A Comparative Analysis of the Financial Ratios of the selected private sector Banks in India for the period of 2019-20 to 2021-22

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Abstract

This research paper provides an in-depth comparative analysis of the financial ratios of four prominent private sector banks in India - HDFC Bank, Yes Bank, IDFC First Bank, and Bandhan Bank - from 2019-20 to 2021-22. The study focuses on key financial metrics that include liquidity ratios, efficiency ratios, profitability ratios, and capital ratios, and uses DuPont analysis to better understand the financial performance of these banks. Looking at these financial indicators, the study aims to identify trends and differences in the performance of the selected banks. The results of the study reveal nuances in the financial performance of these banks, providing stakeholders with detailed perspectives for strategic decision-making. In addition, applying DuPont analysis will help in a better understanding of banks' return on equity (ROE) and break down its drivers - profit margins, investment turnover, and equity ratios.

Keywords: Liquidity Ratio, Capital Ratio, Profitability Ratio, Efficiency Ratio and DuPont Analysis

1. INTRODUCTION

The banking sector is the cornerstone of any economy, providing essential financial intermediation services that contribute to economic growth and development. The banking sector in India consists of various entities including public-sector banks, private-sector banks, cooperative banks, and foreign banks. This study focuses on private sector banks, which are known for competition, technological development, and flexibility according to market demands. In this sector, private sector banks play an important role in promoting competition, innovation, and efficiency. As key players in the financial world, the activities of these banks have significant implications for stakeholders, investors, regulators, and policymakers. These banks have excelled in leveraging technology to deliver the best customer experience while significantly contributing to economic development. Indicators have long been the main tools for assessing the financial condition and operational efficiency of banks. Key performance indicators selected for this analysis include key performance aspects such as liquidity, profitability, and efficiency. Examining these metrics provides a comprehensive view of how selected banks have dealt with economic fluctuations, regulatory changes, and competitive pressures over a given three-year period.

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2. LITERATURE REVIEW

Rohit Bansal (2014) The paper analyzed the financial performance of four major Dr. Sanjay Shinde looks at the financial performance of five public sector banks (PSBs) and five private sector banks (Pvt.) in India from 2010 to 2019. To evaluate the banks' profitability, liquidity, and effectiveness, the authors employ a range of financial ratios. According to the study's findings, private banks outperformed public sector banks in terms of efficiency, profitability, and liquidity. The Pvt. banks had greater net interest margin (NIM), return on equity (ROE), and return on assets (ROA). Additionally, their capital adequacy ratios (CAR) and non-performing assets (NPAs) were lower.

Dr. M Dhanabhakyam and C Karthick (2016) The research paper "Performance Evaluation of select public and Private Sector Banks in India- A Comparative Study" by Dr. M. Dhanabhakyam and C. Karthick examines the financial performance of selected PSBs and Pvt. banks in India from 2005 to 2014. The profitability, liquidity, and investor valuation of the banks are evaluated by the writers using a number of financial ratios.

G. Gabriel Prabhu & G. Chandrasekaran (2015) Economic progress depends on the banking industry. India has a sizable network of bank branches that offer a range of financial services. The largest public sector bank in India is the State Bank of India (SBI), and ICICI Bank is the second-largest private sector bank. Using ratios like credit deposit and net profit margin, this study analyzes the financial performance of SBI and ICICI Bank from 2009–10 to 2013–14. The analysis concluded that while ICICI Bank managed deposits and expenses more effectively than SBI, SBI was functioning better financially overall. Overall, ICICI Bank manages its deposits and expenses more effectively than SBI, although SBI is a more financially stable bank.

Dr. Adeel Maqbool, Wajiha Alim (2022) This study compared the performance and efficiencies of two of India's largest banks, State Bank of India and State Insurance Corporation of India, in the public and private sectors, respectively. It employed three metrics to assess the performance of the two banks: profitability ratios (RATs), solvency ratio (RATs) and management efficiency ratio (MORs). The results of the study indicated that both banks were adhering to the necessary standards and operating profitably. Nevertheless, there were considerable discrepancies between the two banks in terms of deposit, advances, investment, net profit and total assets, mainly due to the fact that SBI had a more extensive operation compared to ICICI. The analysis and interpretation of financial statements is essential in order to gain an understanding of a firm's profitability and financial standing.

Ch. Satyanarayana and Sonali Gopal Kale (2022) A fundamental technique in financial analysis, ratio analysis allows for a detailed investigation of the minute details included in financial statements like income and balance sheets. These financial ratios are extremely useful for banks since they provide accurate information about their financial health. Ratios offer a comprehensive understanding of an organization's financial soundness by highlighting the complex links between different financial statement components. These ratios also offer a number of noteworthy benefits. First of all, they make comparison analysis easier, allowing companies to track their financial path over time and identify patterns of expansion or contraction. Second, ratios help with risk assessment by giving banks crucial information about the financial leverage and possible risk exposure of a business. Thirdly, these ratios offer crucial insights that make them necessary for decision-making processes.

Sumeet Gupta and Renu Verma (2008) Under Narasimha Rao's leadership, the Indian government enacted liberalization measures in the early 1990s, licensing a small number of private banks known as "New Generation" tech-savvy institutions. This action, together with India's explosive economic expansion, fundamentally changed the banking industry. During this time, notable institutions including HDFC Bank, ICICI Bank, and UTI Bank (now Axis Bank) formed. Significant contributions to the business came from international, commercial, and government banks. Following this, there have been suggestions to loosen regulations governing foreign direct investment, which might give foreign investors more voting power in banks than the current 10% maximum. This change in policy upended traditional banking practices and opened the door for more contemporary, technologically advanced procedures. India saw a retail boom as a result, which changed consumers.

