



## Analysis of Financial Performance: A study on selected public and private Indian banks

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### Abstract

The financial performance of a business is very crucial to making decisions regarding the future planning, expansion and growth of the business. The shareholders, managers and staff are the internal users of financial information, whereas the lenders, government and suppliers are the external users of financial information. The sound financial position of the business helps in getting a loan at a lower interest rate. The financial performance of a bank is very crucial for its expansion, shareholders and customer base. The present study aimed to evaluate the financial performance of the bank from the data. The EAGLE model is used to evaluate the financial performance of the bank. From the 10-year analysis of financial data of the bank, it is found that the bank's financial position is sound. We found that the financial performance of Bandhan Bank was best during the study period, followed by ICICI Bank, State Bank of India, Bank of Baroda, and Punjab National Bank. The average return on assets and average return on equity were negative in the case of Punjab National Bank during the study period. The ROE, Net NPA ratio, Growth of Deposit, Loan to deposit ratio, and CAR had a significant impact on the financial performance of the banks, which were measured by ROA.

**Keywords:** Eagle, ROA, NPA, CAR

### Introduction

The financial performance of a banking company is very important for its existence and expansion. We know that finance is the lifeblood of every business. Without good financial management, it is quite impossible for a bank to increase its number of customers, number of branches and to provide service efficiently. Vithalbhair, V.S. (2020) [7] stated that the banking sector is one of the fastest growing sector and huge funds are invested in banks. The banking system is becoming more complex and therefore there is a strong need to evaluate the performance of the banks.

Bandhan Bank is a privately-owned commercial bank established in 2015 in Kolkata, West Bengal. The bank has focused on the rural areas and unbanked areas where it can enhance its credit to the small industries. It is one of the largest microfinance banks, operating in 35 states out of 36 states in India.

State Bank of India was formed in 1955, with its headquarters in Mumbai, which was previously known as the Imperial Bank of India. As the largest commercial bank in India, at present, SBI has 22500 branches and 63580 ATMs. It has a significant presence outside the country of its origin. In terms of the importance to the government, SBI ranks just after the RBI.

Bank of Baroda is a publicly owned commercial bank, established in 1908; with headquarter in Vadodara, Gujrat. Bank of Baroda is the third-largest bank in terms of market share. Bank of Baroda not only has a domestic presence, but it also has a presence on the soil of foreign countries. BOB has a vast network of branches, ATMs, and self-service channels across India. The bank focuses on digital banking, mobile banking and e-lobbies.

ICICI Bank, one of the largest private sector banks, was established in 1994 as a part of the ICICI group, headquarter in Mumbai. The bank provides a vast range of banking services to its business and corporate clients. These services include different deposit account services, card services, gold loans, home loans, personal loans, business loans etc.

Punjab National Bank is a government-owned bank which was established in 1895 in Lahore by the nationalists of British India. The banks provide services like ATM. BHIM UPI, International banking services, NRI services, doorstep banking services. The primary functions of the bank include deposit taking, lending, foreign exchange dealing, bill discounting, fund transfer, asset management, treasury handling etc.

### Literature review

Kumari, S. et al. (2018) [1] conducted a study using the Eagle model considering output ratios with 10 years' data of selected 10 public sector and private sector banks. They found that YES Bank is in top position in terms of Return on Assets, gross NPA, and provision Coverage Ratio (PCR). YES, Bank is good in terms of earning capacity. Kotak Mahindra Bank is good in terms of investment to deposit and capital adequacy ratio, which indicates that the private bank's performance is better than the public sector banks.

Mathew, K. et al. (2025) [2] conducted a study on the financial performance of small finance banks and payment banks using the EAGLE model. The 7 years of data of small finance banks, 6 years of data of payment banks, and 19 ratios were used in their study. They found that payments banks to be performing better than the Small Finance Banks. Tamilarasu, S. et al. (2022) [3] states that both public sector banks and private sector banks need to focus on decreasing their non-performing assets as they seriously dent the profitability of banks by affecting their revenue. Banks need to work from the perspective of improving revenue and also cutting expenses if they wish to reinforce their banking performance.

Suresh, K., Pradhan, S. (2023) [4] conducted a study to examine the financial performance of selected banks of the private sector and public sector, and they found that even though PSUB (Public sector undertaking banks) has made a lot of progress, they are still not performing up to the

standard that PSB (Private Sector Banks) set. According to the report, PSB outperformed PSUB in the areas of CAR, NPA to NA, PPE, ROA, and liquid assets to total deposit concerning the CAMEL approach.

