



Research Paper

A Comparative Analysis of Profitability of Selected Public and Private Banks in India

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Abstract

A strong and stable banking sector works as a base for the development of a nation's economy. The profitability of the banking sector is an important factor in analyzing the performance of banks. This research delves into the financial performance of a segment of both publicly and privately owned banks in India. This study utilizes data from the last five years, from 2019 to 2023, pertaining to six banks in India. In this investigation, we incorporate three state-owned banks and three privately owned banks selected according to their total assets. The data analysis is based on secondary data. This research compares the financial health of different banks using ROA and ROE metrics. The T-test, graphs, and mean value are used for comparative analysis. The present paper also provides insights for researchers, academicians, and professionals about the profitability of public as well as private banking sector. It was found that private banks generate greater profits than public banks.

Keywords: Profitability, Return on Assets, Return on Equity, Public Sector Banks, Private Sector Banks

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I. Introduction

A country's banking system is its backbone, supporting all other parts of the economy. An important part of India's economic growth is contributed by the country's banking industry. A wide variety of financial institutions, including public sector banks, private sector banks, foreign banks, and a great number of other banks, make up India's banking sector. The term "public sector" is used to describe financial institutions that are owned by the government of a country. Banks in the private sector are owned and run by private individuals. Throughout the past few years, the number of public sector banks has decreased to twelve as a result of numerous mergers. Meanwhile, a large number of new private banks have simultaneously entered the banking sector. Now public sector banks are facing severe competition from private banks, which leads to conducting this study to compare the profitability of selected public and private sector banks.

II. Review of Literature

Goel and Rekhi (2013) compared the earning ability of public sector banks and private sector banks of India for the period 2009-2012. The findings of the study indicate that public sector banks are not as profitable as private banks. Banks can improve their performance by focusing on ROA, ROE, and NIM. The authors discovered that the effectiveness of recently established banks surpasses that of longstanding banks.

Sheela and Bastray (2015) performed a comparative analysis to determine the relative influence of asset-liability management on the profitability of ICICI Bank and Union Bank of India from 2009 to 2014. It was found that both banks are profitable and maintain good capital adequacy, but facing problems with liquidity. Interest rate risk is a major concern for both banks. The Union Bank has a better ALM framework.

Patel and Bhanushali (2017) undertook a comparative assessment of the financial performance of privately owned and state-owned banks spanning from 2010 to 2015. This study reveals that both banks are profitable but nationalized banks face some challenges. The author suggested that these banks should try to control their expenses and should manage their resources efficiently.

Agarwal (2019) examined both public and private Indian banks with regard to their profitability; with the help of ROA, ROE, NIM, and operating profits for the period 2005-2017. The result of the study shows that due to the heavy burden of NPAs the public banks face deterioration in their profit. The results suggest that the financial standing of publicly owned banks is not as favorable as that of privately owned banks.

Rai (2020) examined and compared three banks from the public sector and three banks from the private sector from year 2016 to 2020. According to the research, public sector banks have all the necessary resources and have a vast customer base but their bad loans create barriers in the way of their efficient utilization of their resources. It is also observed that the non-performing assets of private banks have gone down in recent years. The author concluded that private banks' efficiency is more than public banks.

Mohanty (2021) examined ICICI Bank's and Indian Overseas Bank's financial results from 2017 to 2021. Given the results of the study, it can be concluded that ICICI Bank has good liquidity, profitability, and asset quality management. Therefore, ICICI Bank has outperformed the IOB in terms of financial performance.

Mathur (2022) evaluated the operating performance and financial returns of India's public and private banks. The research was conducted from 2016 to 2020. According to the results of this study, private banks are doing better financially than their public sector counterparts. Although private banks catered more to individual consumers, public banks primarily served corporations. Another finding is that public sector banks yield higher profits compared to private sector banks, which allows them to be more efficient.

Patra et al. (2023) evaluated the effectiveness of India's public and private banking systems. Research shows that government-run banks outperform their private sector counterparts in terms of efficiency. The author found that banks, whether public or private, are vulnerable to instability. Public bank efficiency is determined by the return on assets (ROA), capital, nonperforming assets (NPA), market share, and bank size, meanwhile, private bank efficiency is majorly affected by capital and returns on assets. The merger in public sector banks helps PSBs in attaining efficiency. The author suggests that Indian banks should keep adequate levels of capital to meet stressful situations.

Objective of the Study

- To carry out a profitability assessment of a selection of private and public sector banks operating within India.
- To conduct a comparative evaluation of the profitability of a subset of public and private sector banks.

Hypotheses of the Study

H01: There is no significant difference in the Return on Assets of selected public sector banks and private sector banks.

H02: There is no significant difference in the Return on Equity of selected public sector banks and private sector banks.

