Sudarshan Research Journal
Volume – 1, Issue - 8, December-2023
ISSN No: 2583-8792
Impact Factor: 3.179 (SJIF)

NAVIGATING FINANCIAL WATERS: A COMPARATIVE ANALYSIS OF PROFITABILITY RATIOS IN THE BANKING SECTOR

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Abstract

The profitability of the banking industry is a key metric for assessing the industry's health and effectiveness, which affects economic growth and stability. The profitability of a sample of banks is examined in this study between 2019 and 2023, with an emphasis on important indicators such as return on capital employed (ROCE) and net interest margin (NIM). The study looks for trends and patterns in these measures to determine the fundamental causes affecting bank profitability throughout this time. The findings of this study have important ramifications for depositors, investors, and legislators. This study intends to direct policy actions, improve depositor confidence, and inform investment decisions by offering insights into bank performance and the factors influencing profitability. The goal is to promote a stable and successful banking system. The research findings will also serve as a foundation for further studies in this area and add to the body of knowledge already available on bank profitability.

KEYWORDS: Banking, Financial, Industry, Performance, Profitability.

I. INTRODUCTION

Any economy is supported by the banking sector, which acts as the main conduit for money moving from savers to borrowers and fostering economic expansion. Well-run banks facilitate loan flow and support essential activities like commercial initiatives, infrastructure projects, and personal needs. Banks must be profitable and in good financial standing in order to fulfil this essential job. For a variety of stakeholders, including investors, depositors, and legislators, to

evaluate the overall health and performance of banks, a thorough financial analysis is necessary. Financial analysis has historically concentrated on a number of factors of bank performance, such as solvency, liquidity, and risk management. Profitability, however, sticks out as being an important indicator of a bank's efficacy and efficiency. Profitability ratios, which are obtained from a bank's financial statements, provide important information about how profitable the bank's operations are. These ratios offer a straightforward and uniform method for evaluating performance over time and among various institutions. By examining and contrasting profitability ratios for a sample of banks from 2019 to 2023, the study seeks to close this gap. Important profitability indicators for banks, such as net interest margin (NIM) and return on capital employed, will be included in the research. We can learn more about the variables affecting the sample bank's profitability by looking for Trends and patterns in these ratios.

II. REVIEW OF LITERATURE

- **Bhattacharya and Das (2014)** examined the effects of board qualities (expertise, independence) and ownership structure (public vs. private) on the efficiency and profitability of Indian banks. According to their findings, private banks typically do better than their public sector counterparts in terms of profitability and efficiency when their board members are more independent and experienced.
- **Chadha and Sharma (2015)** investigated the factors that affect Indian banks' profitability. According to their analysis, the profitability of Indian banks is highly impacted by both macroeconomic variables like GDP growth and inflation as well as bank-specific characteristics like size, capital adequacy, and asset quality.
- **Mohanty (2015)** studied the factors that affect the profitability of Indian banks in both the public and private sectors. The study revealed significant distinctions and parallels between the performance drivers of these two cohorts, elucidating the distinct obstacles and prospects encountered by every industry.
- **Gupta and Kaur (2016)** examined the disparities in performance between Indian banks operating in the public and private sectors. According to their analysis, ownership structure has a significant impact on a bank's profitability, efficiency, and risk-taking tendencies, with private sector banks typically outperforming their public sector counterparts.

- **Ghosh (2017)** emphasized the negative impacts of non-performing assets (NPAs) on Indian commercial banks' overall viability and profitability. In order to lessen the negative effects on bank performance and financial health, the study emphasized the necessity of appropriate NPA management measures.
- **Kumar and Sharma (2017)** evaluated the impact of capital adequacy ratios on Indian banks' profitability. Their research made clear how crucial it is to keep adequate capital reserves on hand to cover losses and maintain stability, particularly during recessions or financial crises.
- **Mishra and Sahoo (2017**) assessed how the Basel III regulatory regime will affect Indian banks' profits. Based on stricter risk management guidelines and higher capital requirements, Basel III has improved the resilience and stability of Indian banks, but it has also negatively impacted profitability.
- **Jones and Brown (2017)** examined how return on equity (ROE) in the banking industry is used to quantify the production of shareholder value. The significance of ROE as a criterion for evaluating the profitability of shareholder investments was emphasized by their study, wherein higher ROE values signify superior returns to equity holders.
- **Singh and Kaur (2018)** investigated the connection between financial inclusion programs and Indian banks' stability and profitability. According to their results, financial inclusion carries some dangers that must be properly managed even though it can ultimately lead to long-term profitability and stability.
- **Smith et al. (2018)** carried out research on the evaluation of asset usage in banks, concentrating on return on assets (ROA) as an efficiency metric. According to their research, ROA offers information about how well banks use their assets to turn a profit; greater ROA values are indicative of superior asset management techniques.
- **Reddy (2018)** carried out a thorough analysis of the numerous banking sector reforms that India has enacted over the previous few decades. The performance and stability of Indian banks were examined in relation to the consequences of liberalization, deregulation, and consolidation. Reddy discovered that although these changes have boosted competition, improved access to financial services, and increased efficiency, they have also brought forth new difficulties, such as risk management and guaranteeing financial inclusion for all facets of society.

