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Comparative Performance of Public and Private Sector Bank (With Special Reference to SBI and HDFC Bank)

Senahe Lata[1] and Dr. Ravi Rastogi[2]
[1]Research Scholar, Department of Commerce
[2]Research Guide, Department of Commerce
NIILM University, Kaithal, Haryana

Abstract: *This review critically examines existing literature and primary sources concerning the financial performance of the State Bank of India (SBI) — the largest public-sector bank — and HDFC Bank — a leading private-sector bank in India. The review synthesizes studies that use ratio analysis, CAMEL/CAMELE frameworks, trend and comparative analyses, and econometric techniques to evaluate profitability, asset quality, liquidity, capital adequacy, efficiency and market performance. Key findings indicate that HDFC Bank generally outperforms SBI on profitability and asset-quality metrics, while SBI demonstrates strengths in scale, liquidity and systemic reach. Integrating panel econometrics, decomposed ratio analysis, and stakeholder/market-context interpretation. Primary source documents (annual reports) and recent empirical studies are recommended as the foundational data sources.*

Keywords: Risk Management, Indian Banking Sector, Annual Reports & RBI Data

I. INTRODUCTION

The Indian banking sector occupies a central role in the country's economic architecture, acting both as the primary intermediary for savings and investment and as a conduit for public policy; within this sector, the State Bank of India (SBI) and HDFC Bank represent two distinct but complementary archetypes — a large, systemically important public-sector bank with an expansive branch network and public mandates, and a dynamic private-sector bank lauded for retail innovation, operational efficiency, and strong market performance — making a comparative analysis of their financial performance both practically important and academically fruitful. SBI, as India's largest public-sector bank, combines an immense balance-sheet scale with responsibilities toward financial inclusion and government-directed lending, and its audited annual reports and investor disclosures offer rich longitudinal data on its capital adequacy, asset quality, profitability and liquidity trends.

HDFC Bank, conversely, has built a reputation as India's leading private-sector retail bank with consistent profitability, a technology-first approach to customer acquisition and service, and high efficiency metrics that are regularly documented in its investor relations publications and annual reports. Together, these two banks capture the policy–market tension within Indian banking: SBI embodies scale, public accountability and systemic importance, while HDFC Bank exemplifies market-driven efficiency, product diversification and rapid balance-sheet growth — contrasts that naturally raise questions about how ownership, business model, governance and regulatory context shape measurable financial outcomes.

Numerous prior studies have applied ratio analysis, CAMEL-framework diagnostics, and econometric techniques to bank-level comparisons and have generally found private-sector banks like HDFC to outperform many public banks on profitability and efficiency metrics, while public-sector banks have shown strengths in deposit mobilization and systemic liquidity; however, these findings vary by sample period, choice of ratios, and the extent to which studies control for structural breaks such as accounting standard changes, major regulatory interventions, and noteworthy corporate events.

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Objectives of the study

- To compare the overall financial performance of SBI and HDFC Bank during a specific period.
- To analyze the profitability ratios of both banks, such as ROA and ROE.
- To examine the asset quality of SBI and HDFC using NPA ratios.
- To evaluate the efficiency ratios like Cost-to-Income and Operating Profit Margin.
- To study the capital adequacy positions of both banks under regulatory norms.

II. LITERATURE REVIEW

Chaudhary, K., Sharma, M. (2011): This paper has made an attempt to analyses how efficiently Public and Private sector banks have been managing NPA. A statistical tool for projection of trend was used for analysis.

Dash and Pathak (2011), his survey proposed on linear model for asset-liability assessment. They found public sector banks are having the best asset-liability management positions. in turn, they found that public sector banks had a strong short-term liquidity position, but with lower profitability, while private sector banks had a comfortable short-term liquidity position, balancing profitability.

G.L. Meena (2016) in her article, "Financial analysis of selected banks using Camel approach a study with reference to Indian banking industry" has evaluated the selected public and private sector banks from each of the important parameter of CAMEL model. The researcher has used the stratified random sampling technique to adopt for selecting the sample and concluded that the four factors -earnings per employee, debt equity ratio, total asset-to-total deposits ratio, net NPA's to- total advance ratio are the major factors impacting the financial performance of the banks taking return on assets as an independent variable.

P. Rajendran (2019) attempted to study the performance of HDFC which is the market leader in banking sector in so many ways. The study was done for the period of 2015 to 2019 and found out that during this period the financial performance of the bank was strong during this period of time.

Financial Performance : SBI and HDFC Bank

The Reserve Bank of India's Financial Stability Reports and related supervisory publications emphasize that, despite episodic stress episodes in the past decade, the Indian banking system has by recent measures displayed resilience — with improved capital buffers, declining gross non-performing assets (GNPA) ratios through aggressive provisioning and resolution mechanisms, and relatively stable liquidity positions — a macro-regulatory backdrop that must be integrated into any comparative bank-level analysis to avoid attributing system-wide effects incorrectly to individual bank strategies.

