

An Eagle's Eye View On Financial Fitness Of Indian Commercial Banks

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Abstract:

This research paper presents a comprehensive and multi-faceted performance analysis of 12 major Indian commercial banks using the EAGLE model. This study leverages the EAGLE model—focusing on five key dimensions: Earnings, Asset Quality, Growth, Liquidity, and Equity to systematically assess and rank 12 Indian commercial banks based on their financial disclosures for the year ending March 2025.

Our findings reveal significant disparities in performance, highlighting distinct strategic strengths and weaknesses across the banks. The EAGLE model analysis reveals Bank of Maharashtra as a consistent top performer across Earnings, Asset Quality, and Equity, highlighting its operational efficiency, credit discipline, and profitability. State Bank of India dominates in Growth and Liquidity, underscoring its market scale and robust liquidity position. Meanwhile, banks like Punjab National Bank and Punjab & Sind Bank exhibit asset quality concerns, and Central Bank of India reflects a highly conservative liquidity stance. Indian Bank and Canara Bank also demonstrate strong equity performance, signaling growing shareholder value.

By synthesizing these individual component analyses, our paper provides a robust and data-driven ranking of the banks, offering valuable insights for policymakers, investors, and researchers. The overall conclusion reveals a banking sector with a wide performance gap, driven by differing strategies in risk management, operational efficiency, and market growth.

Keywords: EAGLE Model, Indian Commercial Banks, Financial Analysis and Bank Performance Evaluation.

Introduction:

In economies like India, the efficiency and robustness of commercial banks are crucial for driving inclusive economic development and ensuring long-term financial stability. In today's dynamic financial environment, banks are facing increasing competitive pressures, stricter regulatory frameworks, and rapidly changing customer demands. As a result, evaluating banks solely on the basis of profitability metrics such as Return on Assets (ROA) or Return on Equity (ROE) is no longer sufficient to capture the full picture of institutional health and efficiency.

A more holistic and multi-dimensional assessment model is now necessary—one that encompasses not just profitability, but also factors like asset quality, risk management capability, long-term growth trends, liquidity preparedness, and the effective utilization of shareholder capital. This broader perspective enables stakeholders to better

understand how a bank is positioned to manage both opportunities and challenges in the current economic landscape. Such a framework helps identify institutions that are not only profitable in the short term but also resilient and strategically sound in the long term. For regulators, investors, and policymakers, this approach facilitates more informed decision-making, while for bank management, it offers critical insights for improving performance and ensuring financial sustainability in an increasingly complex ecosystem.

This study employs the EAGLE model—a holistic framework that evaluates banks across five key dimensions: Earnings, Asset Quality, Growth, Liquidity, and Equity. Each dimension is assessed using two widely accepted financial indicators, making the evaluation both structured and comparable. The model allows for a granular analysis of each bank's financial health while facilitating an overall performance ranking.

Using the latest financial data for the fiscal year 2024–25, this paper analyzes and ranks 12 major Indian commercial banks, all of which are prominent players in the public sector. By examining a combination of efficiency metrics like the Cost-to-Income Ratio and ROA, asset risk indicators such as GNPA and NNPA, size-related variables like Total Deposits and Advances, liquidity safeguards such as HQLA and LCR, and equity measures like CRAR and ROE, the study offers a well-rounded evaluation of each institution.

The results of this study provide a comprehensive overview of the performance landscape across major Indian commercial banks. Notably, institutions such as Bank of Maharashtra and the State Bank of India have emerged as top performers, demonstrating strong financial health, effective operational strategies, and robust governance frameworks. Their leadership in key performance indicators reflects superior management of profitability, asset quality, liquidity, and equity utilization. In contrast, several other banks continue to face significant challenges related to operational inefficiencies and higher risk exposure, particularly in areas such as asset quality and return on capital. By identifying both the strengths and weaknesses across the banking sector, this performance evaluation serves as a valuable tool for various stakeholders. Investors can make better-informed portfolio decisions, regulators and policymakers can develop more targeted interventions, and researchers gain insight into current trends and gaps in the industry. Overall, the analysis contributes to a deeper understanding of India's evolving banking landscape.

