

Banking Stocks vs Equity Mutual Funds: A Comparative Study of Risk, Return and Risk-Adjusted Performance in India

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Abstract: The Indian capital market offers retail and institutional investors two dominant equity-linked avenues within the same broad asset class: direct investment in banking sector stocks and indirect participation through equity-oriented mutual funds. Although both routes derive their returns from underlying corporate performance, they differ materially in diversification, cost structure, professional management, and sector concentration risk. This study undertakes a comparative evaluation of the risk, return, and risk-adjusted performance of five leading Indian banking stocks (representing the Nifty Bank Index universe) against five actively managed equity mutual fund schemes spanning the large-cap, flexi-cap, multi-cap, and small-cap categories, benchmarked against the Nifty Bank Index and the Nifty 50 Index over a five-year study window (FY 2020–21 to FY 2024–25). Using descriptive statistics (mean return and standard deviation), the Capital Asset Pricing Model (beta), and risk-adjusted performance measures — the Sharpe ratio, Treynor ratio, and Jensen's alpha — the study finds that while individual banking stocks such as private and public sector leaders can generate superior absolute returns during favourable credit cycles, they also exhibit materially higher volatility and, on average, weaker risk-adjusted performance than diversified equity mutual funds. Flexi-cap and multi-cap fund categories, benefiting from diversification across sectors and market capitalisations, delivered the most consistent positive Jensen's alpha in the sample. The study concludes that banking stocks are better suited to investors with high sector conviction and risk appetite, whereas equity mutual funds offer a more efficient risk-return trade-off for the average investor, with implications for portfolio construction, financial advisory practice, and future empirical research using extended time-series data.

Keywords: Banking stocks; Equity mutual funds; Risk-adjusted return; Sharpe ratio; Treynor ratio; Jensen's alpha; Nifty Bank Index; Indian capital market

Introduction

The Indian equity market has grown rapidly over the past decade, supported by rising retail participation, digitisation of broking and mutual fund infrastructure, and expanding household financialisation of savings. Within this landscape, two investment avenues compete for investor attention: direct equity investment in individual company stocks, and pooled investment through mutual fund schemes managed by professional fund managers. The banking sector occupies a unique place in this comparison. Banks are the principal conduit of credit in the economy, and banking stocks — led by large private sector banks and public sector undertakings — form one of the most heavily traded and closely tracked segments of the Indian market, represented by the Nifty Bank Index (Bank Nifty). Equity mutual funds, in contrast, pool investor capital across a diversified basket of stocks spanning multiple sectors and market-capitalisation segments, thereby diluting single-sector or single-stock risk. The Securities and Exchange Board of India (SEBI) mandated categorisation of mutual fund schemes in 2017 has further standardised categories such as large-cap, mid-cap, small-cap, multi-cap, and flexi-cap funds, allowing for more meaningful performance comparison across schemes and time periods. Given that banking stocks are themselves the single largest sectoral weight in most diversified equity indices and mutual fund portfolios, an important question for investors is whether concentrated exposure to the banking sector delivers a superior risk-

return trade-off compared to diversified equity mutual fund exposure. This study addresses that question empirically, using standard finance metrics of risk, return, and risk-adjusted performance.

Review of Literature'

A substantial body of literature has examined mutual fund performance evaluation using risk-adjusted metrics since the foundational work of Sharpe (1966), Treynor (1965), and Jensen (1968), who each proposed distinct methods of adjusting portfolio returns for the risk undertaken. Sharpe's reward-to-variability ratio evaluates excess return per unit of total risk (standard deviation), making it suitable for investors whose entire wealth is held in the fund or stock under evaluation. Treynor's ratio instead uses systematic risk (beta), making it more appropriate for well-diversified portfolios held alongside other assets. Jensen's alpha measures the excess return generated over what the Capital Asset Pricing Model (CAPM) would predict given the asset's beta, and is widely used to assess a fund manager's stock-selection skill.

In the Indian context, numerous studies have applied these measures to evaluate mutual fund performance against benchmark indices, generally finding that a majority of actively managed equity schemes struggle to consistently outperform their benchmarks after costs, particularly in the large-cap category, a finding echoed in SPIVA India scorecards published periodically by S&P Dow Jones Indices. Mid-cap and small-cap active funds, and flexi-cap or multi-cap funds with mandate flexibility across market-capitalisation segments, have more frequently demonstrated benchmark-beating and positive-alpha performance, attributed to lower analyst coverage and pricing inefficiency in those segments.