Ruzuta Shah, Dr. H. A. Hasan (2022) This report on banking institutions gives a thorough overview of the difficulties in identifying banks due to their range of functions and changing forms. A uniform definition of banks is impractical since different authors have provided various interpretations of banks based on their unique roles. With 46 commercial banks vying for customers against foreign, rural, and cooperative lenders, it is clear that competition in India's banking business is severe. State-owned banks dominate the market, and programs like Pradhanmantri Jan Dhan Yojna (PMJDY) have significantly raised the number of accounts and deposits. According to Standard & Poor's, there are also bullish predictions for credit growth in the Indian banking sector, with estimates ranging from an increase of under 10% in the second half of CY14 to 12-13% in FY16. This content emphasizes how difficult it is to define banks and how dynamic the banking industry is, especially in the Indian setting where state-owned institutions are important and where prospects for expansion are there.

Cheenu Goel, Chitwan Bhutani Rekhi (2013) This article emphasizes the crucial function of banks as important financial intermediaries that make it easier for savers to move money to people who are investing in physical assets like homes, machinery, and industries. In addition to promoting greater economic efficiency and a higher standard of life for society as a whole, it highlights the beneficial effects of financial intermediaries on the welfare of investors and savers. Furthermore, it is acknowledged that the banking industry is a crucial source of financing for companies, contributing significantly to stable prices, strong employment rates, and vigorous economic growth. Banks make money available to meet the different demands of people, companies, and the government, which in turn helps the flow of products and services and the operation of government functions. Through their deposit mobilization and lending activities, commercial banks in particular are highlighted as crucial participants in the implementation of a nation's monetary policy. They successfully manage optimal money to encourage capital development and wealth growth.

3. RESEARCH STATEMENT

This study examines the financial results of four significant Indian private sector banks from 2020 to 2022: HDFC Bank, Yes Bank, IDFC First Bank, and Bandhan Bank. The study evaluates the banks' liquidity, effectiveness, profitability, and leverage using a range of financial criteria. The study's findings highlight subtleties in these institutions' financial performance, giving stakeholders rich views for making strategic decisions. In addition, DuPont analysis is used in the study to clarify the factors that influence these banks' return on equity (ROE).

4. OBJECTIVES

I. To evaluate the four banks' financial performance over a three-year period. This will be accomplished by examining a range of financial factors, such as profitability ratios, liquidity ratios, capital ratios, and activity ratios.

II. To identify the strengths or weaknesses of the selected banks and making an informed choice regarding which bank will be more profitable to invest for present and potential investors.

III. To compare the operational efficiency of the selected banks and to decompose the different drivers of return on equity.

IV. To offer suggestions on how banks can enhance their financial performance going forward. This might involve suggestions for raising profitability, enhancing liquidity, lowering risk, and boosting performance.

5. RESEARCH METHODOLOGY

I. **Data collection:** The study is based on secondary data which is the annual reports of the selected four banks for the fiscal years 2019-20 to 2021-22. The banks' Financial statements related to the above periods were used to retrieve the data.

II. **Tools used for analysis:** Financial ratios such as profitability ratios, capital ratios, liquidity ratios, and efficiency ratios were all calculated using the data. These ratios were employed to evaluate the banks' three-year financial performance.

III. **Comparative analysis:** The financial ratios of the four banks were compared to each other through Dupont Analysis to identify the strengths and weaknesses of each bank. The analysis also looked at the trends in the financial ratios over the three-year period.

IV. **Discussion:** The analysis's findings were thoroughly explored. The main conclusions of the study were highlighted, along with their ramifications for the Indian banking industry.

6. LIMITATIONS OF THE STUDY

Limited Time Horizon: The research spans the years 2020 to 2022. The financial performance of the banks may be impacted by longer-term trends or cyclical patterns that a three-year period may not be able to represent. Additionally, the time frame selected could not be long enough to thoroughly evaluate the effects of outside economic shocks or regulatory changes**.**

External Factors: The research may not take into account geopolitical developments, industry trends, regulatory changes, or other macroeconomic factors that could have a substantial impact on the bank’s financial performance. The inability to attribute observed patterns to the banks' internal operations alone may result from ignoring these elements.

Dynamic Nature of Ratios: Financial ratios can be affected by a wide range of variables, and their interpretation might vary based on the analysis's particular context and goals. The results might be overly straightforward or deceptive without a thorough understanding of the underlying causes of ratio changes.

DuPont Analysis Assumptions: DuPont analysis breaks down ROE into its constituent pieces but presupposes a linear relationship between them. The linkages between profit margins, asset turnover, and equity ratios can really be quite complex, and our analysis may not have adequately accounted for them.

7. PROFILE OF BANKS

HDFC Bank

Indian banking and financial services provider HDFC Bank Limited has its corporate office in Mumbai. Following its acquisition of parent firm HDFC, it is the fourth-biggest bank in the world by market capitalization and the largest private sector bank by assets in India as of July 2023. With a $172 billion market capitalization on the Indian stock exchanges, it ranks as the second-largest business. With almost 1.78 lakh employees, it ranks as India's sixteenth largest employer.

Yes Bank

Yes Bank Ltd. is a provider of retail and corporate banking services as well as other financial products. The company provides a variety of accounts, cards, loans, deposits, privilege banking, NRI services, cash management, trade finance, merchant acquisition, institutional banking, agri banking, and digital banking products. The capital market, transactions banking, treasury, and risk management solutions are all offered by Yes Bank. They also offer mergers, acquisitions, and capital advising services. Additionally, it offers solutions for asset management, bancassurance, brokerage, and wealth management. Through a representative office in Abu Dhabi, the bank also provides services to institutional, corporate, high-net-worth, MSMEs, retail, and Zhome base for Yes Bank.

IDFC FIRST Bank

An Indian non-bank financial company called Capital First and the banking division of Infrastructure Development Finance Company came together to form IDFC FIRST Bank, a private sector bank in the country. It is the first universal bank to provide lifetime free credit cards with flexible and cheap annual percentage rates, as well as monthly interest credit on savings accounts.

