trends. Each fund's Sharpe, Treynor, and Alpha values are calculated systematically, followed by category-wise comparison to identify differences in performance. Benchmarks are used to evaluate underperformance or outperformance, and finally, funds are ranked based on multiple metrics.

6 Tools and Software Used

Microsoft Excel serves as the primary tool for calculating financial metrics and organizing data. All formulas for risk-adjusted performance and returns are manually applied and cross-checked for accuracy. The use of spreadsheet-based analysis ensures transparency and allows for easy verification or replication of results.

7 Ethical Considerations

The study uses only publicly available financial information, ensuring transparency and ethical integrity. All calculations follow widely accepted financial formulas, and assumptions are clearly stated where necessary. The design avoids bias by treating all fund categories equally and acknowledging data limitations. Ethical research standards are maintained throughout the analysis.

Table 1: Performance Comparison of Mutual Funds (A Returns in %)

Mutual Fund Scheme	2020-21	2021-22	2022-23	2023-24	2024-25
BOI AF DP A IDCW	3.23%	2.74%	4.25%	6.72%	7.49%
BOI AF DP G	3.14%	2.82%	4.28%	6.70%	7.52%
BOI AF DP M IDCW	2.06%	2.79%	4.25%	7.28%	7.49%
BOI AF DP Q IDCW	3.15%	2.88%	4.28%	7.15%	7.51%
BOI AF R G	2.34%	2.40%	3.87%	6.60%	6.83%
BOI AF RP IDCW A IDCW	2.63%	2.40%	3.93%	6.61%	6.83%
BOI AF RP IDCW M IDCW	1.35%	2.39%	3.87%	6.56%	6.83%
BOI AF RP IDCW Q IDCW	2.36%	2.34%	3.90%	6.59%	6.84%
BOI Blc Adv Fund DP IDCW	23.33%	5.88%	0.69%	28.87%	0.38%
BOI Blc Adv Fund RP IDCW	22.65%	11.89%	-0.23%	27.88%	-0.61%
Axis Agg HF - RP - M IDCW	43.81%	8.16%	-15.76%	10.39%	0.31%
Axis Agg HF - RP - Q IDCW	45.72%	8.15%	-15.74%	10.77%	0.68%
Axis Agg HF - RP - R IDCW	35.80%	7.50%	-14.86%	13.56%	9.49%
Axis AF - RP - G	3.15%	4.08%	4.75%	7.36%	7.15%
Axis AF - RP - M IDCW	1.21%	0.74%	-0.53%	2.51%	1.49%
Axis Agg HF - DP - G Option	50.72%	18.68%	-6.18%	23.56%	10.68%
Axis Agg HF - DP - M IDCW	45.92%	10.94%	-10.81%	17.34%	2.91%
Axis Agg HF - DP - Q IDCW	47.89%	10.18%	-14.16%	13.57%	2.60%
Axis Agg HF - DP - R IDCW	37.78%	9.28%	-14.08%	14.97%	10.72%
Axis Agg HF - RP - G Option	48.46%	17.27%	-7.31%	22.07%	9.51%

Source: Authors calculation

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Table 2: Descriptive Statistics of Mutual Fund Schemes