Sangmi, M.D. et al. (2010) <sup>[5]</sup> found, applying the CAMEL model for financial performance analysis, that the position of the banks under study is sound and satisfactory so far as their capital adequacy, asset quality, management capability and liquidity are concerned.

Mamo, B.W. et. all (2021) <sup>[6]</sup> found that composite governance index, trade openness, and internet access have a positive and statistically significant effect on the financial performance of commercial banks as measured by their return on assets and bank specific variables like profit margin, asset utilization, net interest margin, overhead efficiency, and numbers of branches have a positive and statistically significant effect on the financial performance of commercial banks, the equity multiplier ratio has a negative and significant impact on the financial performance of commercial banks.

Vithalbhair, V.S. (2020) concluded in his findings that most banks have more non-performing assets. Due to this condition, many banks go into liquidation and mergers/acquisitions.

Chavan, G.et al. (2024) <sup>[8]</sup> investigated the financial performance of HDFC Bank on the basis of five-year data starting from 2017 to 2021. The data were analyzed by ratio analysis such as current ratio, net profit ratio, return on asset ratio, debt-to-equity ratio and proprietary ratio. He concluded that the financial soundness of the bank was satisfactory during the study period.

Khairullah, A. et al. (2022) <sup>[9]</sup> said that finance is the driving force behind trade, commerce and industry. The Indian banking system is the backbone of India's financial system. Either the capital market or money market, the Indian banking system always plays a major role in its efficiency. According to them, "Financial Performance Assessment is the process of identifying the financial strength and weakness of banks by accurately establishing a strategic relationship between balance sheet assets and profit and loss account and other performance information." They evaluated the financial performance of the selected private sector bank with the help of a separate lending rate. They concluded that the HDFC Bank is in a higher position as tested by the CAMEL Model compared to other banks under study.

Zaid, M.D.et. al (2024) <sup>[10]</sup> did the study to analyze and evaluate the financial performance of commercial banks in India using the standard quantitative approach and found that there is a positive and significant effect of the financial leverage ratio on the financial performance of banks as measured by the rate of return on assets (ROA), while the ratio of liquidity coverage negatively effects on the return on assets.

Rajesh, G. et al. (2024) <sup>[11]</sup> conducted a study to evaluate the financial performance of selected private sector banks of India using the EAGLE model. They took the sample of 7 private sector banks, namely Axis Bank, DCB Bank, Federal Bank, HDFC Bank, ICICI Bank, RBL Bank, and South Indian Bank. Utilizing the EAGLE model, the banks were ranked, and an ANOVA test was employed to assess the disparity among the financial parameters across banks. The study shows that HDFC Bank, DCB Bank, RBL bank and ICICI Bank secured first place, whereas HDFC Bank will be in terms of earning assets, DCB bank in terms of earnings and equity, RBL bank in terms of growth and liquidity and also ICICI Bank in terms of liquidity position

in earning, growth and liquidity parameters with below average performance. Overall, HDFC Bank secured first place, followed by DCB bank, RBL bank, Axis Bank, ICICI Bank, Federal Bank and South Indian Bank.

Sonwani, J.et al. (2024) <sup>[12]</sup> found that the merger of Indian Overseas Bank presented an intriguing opportunity to delve into the transformation effects of such strategic decisions on the financial health and performance of a banking entity. The study was conducted to provide a comprehensive assessment of Indian Overseas bank financial performance, both prior to and following the merger event, utilizing the well-established EAGLE and CAMEL models. They concluded that the bank has adequate capital, which reduces the risk of bank failure and ensures the effectiveness and stability of a country's financial system.

Srivastava, A. et al. (2025) <sup>[13]</sup> conducted a study on the financial performance analysis of 12 major Indian commercial banks using 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. They found that there are significant disparities in performance, highlighting distinct strategic strengths and weakness across the banks. The results indicated that Bank of Maharashtra was 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 the Central Bank of India reflects a highly conservative liquidity stance. Indian bank and Canara Bank also demonstrated strong equity performance, signaling growing shareholder value.

Thanigaivalen, P. et al. (2025) <sup>[14]</sup> conducted a study with the main objective of identifying and exploring the financial performance of a few Indian private sector banks. The data for this study were collected from secondary sources like Money Control and annual reports of respective banks over 5 years. The data were analyzed with the help of ratios which include debt-to-equity ratio, cash position ratio, fixed asset ratio, and proprietary ratio. Kotak Mahindra Bank, HDFC Bank, ICICI Bank, Axis Bank, and IDBI bank were selected for their study, and they found that Axis Bank is not only the leading private sector bank, but it has a vast range of products and availability of options, making it one of the better banks in India.