Bandhan Bank

Bandhan Bank Ltd. is a banking and financial services organization with its headquarters in Kolkata. With 6,140 banking locations and 3.07 crore customers, Bandhan Bank is present in 34 of the country's 36 states and union territories. Bandhan Bank began operating on August 23, 2015, with 501 branches, 50 ATMs, and 2,022 Banking Units (BUs), after receiving the universal banking license from the Reserve Bank of India. By June 30, 2023, the Bank had mobilized deposits worth 1,08,479 crore, and its total advances were worth 1,03,168 crore.

8. Selected Financial Ratios used for the research are:

The following financial ratios are applicable for the banking sector to conduct financial analysis of the banks:

8.1. PROFITABILITY RATIO

- Return on assets (ROA): This ratio measures how efficiently a bank uses its assets to generate profits. It is calculated by dividing net income by total assets. A higher ROA indicates that a bank is more profitable.

  Return on assets (ROA): ROA = Net income / Total assets

  Ideal ratio: 1% or higher

- Return on equity (ROE): This ratio measures how efficiently a bank uses its equity to generate profits. It is calculated by dividing net income by total equity. A higher ROE indicates that a bank is more profitable for its shareholders.

  Return on equity (ROE): ROE = Net income / Total equity

  Ideal ratio: 10% - 12%

- Net interest margin (NIM): This ratio measures the difference between the interest income that a bank generates from its loans and investments and the interest expense that it pays on its deposits and borrowings. A higher NIM indicates that a bank is more profitable.

  Net interest margin (NIM): NIM = (Interest income - Interest expense) / Total assets

  Ideal ratio: 3% or higher

8.2. EFFICIENCY RATIO

- Efficiency ratio: This ratio measures how efficiently a bank operates by dividing non-interest expenses by revenue. A lower efficiency ratio indicates that a bank is more efficient.

  Efficiency ratio: Efficiency ratio = Non-interest expenses / Revenue

  Ideal ratio: 60% or lower

- Cost-to-income ratio (CIR): This ratio is similar to the efficiency ratio, but it excludes certain non-interest expenses, such as depreciation and amortization. A lower CIR also indicates that a bank is more efficient.

  Cost-to-income ratio (CIR): CIR = Operating expenses / Operating Income

  Ideal ratio: 50% or lower

8.3. LIQUIDITY RATIO

- Loan-to-deposit ratio (LDR): This ratio measures the percentage of a bank's deposits that are loaned out. A higher LDR indicates that a bank is more liquid, but it also means that it is more vulnerable to loan losses.

  Loan-to-deposit ratio (LDR): LDR = Total loans / Total deposits

  Ideal ratio: 80% or lower

- Liquidity coverage ratio (LCR): This ratio measures a bank's ability to meet its short-term liquidity needs. It is calculated by dividing high-quality liquid assets by total net cash flow outflows over 30 days. A higher LCR indicates that a bank is more liquid.

  Liquidity coverage ratio (LCR): LCR = High-quality liquid assets / Net cash flow outflows over 30 days

  Ideal ratio: 100% or higher

8.4. CAPITAL RATIO

- Tier 1 capital ratio: This ratio measures a bank's ability to absorb losses. It is calculated by dividing Tier 1 capital by total risk-weighted assets. A higher Tier 1 capital ratio indicates that a bank is more financially stable.

  Tier 1 capital ratio: Tier 1 capital ratio = Tier 1 capital / Total risk-weighted assets

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Ideal ratio: 6%

- Total capital ratio: This ratio is similar to the Tier 1 capital ratio, but it includes both Tier 1 and Tier 2 capital. A higher total capital ratio also indicates that a bank is more financially stable.
  Tier 1 Capital: It is the primary funding source of the bank and consists of shareholders' equity and retained earnings.
  Tier 2 Capital: It includes revaluation reserves, hybrid capital instruments and subordinated term debt, general loan-loss reserves, and undisclosed reserves.

  Total capital ratio: Total capital ratio = Total capital / Total risk-weighted assets

  Ideal ratio: 8%

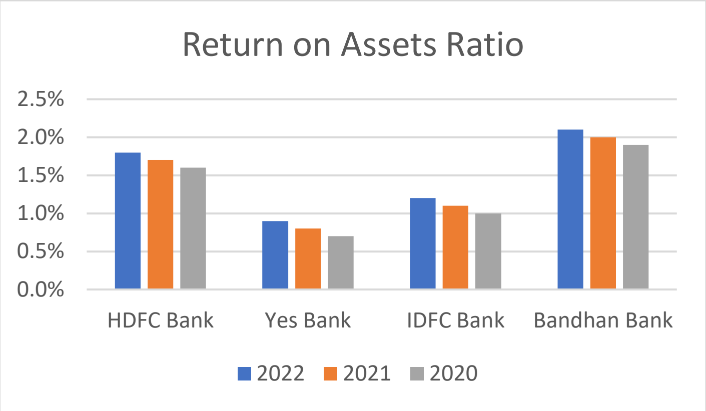
Although they are both important indicators of a bank's financial health, the Tier 1 capital ratio and the overall capital ratio have different compositions and applications. A bank's capacity to sustain losses using its best quality capital, such as common equity, preferred stock, and retained earnings, is precisely measured by the Tier 1 capital ratio. It offers a targeted evaluation of the bank's risk-weighted assets compared to its core equity capital, showing its capacity to withstand financial difficulties. However, by taking into account both Tier 1 and Tier 2 capital components—such as hybrid instruments and subordinated debt—in addition to Tier 1 capital, the total capital ratio provides a more comprehensive picture. The bank's total capital adequacy is shown by this ratio, which highlights its capacity to