Mutual Fund Scheme	Minimum Return	Maximum Return	Mean Return	Std. Deviation	Skewness	Std. Error (Skewness)	Kurtosis	Std. Error (Kurtosis)
BOI AF DP A IDCW	2.74%	7.49%	4.88 %	1.87%	0.71	0.913	-1.06	2
BOI AF DP G	2.82%	7.52%	4.89 %	1.87%	0.7	0.913	-1.06	2
BOI AF DP M IDCW	2.06%	7.49%	4.77 %	2.24%	0.32	0.913	-1.61	2
BOI AF DP Q IDCW	2.88%	7.51%	4.95 %	1.90%	0.69	0.913	-1.06	2
BOI AF R G	2.34%	6.83%	4.41 %	1.80%	0.56	0.913	-0.87	2
BOI AF RP IDCW A IDCW	2.40%	6.83%	4.48 %	1.80%	0.56	0.913	-0.87	2
BOI AF RP IDCW M IDCW	1.35%	6.83%	4.20 %	2.08%	0.13	0.913	-1.38	2
BOI AF RP IDCW Q IDCW	2.34%	6.84%	4.41 %	1.81%	0.56	0.913	-0.87	2
BOI Blc Adv Fund DP IDCW	0.38%	28.87%	11.83 %	12.18%	0.97	0.913	-0.37	2
BOI Blc Adv Fund RP IDCW	-0.61%	27.88%	12.52 %	11.55%	0.61	0.913	-1.26	2
Axis Agg HF - RP - M IDCW	-15.76%	43.81%	9.38 %	21.81%	-0.67	0.913	-0.78	2
Axis Agg HF - RP - Q IDCW	-15.74%	45.72%	9.92 %	22.53%	-0.67	0.913	-0.79	2
Axis Agg HF - RP - R IDCW	-14.86%	35.80%	10.30 %	16.96%	0.04	0.913	-1.49	2
Axis AF - RP - G	3.15%	7.36%	5.30 %	1.88%	-0.16	0.913	-1.73	2
Axis AF - RP - M IDCW	-0.53%	2.51%	1.08 %	1.11%	0.42	0.913	-0.55	2
Axis Agg HF - DP - G Option	-6.18%	50.72%	19.49 %	21.59%	0.24	0.913	-1.69	2
Axis Agg HF - DP - M IDCW	-10.81%	45.92%	13.26 %	19.32%	0.42	0.913	-0.96	2
Axis Agg HF - DP - Q IDCW	-14.16%	47.89%	12.02 %	20.95%	0.32	0.913	-1.11	2
Axis Agg HF - DP - R IDCW	-14.08%	37.78%	11.93 %	19.10%	0.67	0.913	-0.8	2
Axis Agg HF - RP - G Option	-7.31%	48.46%	18.00 %	19.83%	0.19	0.913	-1.56	2

Source: Authors calculation

Table 3: Sharpe Ratio Analysis of Mutual Funds

Mutual Fund Scheme	Mean Return (%)	Standard Deviation (%)	Risk-Free Rate (%)	Sharpe Ratio	Rank
Axis Agg HF - DP - G Option	19.49	21.59	6.73	0.59	1
Axis Agg HF - RP - G Option	18	19.83	6.73	0.57	2
BOI Blc Adv Fund RP IDCW	12.52	11.55	6.73	0.5	3
Axis Agg HF - DP - M IDCW	13.26	19.32	6.73	0.34	4
BOI Blc Adv Fund DP IDCW	11.83	12.18	6.73	0.42	5
Axis Agg HF - DP - R IDCW	11.93	19.1	6.73	0.27	6

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Axis Agg HF - DP - Q IDCW	12.02	20.95	6.73	0.25	7
Axis Agg HF - RP - R IDCW	10.3	16.96	6.73	0.21	8
Axis Agg HF - RP - Q IDCW	9.92	22.53	6.73	0.14	9
Axis AF - RP - G	5.3	1.88	6.73	-0.76	10
BOI AF DP Q IDCW	4.95	1.9	6.73	-0.94	11
BOI AF DP G	4.89	1.87	6.73	-0.98	12
BOI AF DP A IDCW	4.88	1.87	6.73	-0.99	13
Axis Agg HF - RP - M IDCW	9.38	21.81	6.73	0.12	14
BOI AF RP IDCW A IDCW	4.48	1.8	6.73	-1.25	15
BOI AF RP IDCW Q IDCW	4.41	1.81	6.73	-1.28	16
BOI AF R G	4.41	1.8	6.73	-1.29	17
BOI AF DP M IDCW	4.77	2.24	6.73	-0.87	18
BOI AF RP IDCW M IDCW	4.2	2.08	6.73	-1.22	19
Axis AF - RP - M IDCW	1.08	1.11	6.73	-5.09	20

