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An Empirical Study on Financial Performance of Indian Private Banks Through the CAMEL Methodology

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Abstract- Banks occupy a central spot in the economy, serving as custodians of public funds and key providers of credit to both households and businesses. Their stability is fundamental to maintaining economic resilience and public confidence. The failure of a banking institution can lead to substantial financial disruptions and significantly undermine depositor trust. Unlike trading firms, which operate by purchasing and selling goods for profit, banks perform the critical functions of deposit mobilization and credit distribution, rendering their evaluation inherently more complex. Traditional financial ratios used for analyzing commercial enterprises often fall short when applied to the banking sector. Consequently, a specialized and methodical assessment framework is essential. The CAMEL model, which evaluates C-Capital Adequacy, A-Asset Quality, M-Management Efficiency, E-Earnings, and L-Liquidity, has grew prevalent acceptance for this purpose. It provides a comprehensive and structured approach to evaluate the financial health and operational soundness of banking institutions. This study employs the CAMEL framework to assess and compare the performance of chosen private and public sector banks. The analysis ranks these banks across the five dimensions and identifies specific areas requiring improvement. The findings provides valuable acumens for regulatory authorities, investors, and bank management in enhancing institutional performance and mitigating financial risks.

Key words: CAMEL Model, Banking Sector, Financial Performance, and Private Sector banks Public Sector banks.

1.INTRODUCTION

The economic framework of any nation typically consists of five core elements: capital, financial tools, financial organizations, regulatory systems, and markets. Among these, banks occupy a central position. Their main responsibilities include gathering public savings and distributing loans across multiple sectors. As some of the earliest-established financial entities, banks hold a crucial place in upholding economic stability and seamless operation. The pace and nature of economic growth depend significantly on how well capital is channeled and how productively industries function. Banks not only put monetary policies into effect, but they also drive capital formation, promote new ideas, and widen access to financial resources. A sturdy banking environment safeguards stakeholders such as depositors, investors, and employees, all while supporting economic health. By channeling collective savings into growth-oriented investments, banks nurture long-term, sustainable development. Data consistently shows that countries with developed banking infrastructures enjoy faster and more robust economic expansion compared to those with weaker systems. Academic findings also point to a strong relationship between the depth of a nation's financial sector and its overall economic growth. Recent research underscores what's known as the "supply-leading" theory—where financial bodies, most notably banks, divert funds from less productive areas toward thriving industries, encouraging entrepreneurship and progress. Therefore, beyond their fundamental tasks, banks serve as engines of broader economic transformation. To fully understand and strengthen their impact on nationwide progress, it is essential to rigorously evaluate how efficiently banks operate and deliver value.

The CAMEL ranking system was firstly formulated during the 1970s as a standardized mechanism for evaluating the performance and stability of banking institutions in the United States. It was introduced beneath the framework of the UFIRS - Uniform Financial Institutions Rating System by three primary federal supervisory entities: FDIC - Federal Deposit Insurance Corporation, Federal Reserve System, and OCC-Office of the Comptroller of the Currency. The principal objective was to establish a consistent and systematic approach to on-site bank examinations.

The acronym CAMEL represents five critical dimensions used to assess banks: C-Capital Adequacy, A-Asset Quality, M-Management Efficiency, E-Earnings, and L-Liquidity. All of these each components is individually rated on a scale ranging from 1 to 5, where a rating of 1 signifies strong performance and 5 denotes severe deficiencies. The composite rating derived from these assessments offers a comprehensive overview of a bank's overall financial condition. The inclusion of "Sensitivity to Market Risk" as the sixth component in the CAMELS framework in 1996 was a response to heightened awareness of how external market factors—particularly interest rate shifts and broader financial volatility—could impact banks' stability. By adding this dimension, regulators aimed to assess more thoroughly how banks manage risks tied to market fluctuations, such as sharp changes in interest rates, foreign exchange, and commodity prices. This enhanced model, now known as CAMELS, has since become the globally recognized standard for evaluating the overall health of banking institutions. Financial authorities worldwide use CAMELS ratings to benchmark banking sector resilience and to strengthen supervisory oversight in a rapidly changing financial environment. In the Indian context, the Padmanabhan Committee recommended the application of the CAMELS system to assess the operational soundness of commercial banks. Indian regulatory authorities have progressively integrated this model into their supervisory practices to monitor financial stability. For foreign banks operating within India, a variant known as CALCS—which stands for C-Capital Adequacy, AL-Asset Quality, Liquidity, C-Compliance, and S-Systems—is employed. Despite these adaptations, the rating methodology continues to utilize the 1 to 5 scale for evaluating institutional performance.