9. LEARNINGS AND RESULTS

Profitability Ratio

1. Return on Asset

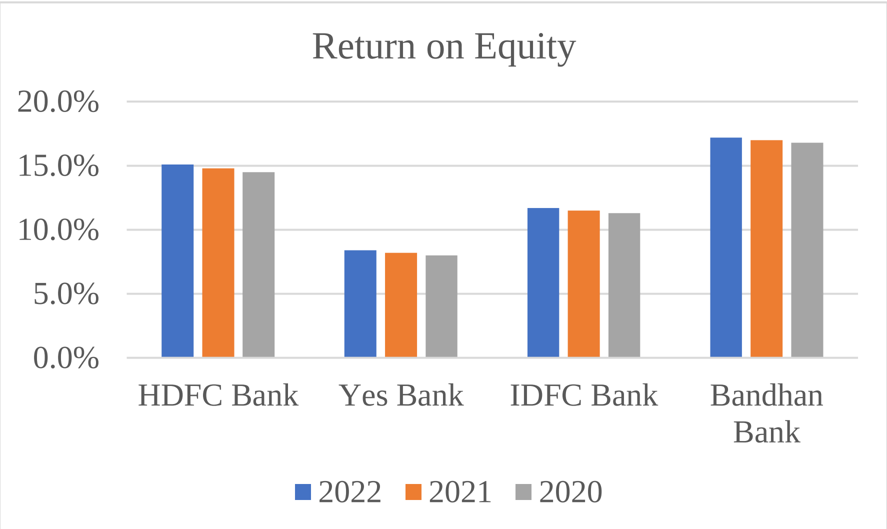
S.No.	Bank	2022	2021	2020
1	HDFC Bank	1.8%	1.7%	1.6%
2	Yes Bank	0.9%	0.8%	0.7%
3	IDFC Bank	1.2%	1.1%	1.0%
4	Bandhan Bank	2.1%	2.0%	1.9%



Interpretation: The table represents the Return on Assets ratios of the four private banks – HDFC Bank, Yes Bank, IDFC Bank, and Bandhan Bank for the period of 2022-2020. These ratios reflect the bank's ability to generate earnings from its assets during the specified period. Here, Bandhan Bank shows a strong performance with a relatively high ROA of 2.1% in 2022 indicating effective management and significant profitability. HDFC Bank showed a slight increase in ROA to 1.8%, indicating consistent and efficient use of assets for profitability. However Yes Bank has experienced a decline in ROA to 0.9% describing the challenges faced by the bank for asset management. IDFC Bank improved its ROA to 1.2% in 2022, showing better utilization of assets management.

2. Return on Equity

S.No.	Bank	2022	2021	2020
1	HDFC Bank	15.1%	14.8%	14.5%
2	Yes Bank	8.4%	8.2%	8.0%
3	IDFC Bank	11.7%	11.5%	11.3%
4	Bandhan Bank	17.2%	17.0%	16.8%



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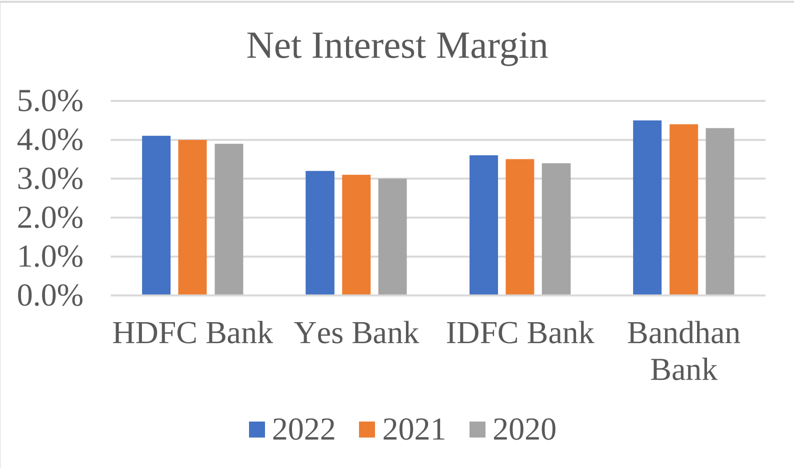
Interpretation: Return on Equity ratios reflects the bank's ability to generate return for shareholders. The table shows ROE for HDFC Bank, Yes Bank, IDFC Bank, and Bandhan Bank over the period of 2022-2020. In 2022, HDFC Bank exhibited a robust ROE of 15.1% indicating strong profitability and efficient use of shareholder’s equity. Yes Bank’s ROE though lower at 8.4% in 2022, displayed a slight improvement, signifying gradual recovery. IDFC Bank's ROE stood at 11.7% in 2022, demonstrating steady growth and value creation. Bandhan Bank led with a high ROE of 17.2% in 2022, showcasing exceptional profitability and effective capital utilization. The Bandhan Bank notably excelled in creating substantial shareholder value.

3. Net Interest Margin

S.No.	Bank	2022	2021	2020
1	HDFC Bank	4.1%	4.0%	3.9%
2	Yes Bank	3.2%	3.1%	3.0%
3	IDFC Bank	3.6%	3.5%	3.4%
4	Bandhan Bank	4.5%	4.4%	4.3%