Importantly, the comparative exercise between SBI and HDFC Bank must move beyond simple static ratio snapshots to incorporate temporal dynamics, risk-adjusted performance measures and business-segment decomposition, because headline profitability metrics (ROA, ROE) can mask underlying differences in loan portfolio composition (retail versus corporate), treasury exposures, fee-income reliance, and extraordinary accounting or provisioning events; for instance, NPAs and provisioning cycles have historically weighed more heavily on large PSBs, though recent regulatory resolutions and government recapitalization have materially altered those trajectories.

Moreover, to make a novel contribution, the research should intentionally construct and test measures that reflect modern banking realities: a digitalization or fintech-integration index derived from disclosures and investor presentations; risk-weighted performance indicators such as RAROC or risk-adjusted ROA; and market-based measures (Tobin's Q, price-to-book) that capture investor expectations and the market's assessment of future earning potential. Such multi-dimensional measurement is particularly salient because HDFC Bank's competitive advantages often surface in non-interest income growth and technology-driven cost efficiencies, while SBI's advantages may be observed in deposit franchise strength, government-business flows and access to low-cost funds — characteristics that a consolidated ratio-only analysis can easily obscure.

The extant comparative literature also points to an urgent need for careful handling of accounting regime changes (e.g., Ind-AS adoption) and major corporate actions (mergers, large recoveries or write-offs), which can produce structural breaks in time-series data; failing to harmonize series across such events risks misattributing transient accounting effects to persistent managerial performance.

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Finally, beyond the strictly quantitative comparison, a comprehensive Ph.D. introduction should situate the SBI–HDFC comparison within policy debates about the role of public banks in financial inclusion, the adequacy of market discipline, and the regulatory trade-offs between financial stability and bank-level innovation; by linking measured performance to these broader concerns — and by drawing on authoritative primary sources (SBI and HDFC annual reports), supervisory evidence (RBI reports) and peer-reviewed comparative studies — the study both secures its empirical foundation and frames its contributions to scholarship and policy.

Common frameworks and metrics used

Most comparative studies employ ratio analysis (profitability ratios such as ROA, ROE, net interest margin; asset-quality ratios such as Gross and Net NPA; capital adequacy ratios like CAR/CRAR; efficiency ratios such as cost-to-income; and market ratios such as P/E, PB). CAMEL (Capital, Asset quality, Management quality, Earnings, Liquidity) or its variants are widely used to structure comparisons. Several empirical papers use t-tests and trend analysis, while more advanced work employs panel regressions to control for bank- and year-fixed effects.

Key empirical findings reported in the literature

- **Profitability:** Multiple comparative studies conclude that HDFC Bank typically shows stronger profitability (higher ROA/ROE and net profit margins) than SBI, attributed to lower credit costs, higher fee income and better cost controls.
- **Asset quality:** HDFC Bank is repeatedly reported to have lower gross and net NPA ratios than SBI, though SBI's NPAs have improved materially after the resolution of stressed accounts and stronger provisioning practices in recent years.
- **Capital adequacy & liquidity:** Studies show mixed results: private banks often maintain healthy capital metrics but SBI's scale and access to capital markets plus sovereign support often translate into strong systemic liquidity.
- **Efficiency & management:** Private banks such as HDFC are often rated higher on efficiency (lower cost-to-income) and technology adoption; publicly-available annual reports and independent analyses corroborate this.

Hypothesis

$\mathbf{H_1}$: There is a significant difference in the profitability ratios (ROA, ROE) of SBI and HDFC Bank.
$\mathbf{H_2}$: The asset quality (measured by NPA ratios) significantly differs between SBI and HDFC Bank.
$\mathbf{H_3}$: There is a significant difference in the efficiency ratios between SBI and HDFC Bank.
$\mathbf{H_4}$: The capital adequacy ratio of HDFC Bank is significantly higher than that of SBI.
$\mathbf{H_5}$: There is a significant relationship between NPAs and profitability in both banks.
$\mathbf{H_6}$: The liquidity position of SBI significantly differs from that of HDFC Bank.

Critical synthesis — what past studies did well, and where they fall short

Strengths in prior work

Use of audited annual reports and standardized ratios provides comparability.
CAMEL-based approaches supply a comprehensive multi-dimensional comparison.
Several recent papers provide updated comparative analyses up to 2023–2024, facilitating contemporary interpretation.

Recommended methodology

The totally study is based on secondary data as well as are used primary data. Both analytical research and descriptive research were used in analyzing the objective of the study. Descriptive research represents expressive and tabulation represent of the data for analyzing and representing the result for the study.

Data sources

Primary: audited annual reports and consolidated financial statements of SBI and HDFC Bank (FY2010–FY2024 or FY2015–FY2024 recommended). Use the investor relations pages and financial-results PDFs for downloads.
Secondary: published empirical studies, industry analyses (Equity master, RBI reports), and academic articles for benchmarks and methodology.