Table No 1.01: The CAMEL scoring

Score	Implications
1	A rating of 1 indicates that the bank is strong, operates soundly, and effectively follows risk management protocols.
2	A rating of 2 signifies that the institution remains financially stable but shows some moderate flaws or vulnerabilities.
3	A rating of 3 indicates that the institution has noticeable issues in multiple areas, raising concerns for regulatory authorities.
4	A rating of 4 signifies that the institution is engaging in problematic or unsafe practices and is facing significant financial or managerial troubles.
5	A score of 5 reflects that the institution is critically deficient, exhibiting poor risk management and severe financial instability.

Source: www.corporatefinanceinstitute.com

The CAMEL model remains vibrant for supervisory assessment, early warning detection, and financial system solidity. The banks were evaluated under the abbreviation C-A-M-E-L for five separate components.

C - Capital Adequacy
A - Assets
M - Management Capability
E - Earnings
L - Liquidity

1.01. Review of literature

1.02.01. Lavanya B & Srinivas T (2018) The strength of a country's financial system largely hinges on the stability and effectiveness of its banking industry, making comprehensive evaluation of bank performance essential. This research centers on examining and comparing the financial outcomes of selected private banks using the CAMEL framework. Covering the years 2012–2013 through 2016–2017, the study analyzes five primary aspects: C-Capital Adequacy, A-Asset Quality, M-Management Efficiency, E-Earnings Quality, and L-Liquidity. Ultimately, the analysis provides a comparative ranking for the following banks—Yes Bank, ICICI Bank, Kotak Mahindra Bank, HDFC Bank and Axis Bank—assessing how each performed within these critical criteria.

1.02.02. Konnur P Namita & etl. (2022) This research evaluates the recital of banks from both public and private sectors that are selected by employing the

CAMEL framework, which examines five essential dimensions: C-Capital Adequacy, A-Asset Quality, M-Management Efficiency, E-Earnings Quality, and L-Liquidity. Using these criteria, each bank is ranked within its segment as well as in an overall comparison. To govern whether there are any statistically meaningful differences between public and private banks sector, an ANOVA- Analysis of Variance is performed. The findings provide valuable perspectives on the financial strength and operational capabilities of the institutions, thereby enhancing our understanding of stability within the banking sector.

1.02.03. Rao R.Raghavendra & Prof. Rao Ch. Srinivasa (2022) Due to their responsibility for safeguarding public funds and ensuring the constancy of the financial system, banks require in-depth and careful evaluation. The letdown of a single bank can lead to major economic consequences and severely erode trust in the fiscal sector. Unlike typical businesses that produce or sell goods and services, banks serve as intermediaries in financial transactions, warranting a specialized assessment approach. Standard accounting metrics are not sufficient to fully capture the intricacies of bank operations. As a result, universally accepted frameworks like CAMEL have been created to deliver systematic, data-driven evaluations of bank performance. In this study, the CAMEL framework is utilized to analyze and compare among the banks from public and private sectors that are selected, offering a comparative view of their fortes and flaws and categorising specific areas that need strategic attention.

1.02.04.Ms. Ansari Asiya (2023) The CAMEL rating framework is internationally recognized and used by financial regulators to appraise the overall financial strength of banks and similar institutions. This system assesses five key areas: C-Capital Adequacy, A-Asset Quality, M-Management Efficiency, E-Earnings Quality, and L-Liquidity. In the United States, a sixth element—Sensitivity to Market Risk—has been added to address perils associated with interest rate changes and volatile market conditions. This robust approach is essential for effective risk monitoring and safeguarding the stability of the financial sector. Regulatory agencies depend on CAMEL scores to identify early indications of weakness within institutions. The current research aims to evaluate the practicality and impact of the CAMEL model through a performance review of selected banks.