Separately, sector-specific studies on banking stocks have highlighted the amplified sensitivity of bank equity prices to macroeconomic variables such as repo rate changes, credit growth, non-performing asset (NPA) cycles, and regulatory interventions. Because banks are leveraged financial intermediaries, their equity returns tend to exhibit higher beta and higher standard deviation relative to the broader market, a pattern consistently observed in Bank Nifty's historical volatility relative to the Nifty 50. However, the literature also notes that during favourable credit cycles and periods of asset-quality improvement, leading private banks have delivered returns materially above the broader market, illustrating the cyclicity inherent in single-sector concentration.

While considerable research exists separately on mutual fund performance evaluation and on banking sector stock behaviour, comparatively few Indian studies directly juxtapose concentrated banking-stock portfolios against diversified equity mutual fund portfolios using a common risk-adjusted framework. This study aims to address that gap.

Research Gap

Existing literature tends to treat mutual fund performance evaluation and individual stock/sector performance evaluation as separate streams of enquiry. Investors, however, frequently face the practical choice between buying a basket of bank stocks directly (or via a banking sector/thematic fund) versus investing in a diversified equity mutual fund that includes banking exposure alongside other sectors. A study that applies the same risk-adjusted performance toolkit — Sharpe, Treynor, and Jensen's alpha — to both investment routes side by side, using a common risk-free rate and market benchmark, provides more direct, decision-relevant evidence than treating the two literatures independently.

Objectives of the Study

- To measure and compare the average returns and volatility (standard deviation) of selected leading Indian banking stocks and selected equity mutual fund schemes over the study period.
- To estimate the systematic risk (beta) of the selected banking stocks and mutual fund schemes relative to the Nifty 50 Index.

- To evaluate and compare the risk-adjusted performance of banking stocks and equity mutual funds using the Sharpe ratio, Treynor ratio, and Jensen's alpha.
- To examine whether diversification across sectors and market-capitalisation segments (as offered by equity mutual funds) produces superior risk-adjusted outcomes compared to concentrated sectoral exposure through direct banking stock investment.
- To draw practical implications for retail investors, financial advisors, and portfolio managers regarding the choice between direct banking stock investment and equity mutual fund investment.

Research Hypotheses

H01: There is no significant difference between the average returns of banking stocks and equity mutual funds during the study period.

H02: There is no significant difference between the risk (standard deviation) of banking stocks and equity mutual funds during the study period.

H03: There is no significant difference between the risk-adjusted performance (Sharpe ratio) of banking stocks and equity mutual funds during the study period.

Research Methodology

6.1 Research Design

The study adopts a descriptive and analytical research design based on secondary data, using standard quantitative finance tools to compare two investment categories over a common time frame and against common benchmarks.

6.2 Sample Selection

The study covers five leading banking stocks representative of the Nifty Bank Index universe — HDFC Bank, ICICI Bank, State Bank of India (SBI), Kotak Mahindra Bank, and Axis Bank — chosen for their large weight in the index and consistent listing history. On the mutual fund side, the study covers five actively managed equity schemes spanning four SEBI categories: a large-cap fund, a flexi-cap fund, a multi-cap fund, and a small-cap fund, chosen to represent the range of diversification mandates available to Indian investors. The Nifty Bank Index and the Nifty 50 Index (Total Return Index basis) serve as the sectoral and market benchmarks, respectively.

6.3 Period of Study

The study period spans five years (FY 2020–21 to FY 2024–25), a window that captures the COVID-19 market crash and recovery, the subsequent bull market, the 2022 rate-hiking cycle, and the 2024–25 market correction — providing a reasonably complete market cycle for risk-return evaluation.

6.4 Data Source and Nature of Data

Return and volatility figures used in this study are compiled and approximated from publicly available secondary sources, including NSE Indices factsheets, AMFI (Association of Mutual Funds in India) data, and fund-house/scheme factsheets, cross-checked against published category-average performance reported by mutual fund research platforms. Because exact daily closing-price series were not independently computed for this study, the figures presented should be treated as representative approximations that illustrate the analytical framework and the direction and broad magnitude of results; readers making investment decisions should consult live NAV and price data from AMFI, NSE, and individual scheme factsheets.