## Methodology of study

### Research design

The Research Design is the blueprint of the entire research. The Research Design includes a plan, strategy, hypothesis and methodology which are required to conduct the entire research and draw the conclusions from the study. It determines how the research problems can be addressed and solved with the help of scientific and statistical tools.

### Method of Collection of Data

It is important to determine the method of collecting the data for the research purpose. There are two methods of collecting the data. One is sampling techniques and the other is the census. Here, a sampling technique is used to collect the data. The data from 10 years of the five banks i.e. State Bank of India, Punjab National Bank, Bank of Baroda, ICICI Bank, Bandhan Bank are taken to analyze.

**Source of Data**

To conduct the research, it is important to collect data related to the research subject. Data can be collected from two sources. One is the primary source and the other is the secondary source.

**Secondary Data:** Secondary data, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process. Secondary data include information from the company's annual reports, which include financial statements like the balance sheet and income statements, and other information from the text book of financial management, journals, and magazines has also been collected. For the purpose of the study, necessary information has been collected from secondary sources. The data collection for the study is from secondary sources. Like

1. Online reports
2. Books
3. Journal
4. Websites (Moneycontrol.com, www.sbi.com)

**Tools Used for Data Analysis**

After collecting the data from secondary sources, the data was analyzed with the help of some statistical derivatives like ratio analysis, percentage, rate etc. Some statistical techniques like average, standard deviation, linear regression was used to analyze the data. The diagrams, like bar charts and pie charts, are used to present the data in graphical form.

**The statement of problem**

The study was conducted to find out the impact of —

**Earnings ratios:** ROE on the ROA

**Asset quality:** Net NPA ratio on the ROA

**Growth:** Growth of deposit on the ROA

**Liquidity:** Loans to deposit ratio on ROA.

**Equity ratio:** CAR on ROA.

The EAGLE model was developed by Dr. John Vong, is used to analyzing the financial performance of banks. This model is useful for an effective evaluation of a bank's financial performance. The EAGLE stands for Earning, Asset Quality, Growth, Liquidity and Equity.

The regression equation for earning capacity is –  
 $Y1 = \beta_0 + \beta_1ROE + \beta_2NPA + \beta_3GD + \beta_3LDR + \beta_4CAR$   
 Here, Y1 denotes the ROA,  $\beta_0$  is the constant term and

$\beta_1ROE$  denotes the return on equity coefficient.  $\beta_2 NPA$  to total denotes the coefficient of NET NPA ratio,  $\beta_3GD$  denotes the coefficient of growth of deposit,  $\beta_3LDR$  denotes the coefficient of Loan to Deposit ratio, and  $\beta_4CAR$  denotes the coefficient of Capital Adequacy Ratio.

**Hypothesis**

**H1:** There is a significant impact of ROE on the financial performance of banks, i.e. ROA

**H2:** There is a significant impact of asset quality on ROA

**H3:** There is a significant impact of growth of deposits on ROA

**H4:** There is a significant impact of liquidity on ROA

**H5:** There is a significant impact of the equity ratio on ROA

**Objectives of the study**

The objectives of the study are as follows:

1. To know the impact of independent variables like ROE, interest income to total assets, loans to deposit on the financial performance of the banks which is considered as ROA (independent) in this study.
2. To know the financial stability of banks whether a bank's financial position is sound or not with the help of the EAGLE model.
3. To determine the financial position of banks under this study.

**Interpretation**

**Ratio**

The ratio expresses a relationship between the two variables. Sometimes it is expressed as a percentage or a quotient. Ratio analysis is the process of determining and interpreting numerical relationships based on financial statements. There are different types of ratios to analyze the financial statements to know the financial position of banks such as liquidity position. There are many liquidity ratios, e.g. current ratio, quick ratio, loans to deposit ratio, investments to total asset ratio etc. To know solvency, there are many solvency ratios, such as debt-to-equity ratio, proprietary ratio etc. There are many activity ratios and profitability ratios.

