

RESEARCH

# Comparative financial performance analysis of commercial banks in India

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[0009-0001-5105-1196](https://orcid.org/0009-0001-5105-1196)**Received:** 17 November 2023; **Accepted:** 24 November 2023; **Published:** 08 January 2024

Commercial banks are financial institutions that perform the functions of accepting deposits from the general public and giving loans for investment with the aim of earning profit. These banks play a key role in the growth and development of an economy. In India, commercial banks are broadly classified into public sector commercial banks, private sector commercial banks, and foreign commercial banks. In the present study, the researchers have made an attempt to examine the financial performance analysis of public sector and private sector commercial banks in India. The study covers the top five public sector commercial banks and the top five private sector commercial banks. The study is based on secondary data extracted from books, journals, financial statements of the banks under study, and other websites. The study period is 5 years—from March 2019 to March 2023. Financial performance and Market capitalization parameters along with key banking ratios were used for the analysis and a judgmental sampling technique was used for selecting the sample.

**Keywords:** financial performance, private commercial banks, public commercial banks, ratio

## 1. Introduction

The banking sector is one of the essential elements in the financial system. India's financial system comprises public and private sector commercial banks. Commercial banks are classified as scheduled and nonscheduled banks, Indian and foreign banks, public sector banks, and private sector banks. The banking sector in India has a long history. Bank of Hindustan, the first bank in India was established in 1770. The year 1969 was important in the history of commercial banks in India. From the perspective of the global trends of banking and meeting the financial needs in India, financial sector reforms were presented in the wake of globalization and economic liberalization in India.

Several reforms were taken to improve the stability and efficiency of banks.

The empowering measures were intended to create an environment where banks could react ideally to market signals on the basis of commercial consideration while the strengthening measures aimed at reducing the vulnerability of banks in the phase of fluctuations in the economic environment. An institutional framework is needed for the conducive development of banks. There are tremendous changes occurred in the banking segment in terms of execution, particularly, in Indian banks, even after the 1991 reforms, public sector banks and private sector commercial banks have been playing a very important role in deposit mobilization and lending, however, the entry of private sector

and foreign banks has created a new environment of banking that required public sector banks to improve the functioning and performance in the competitive environment.

## 2. Literature review

Commercial banks are the backbone of any country. The banks play a crucial role because they act as a bridge between those who require finance and those who have the finance to invest in banks, but in a developing country, the habit of mobilizing the country's resources has been the biggest challenge in those days (Avneet Kaur, (1)). After introducing liberalization, privatization, and globalization in 1991, the significant changes had been formed in the banking sector. The financial performance of a bank is measured by a number of key indicators in quantitative terms; fundamental analysis, which aims at developing an insight into the economic performance of the business, is important from the viewpoint of investment decision (Gurpreet Kaur, (2)). The functions of the public sector commercial banks and private sector commercial banks have been playing a dominant role in the growth and development of a country. The results and trends show that NPAs of public sector banks are higher than private sector banks, but the t-test shows the results are not statistically significant (Chaitra, Vasu, (3)) High efficiency does not stand for high effectiveness in the Indian public sector commercial banks industry (Sunil Kumar, Rachita Gulati (4)).

## 3. Research methodology

The present study is based on secondary data. The various secondary sources of data used in the study were annual reports of the banks, websites, books, and journals. The sample size of the study is 10 banks including five public sector banks and five private sector banks. The sample was selected on the basis of market capitalization of the banks. The top five banks were selected under each category of banks. Judgmental sampling was applied for the sample selection. Descriptive statistics were used for the analysis and the one-way analysis of variance (ANOVA) test was used for testing the hypothesis.

## 4. Results or findings

**Table 1** shows the various profitability ratios of the banks under study.

It is found in the table that Kotak Mahindra Bank has the highest net profit margin ratio (30.02%), and it is followed by HDFC Bank with 24.71% and ICICI Bank with 19.86%. Punjab National Bank has the lowest net profit margin ratio (−1.518%).

According to the operating profit margin ratio, it is found that only HDFC Bank has a positive (4.13%) operating profit margin ratio, rest of the banks have a negative operating profit margin ratio. ICICI Bank has the least operating profit margin of −51.87%.

According to return on equity/net worth, HDFC Bank is leading the rest of the bank with 15.28% ROE, followed by Kotak Mahindra Bank with 12.61%, IndusInd Bank with 11.17% of return on net worth ratio. Punjab National Bank has the lowest ratio (−2.194%).

As per the retention ratio, Kotak Mahindra Bank has retained 99.21% of its profit hence leading all other banks. It is followed by Axis Bank (95.74%) and HDFC Bank (95.16%). Punjab National Bank has the least retention ratio of 89.26%. It could also be observed that all the banks under study have retained more than 80% of their profits.

It can be observed from **Table 2** that the highest growth of total interest earned (24.01%) is found with Union Bank of India and it is followed by Canara Bank (16.33%). State Bank of India has witnessed the lowest compound annual growth rate (CAGR; 8.48%) of the total interest earned.

According to the total operating expenses, it is found that Union Bank of India has the highest CAGR (31.49%) and is followed by Canara Bank with 28.46%; ICICI Bank has the lowest CAGR (6.43%).

According to net profit/loss for the year, State Bank of India led the rest of the bank with 107.19% CAGR, followed by Bank of Baroda with 91.72%.

It is found from **Table 3** that ICICI Bank has the highest net cash flow from operating activities (₹ 64,872.51 Cr.). It is followed by Axis Bank with ₹ 26,077.17 Cr; HDFC Bank, Bank of Baroda, and Punjab National Bank have negative net cash flow from operating activities.