1.02.05. K. J Sarvamangala. &, Reddy G. Sudarsana (*2024)* Banks serve as crucial drivers of economic development by gathering public deposits and directing funds toward productive industries. This research assesses the financial performance of selected Indian banks using the CAMELS framework. The study's sample includes State Bank of India, Canara Bank, ICICI Bank, and Axis Bank, which were selected through purposive sampling. Analyzing financial records from the fiscal years 2017–2018 to 2021–2022, the results highlight significant variations in performance among these institutions. The analysis further reveals that private sector banks consistently demonstrated stronger outcomes than their public sector peers across all components of the CAMELS model.

1.02.06. Chandulal Abhisha Dadhaniya (2024) Descriptive analysis describes the current state of a specific variable by organizing and presenting data in a clear and systematic manner. In this research, it was applied to calculate the average values of different financial ratios related to the CAMEL framework. The average, which represents a central tendency, simplifies complex datasets into a single representative figure by dividing the total sum of all observations by the count of data points. This approach facilitates a clear and thorough assessment's financial performance of each bank.

1.02. Research Gap

Previous studies have predominantly conducted combined analyses of public and private bank's sector in India, without placing specific emphasis on the private banking segment. To address this research gap, the extant study focuses exclusively on the performance of financial status of the top five India's banks w.r.t private sector. This targeted approach aims to offer comprehensive insights into their financial position, thereby contributing to a more nuanced understanding of the private banking sector.

1.03. Purpose of the Study

While numerous studies employing the CAMEL model have examined the performance of private sector banks in India, continuous evaluation remains essential. Ongoing assessment is critical for effectively monitoring changes in financial performance and identifying emerging trends or risks. Accordingly, this study undertakes a systematic financial performance analysis of chosen private banks in India by means of the CAMEL framework, aiming to provide updated and relevant insights into their operational soundness and financial stability.

1.04. Need for the study

Maintaining sound financial health is essential for safeguarding both a country's economy and the interests of depositors, thereby highlighting the importance of regularly evaluating bank performance. Banks today face an increasingly complex array of risks, necessitating robust monitoring and supervisory mechanisms. In response to these evolving challenges, regulatory experts have executed various measures to align the supervision of commercial banks with their risk exposure and financial stability. In recent years, policymakers and banking regulators have endorsed the use of the CAMELS rating system as a structured tool for assessing and monitoring the performance of financial institutions. The CAMELS framework serves as an effective internal supervisory instrument, offering a comprehensive evaluation across key areas such as capital adequacy, asset quality, management efficiency, earnings, liquidity, and sensitivity to market risk. In India, the RBI - Reserve Bank of India—the central regulatory authority—actively employs this model to ensure the soundness and efficiency of the country's banking sector.

1.06. Objectives of the Study

The primary objective of this study is to evaluate the financial performance of the top five private sector banks in India using the CAMELS model. This framework facilitates a structured assessment of each bank's operational and financial efficiency. The study is guided by the following specific objectives:

1. To conduct a financial performance analysis of the top five private sector banks in India using the CAMELS framework.
2. To identify the best-performing bank among these five institutions based on the comparative results derived from the CAMELS analysis.

1.07. Research Methodology

1.07.01. Research Design

Descriptive analysis is employed to illustrate the current state of the variables under investigation by presenting systematically organized data, thereby facilitating the identification of development trends. In the study, the average values of the C-A-M-E-L model ratios are utilized to summarize and interpret the financial performance of Indian private sector banks that are chosen. The mean is computed by aggregating all ratio values and dividing the total by the number of observations. This approach provides a comprehensive overview of the overall financial health of the institutions analyzed.

1.07.02. Sample Size:

The present study considers total of 5 top private sectors banks in India during the year 2025.

1.07.03. Sources of data

This kind of study requires exclusively the secondary data and accordingly various selected bank's financial reports, RBI reports, various journal research articles in this area of study, books, newspapers, banking magazines, banks websites etc.

1. 07.04. Sample Description

In 2025, the top 5 private banks in India, based on market capitalization, are generally considered to be study, that is:Kotak Mahindra Bank,HDFC Bank, Axis Bank, ICICI Bank,and IndusInd Bank. These banks consistently rank high in terms of market capitalization, customer base, and digital banking services.