III. Data Analysis and Research Methodology

The study relies on secondary data gathered from various sources, including bank annual reports, scholarly journals, and the database of the Reserve Bank of India. The study encompasses the time span from 2019 to 2023. In this study, banks are selected based on their total assets in the financial year 2022-2023. Private banks consist of HDFC Bank, ICICI Bank, and Axis Bank, while public sector banks consist of the State Bank of India (SBI), Punjab National Bank (PNB), and Bank of Baroda (BOB). The assessment of banks' profitability involves computing Return on Assets (ROA) and Return on Equity (ROE). Comparisons of profitability between public and private banks are performed using the T-test, mean, and graphical representations.

Return on Assets (ROA)

Return on Assets is the net earnings earned on total assets.

Return on Assets (ROA) can be calculated as follows: $(\text{Net income} / \text{Total assets}) * 100$.

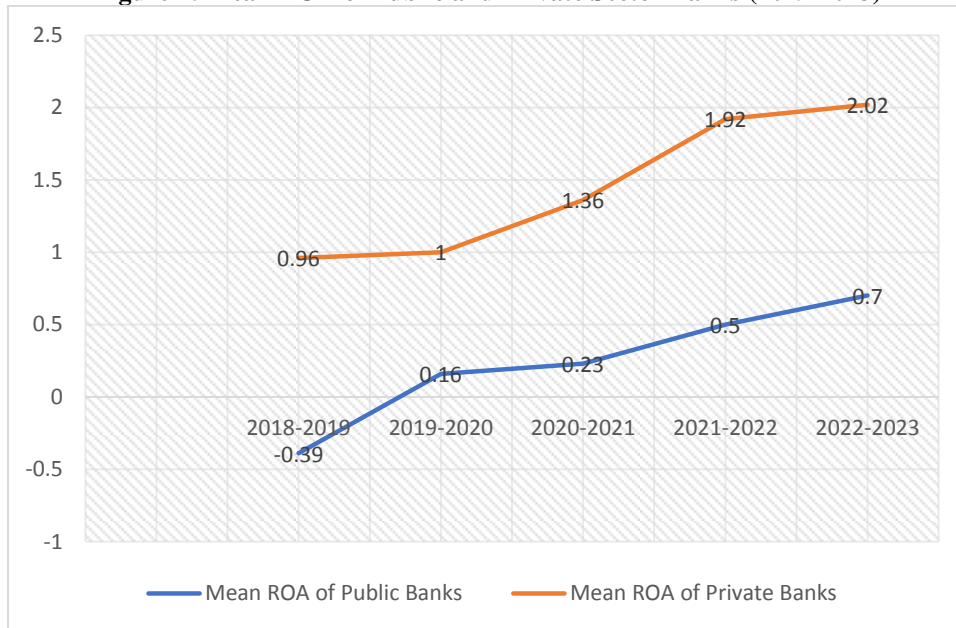
Table 1: Return on Assets (ROA) of selected Public and Private Banks (2019-2023)

Year	Public Sector Banks				Private Sector Banks			
	SBI	PNB	BOB	Mean	HDFC Bank	ICICI Bank	AXIS Bank	Mean
2019	0.02	-1.25	0.06	-0.39	1.9	0.34	0.63	0.96
2020	0.38	0.04	0.05	0.16	2	0.81	0.2	1.00
2021	0.48	0.15	0.07	0.23	2.0	1.42	0.7	1.36
2022	0.67	0.26	0.57	0.50	2.7	1.84	1.21	1.92
2023	0.96	0.18	0.97	0.70	2.07	2.16	1.82	2.02

Source: Annual Report of Banks

The analysis of Table 1 reveals that a subset of public banks exhibited a negative mean ROA in the year 2019. It started increasing in 2020 and there was continuous improvement in the ROA of all PSBs till 2023. The private sector banks' ROA continuously increased throughout the years. In the past five years, it has been observed that the average ROA of a subset of private banks has been higher than that of public sector banks. It shows that private banks are earning more on total assets than public banks.

Figure 1: Mean ROA of Public and Private Sector Banks (2019-2023)



Source: Author's compilation

The aforementioned graph illustrates the Return on Assets exhibited by private sector banks. It is always positive with an increasing trend. Meanwhile, the ROA of public sector banks was negative in 2019, after that, it also showed improvement over the years, but the ROA of all selected PSBs was lower than the selected private banks.

Table 2: t-test

	Mean Return on Assets (Public Banks)	Mean Return on Assets (Private Banks)
Mean	0.24	1.452
Variance	0.1707	0.2491
Obs	5	5
df	4	
t Statistics	-11.5802	
P(T<=t) two-tail	0.0003	
t Critical two-tail	2.7764	

Source: Author's compilation

From the above table 2, it is found the mean of public sector banks is less than that of private banks. The t value (0.0003) is less than 0.050, hence the null hypothesis H0 is rejected. It indicates that there is a substantial difference in the Return on Assets of both public banks and private banks.

Return on Equity (ROE)

This metric assesses the proportion of net income relative to shareholders' equity. Return on Equity (ROE) is calculated as follows: Profit after tax/ Total equity.