Source: Authors calculation

Table 4: Jensen's Ratio Analysis of Mutual Funds

Mutual Fund Scheme	**Plan Type**	**Option**	**Mean Return (%)**	**Standard Deviation (%)**	**Risk-Free Rate (%)**	**Beta**	**Jensen's Alpha (%)**	**Rank**
Axis Agg HF - DP	D	G Option	19.49	21.59	6.73	0.27	-4.97	1
Axis Agg HF - RP	R	G Option	18	19.83	6.73	0.27	-6.46	2
Axis Agg HF - DP	D	M IDCW	13.26	19.32	6.73	0.27	-11.2	3
Axis Agg HF - DP	D	R IDCW	11.93	19.1	6.73	0.27	-12.53	4
Axis Agg HF - DP	D	Q IDCW	12.02	20.95	6.73	0.27	-12.44	5
BOI Blc Adv Fund	R	IDCW	12.52	11.55	6.73	0.15	-6.28	6
Axis Agg HF - RP	R	R IDCW	10.3	16.96	6.73	0.27	-14.16	7
BOI Blc Adv Fund	D	IDCW	11.83	12.18	6.73	0.15	-6.97	8
Axis Agg HF - RP	R	Q IDCW	9.92	22.53	6.73	0.27	-14.54	9
Axis Agg HF - RP	R	M IDCW	9.38	21.81	6.73	0.27	-15.08	10
Axis AF - RP	R	G	5.3	1.88	6.73	-0.03	-0.87	11
BOI AF	D	Q IDCW	4.95	1.9	6.73	-0.04	-1.38	12
BOI AF	D	G	4.89	1.87	6.73	-0.04	-1.44	13
BOI AF	D	A IDCW	4.88	1.87	6.73	-0.04	-1.45	14
BOI AF	D	M IDCW	4.77	2.24	6.73	-0.04	-1.56	15
BOI AF	R	IDCW A IDCW	4.48	1.8	6.73	-0.04	-1.85	16
BOI AF	R	IDCW Q IDCW	4.41	1.81	6.73	-0.04	-1.92	17
BOI AF	R	G	4.41	1.8	6.73	-0.04	-1.92	18
BOI AF	R	IDCW M IDCW	4.2	2.08	6.73	-0.04	-2.13	19
Axis AF - RP	R	M IDCW	1.08	1.11	6.73	0.01	-5.88	20

Source: Authors calculation

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Table 5: Treynor Ratio Analysis of Mutual Funds

Mutual Fund Scheme	Plan Type	Option	Mean Return (%)	Standard Deviation (%)	Risk-Free Rate (%)	Beta	Treynor Ratio	Rank
Axis AF - RP	R	G	5.3	1.88	6.73	-0.03	47.6	1
BOI AF	D	Q IDCW	4.95	1.9	6.73	-0.04	47	2
BOI AF	D	G	4.89	1.87	6.73	-0.04	46	3
BOI AF	D	A IDCW	4.88	1.87	6.73	-0.04	45.75	4
BOI AF	D	M IDCW	4.77	2.24	6.73	-0.04	44	5
BOI AF	R	IDCW A IDCW	4.48	1.8	6.73	-0.04	41.25	6
BOI AF	R	IDCW Q IDCW	4.41	1.81	6.73	-0.04	40.5	7
BOI AF	R	G	4.41	1.8	6.73	-0.04	40.5	8
BOI AF	R	IDCW M IDCW	4.2	2.08	6.73	-0.04	38.25	9
Axis Agg HF - DP	D	G Option	19.49	21.59	6.73	0.27	47.26	10
Axis Agg HF - RP	R	G Option	18	19.83	6.73	0.27	41.78	11
Axis Agg HF - DP	D	Q IDCW	12.02	20.95	6.73	0.27	19.59	12
Axis Agg HF - DP	D	M IDCW	13.26	19.32	6.73	0.27	24.19	13
Axis Agg HF - DP	D	R IDCW	11.93	19.1	6.73	0.27	19.26	14
Axis Agg HF - RP	R	Q IDCW	9.92	22.53	6.73	0.27	11.81	15
Axis Agg HF - RP	R	M IDCW	9.38	21.81	6.73	0.27	9.81	16
Axis Agg HF - RP	R	R IDCW	10.3	16.96	6.73	0.27	13.22	17
BOI Blc Adv Fund	R	IDCW	12.52	11.55	6.73	0.15	38.6	18
BOI Blc Adv Fund	D	IDCW	11.83	12.18	6.73	0.15	34	19
Axis AF - RP	R	M IDCW	1.08	1.11	6.73	0.01	-463.88	20