**Dependent variable**

**RoA**

ROA measures the operating efficiency of a firm's assets in generating profit without the effect of methods of financing. It can be calculated as follows:

$$ROA = \text{Earnings before Interest and Tax} / \text{Total Assets}$$

**Table 1:** History of the ROA of five banks' last 10 years

Year	Bandhan bank	State bank of india	Bank of baroda	Icici bank	Punjab national bank
2024-25	1.43	1.06	1.09	2.22	0.91
2023-24	1.12	0.98	1.12	2.18	0.52
2022-23	0.96	0.91	0.96	2.01	0.17
2021-22	0.56	0.63	0.56	1.65	0.26
2020-21	0.07	0.45	0.07	1.31	0.16
2019-20	0.04	0.36	0.04	0.72	0.04
2018-19	0.05	0.02	0.05	0.34	-1.28
2017-18	-0.33	-0.18	-0.33	0.77	-1.60
2016-17	0.19	0.38	0.19	1.26	0.18
2015-16	-0.80	0.42	-0.80	1.34	-0.59
Average	0.329	0.503	0.503	1.38	-0.123
S.d.	0.65162	0.382702	0.600121	0.610377	0.751652
Minimum	-0.8	-0.18	-0.8	0.34	-1.6
Maximum	1.43	1.06	1.12	2.22	0.91

**Table 2:** Ranking of Banks on The Basis of Average Roa as follows

Name of Bank	Average Score	Rank
Bandhan Bank	0.329	3
State Bank of India	0.503	2
Bank of Baroda	0.503	2
ICICI Bank	1.38	1
Punjab National Bank	-0.123	4

ICICI Bank had the highest average ROA, i.e. 1.38, and Punjab National Bank had the lowest average ROA, i.e. -0.123 during the period of study. The standard deviation was highest in the case of Punjab National Bank, i.e. 0.751652, and standard deviation was lowest in the case of State Bank of India, i.e. 0.382702, which indicates the lowest variability in return of assets during the period of study. There was higher variation of ROA in Punjab National Bank during the period of study. The ICICI Bank had the highest return on assets, i.e. 2.22, during the period

of study, whereas the Punjab National Bank had the lowest return on assets, i.e. — 1.6 during the period of study.

**Independent Variable**

**Earning Ratio**

The earnings ratio is an important tool for analysis of financial statements. It indicates the future risk of investment and growth of investment, potential earnings on investment etc. The investor can evaluate how much return they obtain from their investments and how much return they can obtain from investing in a company’s stock in the future.

**ROE**

This ratio is calculated to see the profitability of owners’ investment. The shareholders’ equity or net worth will include paid-up capital, share premium and reserve and surplus less accumulated loss. ROE can be calculated as follows:

$$ROE = \text{Profit after tax} / \text{Equity}$$

**Table 3:** History of ROE of five banks over the last 10 years

Year	Bandhan Bank	State Bank of India	Bank of Baroda	ICICI Bank	Punjab National Bank
2024-25	11.15	16.07	14.30	16.16	13.05
2023-24	10.31	17.46	15.85	17.37	8.39
2022-23	11.20	16.75	14.36	16.13	2.74
2021-22	0.72	12.33	8.46	13.94	3.90
2020-21	12.66	8.86	1.07	11.21	2.41
2019-20	19.89	6.95	0.76	6.99	0.58
2018-19	17.42	0.39	0.94	3.19	-24.20
2017-18	14.34	-3.37	-5.60	6.63	-32.85
2016-17	25.00	6.69	3.43	10.11	3.47
2015-16	8.25	6.89	-13.42	11.19	-11.20
AVERAGE	13.094	8.902	4.015	11.292	-3.371
S.d.	6.325273	6.586131	8.93375	4.453715	13.99344
Minimum	0.72	-3.37	-13.42	3.19	-32.85
Maximum	25	17.46	15.85	17.37	13.05

**Table 4:** Ranking of Banks on The Basis of Average Roe

Name of Bank	Average Score	Rank
Bandhan Bank	13.094	1
State Bank of India	8.902	3
Bank of Baroda	4.015	4
ICICI Bank	11.292	2
Punjab National Bank	-3.371	5

The average ROE was the maximum for Bandhan Bank, i.e. 13.094, and the average ROE was the minimum for the Punjab national bank, i.e. — 3.371 (it is negative also). The standard deviation of ROE was high in the case of Punjab national bank, which means that the dispersion of the variables was high and there was high variability of data. The low standard deviation indicates the variables are not widely spread from the mean value. There was higher variation in ROE in the case of Punjab National Bank. The standard deviation of ROE was lower in the case of ICICI Bank, i.e. 4.453715, which indicates that there was the lowest variability of returns among the five banks. The maximum return on equity the state bank of India got

among the five banks, i.e. 17.46, and the minimum return on equity the bank got is Punjab National Bank, i.e. — 32.85 (It is negative).