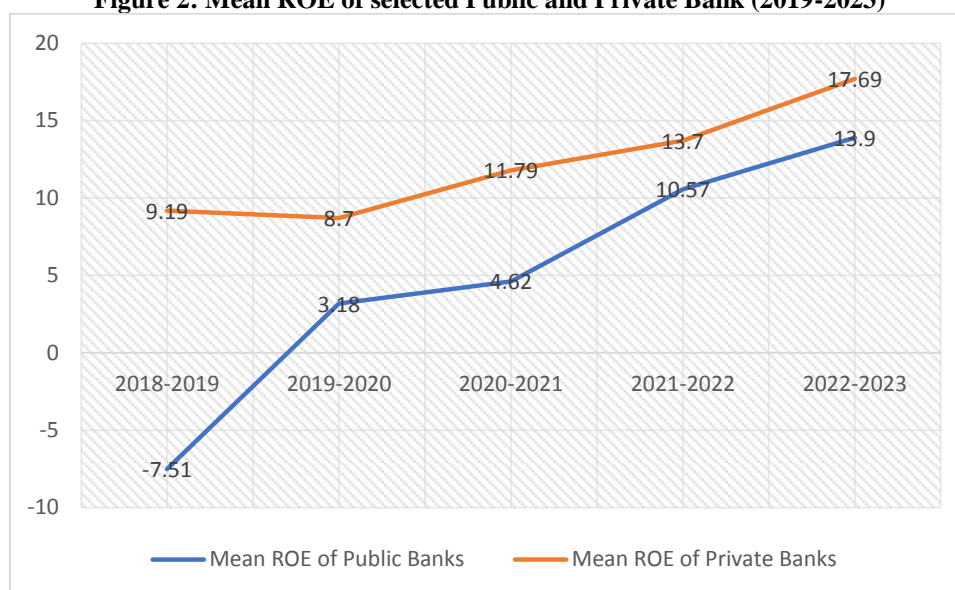
Table 3: Return on Equity (ROE) of selected Public and Private Banks (2019-2023)

Year	Public Sector Banks				Private Sector Banks			
	SBI	PNB	BOB	Mean	HDFC Bank	ICICI Bank	AXIS Bank	Mean
2019	0.48	-24.2	1.18	-7.51	16.3	3.19	8.09	9.19
2020	7.74	0.58	1.23	3.18	16.76	6.99	2.34	8.70
2021	9.94	2.41	1.5	4.62	16.6	11.21	7.55	11.79
2022	13.92	5.96	11.82	10.57	13.4	14.8	12.91	13.70
2023	19.43	3.94	18.34	13.90	17.4	17.3	18.38	17.69

Source: Annual Report of Banks

It can be seen from the table above that the average Return on Equity of a subset of public sector banks was negative in 2019. It shows an increasing trend from the year 2020 onwards. The mean ROE of all three PSBs reach 13.90% in 2023. The ROE of selected private sector banks was always positive and showed a continuous increase till 2023. The mean ROE of selected public banks was less than all three selected private banks throughout the study.

Figure 2: Mean ROE of selected Public and Private Bank (2019-2023)



Source: Author's compilation

It can be seen from the graph above that over the past five years, the Return on Equity of a subset of private banks has consistently exceeded that of a subset of public banks. The Public banks showed negative ROE in 2019 while Private banks always have positive ROE.

Table 4: t-test

	Mean Return on Equity (Public Banks)	Mean Return on Equity (Private Banks)
Mean	4.952	12.214
Variance	67.5451	13.4668
Obs	5	5
df	4	
t Statistics	-2.9494	
P(T<=t) two-tail	0.0420	
t Critical two-tail	2.7764	

Source: Author's compilation

From the above table it is depicted that the average value of chosen private sector banks significantly exceeds that of the public banks. Given that the t value (0.042) is smaller than 0.050, hypothesis H02 is rejected. This indicates a substantial disparity in the ROE of a subset of public and private banks.

IV. Conclusion

This study investigates and contrasts the financial performance of specific public banks, namely State Bank of India, Punjab National Bank, and Bank of Baroda, alongside private banks such as HDFC, ICICI, and Axis Bank. The analysis of Return on Assets exhibits that private banks are more earning on their assets as compared to public banks. Meanwhile, the ROE of private banks during the last five years surpasses the ROE of public banks. The HDFC Bank attained the highest ROA and ROE during the study period among all selected banks. Thus, it can be concluded that relative to public-sector banks, private-sector banks exhibit superior profitability. The profitability of public sector banks is impaired by the heavy burden of NPAs and inefficiency in managing the operations. The author suggests that public sector banks should utilize their strength in the efficient management of banking operations and try to reduce the burden of NPAs. However, this study is limited to only three public and three sector banks, and only two profitability indicators namely ROA and ROE are utilized. Further researchers can include other variables along with more banks.

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