- **Gupta and Singh (2019)** investigated the connection between bank financial stability and return on capital employed (ROCE). According to their research, ROCE is a crucial factor in determining financial stability, and greater ROCE values indicate sustainable profitability and effective use of resources.
- **Kaur and Singh (2019)** show that having more independent directors on the board can have a positive impact on financial results, highlighting the significance of board composition in improving bank performance.
- **Sharma et al. (2020**) highlighted the significance of net profit margin as a crucial metric for assessing the profitability and operational effectiveness of banks. The argument put forth was that an increased net profit margin signifies superior cost control and revenue production skills, signifying overall sound financial standing.
- **Patel (2020)** examined how Non-Banking Financial Companies (NBFCs) are becoming more and more significant in the Indian financial system. The study looked at the wide range of services that NBFCs provide, how they affect financial inclusion, and how much credit growth they contribute to. Patel's study brought to light the necessity of suitable regulatory frameworks to guarantee the stable and effective operation of NBFCs, considering their growing significance in the financial sector.
- **Srivastava and Kapil (2021)** emphasized the importance of adopting technology in improving customer satisfaction and performance, stressing the necessity of ongoing innovation and investments in digital infrastructure to be competitive in the changing banking market.

III. RESEARCH GAP

Although previous research has concentrated on individual profitability indicators, comparison analyses combining many banks are less well-documented. This study aims to bridge this research gap by conducting a comprehensive assessment of profitability ratios among specific banking sector firms during a predetermined time period.

IV. OBJECTIVES OF STUDY

A. Evaluate the financial performance of banks based on profitability ratios.

B. Identify differences in profitability ratios among banks.

C. Provide recommendations for enhancing financial performance based on the analysis.

V. RESEARCH METHODOLOGY

A. DATA COLLECTION:

Secondary data from publicly available financial reports of banks from Year 2019 to 2023 are collected.

B. SAMPLE SELECTION:

A sample of banks is selected based on availability of financial data and representation across different banking sectors.

C. CALCULATION OF PROFITABILITY RATIOS:

Net profit margin and ROCE are calculated for each bank using standard formulas.

a. Net Profit Margin (NPM):

A crucial profitability measurement in the banking industry, net profit margin (NPM) indicates the proportion of a bank's overall revenue that is converted to net profit. It basically shows how well a bank converts its income into real profit after deducting all costs.

- **Net Profit:** The amount of profit the bank has left over after deducting all costs, such as interest, operational, tax, and bad loan provisions.
- **Total Revenue:** This includes all the money a bank makes from both its main and side businesses. Commission income, fees from different services like account management or money transfers, and interest income from loans are examples of core revenue streams. Income from foreign currency transactions or securities trading may be considered non-core revenue.

Formula: NPM is calculated using the following formula:

NPM = (Net Profit / Total Revenue) * 100%

b. Return on Capital Employed (ROCE):

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The profitability ratio known as return on capital employed, or ROCE, gauges how well a bank uses its capital to produce profits. In essence, it evaluates the profit a bank makes on each rupee of capital it uses. Here is how ROCE is broken down.

- **Return on Capital Employed (ROCE):** The percentage of return on the capital that the bank uses are represented by this.
- **Capital Employed:** This is the entire amount of money that a bank utilizes to finance its activities. Usually, the calculation involves deducting total assets from current liabilities, or short-term loans.
- **Formula:** ROCE is calculated using the following formula:

ROCE = (Earnings before Interest and Taxes (EBIT) / Capital Employed) * 100%

A higher ROCE is a sign of a bank's efficiency in making money of its capital. It suggests that the bank is deploying its resources wisely and earning substantial returns on its investments. Conversely, a lower ROCE can suggest that strategies for capital allocation or profitability creation need to be strengthened.