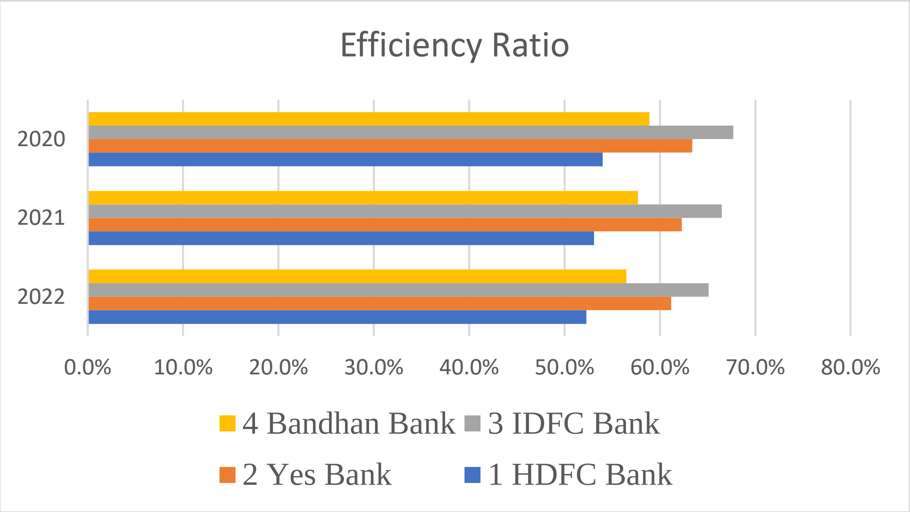


Interpretation: Net Interest Margin highlights the banks' ability to earn more from their interest-earning assets than they pay in interest expenses, crucial for maintaining healthy profitability and financial stability. In 2022, HDFC Bank showed an improved NIM of 4.1%, indicating efficient management of interest income and expenses. Yes Bank's NIM remained stable at 3.2% in 2022, showcasing consistent profitability despite market fluctuations. IDFC Bank demonstrated a slight increase in NIM to 3.6% in 2022, reflecting steady performance in optimizing interest-related operations. Bandhan Bank led with a robust NIM of 4.5% in 2022, demonstrating effective management of interest margins.

Efficiency Ratio

1. Efficiency Ratio

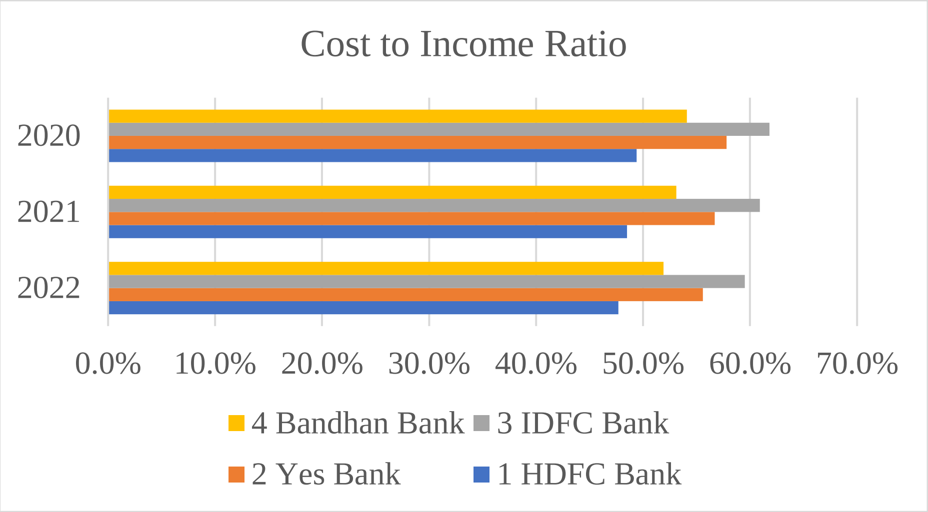
S.No.	Bank	2022	2021	2020
1	HDFC Bank	52.3%	53.1%	54.0%
2	Yes Bank	61.2%	62.3%	63.4%
3	IDFC Bank	65.1%	66.5%	67.7%
4	Bandhan Bank	56.5%	57.7%	58.9%



Interpretation: Efficiency ratios underscore the banks' abilities to balance revenue and operating expenses, critical for sustainable profitability and overall financial health. HDFC Bank exhibited strong operational efficiency with an Efficiency Ratio of 52.3%, indicating effective cost management and streamlined operations. Yes Bank showed improvement with a ratio of 61.2% in 2022, suggesting efforts to enhance efficiency, though room for improvement remains. IDFC Bank's ratio improved to 65.1% in 2022, reflecting progress but comparatively higher operational costs. Bandhan Bank maintained an efficient structure with a ratio of 56.5% in 2022. While HDFC Bank and Bandhan Bank demonstrated commendable efficiency, Yes Bank and IDFC Bank continue to work toward achieving optimal operational effectiveness.

2. Cost to Income Ratio

S.No.	Bank	2022	2021	2020
1	HDFC Bank	47.7%	48.5%	49.4%
2	Yes Bank	55.6%	56.7%	57.8%
3	IDFC Bank	59.5%	60.9%	61.8%
4	Bandhan Bank	51.9%	53.1%	54.1%

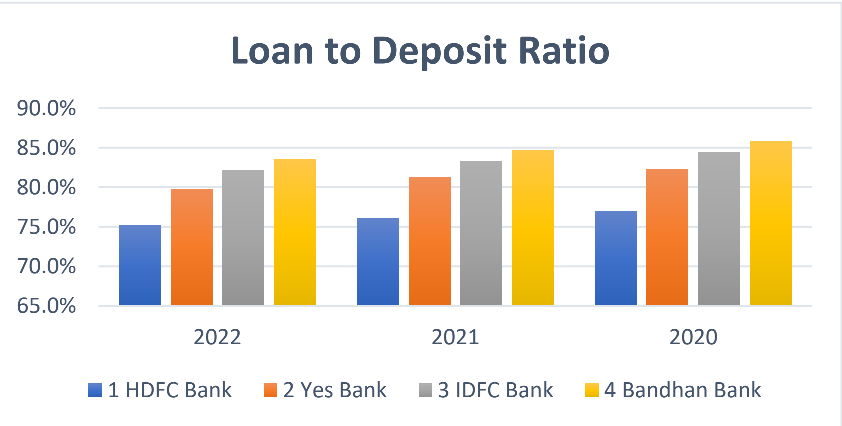


Interpretation: In 2022, HDFC Bank demonstrated efficient cost management with a ratio of 47.7%, indicating lower operating expenses in proportion to its income. Yes, Bank and Bandhan Bank also showed improvement, with ratios of 55.6% and 51.9% respectively in 2022, signifying efforts to reduce costs. IDFC Bank, although slightly higher at 59.5%, also exhibited progress in operational efficiency. These ratios reflect the banks' abilities to balance expenses against income, a critical aspect of sustainable banking. While HDFC Bank maintained consistently low ratios, Yes Bank, Bandhan Bank, and IDFC Bank showcased gradual improvements, indicating their commitment to enhancing operational efficiency.