Source: Authors calculation

Table 6: Comparative Analysis - Mutual Funds vs. Benchmark Indices

Rank	Mutual Fund Scheme	Mean Return (%)	Standard Deviation (%)	Risk-Free Rate (%)	Sharpe Ratio	Benchmark Index	Benchmark Return (%)	Compared to Benchmark
1	Axis Agg HF - DP - G Option	19.49	21.59	6.73	0.59	NIFTY 100	25.35	Underperformed
2	Axis Agg HF - RP - G Option	18	19.83	6.73	0.57	NIFTY 100	25.35	Underperformed
3	BOI Blc Adv Fund RP IDCW	12.52	11.55	6.73	0.5	NIFTY 50	25.35	Underperformed
4	Axis Agg HF - DP - M IDCW	13.26	19.32	6.73	0.34	NIFTY 100	25.35	Underperformed
5	BOI Blc Adv Fund DP IDCW	11.83	12.18	6.73	0.42	NIFTY 50	25.35	Underperformed
6	Axis Agg HF - DP - R IDCW	11.93	19.1	6.73	0.27	NIFTY 100	25.35	Underperformed
7	Axis Agg HF - DP - Q IDCW	12.02	20.95	6.73	0.25	NIFTY 100	25.35	Underperformed
8	Axis Agg HF - RP - R IDCW	10.3	16.96	6.73	0.21	NIFTY 100	25.35	Underperformed

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9	Axis Agg HF - RP - Q IDCW	9.92	22.53	6.73	0.14	NIFTY 100	25.35	Underperformed
10	Axis AF - RP - G	5.3	1.88	6.73	-0.76	NIFTY 50 Arb TRI	7.5	Underperformed
11	BOI AF DP Q IDCW	4.95	1.9	6.73	-0.94	NIFTY 50 Arb Index	7.5	Underperformed
12	BOI AF DP G	4.89	1.87	6.73	-0.98	NIFTY 50 Arb TRI	7.5	Underperformed
13	BOI AF DP A IDCW	4.88	1.87	6.73	-0.99	NIFTY 50 Arb Index	7.5	Underperformed
14	Axis Agg HF - RP - M IDCW	9.38	21.81	6.73	0.12	NIFTY 100	25.35	Underperformed
15	BOI AF RP IDCW A IDCW	4.48	1.8	6.73	-1.25	NIFTY 50 Arb Index	7.5	Underperformed
16	BOI AF RP IDCW Q IDCW	4.41	1.81	6.73	-1.28	NIFTY 50 Arb Index	7.5	Underperformed
17	BOI AF R G	4.41	1.8	6.73	-1.29	NIFTY 50 Arb TRI	7.5	Underperformed
18	BOI AF DP M IDCW	4.77	2.24	6.73	-0.87	NIFTY 50 Arb TRI	7.5	Underperformed
19	BOI AF RP IDCW M IDCW	4.2	2.08	6.73	-1.22	NIFTY Total Returns	25.35	Underperformed
20	Axis AF - RP - M IDCW	1.08	1.11	6.73	-5.09	Nifty Arb Index	7.5	Underperformed

Source: Authors calculation

Table 7: Sector-wise Sharpe, Jensen, Treynor Ratio Comparison of Mutual Funds

Sector	**No. of Funds**	**Avg. Sharpe Ratio**	**Avg. Jensen's Alpha (%)**	**Avg. Treynor Ratio**	**Comparison with NIFTYFIN (0.46)**
Agg HFs	8	0.29	-11.14	25.87	Lower
Blc Adv Funds	2	0.46	-6.63	36.3	Similar
AFs	10	-1.3	-1.58	40.55	Lower
All Funds	20	-0.14	-7.66	31.21	Lower

Source: Authors calculation

7. INTERPRETATION

Table 1 shows that the 20 mutual fund schemes performed very differently over the 2020–2025 period. The Axis Agg HFs delivered very high returns in the early years but also faced sharp drops later, reflecting their higher volatility. In contrast, the AFs from both Axis and BOI offered steady but low returns, consistent with their low-risk strategy. The Blc Adv Funds showed moderate and mixed results as they adjusted to market conditions. Across all schemes, DPs consistently earned slightly higher returns than RPs due to lower expenses. Overall, the data highlights a clear balance between risk and return, with high-G funds experiencing greater ups and downs.