VI. DATA ANALYSIS & INTERPRETATION

A. Net Profit Margin (NPM):

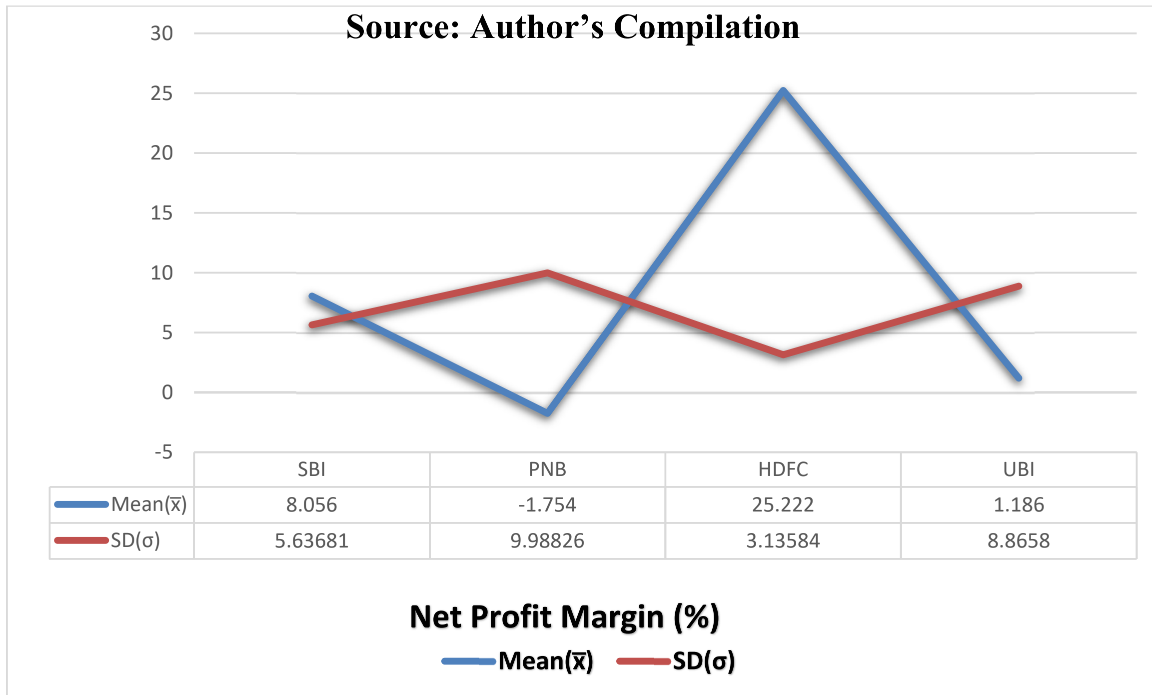
Table 1: Net Profit Margin (%)

	BANKS			
YEAR	**SBI**	**PNB**	**HDFC**	**UBI**
2019	0.35	-19.44	21.29	-8.65
2020	5.63	0.62	22.86	-7.78
2021	7.69	2.5	25.74	4.22
2022	11.49	4.61	28.93	7.7
2023	15.12	2.94	27.29	10.44
Mean($\bar{x}$)	**8.056**	**-1.754**	**25.222**	**1.186**
SD(σ)	**5.63681**	**9.98826**	**3.13584**	**8.8658**

C.V(%)	69.9703	-569.46	12.4329	747.538

Source: https://www.moneycontrol.com/

Figure 1: Net Profit Margin



Source: Author's Compilation

Above table 1 and figure I show that the net profit margins (NPM) for the four banks—SBI, PNB, HDFC, and UBI—during a five-year span (2019–2023). A crucial financial indicator, net profit margin (NPM) expresses a bank's profitability as a percentage of total revenue.

a. Interpretation:

• **HDFC Bank**: Displaying excellent financial performance, this bank is consistently the most profitable, with an average NPM of 25.22%.

• **SBI Bank:** Shows a consistent rise in profitability over the course of the next five years, with a 2023 figure of 15.12%.

• **UBI Bank:** Made great progress, going from negative to positive net profit margin, although it still has the lowest average net profit margin—1.19%.

• **PNB Bank:** Performance is erratic, showing both positive and negative NPMs. 2019's negative NPM suggests significant losses.

PNB's varying profitability around a negative mean is shown in its negative C.V. The exceptionally high C.V. of UBI indicates a significant level of risk and uncertainty, whilst the low C.V. of HDFC indicates steady and predictable performance.