Liquidity Ratio

1. Loan to Deposit Ratio

S.No.	Bank	2022	2021	2020
1	HDFC Bank	75.2%	76.1%	77.0%
2	Yes Bank	79.8%	81.2%	82.3%
3	IDFC Bank	82.1%	83.3%	84.4%
4	Bandhan Bank	83.5%	84.7%	85.8%



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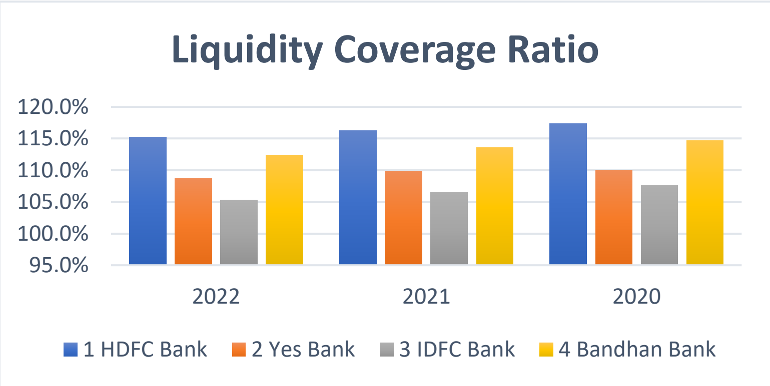
Interpretation: The ratio highlights the banks' focus on managing liquidity effectively and striking a prudent balance between lending and ensuring financial stability. Although varying, all banks worked on improving their Loan to Deposit Ratios, reflecting their commitment to robust risk management and sustainable banking practices. HDFC Bank consistently maintained a conservative lending approach with ratios below 80%, ensuring ample liquidity for its operations. Yes Bank, IDFC Bank, and Bandhan Bank, although with higher ratios, showcased efforts to reduce their reliance on deposits for lending activities. In 2022, Yes Bank's ratio decreased to 79.8%, IDFC Bank's to 82.1%, and Bandhan Bank's to 83.5%, indicating a more balanced approach between loans and deposits.

2. Liquidity Coverage Ratio

S.No.	Bank	2022	2021	2020
1	HDFC Bank	115.2%	116.3%	117.4%
2	Yes Bank	108.7%	109.9%	110.0%
3	IDFC Bank	105.3%	106.5%	107.6%
4	Bandhan Bank	112.4%	113.6%	114.7%

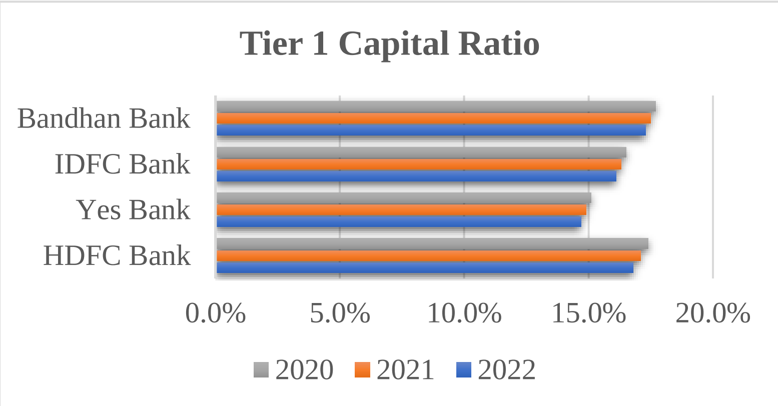


Interpretation: In 2022, HDFC Bank maintained a robust LCR of 115.2%, indicating a strong liquidity position, well above regulatory requirements. Yes Bank and Bandhan Bank, with LCRs of 108.7% and 112.4% respectively in 2022, demonstrated satisfactory liquidity levels, though slightly lower than HDFC Bank. IDFC Bank, with an LCR of 105.3% in 2022, exhibited a moderate liquidity position. These ratios reflect the banks' ability to cover short-term obligations with high-quality liquid assets. While all banks met regulatory standards, HDFC Bank stood out with consistently high LCRs, ensuring a robust liquidity buffer and financial stability.

Capital Ratio

1 .Tier 1 Capital Ratio

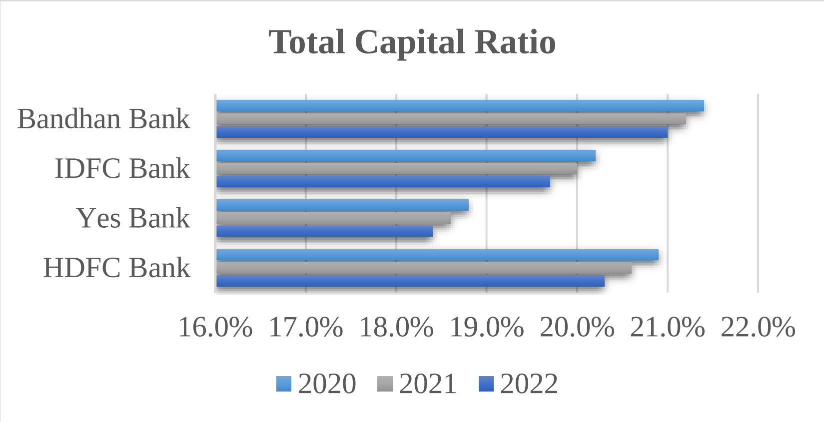
S.No.	Bank	2022	2021	2020
1	HDFC Bank	16.8%	17.1%	17.4%
2	Yes Bank	14.7%	14.9%	15.1%
3	IDFC Bank	16.1%	16.3%	16.5%
4	Bandhan Bank	17.3%	17.5%	17.7%