1.07.05. Statistical tools used

The study calculates the various ratios each component of CAMEL and these ratios are explained above. The various tools used for analysis are

- Ratio Analysis
- Averages
- Ranking
- Percentage
- CAMEL rating

Formula used for Calculation

Weighted Average Scores = (Wc * Ca) + (Wa * Aa) + (Wm * Ma) + (We * Ea) + (Wl * La)

Weightage Average as Followed in the study

C -	Capital Adequacy	20%
A -	Assets	20%

M - Management Capability 30%
E - Earnings 15%
L - Liquidity 15%

1.07.06. Study Period
The present research is covering a period of six years (i.e., from 2019-2024).

1.07.07. Limitations of Study

- Only top 5 banks from private sector in India are taken for the study.
- The said study, 6 years data from 2019 to 2024 was considered and the recent performance and analysis was not taken.
- There was no scope for primary data for this study; the analysis could be done only on the basis of secondary data.

1.07.02. Data Analysis and Interpretation
1.07.03. Capital Adequacy Ratios for 5 best-performing private sector banks in India

Table No 1.02: Capital Adequacy Ratios

Year	Capital Adequacy Ratio in percentage					Debt to Equity Ratio in percentage					Advances to Assets Ratio in percentage				
	HB	IB	AB	KB	IB	HB	IB	AB	KB	IB	HB	IB	AB	KB	IB
	CAR	CAR	CAR	CAR	CAR	DER	DER	DER	DER	DER	AAR	AAR	AAR	AAR	AAR
2019	0.12	0.22	0.16	0.17	0.13	169488.99	50635.13	106638.23	15458.45	32333.19	65.84	60.83	61.8	61.61	67.09
2020	0.11	0.20	0.18	0.25	0.11	19956.03	59545.10	113426.29	17878.25	29131.85	64.93	58.75	62.4	56.38	67.34
2021	0.98	0.22	0.19	0.22	0.17	20251.77	67407.49	113910.34	18704.68	33128.28	64.85	59.63	62.6	52.66	58.57
2022	0.82	0.16	0.19	0.23	0.18	40928.05	7714.67	133841.75	20778.70	37910.84	66.93	60.87	60.2	55.71	59.47
2023	0.70	0.13	0.18	0.22	0.18	45978.93	8542.93	153700.17	24193.25	43361.29	65.68	64.36	64.6	57.88	63.33
2024	0.45	0.10	0.17	0.21	0.17	73084.13	100579.92	172863.29	44797.43	49438.91	68.69	63.29	65.8	56.06	66.67
Avg.	0.63	0.21	0.21	0.26	0.19	73937.58	58885.05	158876.02	28362.15	45060.87	79.38	73.54	75.49	68.06	76.49
Rank	1	3	3	2	5	2	3	1	5	4	1	4	3	5	2
Weights	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Value	0.13	0.04	0.04	0.05	0.04	14787.52	11777.01	31775.20	5672.43	9012.17	15.88	14.71	15.10	13.61	15.30
Rank	1	1	1	1	1	5	5	5	5	5	1	2	1	2	1

Source: Annual of banks from 2019 to 2024

CAR = Capital Adequacy Ratio HB = HDFC Bank KB =Kotak Mahindra Bank
DER = Debt to Equity Ratio IB = ICICI Bank IB = IndusInd Bank
AAR = Advances to Assets Ratio AB = Axis bank

Based on Table No. 1.02, the capital adequacy ratios of five selected private sector banks in India were analyzed over a six-year period from 2019 to 2024. The average capital adequacy ratio during this period revealed that HDFC Bank recorded the highest average at 20.63%, indicating strong capital positioning among the private sector banks studied. In contrast, IndusInd Bank reported the lowest average at 19%. In terms of the debt-to-equity ratio, Axis Bank demonstrated relatively stronger performance, reflecting a healthier balance between borrowed funds and shareholders' equity. Regarding the advances-to-total-assets ratio, HDFC Bank again showed a leading position, indicating effective utilization of assets in generating loans and advances. Considering the overall performance across these capital-related indicators, HDFC Bank was ranked first among private banks which are selected in terms of capital adequacy and financial strength.