LITERATURE REVIEW:

1. Sonaje & Nerlekar, (2017) employed the CAMEL model to assess the financial performance of chosen Indian banks. Their findings indicated that private sector banks surpassed public sector banks across all parameters of the CAMEL rating model.
2. Kumari and Prasad (2017) analyzed ten public and private banks' decade-long financial data using the EAGLES model for performance comparison. Their findings highlighted Yes Bank's leading position in terms of return on assets, gross non-performing assets, and provision coverage ratio. The study concluded that private banks surpassed public banks in performance.
3. Annapurna and Manchala (2017) used the balanced scorecard framework to analyze the performance of Punjab National Bank, State Bank of India, and Bank of Baroda between 2006 and 2015. They discovered that conventional techniques for financial analysis, which emphasize immediate profits, performed a poor job of representing overall performance. The report stressed that an adequate assessment of public sector banks' performance requires a comprehensive methodology.
4. "Budhedeo and Pandaya (2018) investigated the financial performance of all twenty-seven public sector banks across two periods: from 1995–1996 to 2006–07 and from 2007–08 to 2016–17. They evaluated various financial parameters including bank profitability, productivity, efficiency, bank health, and bank credit quality. Their study highlighted a significant decline in bank profitability after the financial crisis, with noticeable fluctuations. Furthermore, the public sector banks faced considerable strain due to a substantial rise in non-performing assets (NPAs) during this period, leading to a detrimental impact on their overall performance."
5. Patel, R. (2018) The study examines the pre- and post-merger status of extended-term profitability concerning chosen Indian banks over the duration spanning from 2003-04 to 2013-2014. The assessment of financial performance relies on a range of different factors.
6. Jain, Metri, & Rao (2019) investigated how factors affecting the performance of 45 commercial banks in India post-global financial crisis during the years 2010 to 2016. On balanced panel data, they utilized a random effect model in their investigation. Their research study concludes that banks should focus on investing money in more profitable instruments while keeping investments in line with total assets because bank-specific explanatory variables like management effectiveness, asset quality, earning quality, and liquidity are able to explain a significant portion of profitability in Indian commercial banks.

According to their findings, private sector banks outperformed public sector banks.

7. Suresh & Krishnan P (2020), They concluded that the EAGLES model was seen to be superior in accurately portraying the banks' soundness with appropriate consistency, whereas the CAMELS model was considered outdated given the evolving banking sector environment.
8. Ristanti and Ismiyanti (2021) utilized the EAGLES framework to assess the profitability of Indonesia's leading banks. The study emphasized that evaluating a bank's performance should involve considering four key indicators: Loan Deposit Ratio (LDR), Net Interest Margin (NIM), Net Interest Income Margin/Net Operating Cost (NIM/NOC), and Loan Growth (LG).
9. Basha V and Tejesh (2021) observed, based on the CAMELS and EAGLES rating systems, that north Indian banks displayed superior performance compared to their counterparts in south India. Notable disparities were identified, primarily affecting the banks' ratings, with exceptions noted in return on assets, provision coverage ratio, and deposit ratios.
10. Sathavara and Christian (2021) The researcher has tried to analyse selected banks using EAGLE model by including 10 years of data. The analysis of data depicts that HDFC is the best performer followed by Kotak Mahindra Bank, Indusind Bank, Axis Bank and ICICI Bank.
11. Prasanna S. & Shailaja M. L. (2021) This study examines Canara Bank's financial performance before and after a merger using the EAGLE and CAMEL models over five years. It reveals significant impacts on asset quality, capital adequacy, and management quality, despite initial integration challenges. The findings offer valuable insights into post-merger financial dynamics for banking practitioners and policymakers alike.
12. Koshti & Rathod (2023), The performance and soundness of the selected public and private sector banks are evaluated in this study using the CAMEL Model, along with the effect of the CAMEL ratios on their efficiency. The composite evaluation of the CAMEL Models

has shown that HDFC Bank Ltd. operates quite well.

13. Alparslan and Özbek (2024) evaluated the performance of participation banks in Turkey during the pre- and post-COVID-19 periods using the CAMELS framework. Their analysis relied on widely used financial ratios, along with banks' financial statements and independent audit reports. The results indicated variations in performance levels across different periods. Specifically, Vakıf Participation Bank ranked highest before COVID-19, Ziraat Participation Bank led during the pandemic, and Kuveyt Türk Participation Bank achieved the best performance in the post-pandemic phase.

Objectives of the Study

1. To evaluate the overall financial performance of selected Indian public sector banks using a multi-dimensional approach that includes profitability, asset quality, growth, liquidity, and equity parameters.
2. To identify the top-performing and underperforming banks based on key indicators such as Cost-to-Income Ratio, Return on Assets (ROA), Gross and Net NPA, Total Deposits, Total Advances, HQLA, LCR, Capital Adequacy Ratio (CRAR), and Return on Equity (ROE).
3. To analyze the operational efficiency and risk management practices of public sector banks in India by comparing earnings and asset quality metrics.

Research Methodology

This study employs a quantitative and analytical approach to evaluate the performance of 12 major public and private sector commercial banks in India. The research is based on a structured framework known as the EAGLE model, which provides a comprehensive assessment of a bank's financial health across five critical dimensions. The primary objective is to rank these banks based on their performance in each dimension and ultimately, to derive a composite overall ranking.