Table 2 shows clear differences in risk levels across the fund categories. The AFs recorded the lowest volatility, which fits their low-risk, market-neutral structure. Agg HFs had the highest standard deviations, reflecting their larger exposure to equity markets and wider return swings. Blc Adv Funds fell in the middle, showing moderate risk due to their shifting mix of equity and debt. Most funds displayed low or negative kurtosis, suggesting fewer extreme return movements, and many showed positive skewness, indicating occasional positive return spikes. Overall, the results match the expected risk behavior of each fund category.

Table 3 shows that only a few funds delivered positive risk-adjusted returns, as just 5 out of 20 recorded a positive Sharpe Ratio. The Axis Agg HF – DP stood out with the strongest performance (0.59), while the Axis AF – M IDCW had the lowest ratio at –5.09. All AFs reported negative Sharpe values because their returns stayed below the risk-free rate, even though their volatility was low. Overall, Agg hybrid and Blc Adv funds offered better risk-adjusted outcomes, whereas AFs provided stability but struggled to generate returns above the risk-free benchmark.

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Table 4 shows that all the funds reported negative Jensen's Alpha, meaning none of them managed to beat the returns expected by the CAPM model. AFs had the least negative values, suggesting they stayed closest to meeting market-based expectations given their low market risk. On the other hand, Agg HFs recorded the most negative alphas, indicating a clear struggle to generate extra returns despite higher exposure to equities. Overall, the uniformly negative alphas suggest that active fund managers found it difficult to outperform during the period studied, especially in a strong market where high benchmark returns made excess performance hard to achieve.

Table 5 shows that Treynor Ratios vary widely across fund categories, largely due to differences in beta values. AFs appear to have very high ratios because their low or negative betas inflate the measure, even though their actual returns are modest. Among funds with positive betas, the Axis Agg Hybrid DG fund performs best, reflecting strong returns relative to systematic risk. Some funds, like the Axis AF M IDCW, show extreme negative ratios due to low excess returns combined with small positive betas. These results highlight that Treynor Ratio can be misleading on its own and should be interpreted alongside Sharpe Ratio and Jensen's Alpha for a fuller view of performance.

Table 6 shows that all 20 mutual fund schemes underperformed their respective benchmarks from 2020 to 2025. Equity-oriented funds lagged by 5–16%, while AFs trailed by 2–3%, regardless of market conditions or fund strategy. This consistent shortfall suggests that passive investment options like index funds or ETFs could have offered higher returns at lower costs, raising questions about the effectiveness of active fund management during this period.

Table 7 shows that only Blc Adv Funds came close to matching the financial sector benchmark, with an average Sharpe Ratio of 0.46 compared to NIFTYFIN's 0.4624. Agg HFs lagged behind at 0.29, underperforming the benchmark by 37%, while AFs recorded a much lower Sharpe of -1.30 due to their focus on capital preservation. The overall sector average of -0.14 highlights that most funds failed to achieve risk-return efficiency comparable to the financial benchmark, suggesting that passive sector funds or ETFs may provide better risk-adjusted returns for investors seeking exposure to the financial sector.

CONCLUSION

This study analyzed 20 mutual fund schemes across Arb, Agg Hybrid, and Blc Adv categories from April 2020 to March 2025 and found that most funds consistently underperformed their benchmarks and offered inadequate risk-adjusted returns. Equity-oriented funds lagged behind by 5–16%, while AFs trailed by 2–3%. Only 25% of the funds achieved positive Sharpe Ratios, and all schemes showed negative Jensen's Alpha, indicating a failure to generate excess returns. Blc Adv funds performed relatively better, AFs provided stability with modest returns, and Agg HFs showed high volatility. DPs consistently outperformed RPs due to lower expenses. The findings suggest that investors would have benefited more from passive index funds or ETFs for G, while Blc Adv funds are suitable for moderate risk, and AFs should be used mainly for capital preservation. Overall, the results highlight that low-cost, benchmark-aligned strategies often outperform active management during strong market periods.

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