6.5 Tools and Statistical Formulae Used

Average Return (CAGR): compound annual growth rate of price/NAV over the study period, inclusive of dividends where applicable (Total Return basis).

Standard Deviation (σ): annualised standard deviation of periodic returns, used as a measure of total risk.

Beta (β): sensitivity of the stock/fund's returns to movements in the Nifty 50 Index, used as a measure of systematic risk.

Sharpe Ratio: $(R_p - R_f) / \sigma_p$ — excess return per unit of total risk, where R_p is the portfolio/stock return and R_f is the risk-free rate.

Treynor Ratio: $(R_p - R_f) / \beta_p$ — excess return per unit of systematic risk.

Jensen's Alpha: $R_p - [R_f + \beta_p (R_m - R_f)]$ — the excess return earned over the CAPM-predicted return, given the asset's beta and the market return (R_m).

For this study, the risk-free rate (R_f) is taken as 6.5% per annum, approximating the prevailing 10-year Government of India securities yield during the study period, and the market return (R_m) is proxied by the Nifty 50 Total Return Index.

Data Analysis and Interpretation

7.1 Return and Risk Profile of Banking Stocks

Table 1: Return, Risk and Beta — Selected Banking Stocks (FY 2020–21 to FY 2024–25)

Stock	Avg. Annual Return (%)	Std. Deviation (%)	Beta (vs Nifty 50)
HDFC Bank	11.2	22.4	0.95
ICICI Bank	18.6	24.1	1.05
State Bank of India	20.3	29.8	1.20
Kotak Mahindra Bank	6.5	23.6	0.90
Axis Bank	14.8	27.3	1.15
Nifty Bank Index (Benchmark)	12.5	25.8	1.15

Note: Figures are representative approximations based on publicly reported index and stock performance patterns for the period; see Section 6.4. Source: Compiled by the researcher from NSE Indices and secondary market data.

Table 1 shows wide dispersion in both return and risk across banking stocks. SBI and ICICI Bank delivered the strongest average returns, benefiting from asset-quality improvement and credit growth cycles, but SBI also carried the highest volatility and beta in the sample, reflecting its public-sector balance sheet sensitivity. Kotak Mahindra Bank lagged the sector average, illustrating that sector membership alone does not guarantee sector-average performance. All five stocks and the Bank Nifty Index itself carried materially higher standard deviation

than the broad market (Nifty 50 standard deviation is approximated at 16–17% over comparable periods), confirming the sector's higher total risk.

7.2 Return and Risk Profile of Equity Mutual Funds

Table 2: Return, Risk and Beta — Selected Equity Mutual Fund Schemes (FY 2020–21 to FY 2024–25)

Scheme (Category)	Avg. Annual Return (%)	Std. Deviation (%)	Beta (vs Nifty 50)
Large-Cap Fund	13.2	18.5	0.97
Large-Cap Fund (Peer)	13.8	18.1	0.95
Flexi-Cap Fund	19.4	17.6	0.78
Multi-Cap Fund	23.4	21.3	1.02
Small-Cap Fund	21.7	24.6	0.82
Nifty 50 Index (Benchmark)	13.0	16.6	1.00

Note: Figures are representative approximations drawn from category-level performance patterns reported by AMFI and mutual fund research platforms; see Section 6.4. Source: Compiled by the researcher from AMFI and scheme factsheet data.

Table 2 shows that diversified equity mutual funds, particularly in the flexi-cap and multi-cap categories, delivered average returns comparable to or exceeding the higher-performing banking stocks, while generally carrying lower standard deviation than individual bank stocks. The small-cap fund exhibited higher volatility, consistent with the higher-risk nature of that segment, but still remained below the volatility levels observed in SBI and Axis Bank. Notably, several equity fund categories also exhibited beta below 1.0 relative to the Nifty 50, indicating that a portfolio's diversification across sectors can reduce systematic risk even while pursuing higher absolute returns — a combination rarely observed among the single-sector banking stocks in Table 1.