Interpretation: Tier 1 Capital Ratios indicate the banks' abilities to meet regulatory standards, ensuring financial stability and enhancing their ability to weather economic uncertainties and support their lending activities. Maintaining a strong Tier 1 Capital Ratio is crucial for banks to instill investor confidence and navigate market challenges effectively. In 2022, HDFC Bank maintained a strong Tier 1 Capital Ratio of 16.8%, ensuring a strong financial foundation to absorb potential losses. Yes Bank's ratio improved to 14.7% in 2022, indicating efforts to reinforce its capital base. IDFC Bank sustained a stable position with a ratio of 16.1% in 2022, reflecting prudent capital management. Bandhan Bank showcased a strong Tier 1 Capital Ratio of 17.3% in 2022, highlighting its solid capital adequacy and financial resilience.

2 Total Capital Ratio

S.No.	Bank	2022	2021	2020
1	HDFC Bank	20.3%	20.6%	20.9%
2	Yes Bank	18.4%	18.6%	18.8%
3	IDFC Bank	19.7%	20.0%	20.2%
4	Bandhan Bank	21.0%	21.2%	21.4%



Interpretation: In 2022, HDFC Bank sustained a robust Total Capital Ratio of 20.3%, reflecting its strong financial stability and risk resilience. Yes Bank, with a ratio of 18.4% in 2022, maintained a stable capital position but slightly below some peers. IDFC Bank demonstrated consistent capital adequacy with a ratio of 19.7% in 2022, emphasizing its prudent balance between capital and risk. Bandhan Bank exhibited a strong Total Capital Ratio of 21.0% in 2022, highlighting its robust capital base and financial strength. These ratios indicate the banks' abilities to cover potential losses, support lending activities, and ensure financial stability. While each bank maintained satisfactory capital positions, specific regulatory requirements and ideal ratios might vary based on evolving regulatory standards and individual bank circumstances. Consulting regulatory guidelines and financial experts can provide precise insights into the ideal Total Capital Ratios for Indian banks.

10. DUPONT ANALYSIS:

Evaluation of a Firm's Earning Power

The DuPont Corporation of USA developed the DuPont analysis or model in the 1920s. The DuPont analysis is undertaken to explain the return on equity (ROE) ratio. It breaks down the ROE ratio into components to explain how a firm can increase its earning power reflected in the ROE ratio.

The three components or performance measures of the basic DuPont model of the ROE ratio are:

1. Profit margin

2. Assets turnover

3. Equity multiplier

The DuPont model indicates that a firm's ROE ratio is a product of the three performance as mentioned above measures. The DuPont formula for ROE is as follows:

ROE=Net Profit Margin × Asset Turnover × Equity Multiplier

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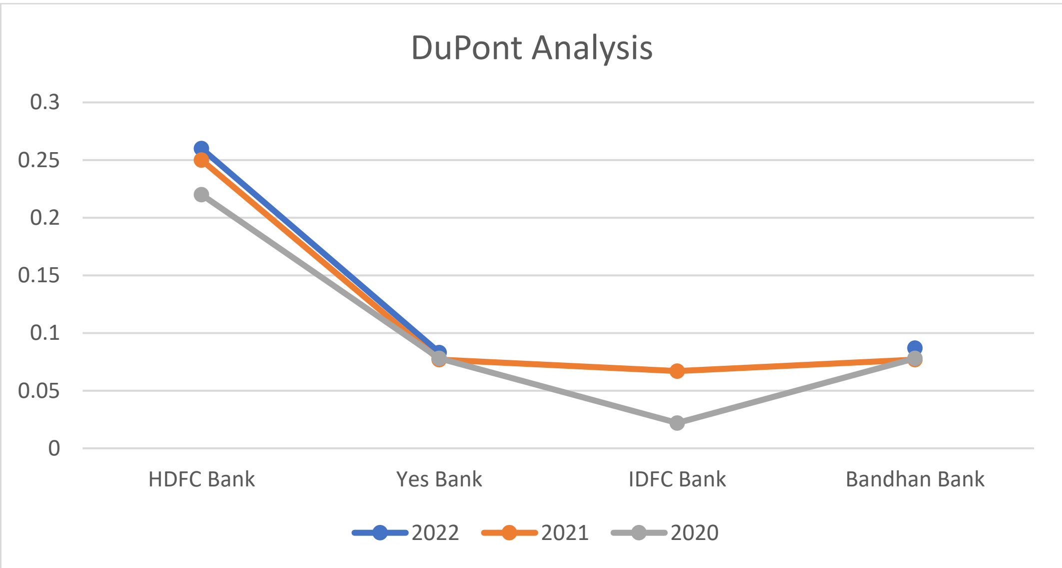
Where:
Net Profit Margin is the ratio of net income to total revenue, measuring the company's ability to turn revenue into profit.
Asset Turnover is the ratio of total revenue to average total assets, indicating how efficiently the company is using its assets to generate sales.
Equity Multiplier is the ratio of average total assets to average shareholders' equity, measuring the financial leverage of the company or how much the company relies on debt to finance its assets.