1. Data Collection

The research relies exclusively on secondary data. The primary source of data is the publicly available financial statements and annual reports of the 12

commercial banks for the financial year 2025. This ensures that the data is standardized, audited, and reliable. All data points for the selected metrics are collected and collated from the annual reports, ensuring consistency across all banks for a fair and accurate comparison.

2. Selection of Banks

The study focuses on 12 prominent commercial banks in India. This selection is based on their significant market presence, asset size, and representation of the broader banking sector.

3. Analytical Framework: The EAGLE Model

The EAGLE model serves as the core analytical framework for this study. The model's acronym represents five key pillars of banking performance:

EAGLE Parameter	Metric 1	Metric 2
Earnings	Return on Assets (ROA)	Cost to Income Ratio
Asset Quality	Gross Non-Performing Assets (GNPA)	Net Non-Performing Assets (NNPA)
Growth	Total Advances (Loans)	Total Deposits
Liquidity	High-Quality Liquid Assets (HQLA)	Liquidity Coverage Ratio (LCR)
Equity	Capital Adequacy Ratio (CAR)	Return on Equity (ROE)

- **E - Earnings:** Measures profitability and operational efficiency.
- **A - Asset Quality:** Assesses the health and risk of the bank's loan portfolio.
- **G - Growth:** Evaluates the bank's ability to expand its business and market share.
- **L - Liquidity:** Determines the bank's capacity to meet its short-term obligations.
- **E - Equity:** Measures profitability and returns from the perspective of shareholders' capital.

For each of these five parameters, two specific metrics have been selected to provide a balanced and comprehensive assessment:

4. Data Analysis and Ranking Process

The analysis is conducted in a systematic, multi-stage process:

1. **Individual Metric Ranking:** For each of the ten selected metrics, the 12 banks are ranked from 1 to 12.
2. For performance metrics where a higher value is better (e.g., ROA, CRAR, LCR, Total Deposits, Total Loans, HQLA, ROE), the highest value receives a rank of 1.
3. For risk and cost metrics where a lower value is better (e.g., Cost to Income Ratio, GNPA, NNPA), the lowest value receives a rank of 1.
4. **Parameter-Level Composite Ranking:** The ranks from the two metrics within each of the five EAGLE parameters are combined to produce a composite rank for that parameter. This is done by averaging the two individual ranks. For example, a bank's composite rank for "Earnings" is the average of its ranks in ROA and Cost to Income Ratio.
5. **Overall Ranking:** Finally, the five parameter-level composite ranks are averaged to generate a single, comprehensive Overall Rank for each

bank. This final rank provides a holistic measure of the bank's performance across all five pillars of the EAGLE model.

Statistical Validation of the EAGLE Model

To validate the consistency of the EAGLE framework, a non-parametric Kendall's W test was conducted to measure the agreement of ranks among the five parameters. The results, presented in Table 8, show a very low Kendall's W coefficient of

0.003 with a significance value (p-value) of **0.998**. This finding indicates that there is a negligible level of agreement or concordance in the rankings of the 12 banks across the different EAGLE parameters.

This result is a key finding of the study, as it demonstrates that each EAGLE parameter is measuring a distinct and independent dimension of bank performance. A bank's high performance in one area does not guarantee high performance in another, which validates the use of a multi-dimensional framework to avoid a single, potentially misleading, measure of financial health. The Friedman test, which also yielded a statistically insignificant result (p-value of 0.998), further supports this by showing that no single parameter's ranking is a dominant

factor in the overall assessment. This statistical evidence confirms the framework's ability to provide a comprehensive, multi-faceted view of bank performance by capturing unique aspects of their operations.

Hypothesis

Ho: There is variation in the performance of major Indian commercial banks across the key financial and operational parameters of the EAGLE model

(Earnings, Asset Quality, Growth, Liquidity, and Equity).

Ha: There is no variation in the performance of major Indian commercial banks across the key financial and operational parameters of the EAGLE model (Earnings, Asset Quality, Growth, Liquidity, and Equity).

Descriptive Analysis and Interpretation

Table 1: Ranking based on Cost to Income Ratio and Return on Assets of Commercial Banks.