1.08.02. Assets Quality Componentfor 5 best-performing private sector banks in India

Table No 1.03: Assets Quality Component

Year	Net NPA / Total Assets ratio in percentage					Net NPA / Total Advances ratio in percentage					Total Investments/ Total Assets ratio in percentage				
	HB	IB	AB	KB	IB	HB	IB	AB	KB	IB	HB	IB	AB	KB	IB
	NTAR	NTAR	NTAR	NTAR	NTAR	NTAR	NTAR	NTAR	NTAR	NTAR	TITAR	TITAR	TITAR	TITAR	TITAR
2019	0.0064	3.34	0.37	0.39	0.61	0.0977	5.49	0.60	0.63	0.91	23.55	21.54	21.84	26.19	21.33
2020	0.0060	2.81	0.33	0.35	1.06	0.0917	4.79	0.53	0.62	1.58	25.44	22.72	17.13	25.09	19.53
2021	0.0006	2.58	0.32	0.56	0.01	0.0930	4.32	0.51	1.07	0.02	25.12	22.86	22.70	32.78	19.20

2022	0.0010	3.38	0.31	0.32	0.24	0.1453	5.55	0.51	0.57	0.41	21.16	21.98	23.45	30.11	17.66
2023	0.0007	3.12	0.26	0.19	0.40	0.1101	4.84	0.40	0.33	0.63	20.22	22.87	21.43	31.48	18.16
2024	0.0009	2.87	0.21	0.17	0.68	0.1358	4.54	0.32	0.30	1.01	27.80	44.20	21.89	32.10	20.69
Avg.	0.003123	3.619964	0.360057	0.396582	0.600703	0.134701	5.907224	0.575038	0.705701	0.912314	28.65761	31.23391	25.68832	35.54957	23.31317
Rank	1	5	2	3	4	1	5	2	3	4	3	2	4	1	5
Weights	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Value	0.000625	0.723993	0.072011	0.079316	0.120141	0.02694	1.181445	0.115008	0.14114	0.182463	5.731521	6.246781	5.137664	7.109915	4.662633
Rank	1	1	1	1	1	1	2	1	1	1	4	5	4	5	4

Source: Annual of banks from 2019 to 2024

HB = HB = HDFC Bank   KB =Kotak Mahindra Bank   NTAR = Net NPA / Total Assets ratio

IB = ICICI Bank   IB = IndusInd Bank   NPTAR = Net NPA / Total Advances ratio

AB = Axis bank   TITAR = Total Investments/ Total Assets ratio

Table No. 1.03 presents the average values of asset quality ratios for five selected private sector banks in India, calculated over a six-year period from 2019 to 2024. The analysis reveals that ICICI Bank exhibited relatively poor performance in terms of the Net NPA to Total Assets ratio, indicating a higher level of non-performing assets relative to its asset base. When examining the Net NPA to Net Advances ratio, HDFC Bank demonstrated superior performance with an average of 0.13%, while ICICI Bank recorded a higher average of 5.90%, suggesting a greater credit risk. Additionally, Kotak Mahindra Bank achieved the highest average in the Total Investments to Total Assets ratio, reflecting stronger asset allocation towards investments. On the other hand, IndusInd Bank was assigned the lowest rank in this category, indicating relatively weaker asset quality performance.