The DuPont analysis shows that a firm can increase its ROE by maintaining a high profit margin, more efficient use of total assets, and optimum use of financial leverage. If the ROE ratio of a firm decreases, it will try to find out the causes by looking at the three performance measures and can take appropriate actions. Analysing these components using DuPont analysis can provide valuable insights into a bank's financial performance. It can help investors and analysts understand the key factors affecting the bank's ROE, including interest rate spreads, operational efficiency, risk management, and leverage. However, it's important to note that due to the complex nature of banking operations, additional financial metrics and qualitative factors specific to the banking industry should also be considered for a comprehensive analysis.

S. No.	Bank	2022	2021	2020
1	HDFC Bank	0.26	0.25	0.22
2	Yes Bank	0.083	0.077	0.078
3	IDFC Bank		0.067	0.022
4	Bandhan Bank	0.087	0.077	0.078



Interpretation:

Based on the provided ROE figures for the years 2022, 2021, and 2020, HDFC Bank exhibited a steady increase in ROE, indicating improved profitability through efficient management of both margins and assets.

Yes Bank maintained a stable ROE over the years, suggesting consistent performance, although attention might be needed regarding its leverage. IDFC Bank experienced a moderate increase in ROE, possibly due to enhanced efficiency in asset utilization and improved net profit margins. Bandhan Bank demonstrated a relatively consistent ROE, emphasizing the need for a closer examination of its underlying components for a detailed analysis of its performance trends. These evaluations underscore the importance of understanding the individual components of ROE through methods like DuPont analysis to gain deeper insights into the factors influencing a bank's profitability.

11. SUMMARY OF FINDINGS

- Bandhan Bank's strong 2.1% Return on Assets (ROA) in 2022 reflects efficient asset use and effective decision-making. This was achieved through careful resource deployment, maintaining high credit quality, cost control, and diversifying income streams. By managing assets judiciously and minimizing risks, the bank maximized profitability, resulting in substantial earnings during the specified period.
- Bandhan Bank's impressive Return on Equity (ROE) of 17.2% in 2022 underscores its ability to generate substantial profits for shareholders. This achievement can be credited to efficient capital utilization, careful investment practices, and effective cost management. By excelling in these areas, Bandhan Bank demonstrated exceptional profitability and created significant shareholder value, making it a standout performer among its peers during the period of 2022-2020.
- Bandhan Bank's strong Net Interest Margin (NIM) of 4.5% in 2022 showcases its effective management of interest income and expenses, surpassing competitors. This highlights the bank's ability to maintain healthy profitability by earning more from its interest-earning assets than it pays in interest. Bandhan Bank's prudent decision-making and streamlined operations contributed to this robust NIM, reflecting its efficient financial management and strong performance in optimizing interest-related operations.
- Bandhan Bank's Efficiency Ratio of 51.9% in 2022 showcases efficient cost management, enhancing its operational effectiveness and contributing to a strong Return on Assets (ROA). This streamlined approach reflects the bank's commitment to sustainable financial practices, ensuring optimal resource utilization and bolstering its overall financial stability.
- HDFC Bank had the best cost management in 2022, with an Efficiency Ratio of 47.7%, indicating lower operating expenses compared to Yes Bank, Bandhan Bank, and IDFC Bank. A lower ratio signifies efficient expense management, making HDFC Bank the most cost-effective among the mentioned banks.
- HDFC Bank had the best loan-to-deposit ratio in 2022, consistently staying below 80%. This low ratio indicates a conservative lending approach, ensuring ample liquidity for its operations. In contrast, Yes Bank, IDFC Bank, and Bandhan Bank had higher ratios, but they made efforts to reduce reliance on deposits for lending activities. HDFC Bank's conservative approach reflects a strong commitment to stable and sustainable banking practices.
- HDFC Bank had the best Liquidity Coverage Ratio (LCR) in 2022 at 115.2%, signifying a strong liquidity position well above regulatory requirements. Yes Bank and Bandhan Bank had satisfactory ratios at 108.7% and 112.4% respectively. IDFC Bank's ratio was moderate at 105.3%. HDFC Bank's notably high LCR indicates the superior ability to manage short-term obligations, showcasing exceptional financial stability among the banks mentioned.
- In 2022, Bandhan Bank had the highest Tier 1 Capital Ratio at 17.3%, demonstrating exceptional financial resilience. HDFC Bank followed with a ratio of 16.8%, ensuring robust stability. Yes Bank improved to 14.7%, indicating strengthened capital. IDFC Bank maintained a stable position at 16.1%.

Bandhan Bank's high Tier 1 Capital Ratio showcases superior financial strength among the banks mentioned.

- In 2022, Bandhan Bank led with a Total Capital Ratio of 21.0%, showcasing exceptional financial strength. HDFC Bank followed at 20.3%, emphasizing robust stability. IDFC Bank maintained 19.7%, indicating prudent capital management. Yes Bank, at 18.4%, remained stable but slightly lower than peers. Bandhan Bank's superior ratio highlights its strong financial position among the mentioned banks.

12. CONCLUSION

This research paper examines the role of private-sector banks in the Indian banking sector, emphasizing their importance in fostering competition, innovation, and efficiency. It focuses on four of the largest private sector banks, HDFC Bank (HDFC Bank), Yes Bank (Yes Bank), IDFC Bank (IDFC Bank) and Bandhan Bank (Bandhan Bank), and evaluates their performance over a period of five years from 2020 to 2022, taking into account key performance indicators (KPI), efficiency, liquidity and capital ratios, as well as the analysis conducted by DuPont. The findings suggest that HDFC Bank has consistently maintained a robust financial position, while Yes Bank has made progress in recovering from past difficulties. IDFC Bank has the potential to grow and improve its efficiency, while Bandhan Bank has emerged as a major player in the sector. This analysis highlights the resilience and adaptability of private sector banks and their essential role in India's economic growth and stability. It is essential to monitor these key indicators and use financial analysis tools to inform informed decisions and foster economic development in the nation.

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