NAME OF Banks	COST TO INCOME	RANK	RETURN ON ASSETS (ROA)	RANK	COMPOSITE RANK	OVERALL RANK
Bank of Baroda	47.94%	6	1.16%	4	5	4
Bank of India	50.84%	7	0.90%	9	8	8
Bank of Maharashtra	38.37%	1	1.75%	1	1	1
Canara Bank	47.27%	5	1.09%	6	5.5	5
Central Bank of India	58.87%	11	0.86%	10	10.5	10
Indian Bank	44.77%	2	1.32%	2	2	2
Indian Overseas Bank	47.14%	4	0.92%	8	6	6
Punjab & Sindh Bank	61.23%	12	0.67%	12	12	12
Punjab National Bank	54.59%	9	0.97%	7	8	8
State Bank of India	51.64%	8	1.10%	5	6.5	7
Union Bank of India	45.48%	3	1.26%	3	3	3
UCO Bank	56.99%	10	0.76%	11	10.5	10

Source: Annual Reports of Commercial Banks Year 2025

1. Bank of Maharashtra Leads in Efficiency: With a Cost to Income Ratio of 38.37% and an ROA of 1.75%, Bank of Maharashtra has the top rank in both individual categories. This indicates superior operational efficiency, as it spends the least to earn each rupee of income, and exceptional asset utilization, as it generates the highest return from its assets. Its composite and overall ranks reflect this strong performance.
2. High Efficiency: Banks like Indian Bank (44.77%) and Union Bank of India (45.48%) are highly efficient, ranking second and third, respectively.
3. Low Efficiency: At the other end of the spectrum, Punjab & Sind Bank (61.23%) and Central Bank of India (58.87%) exhibit the lowest operational efficiency, spending the most to generate income. This suggests potential issues with cost management, a larger branch network, or a lower-yielding business mix.
4. Bank of India has a relatively high Cost to Income Ratio (50.84%, rank 7) and a low ROA (0.90%, rank 9), indicating poor performance in both areas.
5. Bank of Baroda has a better Cost to Income Ratio (47.94%, rank 6) but a significantly higher ROA (1.16%, rank 4). This suggests that while its operational costs are somewhat high, it

is highly effective at generating profits from its assets.

6. UCO Bank has poor cost efficiency (56.99%, rank 10) and a very low ROA (0.76%, rank 11), placing it among the bottom performers.

Table 2: Ranking based on Gross Non-Performing Assets and Net Non-Performing Assets of Commercial Banks.

NAME OF Banks	GNPA	RANK	NNPA	RANK	COMPOSITE RANK	OVERALL RANK
Bank of Baroda	2.26%	4	0.58%	8	6	6
Bank of India	3.27%	9	0.82%	11	10	10
Bank of Maharashtra	1.74%	1	0.18%	1	1	1
Canara Bank	2.94%	6	0.70%	10	8	8
Central Bank of India	3.18%	8	0.55%	7	7.5	7
Indian Bank	3.09%	7	0.19%	2	4.5	4
Indian Overseas Bank	2.14%	3	0.37%	3	3	2
Punjab & Sindh Bank	3.38%	10	0.96%	12	11	12
Punjab National Bank	3.95%	12	0.40%	4	8	8
State Bank of India	1.82%	2	0.47%	5	3.5	3
Union Bank of India	3.60%	11	0.63%	9	10	10
UCO Bank	2.69%	5	0.50%	6	5.5	5

Source: Annual Reports of Commercial Banks Year 2025

1. Bank of Maharashtra Stands Out in Asset Quality: With a GNPA of just 1.74% and an NNPA of 0.18%, Bank of Maharashtra ranks first in both individual categories. This indicates superior credit underwriting and risk management. Its very low level of net NPAs suggests that the bank has effectively provisioned for its bad loans, minimizing its actual exposure to credit risk.
2. Strong Asset Quality: State Bank of India (GNPA 1.82%, rank 2) and Indian Overseas Bank (GNPA 2.14%, rank 3) also show strong performance. Their relatively low GNPA and NNPA figures suggest a healthy loan portfolio.

3. Weak Asset Quality: At the other end of the spectrum, Punjab National Bank (GNPA 3.95%, rank 12) and Union Bank of India (GNPA 3.60%, rank 11) have the weakest asset quality. Their high GNPA percentages indicate a larger proportion of their loans are in default.
4. The difference between a bank's GNPA and NNPA provides information about its provisioning strategy. Indian Bank has a high GNPA (3.09%, rank 7) but a very low NNPA (0.19%, rank 2). This shows that despite having a significant volume of bad loans, the bank has aggressively provisioned for them, mitigating the potential impact on its profitability and capital. This is a key indicator of a sound financial strategy.
5. Punjab & Sind Bank has both a high GNPA (3.38%, rank 10) and the highest NNPA (0.96%,

rank 12), suggesting a large volume of bad loans and a less robust provisioning strategy compared to its peers.

6. The composite rank, which combines the GNPA and NNPA ranks, clearly identifies the leaders

and laggards. Bank of Maharashtra and Indian Overseas Bank have the strongest asset quality. In contrast, Punjab & Sind Bank and Bank of India are among the weakest.