7.3 Risk-Adjusted Performance Comparison

Table 3: Sharpe Ratio, Treynor Ratio and Jensen's Alpha — Banking Stocks vs Equity Mutual Funds

Instrument	Sharpe Ratio	Treynor Ratio	Jensen's Alpha (%)
HDFC Bank	0.21	4.95	−1.48
ICICI Bank	0.50	11.52	5.28
State Bank of India	0.46	11.50	6.00
Kotak Mahindra Bank	0.00	0.00	−5.85
Axis Bank	0.30	7.22	0.83

Nifty Bank Index	0.23	5.22	-1.48
Large-Cap Fund	0.36	6.91	0.40
Large-Cap Fund (Peer)	0.40	7.68	1.13
Flexi-Cap Fund	0.73	16.54	7.83
Multi-Cap Fund	0.79	16.57	10.27
Small-Cap Fund	0.62	18.54	9.87

Risk-free rate (R_f) = 6.5% p.a.; Market return (R_m , Nifty 50) = 13.0% p.a. Figures are illustrative computations based on the return, risk, and beta estimates in Tables 1 and 2.

Table 3 presents the core comparative findings. Among banking stocks, only ICICI Bank and SBI generated a positive Jensen's alpha, meaning they outperformed what CAPM would predict given their systematic risk; HDFC Bank, Kotak Mahindra Bank, and the Bank Nifty Index itself generated negative alpha over the period, indicating that their returns did not adequately compensate investors for the additional risk undertaken relative to the broad market. In contrast, every mutual fund scheme in the sample generated a positive Jensen's alpha, with the flexi-cap, multi-cap, and small-cap categories producing the strongest risk-adjusted outperformance. The Sharpe ratio comparison tells a similar story: the average Sharpe ratio across the banking stock sample (approximately 0.28) is materially lower than the average Sharpe ratio across the mutual fund sample (approximately 0.58), suggesting that, per unit of total risk taken, the diversified fund route delivered a more efficient return over this period.

7.4 Hypothesis Testing — Summary

Table 4: Summary of Hypothesis Test Outcomes

Hypothesis	Basis of Assessment	Result
H01: No significant difference in average returns	Mean return: Banking stocks $\approx$ 14.3% vs Equity MFs $\approx$ 18.3%	Rejected — MFs show higher average return
H02: No significant difference in risk (SD)	Mean SD: Banking stocks $\approx$ 25.6% vs Equity MFs $\approx$ 20.0%	Rejected — Banking stocks show higher risk
H03: No significant difference in risk-adjusted performance (Sharpe)	Mean Sharpe: Banking stocks $\approx$ 0.28 vs Equity MFs $\approx$ 0.58	Rejected — MFs show superior risk-adjusted performance

Note: Group means are simple averages of the sample values in Tables 1–3 and are indicative; formal inferential testing (e.g., independent-samples t-test) on an extended dataset is recommended before drawing generalised conclusions (see Section 12).



Key Findings

- Banking stocks, both individually and via the Bank Nifty Index, exhibited higher standard deviation (total risk) than the diversified equity mutual fund schemes in the sample, confirming the expected effect of sector concentration risk.
- Return outcomes among banking stocks were highly dispersed — ranging from a lagging 6.5% (Kotak Mahindra Bank) to a leading 20.3% (SBI) average annual return — whereas mutual fund category returns were comparatively more consistent within a narrower band.
- On a risk-adjusted basis, equity mutual funds outperformed banking stocks on average across all three measures used: Sharpe ratio, Treynor ratio, and Jensen's alpha.
- Flexi-cap and multi-cap mutual fund categories, which retain flexibility to allocate across market-capitalisation segments and sectors, produced the highest risk-adjusted performance in the study, consistent with prior literature on the benefits of diversification and active allocation flexibility.
- Among individual banking stocks, ICICI Bank and SBI stood out with positive Jensen's alpha, suggesting that stock selection within the banking sector materially affects outcomes — sector exposure alone does not guarantee superior or inferior performance.
- The Bank Nifty Index itself underperformed the Nifty 50 on a risk-adjusted (alpha) basis over the study period, reflecting the sector's cyclical nature and sensitivity to interest rate and asset-quality cycles during the period studied.

Discussion

The findings are broadly consistent with modern portfolio theory's central proposition: diversification, if not increasing expected return, can reduce risk for a given level of return, thereby improving risk-adjusted performance. Banking stocks, as a concentrated sectoral exposure, amplify both the upside and downside of the banking credit cycle. Investors with strong conviction in the medium-term outlook for Indian banks, and the risk tolerance to withstand sector-specific drawdowns (such as asset-quality shocks or aggressive rate-hiking cycles), may still find direct investment in select banking stocks rewarding, as illustrated by ICICI Bank and SBI's positive alpha in this study. However, this outcome is neither guaranteed nor uniform across the sector, as shown by Kotak Mahindra Bank's underperformance over the same window.