1.08.03. Management Efficiency Component for 5 best-performing private sector banks in India

Table No 1.04 Management Efficiency Components

Year	Total Advances/ Total Deposits ratio in percentage					Business Per Employee In Rupees					Profit Per Employee In Rupees				
	HB	IB	AB	KB	IB	HB	IB	AB	KB	IB	HB	IB	AB	KB	IB
	TATDR	TATDR	TATDR	TATDR	TATDR	BPE	BPE	BPE	BPE	BPE	PPE	PPE	PPE	PPE	PPE
2019	88.76	89.85	90.21	108.29	95.65	1781649.35	142868.07	137272.28	78047.71	137445.98	6291.25	2519.34	615.34	1186.62	1190.06
2020	86.60	83.70	89.27	95.96	102.35	1834385.80	142596.98	151820.69	71870.31	133279.97	6466.48	2598.74	203.91	1212.27	1440.28
2021	84.85	78.68	89.36	90.43	82.98	205498.81	168734.30	168785.10	72745.36	158052.78	7378.36	3799.51	841.37	1356.56	956.27
2022	91.13	80.11	86.12	98.19	81.40	210498.93	182469.86	178222.56	68284.50	1575200.72	7813.06	5134.78	1517.86	1325.76	13634.30
2023	88.28	85.45	91.81	99.40	86.17	204893.27	171515.52	173388.15	69725.22	164059.25	8385.06	5857.06	915.55	1430.59	1949.54
2024	104.54	83.83	93.65	96.65	89.22	227920.47	184189.05	197834.04	75484.51	159539.67	8813.58	6896.39	2380.16	1549.73	1967.04
Avg.	90.69	83.60	90.07	98.15	89.63	744141.11	165395.63	167887.13	72692.94	387929.73	7524.63	4467.64	1079.03	1343.59	3522.91
Rank	2	5	3	1	4	1	3	2	5	4	1	2	5	4	3
Weights	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Value	32.64	30.09	32.42	35.33	32.26	267890.79	59542.42	60439.36	26169.45	139654.70	2708.86	1608.34	388.45	483.69	1268.24
Rank	2	2	3	3	2	1	2	2	3	4	1	3	3	3	3

Source: Annual of banks from 2019 to 2024

HB = HB = HDFC Bank   KB =Kotak Mahindra Bank   TATDR = Total Advances/ Total Deposits ratio

IB = ICICI Bank   IB = IndusInd Bank   BPE = Business Per Employee

AB = Axis bank   PPE = Profit Per Employee

Table No. 1.04 presents the management efficiency ratios of selected private sector banks in India over the period from 2019 to 2024. Among the banks analyzed, HDFC Bank demonstrated the strongest performance in the Business per Employee ratio, indicating high operational efficiency. It also recorded the highest Profit per Employee ratio, further reflecting superior workforce productivity. In terms of Return on Assets (ROA), Kotak Mahindra Bank achieved the highest average, signifying effective asset utilization in generating profits. However, HDFC Bank again outperformed its peers in the Return on Equity (ROE) metric, highlighting its efficient use of shareholders' equity to generate returns. Based on the aggregate performance across all management efficiency indicators, HDFC Bank secured the top ranking among the selected private sector banks.

1.08.04. Earnings Efficiency Componentfor 5 best-performing private sector banks in India

Table No 1.05Earnings Efficiency Components

Year	Net Interest Margin/ Total Assets ratio in percentage					Net Profit/ Total Assets ratio in percentage					Non-Interest Income/ Total Income ratio in percentage				
	HB	IB	AB	KB	IB	HB	IB	AB	KB	IB	HB	IB	AB	KB	IB
	NITA	NITA	NITA	NITA	NITA	NPTA	NPTA	NPTA	NPTA	NPTA	NITI	NITI	NITI	NITI	NITI
2019	0.01	0.03	2.71	0.03	0.32	0.05	2.27	0.58	1.80	1.19	0.000017	5.18	19.28	10.13	20.23
2020	0.01	0.03	2.75	0.03	0.39	0.05	0.72	0.18	1.94	1.44	0.000020	5.31	19.88	10.67	14.50
2021	0.01	0.03	2.94	0.08	0.35	0.05	1.32	0.66	2.07	0.78	0.000019	5.39	16.22	8.88	18.44
2022	0.10	0.03	2.82	0.09	0.33	0.05	3.38	1.11	2.18	1.15	0.000021	6.20	18.43	10.76	19.35
2023	0.01	0.04	2.75	0.09	0.30	0.06	3.12	0.71	2.38	1.63	0.000016	6.35	15.93	10.39	18.33
2024	0.01	0.04	2.70	0.08	0.28	0.05	2.18	1.64	2.34	1.74	0.000016	5.86	17.03	10.90	17.02
Avg.	0.02	0.03	2.78	0.07	0.33	0.05	2.16	0.81	2.12	1.32	0.000018	5.72	17.79	10.29	17.98
Rank	5	4	1	3	2	5	1	4	2	3	5	4	2	3	1
Weights	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Value	0.0037	0.0051	0.4167	0.0102	0.0491	0.0078	0.3246	0.1220	0.3180	0.1981	0.000003	0.8577	2.6690	1.5431	2.6972
Rank	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Source: Annual of banks from 2019 to 2024