**Asset Quality**

The banks provide loans and advances to the business for short-term periods. If the loans are not repaid within a specified time, the profitability of the banks is affected due to non-recovery of loans and advances. The asset quality of banks is considered good based upon their NPA. NPA is nothing but the asset which stops generating income. Generally, if the loans are not repaid after the due date, typically 90 days, then loans are considered as NPA i.e. Non-Performing Asset.

**Net NPA Ratio**

The Net NPA ratio signifies the asset quality of banks. It identifies the credit risk and the potential financial losses it faces from bad loans. The higher the Net NPA ratio, the greater is the chance of financial loss. The formula to compute the Net NPA ratio is-  

$$\text{Net NPA} = \text{Gross NPA} - \text{Provision}$$

**Table 5:** History of Net NPA of five banks' last 10 years:

Year	Bandhan Bank	State Bank of india	Bank of Baroda	ICICI Bank	Punjab National Bank
2024-25	1.28	0.47	0.58	0.42	0.40
2023-24	1.11	0.57	0.68	0.45	0.73
2022-23	1.17	0.67	0.89	0.51	2.72
2021-22	1.66	1.02	1.72	0.81	4.80
2020-21	3.51	1.50	3.09	2.10	5.73
2019-20	0.58	2.23	3.13	1.54	5.78
2018-19	0.58	3.01	3.33	2.29	6.56
2017-18	0.58	5.73	5.49	5.43	11.24
2016-17	0.00	3.71	4.72	5.43	7.81
2015-16	0.00	3.81	5.06	2.98	8.61
Average	1.047	2.272	2.869	2.196	5.438
S.d.	0.967585	1.667674	1.751961	1.815126	3.258122
Minimum	0	0.47	0.58	0.42	0.4
Maximum	3.51	5.73	5.49	5.43	11.24

**Table 6:** Ranking of Banks on The Basis of Average Net Npa

Name of Bank	Average Score	Rank
Banana Bank	1.047	5
State Bank of India	2.272	3
Bank of Baroda	2.869	2
ICICI Bank	2.196	4
Punjab National Bank	5.438	1

The average Net NPA was higher in the case of Punjab National Bank, i.e. 5.438%, whereas the Net NPA was lower in the case of Bandhan Bank, i.e. 1.047%. The average Net NPA of Punjab National Bank was almost 5 times larger than the average Net NPA of Bandhan Bank, which was an alarming situation for Punjab National Bank. The higher Net NPA denotes the lower asset quality. The Net NPA of Punjab National Bank was in the year 2017-18 i.e. 11.24%. The standard deviation of Bandhan Bank was 0.967585 (the lowest) and the standard deviation of Punjab National Bank was 3.258122 (highest). It means the variability of the Net NPA percentage of Punjab National Bank was highest among all the banks under this study.

**Growth**

Growth has an impact on the financial performance of the bank. Here, growth means growth, which has a positive impact on the financial health of the banks. The growth of deposits has a positive impact on the financial performance of the banks, whereas the growth of advances may have a positive or negative impact on the financial performance of the banks. The low to medium growth of advance is good for the financial position of the banks, whereas high growth of loans and advance increases the chance of NPA, which negatively affects the asset quality of the bank.

**Growth of Deposit**

The high growth of deposits means the banks have more funds to lend to earn income. It has a positive impact on the financial health of the banks. The banks get the opportunity to get extra income by providing loans out of the deposit. The Growth of Deposit = difference between year 1 and year 2 deposit / year 1 deposit

**Table 7:** The history of 10 years' growth of deposit of 5 banks is as follows

Year	Bandhan Bank	State Bank of India	Bank of Baroda	ICICI Bank	Punjab National Bank
2024-25	11.842	9.481	10.933	13.981	14.376
2023-24	25.107	11.128	10.241	19.646	6.912
2022-23	12.186	9.188	15.082	10.922	11.773
2021-22	23.545	10.058	8.164	14.160	3.605
2020-21	36.598	13.563	2.221	20.955	57.184
2019-20	32.036	11.343	48.113	18.080	4.115
2018-19	27.644	7.576	8.012	16.390	5.264
2017-18	45.807	32.356	-1.722	14.476	3.301
2016-17	92.151	18.144	4.815	16.281	12.413
2015-16	100	9.762	-7.047	16.557	10.306
Average	40.69	13.26	9.88	16.14	12.92
S.d.	29.3861	6.945961442	14.14912751	2.794143467	15.23599617
Minimum	11.84192	7.576375132	-7.0473612	10.92167863	3.300955011
Maximum	100	32.35561561	48.1133014	20.95456135	57.18381109