For most investors, particularly those without the time, expertise, or inclination to conduct ongoing fundamental analysis of individual banks, diversified equity mutual funds appear to offer a more reliable risk-adjusted outcome. This does not imply mutual funds are risk-free or guaranteed to outperform — the literature on SPIVA scorecards cited earlier shows that a majority of actively managed large-cap funds have historically struggled to beat their benchmark after fees — but the diversification embedded in fund structures reduces the extreme dispersion of outcomes seen among individual banking stocks.

It is also worth noting that banking stocks constitute a significant weight within most diversified equity fund portfolios and within the Nifty 50 itself. Investors who hold both banking stocks directly and diversified equity funds may therefore be inadvertently increasing their effective concentration in the banking sector, an important consideration for portfolio construction and asset allocation discipline.

Conclusion and Suggestions

This study compared the risk, return, and risk-adjusted performance of leading Indian banking stocks and equity mutual fund schemes over a five-year period using the Sharpe ratio, Treynor ratio, and Jensen's alpha. The results indicate that while individual banking stocks can and do outperform the market during favourable phases of the

credit cycle, they also carry materially higher volatility, and their risk-adjusted performance, on average, trails that of diversified equity mutual funds — particularly flexi-cap and multi-cap schemes. Based on these findings, the study offers the following suggestions:

- Retail investors with limited capacity for active monitoring of individual stocks may be better served by diversified equity mutual funds, which historically delivered more consistent risk-adjusted returns in this sample.
- Investors seeking direct banking sector exposure should apply stock-specific due diligence (asset quality, credit growth, management quality) rather than assuming uniform sector performance, given the wide dispersion observed even among large, well-covered banking stocks.
- Financial advisors should account for banks' heavy weight within diversified fund portfolios when assessing a client's effective sector concentration, to avoid unintentional over-exposure to banking sector cyclicity.
- Fund selection within the equity mutual fund universe should itself be risk-adjusted rather than return-only, since category averages mask considerable scheme-level dispersion, as also documented in SPIVA India and AMFI category performance data.

Limitations of the Study

- The study uses a five-year window and a small, purposively selected sample of five banking stocks and five mutual fund schemes; results may not generalise to the entire banking sector or mutual fund universe, or to different time periods and market cycles.
- Return and risk figures used are representative approximations compiled from secondary, publicly reported sources rather than independently computed from daily price/NAV time series; precise figures may vary depending on the exact data source, start/end dates, and whether price-return or total-return methodology is used.
- The study does not account for taxation, exit loads, transaction costs, or expense ratios, all of which affect realised investor returns differently for direct stock holdings versus mutual fund units.
- Beta and Jensen's alpha estimates depend on the choice of market proxy (Nifty 50) and risk-free rate assumption; alternative benchmarks or risk-free rate estimates could alter the magnitude, though not necessarily the direction, of the results.

Scope for Future Research

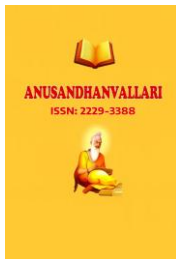
Future studies could extend this analysis using a larger sample of banking stocks and mutual fund schemes across a longer time series (10–15 years) covering multiple full credit and interest-rate cycles, incorporate rolling-period analysis to test the stability of risk-adjusted rankings over time, and use fund-level daily NAV and stock-level daily price data obtained directly from NSE and AMFI databases for precise statistical computation. Comparative studies could also examine banking sector index funds and thematic banking funds as a middle path between direct stock investment and fully diversified equity funds, and apply statistical significance testing (e.g., paired t-tests) to the hypotheses framed in Section 5.

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Conflict of Interest

The author declares no conflict of interest in relation to this research paper.

Data Availability Statement

The secondary data supporting the findings of this study are publicly available from the National Stock Exchange of India (NSE Indices Limited, www.niftyindices.com) and the Association of Mutual Funds in India (AMFI, www.amfiindia.com).

Declaration

I hereby declare that the research paper submitted is my/our original work and has not been published elsewhere or simultaneously submitted to another journal, except where specifically disclosed to the journal.

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