HB = HB = HDFC Bank KB =Kotak Mahindra Bank NITA = Net Interest Margin/ Total Assets ratio

IB = ICICI Bank IB = IndusInd Bank NPTA = Net Profit/ Total Assets ratio

AB = Axis bank NITI = Non-Interest Income/ Total Income ratio

Table No. 1.05 presents the earnings quality ratios of selected private sector banks in India, based on six-year average values from 2019 to 2024. The analysis indicates that ICICI Bank performed well in terms of the Net Profit Ratio, reflecting strong profitability. Additionally, Axis Bank recorded the highest average Net Interest Margin, signifying its effective interest income management relative to interest-earning assets. Among all the banks analyzed, Axis Bank demonstrated the strongest overall performance in earnings quality, securing the top position in this category when compared to its private sector counterparts.

1.08.05. Liquidity Component for 5 best-performing private sector banks in India

Table No 1.06Liquidity Components

Year	Liquid Assets/ Total Assets ratio in percentage					Liquid Assets/Total Deposits ratio in percentage				
	HB	IB	AB	KB	IB	HB	IB	AB	KB	IB
	LATAR	LATAR	LATAR	LATAR	LATAR	LATDR	LATDR	LATDR	LATDR	LATDR
2019	16.28	14.87	15.25	13.43	16.57	21.95	21.97	22.28	23.61	23.63
2020	18.39	16.64	16.76	14.52	17.89	24.52	23.70	23.96	24.71	27.19
2021	22.18	22.49	19.86	17.98	25.74	29.02	29.68	28.34	30.87	36.46
2022	18.18	22.65	21.06	17.92	24.58	24.76	29.82	30.12	31.59	33.65
2023	17.49	20.42	18.45	15.28	19.50	23.51	27.11	26.22	26.24	26.54
2024	15.44	21.05	16.97	15.59	18.40	23.49	27.89	24.14	26.89	24.63
Avg.	17.99	19.69	18.06	15.79	20.45	24.54	26.69	25.84	27.32	28.68
Rank	4	2	3	5	1	5	3	4	2	1
Weights	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Value	2.70	2.95	2.71	2.37	3.07	3.68	4.00	3.88	4.10	4.30
Rank	1	1	1	1	1	1	1	1	1	1

Source: Annual of banks from 2019 to 2024

HB = HB = HDFC Bank KB =Kotak Mahindra Bank LATAR = Liquid Assets/ Total Assets ratio

IB = ICICI Bank IB = IndusInd Bank LATDR = Liquid Assets/Total Deposits ratio

AB = Axis bank

Table No. 1.05 presents the liquidity ratios of selected private sector banks in India, based on six-year averages covering the period from 2019 to 2024. The data show that IndusInd Bank achieved the highest Credit-to-Deposit Ratio at 28.68%, indicating a relatively aggressive lending strategy. HDFC Bank followed closely with a ratio of approximately 24.54%, suggesting a more conservative but stable liquidity position. Additionally, IndusInd Bank reported the highest values in both the Liquid Assets to Total Assets ratio and the Liquid Assets to Deposits ratio, further highlighting its strong liquidity management practices. Based on the overall analysis of liquidity indicators, IndusInd Bank ranked first among private banks which are selected in terms of liquidity performance.