Table 3: Ranking based on Total Deposits and Total Loans of Commercial Banks.

NAME OF Banks	Total Deposits	RANK	Total Loan	RANK	COMPOSITE RANK	OVERALL RANK
Bank of Baroda	14,72,035	3	12,30,461	2	2.5	2
Bank of India	8,16,541	6	6,66,047	6	6	6
Bank of Maharashtra	3,07,143	10	2,39,837	10	10	10
Canara Bank	14,56,883	4	10,73,332	4	4	4
Central Bank of India	4,12,697	8	2,90,101	8	8	8
Indian Bank	7,37,154	7	5,88,140	7	7	7
Indian Overseas Bank	3,11,939	9	2,50,019	9	9	9
Punjab & Sindh Bank	1,29,774	12	99,605	12	12	12
Punjab National Bank	15,66,623	2	11,16,637	3	2.5	2
State Bank of India	53,82,190	1	41,63,312	1	1	1
Union Bank of India	13,09,750	5	9,82,894	5	5	5
UCO Bank	2,93,542	11	2,19,984	11	11	11

Source: Annual Reports of Commercial Banks Year 2025

1. State Bank of India (SBI) is the leader, with the highest Total Deposits (₹53,82,190 crore) and Total Loans (₹41,63,312 crore), ranking first in both categories. This massive size and market share underscore its strategic dominance in both mobilizing funds and extending credit, reflecting its status as the largest commercial bank in India.

2. Other large public sector banks, such as Punjab National Bank (PNB) and Bank of Baroda, also show robust growth. PNB ranks second in Deposits and third in Loans, while Bank of Baroda ranks third in Deposits and second in Loans. Their strong composite rank of 2.5 highlights their ability to compete effectively in both attracting deposits and growing their loan book, securing their positions as major players in the Indian banking landscape.

3. The data reveals a significant gap between the top-tier banks and the smaller ones. Banks like Indian Overseas Bank (IOB), UCO Bank, and Bank of Maharashtra have much lower figures for both deposits and loans, placing them at the bottom of the rankings. This indicates that while they may be efficient or have good asset quality (as seen in other analyses), they face challenges in achieving the scale and growth of the larger banks.
4. The rankings for Total Deposits and Total Loans are highly correlated. Banks that are successful at attracting deposits are generally also successful at growing their loan portfolios. This confirms the fundamental banking principle that a strong deposit base is essential for supporting lending activities. For example, the banks that rank 1, 2, and 3 in deposits also rank 1, 2, and 3 in loans (or very close to it), demonstrating this strong relationship.

Table 4: Ranking based on High Quality Liquid Assets and Liquid Coverage Ratio of Commercial Banks.

NAME OF Banks	High Quality Liquid Assets	RANK	Liquid Coverage Ratio (LCR)	RANK	COMPOSITE RANK	OVERALL RANK
Bank of Baroda	3,01,971	4	123.17%	9	6.5	6
Bank of India	1,77,088	6	118.62%	11	8.5	10
Bank of Maharashtra	69,804	10	113.77%	12	11	12
Canara Bank	3,20,580	3	125.26%	8	5.5	5
Central Bank of India	92,665	8	194.89%	1	4.5	3
Indian Bank	1,69,525	7	126.62%	6	6.5	6
Indian Overseas Bank	79,145	9	126.27%	7	8	9
Punjab & Sindh Bank	28,636	12	135.65%	2	7	8
Punjab National Bank	3,53,200	2	133.03%	3	2.5	1
State Bank of India	14,37,326	1	132.26%	4	2.5	1
Union Bank of India	2,84,439	5	130.67%	5	5	4
UCO Bank	61,461	11	122.41%	10	10.5	11

Source: Annual Reports of Commercial Banks Year 2025

- i. State Bank of India (SBI) is the clear leader in liquidity, with the highest HQLA (₹14,37,326 crore) and a very strong LCR (132.26%, rank 4). This reflects its massive size, stable deposit base, and strong position as a repository of highly liquid assets. Its composite rank of 2.5 and overall rank of 1 underscore its dominant liquidity position in the market.
- ii. Central Bank of India has an exceptionally high LCR of 194.89%, ranking first among all banks. This indicates that it holds a significant buffer of liquid assets relative to its net cash outflow, providing a very strong cushion against a 30-day liquidity stress scenario. Its high LCR combined with a more modest HQLA volume

suggests a very conservative and cautious liquidity management strategy.

- iii. Punjab National Bank (PNB) has the second-highest HQLA (₹3,53,200 crore) and a strong LCR (133.03%, rank 3), making it a top-tier performer.
- iv. Bank of Baroda has a high HQLA (₹3,01,971 crore, rank 4), but its LCR is lower at 123.17% (rank 9), suggesting that while it holds a large volume of liquid assets, its expected cash

outflows are also relatively high. This places it lower in the composite ranking.