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Variables and ratios (suggested list)

- Profitability: ROA, ROE, Net Interest Margin (NIM), Net Profit Margin.
- Asset quality: Gross NPA, Net NPA, Provision Coverage Ratio (PCR).
- Capital & solvency: Capital-to-Risk Weighted Assets Ratio (CRAR/CAR), Tier 1 ratio.
- Efficiency: Cost-to-Income ratio, Operating expenses per employee, Business per branch.
- Market/performance: Price-to-Earnings (P/E), Price-to-Book (P/B), Tobin's Q, Market capitalization.
- Risk-adjusted metrics: RAROC, Risk-weighted ROA.
- Control variables: GDP growth, policy rates (repo), inflation, banking sector credit growth.

Empirical strategy

- **Descriptive & trend analysis:** Year-by-year ratio series, growth rates and visualizations (line charts, bar panels).
- **Cross-sectional statistical tests:** Paired t-tests / Wilcoxon signed-rank tests for mean differences across periods.
- **Event studies / DiD:** For specific policy or structural events (e.g., large NPAs resolution or major deposit-rate shifts), use difference-in-differences to estimate causal changes.
- **Robustness and sensitivity:** Alternative measures, winsorization to address outliers, sub-period analysis (pre/post 2018, pre/post Ind-AS).
- **Decomposition:** Decompose ROE via DuPont — examine net interest margin, expense management, leverage effects.

Proposed structure of your review + empirical chapters

- **Introduction & Research Questions** — define scope, sample years, and contribution.
- **Literature Review (extended)** — situate study in CAMEL literature, bank performance, public vs private banks literature.
- **Data & Methodology** — describe data cleaning, variable definitions, model specifications.
- **Descriptive Analysis** — tables, graphs and preliminary insights.
- **Econometric Analysis** — main regression results, robustness checks, event analyses.
- **Segmental & Risk-Adjusted Analysis** — disaggregate retail/vs wholesale; compute RAROC.
- **Discussion** — managerial and policy implications.
- **Conclusion & Further Research** — summarise, limitations and future directions.
- **Research gaps & original contribution ideas**
- **Segment-level performance decomposition**: many studies stay at consolidated-bank level; a Ph.D. can break down into retail, corporate, treasury and digital channels.
- **Risk-adjusted and market-implied performance**: compute RAROC and link to market valuations; examine whether the market correctly prices NPAs and provisioning.
- **Ownership and mandate impact**: use institutional/ownership dummies and governance metrics to test how public-ownership influences risk-taking and profitability.
- **Technology and digitalization index**: create a score from disclosures (digital channels, mobile active users, fintech partnerships) and test its effect on efficiency and fee income.
- **Macro-financial transmission**: study how macro shocks (rate cycles, GDP shocks) transmit differently through SBI and HDFC's balance-sheet structures.

Ethics, data validity and limitations

Use audited financial statements; record any restatements.

Document accounting standard changes (e.g., Ind-AS adoption) and adjust series if needed to maintain comparability.

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Note that public disclosures may present management's preferred narratives — triangulate with independent analyst reports and RBI/market data.

III. CONCLUSION & SUGGESTED

The comparative analysis of the financial performance of the State Bank of India (SBI) and HDFC Bank highlights the contrasting strengths of India's largest public sector and private sector banks. SBI, being the oldest and most extensive banking institution in the country, plays a crucial role in promoting financial inclusion and supporting government-led economic initiatives. Its vast network across urban and rural areas provides it with a wide customer base and a significant market presence. However, despite its size and reach, SBI faces challenges related to operational efficiency, profitability, and asset quality. The bank's relatively higher non-performing asset (NPA) ratio and moderate return on equity (ROE) and return on assets (ROA) indicate pressure on its financial performance due to large-scale lending and exposure to high-risk sectors. Nevertheless, recent reforms, digital transformation, and cost optimization have helped SBI improve its overall performance and strengthen its position in a competitive banking environment.

In contrast, HDFC Bank has consistently demonstrated superior financial performance through prudent risk management, technological innovation, and efficient operations. The bank's low NPA levels, high profitability ratios, and strong capital adequacy reflect its robust management and focus on sustainable growth. Its customer-centric approach, diversified loan portfolio, and emphasis on digital banking have enabled it to maintain consistent profitability and growth, even during economic fluctuations. HDFC Bank's operational efficiency, reflected in its lower cost-to-income ratio compared to SBI, underscores its effectiveness in resource utilization and service delivery.

State Bank of India — Annual Reports, Investor Relations (primary data).

HDFC Bank — Annual Reports and Financial Results (primary data).

CAMEL-based comparative studies (example PDF analyses).

Equitymaster annual-report analyses for context on FY2023–FY2024.

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