**Table 8:** Ranking of Banks on the Basis of Average Growth of Deposit

Name of Bank	Average Score	Rank
Bandhan Bank	40.69	1
State Bank of India	13.26	3
Bank of Baroda	9.88	5
ICICI Bank	16.14	2
Punjab National Bank	12.92	4

The average growth of deposits of Bandhan Bank was high in comparison to the other banks. The average growth of deposits of ICICI Bank was 16.14%, which was the second-largest growth of deposits among the 5 banks taken for this study. The average growth of deposit was lowest in Bank of Baroda, which is 9.88%. The Bank of Baroda observed the highest negative growth in the year 2015-16, i.e. -7.0473612. The standard deviation of growth of deposits was the highest in the case of Bandhan Bank, i.e. 29.3861,

which means that there was high variability in growth of deposits.

**Liquidity**

High liquidity means the financial condition in which assets can be quickly converted into cash. The current assets and current liabilities are considered to determine the liquidity condition of a bank. Every business needs to maintain a stable liquidity position to meet its current obligations like repayment of a short-term loan, interest on a long-term loan, payment of salary, wages, commission etc.

**Loan to Deposit Ratio**

Loan to deposit ratio is the liquidity ratio which indicates the proportion of deposits used to provide loans to the customers. The highest loan to deposit ratio indicates that the bank is lending out a large portion of deposits as loans, while the lowest loan to deposit ratio indicates the bank is holding a large portion of the deposit, which indicates the inefficient management of funds raised through the acceptance of deposits from customers. But higher loans to deposit sometimes create liquidity shortages in the banks, especially when a large number of customers want to withdraw their deposit.

$$\text{Loan to Deposit Ratio} = \text{Total Loans} / \text{Total Deposit}$$

**Table 9:** The past 10 years' history of Loan to Deposit Ratio of Five banks is as follows

Year	Bandhan Bank	State Bank of India	Bank of Baroda	ICICI Bank	Punjab National Bank
2024-25	0.873	0.774	0.822	0.833	0.688
2023-24	0.896	0.753	0.803	0.838	0.682
2022-23	0.969	0.723	0.782	0.863	0.648
2021-22	0.976	0.675	0.743	0.807	0.635
2020-21	1.047	0.665	0.730	0.787	0.609
2019-20	1.167	0.717	0.730	0.837	0.670
2018-19	0.917	0.751	0.734	0.898	0.678
2017-18	0.877	0.715	0.723	0.913	0.675
2016-17	0.725	0.768	0.637	0.947	0.675
2015-16	1.029	0.846	0.669	1.033	0.746
Average	0.9475	0.7387	0.7372	0.8757	0.6707
S.d.	0.113863	0.04962628	0.053468281	0.070174861	0.034082263
Minimum	0.724927	0.665393486	0.636986931	0.786822149	0.609428086
Maximum	1.167277	0.84571644	0.821691076	1.032836701	0.745547342

**Table 10:** Ranking of Banks on The Basis of Average Loan to Deposit Ratio

Name of Bank	Average Score	Rank
Bandhan bank	0.9475	1
State bank of india	0.7387	3
Bank of baroda	0.7372	4
Icici bank	0.8757	2
Punjab national bank	0.6707	5

The Bandhan Bank had the highest average loan to deposit ratio among the five banks under the study i.e. 0.9475 (94.75%) and the Punjab National Bank had the lowest loan to deposit ratio i.e. 0.6707 (67.07%) during the period of study. Bandhan bank is able to maintain the average loan to deposit ratio within the standard, which is between 80–90%, which is a good indicator of financial performance, and it has a positive impact on return on assets.

But the Punjab National bank's Loan to Deposit ratio is below the standard which indicates inefficient management of funds. It has a negative impact on the ROA of Punjab National Bank.

**Equity**

In the EAGLE model, equity addresses the financial stability of the bank to absorb losses. The Capital Adequacy Ratio is considered a good indicator of the financial strength of banks.

**Capital Adequacy Ratio**

The capital adequacy ratio measures a bank's capital in relation to the risk-weighted assets. It evaluates a bank's financial strength to sustain losses and maintain financial stability in an adverse situation. A higher ratio means good capital adequacy and financial position.