- v. Banks like Bank of Maharashtra and UCO Bank are at the bottom of the liquidity rankings. Bank of Maharashtra has the low HQLA (₹69,804 crore, rank 10) and the lowest LCR (113.77%, rank 12). While this LCR is still above the regulatory minimum of 100%, it indicates a much smaller liquidity buffer compared to its peers. Similarly, UCO Bank has low HQLA and a relatively low LCR, placing it near the bottom.

Table 5: Ranking based on Capital Adequacy Ratio and Return on Equity of Commercial Banks.

NAME OF Banks	Capital Adequacy Ratio (CAR)	RANK	RETURN ON EQUITY (ROE)	RANK	COMPOSITE RANK	OVERALL RANK
Bank of Baroda	17.19%	8	16.96%	7	7.5	7
Bank of India	17.77%	6	15.27%	9	7.5	7
Bank of Maharashtra	20.53%	1	22.92%	1	1	1
Canara Bank	16.33%	11	21.28%	2	6.5	5
Central Bank of India	17.02%	10	12.48%	10	10	12
Indian Bank	17.94%	5	20.76%	3	4	2
IOB	19.74%	2	16.28%	8	5	3
Punjab & Sindh Bank	17.41%	7	10.82%	11	9	11
PNB	17.05%	9	19.33%	5	7	6
State Bank of India	14.25%	12	19.87%	4	8	10
Union Bank of India	18.02%	4	17.20%	6	5	3
UCO Bank	18.49%	3	9.39%	12	7.5	7

Source: Annual Reports of Commercial Banks Year 2025

- i. **Bank of Maharashtra** leads with the highest ROE (22.92%) and CAR (20.53%), reflecting strong capital strength and superior shareholder returns.
- ii. **Indian Bank** and **Canara Bank** follow closely in ROE performance, demonstrating efficient profit generation relative to equity. Conversely,

UCO Bank and **Punjab & Sind Bank** record the lowest ROE figures (9.39% and 10.82%, respectively), indicating weaker profitability.

- iii. While some banks, such as **IOB** and **Union Bank of India**, maintain healthy CAR values above the regulatory minimum, others like **State Bank of India** (14.25%) exhibit relatively lower capital buffers despite strong ROE rankings

Key Findings:

Chart 1: Composite Ratio of all the Commercial Banks

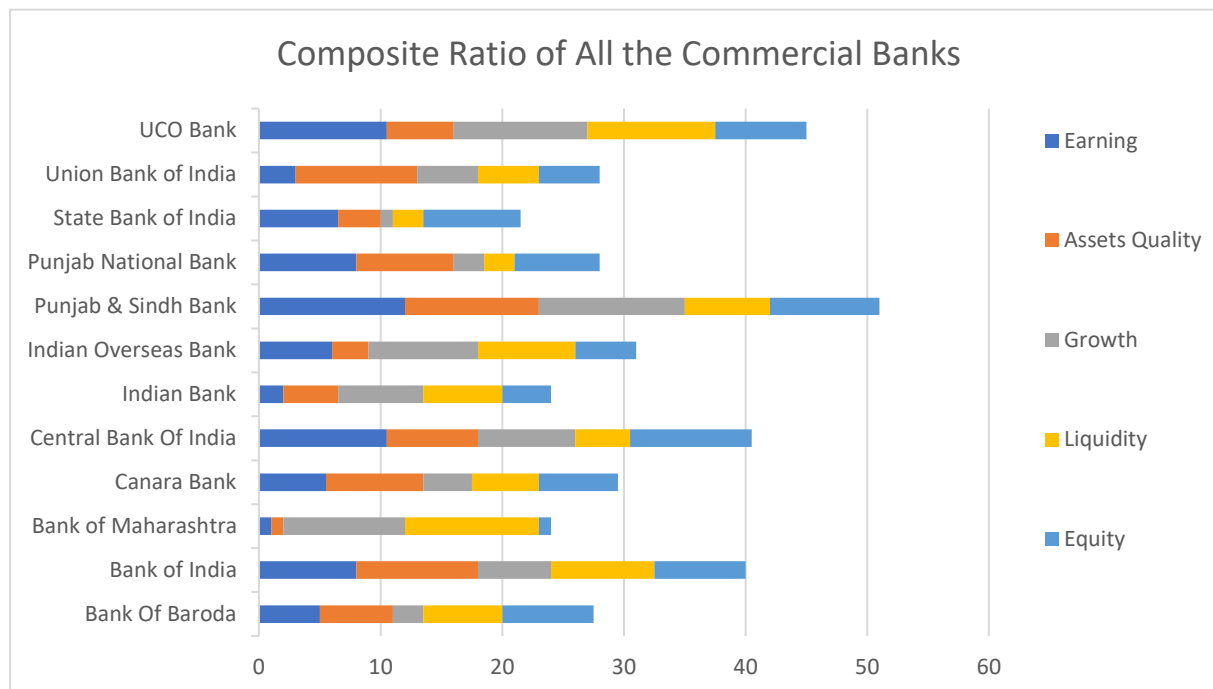
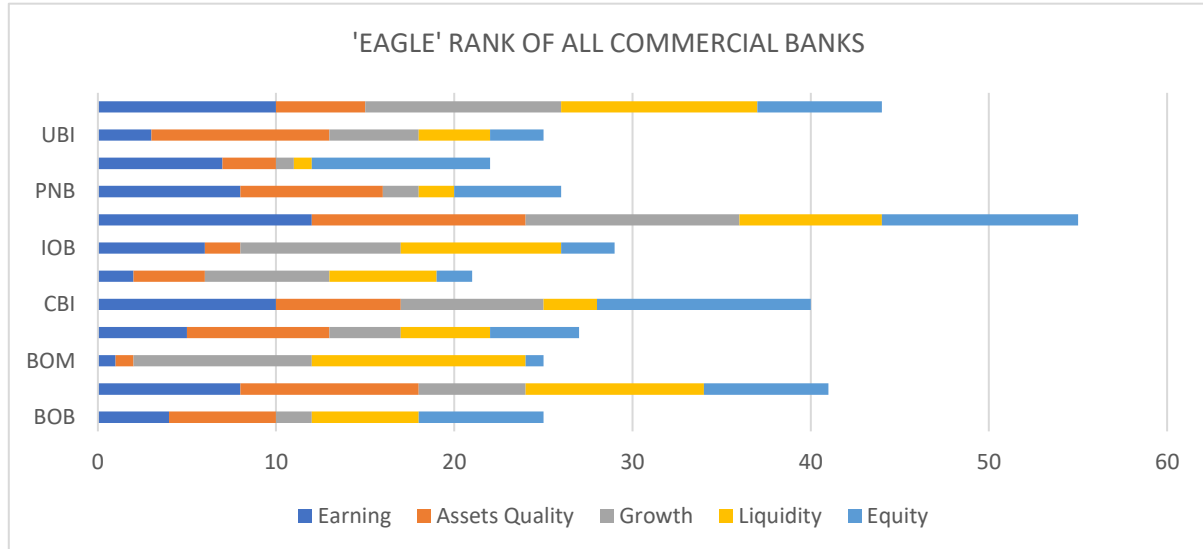


Table 6: Overall performance of all the Commercial Banks and Ranking based on EAGLE Metrics

<u>BANK</u>	<u>E</u>	<u>A</u>	<u>G</u>	<u>L</u>	<u>E</u>	<u>AVERAGE</u>	<u>RANK</u>
BOB	4	6	2	6	7	5	3
BOI	8	10	6	10	7	8.2	10
BOM	1	1	10	12	1	5	3
CANARA	5	8	4	5	5	5.4	7
CBI	10	7	8	3	12	8	9
INDIAN	2	4	7	6	2	4.2	1
IOB	6	2	9	9	3	5.8	8
P&S	12	12	12	8	11	11	12
PNB	8	8	2	2	6	5.2	6
SBI	7	3	1	1	10	4.4	2
UBI	3	10	5	4	3	5	3
UCO	10	5	11	11	7	8.8	11

Chart 2: Ranking of all commercial Banks based on EAGLE Parameters



- i. The bar chart illustrates the combined performance of 12 commercial banks in India using the EAGLE model. Each bar shows the bank's overall score, while the colored segments within it highlight its performance across the five EAGLE parameters—Earning, Asset Quality, Growth, Liquidity, and Equity. In this chart, shorter bars indicate a stronger overall rank, meaning the bank has performed well across most parameters.
- ii. Indian Bank stands out with the shortest total bar, reflecting the best overall performance and a high composite rank across all five parameters. This confirms its leadership in efficiency, asset quality, and profitability, as highlighted in the individual tables. The uniformly small segments across each category point towards its consistent strength in every area.
- iii. A significant gap exists between the highest- and lowest-performing banks. Institutions such as the Bank of Maharashtra, State Bank of India & Indian Bank display notably shorter bars, reflecting stronger overall performance. Conversely, Punjab & Sind Bank (P&S), Bank of India (BOI), and UCO Bank exhibit the longest bars, signifying lower composite rankings and comparatively weaker outcomes across most EAGLE parameters.
- iv. Punjab & Sind Bank (P&S) records the longest bar, mainly due to its notably weak performance in Assets Quality, Equity, and Liquidity, as reflected by the large segments in these categories.
- v. Bank of India (BOI) and UCO Bank also show an extended bar length, with particularly large segment for Liquidity, underscoring the area where they are underperforming.
- vi. State Bank of India (SBI) and Punjab National Bank (PNB), although not matching the strength of Indian Bank, display a balanced performance. Their moderate bar lengths across all segments reflect solid positions in Growth and Liquidity, along with overall stability.