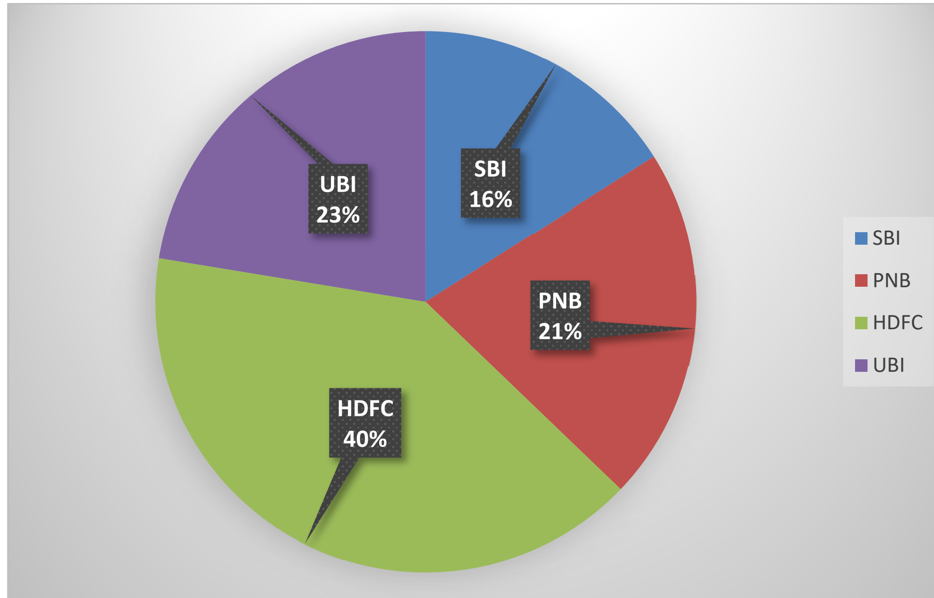
B. Return on Capital Employed (ROCE):

TABLE2: RETURN ON CAPITAL EMPLOYED (%)

	BANKS			
YEAR	**SBI**	**PNB**	**HDFC**	**UBI**
2019	0	1.7	3.34	1.54
2020	1.79	1.8	3.33	1.7
2021	1.64	1.85	3.42	1.85
2022	1.42	1.61	3.22	1.89
2023	1.59	1.57	2.97	2.05
Mean($\bar{x}$)	**1.288**	**1.706**	**3.256**	**1.806**
SD(σ)	**0.73203**	**0.11971**	**0.17501**	**0.19398**
C.V(%)	**56.8347**	**7.01688**	**5.37513**	**10.7411**

Source: https://www.moneycontrol.com/

Figure 2: Return on capital employed



Source: Author's Compilation

Table 2 and Figure 2 shows the four banks' return on capital employed (ROCE) for a five-year period (2019–2023): SBI, PNB, HDFC, and UBI. A key financial measurement that assesses a business's profitability and capacity to turn a profit with the capital it uses is called return on invested capital (ROCCE).

b. Interpretation:

• **HDFC Bank:** Showing excellent financial performance, it consistently uses its capital the most efficiently, keeping the greatest average ROCE of 3.26%.

• **PNB & UBI Bank:** Throughout the period, both banks show a very consistent ROCE, with PNB marginally outperforming UBI.

• **SBI Bank:** Displays a varying ROCE that peaks in 2020 and then starts to drop.

Compared to HDFC and PNB, whose performance is stable, SBI's performance is more prone to volatility, as indicated by its higher C.V.

VII. SUGGESTION

The recommendations for each bank based on the findings are as follows:

A. **PNB and UBI:** should prioritize enhancing their profitability and mitigating volatility. It is essential to analyze the variables causing these oscillations and put corrective action

plans in place. These banks can strive to raise their ROCE while maintaining stability by refining their capital structure and investigating novel approaches to boost earnings. To accelerate expansion, they can also think about branching out into new product categories or markets.

B. **HDFC:** should strive to sustain its robust performance by consistently assessing its operations and making necessary adjustments in response to market shifts. should seek to keep up its impressive performance by concentrating on its core competencies and looking into fresh chances for expansion. To reduce any risks, it can also think about diversifying its line of business.

C. **SBI:** Maintain its current rate of growth by seeing and seizing market opportunities. must concentrate on bringing its ROCE under control and figuring out what's driving the swings. It could be useful to examine capital allocation strategies and operational efficiency.

VIII. CONCLUSION

The report highlights both the banks' strong features and areas for improvement while providing relevant information about the relationships and financial performance of banks. By implementing the recommendations, banks may enhance their financial performance and contribute to the sustainable growth of the banking sector.

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