1.09. CAMEL rating for banks

Table No1.07 CAMEL score sheet rating for banks

CAMEL rating for banks	HDFC bank Ltd	ICICI bank Ltd	IndusInd Bank Ltd	Axis Bank Ltd	Kotak Mahindra Bank Ltd
A. Capital Adequacy Component					
Capital Adequacy Ratio	1	1	1	1	1
Advances to Assets Ratio	1	2	1	1	2
Debt to Equity Ratio	5	5	5	5	5
B. Assets Quality Component					
Net NPA / Total Assets ratio	1	1	1	1	1
Total Investments/ Total Assets ratio	4	5	4	4	5
Net NPA / Total Advances ratio	1	2	1	1	1
C. Management Efficiency Component					
Total Advances/ Total Deposits ratio	2	2	2	3	3
Profit Per Employee	1	3	3	3	3
Business Per Employee	1	2	4	2	3
D. Earnings Efficiency Component					
Net Interest Margin/ Total Assets ratio	1	1	1	1	1
Net Profit/ Total Assets ratio	1	1	1	1	1
Non-Interest Income/ Total Income ratio	1	1	1	1	1
E. Liquidity Component					
Liquid Assets/ Total Assets ratio	1	1	1	1	1
Liquid Assets/Total Deposits ratio	1	1	1	1	1
Total Ranking	22	28	27	27	29
Score	2.00	4.00	3.00	3.00	3.60
Rank	1	5	2	2	4

Source: Secondary data calculated from annual report

Table No. 1.07 presents the final composite rankings of private banks which are selected inIndia, based on an evaluation using the CAMEL model. The rankings are derived from the average performance of each bank across the five core components of the model.

Capital Adequacy Component (Refer to Table No. 1.02)
All five private sector banks demonstrated strong performance in capital adequacy, indicating robust capital structures. However, their Debt-to-Equity Ratios reflected relatively weaker rankings, suggesting higher reliance on borrowed funds. In the Advances-to-Assets Ratio, only HDFC Bank Ltd, Axis Bank Ltd, and IndusInd Bank Ltd showed favorable results.

Asset Quality Component (Refer to Table No. 1.03)
The Net NPA to Total Assets ratio indicated satisfactory asset quality across all five banks. Additionally, four banks—HDFC Bank Ltd, Axis Bank Ltd, Kotak Mahindra Bank Ltd, and IndusInd Bank Ltd—reported a Net NPA to Net Advances ratio below 1%, reflecting effective credit risk management. However, performance was comparatively weaker in the Total Investments to Total Assets ratio across all institutions.

Management Efficiency Component (Refer to Table No. 1.04)
Overall, the banks displayed moderate to weak rankings in management efficiency. Nevertheless, HDFC Bank stood out with superior results in both Business per Employee and Profit per Employee ratios, highlighting higher operational productivity.

Earnings Quality Component (Refer to Table No. 1.05)
The selected banks demonstrated solid performance in earnings-related indicators, including Net Interest Margin to Total Assets, Net Profit to Total Assets, and Non-Interest Income to Total Income, suggesting healthy profitability across the private sector banks.

Liquidity Component (Refer to Table No. 1.06)
With respect to liquidity, all banks displayed strong performance in both the Liquid Assets to Total Assets and Liquid Assets to Deposits ratios, indicating sound short-term financial management and the ability to meet liabilities as they arise. The overall CAMEL model ranking for the selected private sector banks indicates that HDFC Bank emerged as the top performer, securing the first position based on its consistent strength across all key parameters. Axis Bank and IndusInd Bank Ltd were classified as average performers, sharing the second rank. Kotak Mahindra Bank Ltd occupied the fourth position, while ICICI Bank ranked fifth, placing it at the lower end of the performance spectrum. These results reflect HDFC Bank's leadership in financial soundness and operational efficiency, while ICICI Bank exhibited relatively weaker performance among the evaluated institutions.

1.08. Conclusion

The private banking sector in India serves as a fundamental pillar of the national economy, forming the backbone of the broader financial system. Indian banks play a crucial role in mobilizing savings, facilitating investments, offering risk management solutions, maintaining liquidity, generating credit, and promoting entrepreneurship—all of which contribute to sustained economic development. For banks to effectively fulfill these roles, their financial operations must be stable, efficient, and well-regulated. To evaluate the financial soundness and operational performance of banks, this study employs the CAMEL model, a recognized framework for bank performance assessment. The analysis is conducted using 14 distinct financial ratios aligned with the five CAMEL parameters, covering the period from 2019 to 2025. Average values for each ratio are calculated, and rankings are assigned individually to the selected private sector banks. The findings indicate that HDFC Bank consistently outperformed its peers, securing the highest overall ranking. In contrast, ICICI Bank demonstrated comparatively weaker performance, ranking lowest among the evaluated private banks.

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