## 3.1 Testing of hypotheses

*Hypothesis H<sub>0</sub>: There is no significant difference in the profit performance of the banks under study.*

As it is a parametric study, the researcher has used a one-way ANOVA test for testing the above hypothesis. The test was conducted at a 5% level of significance.

It is clear from **Table 4** that the calculated *F* values are greater than the respective critical values for all the parameters considered in the hypotheses, hence the calculated values are significant. Therefore, there is no proof to accept the hypothesis. Therefore, it is inferred that there is a significant difference in the profit performance of the banks under study.

## 5. Discussions

The current study is intended to analyze the financial performance of commercial banks operating in India.

**TABLE 1 |** Average profitability ratios of the banks.

Name of the Bank	Net Profit Margin (%)	Operating Profit Margin (%)	Return on Equity/Net Worth (%)	Retention Ratio (%)
HDFC Bank	24.71	4.13	15.28	95.16
ICICI Bank	19.86	-51.87	10.72	93.01
Kotak Mahindra Bank	30.02	-32.74	12.61	99.21
Axis Bank	11.22	-13.25	7.35	95.74
IndusInd Bank	15.29	-8.39	11.17	95.10
State Bank of India	9.064	-27.04	9.578	89.602
Bank of Baroda	6.256	-11.218	5.6	92.426
Punjab National Bank	-1.518	-16.954	-2.194	89.26
Canara Bank	4.34	-23.798	5.494	92.278
Union Bank of India	1.088	-16.832	0.48	90.248

Annual reports of the banks (5).

**TABLE 2 |** CAGR of total interest earned, total operating expenses, and net profit/losses of the banks.

Name of the Bank	Total Interest Earned (%)	Total Operating Expenses (%)	Net Profit/Loss for the Year (%)
HDFC Bank	12.88	16.79	19.74
ICICI Bank	13.88	6.43	56.88
Kotak Mahindra Bank	8.93	15.10	20.03
Axis Bank	11.77	25.31	21.09
IndusInd Bank	13.06	15.37	22.54
State Bank of India	8.48	13.40	107.19
Bank of Baroda	15.50	24.47	91.72
Punjab National Bank	13.60	20.12	NA
Canara Bank	16.33	28.46	NA
Union Bank of India	24.01	31.49	NA

Annual reports of the banks (5).

**TABLE 3 |** Average of net cash flow from operating activities.

Name of the Bank	Amount in ₹ (Crores)
HDFC Bank	-9,844.75
ICICI Bank	64,872.51
Kotak Mahindra Bank	12,099.58
Axis Bank	26,077.17
IndusInd Bank	8,470.32
State Bank of India	23,016.93
Bank of Baroda	-3,111.08
Punjab National Bank	-627.51
Canara Bank	6,601.42
Union Bank of India	11,043.72

Annual reports of the banks (5).

As per the data, there are 12 public sector commercial banks and 21 private sector commercial banks operating in India. 5 public sector commercial banks and 5 private sector commercial banks have been considered

**TABLE 4 |** One-way ANOVA  $\alpha = 5\%$ .

Source of Variation	SS	df	MS	F	p-value	F critical
<b>Net profit margin</b>						
Between groups	4806.18	9	534.02	11.50	0.00	2.12
Within groups	1857.79	40	46.44			
Total	6663.97	49				
<b>Operating profit margin</b>						
Between groups	10503.33	9	1167.04	15.66	0.00	2.12
Within groups	2981.12	40	74.53			
Total	13484.44	49				
<b>Return on Equity/Net worth</b>						
Between groups	1327.89	9	147.54	3.48	0.00	2.12
Within groups	1697.31	40	42.43			
Total	3025.20	49				

Author's compilation.

in the study. The private sector commercial banks considered under the study are HDFC Bank, ICICI Bank, Kotak Mahindra Bank, Axis Bank, and IndusInd Bank. The public sector commercial banks considered under the study are State Bank of India, Bank of Baroda, Punjab National Bank, Canara Bank, and Union Bank of India. Analysis made between the banks on the basis of net profit margin, operating profit margin, return on equity/net worth and retention ratio, Total Interest Earned, Total Operating Expenses, Net Profit/Loss for The Year, and Net Cash Flow from Operating Activities. The analysis was made on the basis of quantitative information. The study period is 5 years—from 2019 to 2023.

## 6. Results

1. It is clear from the study that Kotak Mahindra Bank has the highest net profit margin ratio (30.02%) and ICICI Bank with 19.86%. Punjab

National Bank has the lowest net profit margin ratio of  $-1.518\%$ .

2. It is found from the study that only HDFC bank has a positive operating profit margin of  $4.13\%$  and ICICI bank has the least operating profit margin of  $-51.87\%$ .
3. It could be observed in the study that returns on equity/net worth, HDFC Bank is leading the rest of the banks with  $15.28\%$  and Punjab National Bank has the lowest ratio with  $-2.194\%$ .
4. It is true from the study that the highest growth of total interest earned ( $24.01\%$ .) is found with Union Bank of India and State Bank of India has witnessed the lowest ( $8.48\%$ ) CAGR of total interest earned.
5. It could be observed in the study that net profit/loss for the year, State Bank of India led the rest of the bank with  $107.19\%$  CAGR, followed by Bank of Baroda with  $91.72\%$ .
6. It is true from the study that ICICI Bank has the highest net cash flow from Operating Activities ( $\text{₹ } 64,872.51 \text{ Cr.}$ ) and HDFC Bank, Bank of Baroda, and Punjab National Bank have negative net cash flow from operating activities.

## 7. Conclusion

The two public sector banks—State Bank of India and Punjab National Bank—are leading the entire banking industry with the highest amount of net profit earned by the banks. In terms of all the profitability ratios, none of the public sector banks are leading the private sector banks. Some of the top-performing private sector banks are Kotak Mahindra Bank, HDFC Bank, and ICICI Bank.

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