Test Statistics	
N	12
Kendall's W ^a	.003
Chi-Square	.123
df	4
Asymp. Sig.	.998
a. Kendall's Coefficient of Concordance	

The Kendall's W test yielded a coefficient of 0.003 with χ^2 (4, N=12) = 0.123, $p = 0.998$, indicating negligible agreement among the rankings for the five EAGLE parameters. This suggests that the parameters capture distinct aspects of bank performance.

Test Statistics ^a	
N	12
Chi-Square	.123
df	4
Asymp. Sig.	.998
a. Friedman Test	

The Friedman test produced $\chi^2(4, N=12) = 0.123$, $p = 0.998$, showing no statistically significant difference in average ranks across the parameters. This indicates that, on average, no single parameter dominates, and each contributes equally to the overall EAGLE score.

The low Kendall's W value confirms that the EAGLE parameters measure different, non-overlapping dimensions of bank performance. This is desirable in a multi-dimensional framework, as it reduces redundancy and ensures that each parameter adds unique value to the analysis. The Friedman test result reinforces this by showing that, although the parameters measure different things, they have a balanced influence on the overall performance score, justifying the equal-weight approach used in the EAGLE model. Together, these findings support the robustness and conceptual validity of the EAGLE framework.

Conclusion:

This paper provides a detailed, multi-dimensional analysis of the financial health of 12 Indian commercial banks using the EAGLE framework. Our statistical validation, which yielded a very low Kendall's W coefficient, revealed a significant finding: the rankings of banks across the five EAGLE parameters show a high degree of independence. This demonstrates that each parameter—Earnings, Asset Quality, Growth, Liquidity, and Equity—captures a distinct dimension of performance, and that a bank's success is not uniform across all areas.

The analysis of these individual dimensions revealed nuanced performance profiles. For instance, Bank of Maharashtra demonstrated exceptional strength and consistency in three areas: Earnings, Asset Quality, and Equity. Conversely, State Bank of India was the

clear leader in the Growth and Liquidity parameters. This multi-faceted view is crucial for understanding the trade-offs banks make in their strategies. While Indian Bank emerged as the top performer in the composite ranking, this should be understood as a summary of its balanced performance across these distinct parameters rather than as a single, definitive measure of superiority.

In conclusion, the EAGLE framework proves to be a valuable tool for providing a holistic perspective on bank performance. The statistically verified lack of concordance among the parameters validates the framework's ability to reveal the specific strengths and weaknesses of banks, offering a far more insightful assessment than a single performance metric could.

Statistical validation using Kendall's W and Friedman's test demonstrated that the EAGLE model parameters are distinct yet equally important in assessing bank performance. The negligible agreement between parameters confirms their uniqueness, while the absence of significant differences in average ranks ensures a balanced contribution to the composite ranking. These results provide strong empirical support for using the EAGLE framework as a holistic tool for evaluating the financial health of commercial banks.

Suggestions:

- Banks with a high Cost to Income Ratio (e.g., Punjab & Sind Bank, Central Bank of India) should focus on aggressive operational streamlining. This includes rationalizing non-performing assets, optimizing their branch network, and accelerating the adoption of digital banking platforms to reduce physical infrastructure and personnel costs.
- Banks with a high proportion of bad loans (e.g., Punjab National Bank, Union Bank of India)

must prioritize robust credit underwriting and a more proactive loan recovery strategy. This involves implementing more stringent credit appraisal processes, leveraging data analytics to identify potential defaulters early, and strengthening legal and recovery teams.

- iii. Smaller banks with lower deposit and loan volumes (e.g., UCO Bank, Bank of Maharashtra) should explore a strategic focus on niche markets or specialized lending segments.
- iv. All banks, regardless of their current ranking, should adopt a holistic, data-driven approach to management, similar to the EAGLE model.

Limitations of Study:

- i. The study is based on data from a single year i.e., 2025, so it does not show long-term trends or changes over time.
- ii. The analysis relies on secondary data i.e., publicly available bank's annual reports.
- iii. The findings are based on just 12 commercial banks and may not apply to the wider Indian banking sector, including private or foreign banks.

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