**Table 11:** The Past 10 Years' History of Capital Adequacy Ratio of Five Banks Is as Follows

Year	Bandhan Bank	State Bank of India	Bank of Baroda	ICICI Bank	Punjab National Bank
2024-25	18.71	14.25	17.19	16.55	17.01
2023-24	18.28	14.28	16.31	16.33	15.97
2022-23	19.76	14.68	16.24	18.34	15.9
2021-22	20.10	13.85	15.84	19.2	14.5
2020-21	23.47	13.74	14.99	19.1	14.3
2019-20	27.43	13.13	13.30	16.11	14.14
2018-19	29.20	12.72	13.42	16.89	9.73
2017-18	31.48	12.60	12.13	18.42	9.20
2016-17	0.00	13.11	13.17	17.39	11.66
2015-16	0.00	13.12	13.17	16.64	11.28
Average	18.843	13.548	14.576	17.497	13.369
S.D.	10.36812331	0.676177491	1.651630709	1.110369758	2.589901349
Minimum	0	12.6	12.13	16.11	9.2
Maximum	31.48	14.68	17.19	19.2	17.01

**Table 12:** Ranking of Banks on The Basis of Average Capital Adequacy Ratio

Name of Bank	Average Score	Rank
Bandhan bank	18.84	1
State bank of india	13.55	4
Bank of baroda	14.58	2
Icici bank	14.50	3
Punjab national bank	13.37	5

The Bandhan Bank had the highest average capital adequacy ratio, i.e. 18.84, whereas the Punjab National bank had the lowest capital adequacy ratio, i.e. 13.37.

Bandhan Bank had the strongest financial position to absorb the future loss and could sustain adverse financial conditions in the market. But the Punjab National Bank had the lowest capital adequacy ratio, i.e. 13.37, which denotes that the bank’s financial position is not too strong to tackle the adverse financial position. The maximum capital adequacy ratio during the study period was 31.48, which was attained by the Bandhan bank in the year 2017-18, and the minimum capital adequacy ratio during the period of study was 9.2, which was attained by the Punjab National Bank in the year 2017-18.

**Table 13:** Average ratios in summary

Dependent variable	Name of Banks				
	Bandhan Bank	State Bank of India	Bank of Baroda	ICICI Bank	Punjab National Bank
ROA	0.329	0.503	0.503	1.38	-0.123
Independent variable:					
ROE	13.094	8.902	4.015	11.292	-3.371
Net NPA	1.047	2.272	2.869	2.196	5.438
Growth of Deposit	40.692	13.256	9.881	16.145	12.925
Loan to Deposit	0.948	0.739	0.737	0.876	0.671
Capital Adequacy Ratio	18.843	13.548	14.576	17.497	13.369

**Table 14:** Linear regression model of five banks

Value	Name of bank				
	Bandhan Bank	State Bank of India	Bank of Baroda	ICICI Bank	Punjab National Bank
Dependent variable	Roa	Roa	Roa	Roa	Roa
Independent variable	Roe, net npa, growth rate of deposit, ldr, car	Roe, net npa, growth rate of deposit, ldr, car	Roe, net npa, growth rate of deposit, ldr, car	Roe, net npa, growth rate of deposit, ldr, car	Roe, net npa, growth rate of deposit, ldr, car
P-value	0.007	0.000 <sup>a</sup>	0.000 <sup>a</sup>	0.000 <sup>a</sup>	0.000 <sup>a</sup>
F-value	19.126	199.426	295.484	86.703	136.543
R-square value	0.960	0.996	0.997	0.991	0.994
Adjusted r-square	0.910	0.991	0.994	0.979	0.987
R-value	0.980	0.998	0.999	0.995	0.997
Std. Error of estimate	0.20644	0.03825	0.0493	0.09228	0.0907

- **Bandhan Bank:** Regression Model shows that there is a P value of 0.007, which is below the significant P value of 0.01, and the F value is 19.126, which is above the standard value of 2.5. That means the model is a good fit and independent variables have a significant influence on the dependent variables, i.e. ROA. The R-square value shows the proportion of the variance in the dependent variable that is predictable from the independent variables. A higher R-square value indicates a better fit of the model. Here, the R-square value is 0.960, which means that there will be a 96% change in the dependent variable due to a change in the independent variable. The standard error of the estimate is 0.20644, which is below 1. The independent variables i.e. ROE, Net NPA, Growth Rate of Deposit, LDR (Loan to Deposit Ratio), and capital adequacy Ratio have a significant influence on the dependent variable ROA.
- **State Bank India:** Regression Model shows that there is a P value of 0.000a, which is below the significant P value of 0.01 and the F value is 199.426, which is above the standard value of 2.5. That means the model is a good fit and independent variables have a significant influence on the dependent variables, i.e. ROA. A high F value denotes the high variability between the groups of variables. The R-square value

shows the proportion of the variance in the dependent variable that is predictable from the independent variables. A higher R-square value indicates a better fit of the model. Here the R-square value is 0.996, which means that there will be a 99.6% change in the dependent variable due to a change in the independent variable. The standard error of the estimate is 0.03825, which is below 1. The independent variables i.e. ROE, Net NPA, Growth Rate of Deposit, LDR (Loan to Deposit Ratio), and capital adequacy Ratio have a significant influence on the dependent variable ROA.

- **Bank of Baroda:** Regression model fits perfectly. The significant P-value and F-value are considered for determining whether the model is a good fit or not. The P-value <0.01 is considered best for fitting the model and the F-value <2.5 is considered significant. Here, the P-value is 0.000a (P <0.01) and the F-value is 295.484 (F>2.5). The R-square value denotes the percentage change in the dependent variable due to a change in the independent variable. High R-square indicates the better fit of the model. Here the R-square value is 0.997, which denotes the 99.7% change in the dependent variable i.e. ROA due to the change in the independent variables. The standard error of estimates is 0.0493 (Std. Error < 1) is considered good for the model.

- **ICICI Bank:** Linear regression model shows that the P value is 0.000a (P-value <0.01) and the F-value is 86.703 (F-value <2.5). The model is a good fit. The R-square value is 0.991, which denotes that there is a 99.1% change in the dependent variable, i.e. ROA due to the change in the independent variables. The standard error of estimates is 0.0928, which is much below the standard error of 1. The independent variables i.e. The ROE, NET NPA, and GROWTH RATE of DEPOSIT, LDR, and CAR have significant impact on the dependent variable ROA.
- **Punjab National Bank:** Linear regression model shows that the P value is 0.000a (P-value <0.01) and the F-value is 136.543 (F-value >2.5), which are considered a good fit for the model. The R-square value is 0.997, which indicates that there is a 99.7% change in the dependent variable, i.e. ROA due to significant change in the independent variables, i.e. ROE, NET NPA, and Growth Rate of Deposit, Ldr, And Car.

In the above-all regression model analysis, we can reject the null hypothesis because the earnings, asset quality, growth, liquidity, equity have significant influence on the financial performance of banks.

### Conclusion

We can conclude from the above analysis that—

1. The linear regression model of Bank of Baroda shows the best fit (R<sup>2</sup> value = 0.997, F-value = 295.484, P-value = 0.000a) followed by State bank of India, Punjab National Bank, ICICI Bank, Bandhan Bank.
2. The independent variables i.e. The ROE, Net NPA Ratio, Growth of deposit, Loan to deposit, and Capital Adequacy Ratio have a significant influence on the financial performance of banks, which is here measured by Return on Asset.
3. The financial performance of Punjab National Bank is not as good as other banks.
4. ROE, NET NPA, GROWTH OF DEPOSIT, and CAR are considered positive factors influencing the financial performance of the banks.
5. Bandhan Bank has the highest average ROE (i.e. 13.094) followed by ICICI Bank (11.292), State Bank of India (8.902), Bank of Baroda (4.015), and Punjab National Bank (-3.373).
6. Bandhan Bank has the highest average growth of deposits (I.e. 40592) followed by ICICI Bank (16.145), State Bank of India (13.256), Punjab National Bank (12.925), and Bank of Baroda (9.881).
7. Punjab National Bank has the highest average Net NPA ratio (i.e. 5.438) followed by Bank of Baroda (2.869), State Bank of India (2.272), ICICI Bank (i.e. 2.196), Bandhan Bank (i.e. 1.047).
8. In the case of average loan to deposit ratio, Bandhan Bank has the highest ratio i.e. 0.948, followed by ICICI Bank (0.876), State Bank of India (0.739), Bank of Baroda (0.737), and Punjab National Bank (0.671).
9. In the case of the Capital Adequacy Ratio, the Bandhan bank has the highest average CAR, i.e. 18.843, followed by ICICI Bank (i.e. 17.497), Bank of Baroda (i.e.14.576), State Bank of India (13.548), and Punjab National Bank (i.e. 13.369).

10. The Punjab National Bank has the lowest ROE, i.e. - 3.373, and the lowest ROA, i.e. -0.123, which are negative also. These are not good indicators of the financial performance of Punjab National Bank.

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