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MEASURING ASSET QUALITY AND FINANCIAL STABILITY OF INDIAN PRIVATE SECTOR BANKS: A CAMEL FRAMEWORK ANALYSIS

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ABSTRACT

This research explores the performance of many private sector banks in India regarding asset quality by utilising the Asset Quality parameter under the CAMEL model. From 2014 until 2023, three major private sector banks—HDFC Bank, ICICI Bank, and Kotak Bank—are the focus of the research. Sources of secondary data included annual reports, banking bulletins, journals, magazines, newspapers, and official government websites. The research employs ratio analysis and descriptive statistics to find out if banks are solvent and how they deal with non-performing assets. The study considers a number of asset quality indicators, such as the following ratios: Gross Nonperforming Assets to Gross Advances, Gross Nonperforming Assets to Total Assets, Net Nonperforming Assets to Net Advances, Net Nonperforming Assets to Total Assets, and Total Investments to Total Assets. Although ICICI Bank's nonperforming asset ratios were somewhat higher, the best overall performance in maintaining exceptional asset quality was attained by HDFC Bank and Kotak Bank. Private banks improved asset quality and stability due to better credit risk management, stronger provisioning policies, and effective recovery processes, according to the research.

Keywords: Banking, Assets, Performance, Investment, Stability.

1. INTRODUCTION

Every single bank in the world strives to maximise earnings. Unlike manufacturers, who deal in tangible goods, banks deal with money and their responsibilities, such as managing assets and commitments. When banks and other financial intermediaries transfer funds from economically deficient to economically surplus entities, they are engaging in money trading. This is due to the fact that currency serves as the company's portfolio. Market, credit, default, interest rate, operational, and currency exchange risks are only a few of the numerous internal and external dangers that banks confront.

Any country's financial system is vulnerable to a banking system that isn't stable, as this impacts bank profitability and the economy as a whole. Most importantly, a bank's profitability shows the rate of return it can make with its resources, making it the most essential performance measure. It became increasingly obvious during times of financial crisis. In 1997, due to the strain on their financial systems, several Asian countries' economies collapsed, including Thailand and Indonesia. They stabilised the banks and restored public trust thru a financial sector reform and IMF backing.

The current U.S. subprime mortgage crisis has brought home the requirement of a strong and well-functioning banking system. It follows that problematic loans likely contribute significantly to the bank's financial woes. Asset quality management is crucial to a bank's well-being since it attempts to reveal the current and future credit risks connected with the bank's loan portfolios, investments, owned properties, and other assets. A larger percentage of non-performing loans (NPLs) is frequently linked to ineffective asset quality management.

Flexible credit rationing policies contribute substantially to non-performing loans, in addition to variables such as low per capita income, high interest rates, and unfavourable loan utilisation. The solvency and profitability of financial institutions are jeopardised by nonperforming loans (NPLs), hence it is critical that these entities take action to reduce this risk.

The strength and efficiency of a bank may be determined by looking at its assets. How well a bank manages its loan portfolio and collects on loans is reflected in this metric. When banks hold assets of poor quality, it endangers their solvency, liquidity, and profitability in the form of Non-Performing Assets (NPAs). The capacity of banks to generate income is hindered by nonperforming assets due to the inconsistent recovery of interest on these assets. If nonperforming assets keep going up, the banking industry can have problems and lose the faith of investors. Strong recovery plans, quick credit evaluation tools, and thorough monitoring processes are essential for banks to preserve their assets and reduce their credit risk.

The CAMEL model is commonly utilised to evaluate the well-being and efficiency of a bank. The abbreviation CAMEL stands for Capital Adequacy, Asset Quality, Management Efficiency, Earnings Quality, and Liquidity. Among these measures, asset quality stands out as a key indicator of a bank's ability to manage advances and mitigate financial risk. There are a number of indicators that may be used to measure the quality of assets. These include the gross nonperforming assets to gross advances ratio, the net nonperforming assets to total assets ratio, the total investments to total

assets ratio, and the net nonperforming assets to net advances ratio. A decrease in these ratios is indicative of improved asset management and stronger financial stability.

2. REVIEW OF LITERATURE

Chavda, Dharmendra et al., (2022) The banking industry helps the country expand fairly by providing loans to places with inadequate infrastructure and by establishing suitable financial frameworks. The primary sector also benefits from the prompt funding that is provided to farmers. It raises people's living standards by letting those borrowers buy homes, electronics, and other consumer products. If India's banks are doing well, it should mean that the economy is doing well overall. The researchers in this study set out to do just that—compare and contrast the bottom lines of public and private banks in India. Over the five-year period from 2015–16 to 2019–20, this study intends to examine and evaluate the efficiency of public and private sector banks in India. The findings show that during the study period, a significant performance disparity existed between the chosen public and private sector banks in India. Six factors were identified by the research that led to the conclusion that the chosen public and private banks were completely distinct from one another. Public and private sector banks that were chosen were rather stable during the course of the research, despite variations in their values for a number of factors.

Jha, Priyanka & Natarajan, Subburaj. (2021) The health of a country's banking system affects its GDP growth rate. The bank's performance is reviewed on a frequent basis. The 'CAMEL' model is an accurate and dependable tool for evaluating banking industry performance and predicting relative and probable risks. In this study, we will compare the financial performance of three public sector banks in India: State Bank of India (SBI) and Punjab National Bank (PNB). We will also look at the private sector performance of three banks using the CAMEL model, which stands for Capital Adequacy, Assets Quality, Productivity of Management, Earnings Quality, and Liquidity, and covers the years 2011–2018. A bank's CAMEL rating is used to evaluate and assess its financial performance. Each bank's yearly reports are used to compile the statistics. Overall, ICICI has done quite well, and out of four banks, it is placed first. After AXIS, SBI, and PNB comes the order of importance. On the other hand, PNB's total composite ranking is not very good. It is crucial to regularly monitor the overall financial performance of public sector banks to maintain their survival, as it falls short when compared to private sector banks.

Biswas, Sarit & Bhattacharya, Mousumi. (2020) Over the years, the banking industry in India has seen several changes. There is no economic or financial system that does not rely on it. There has been a decline in the number of public sector banks (PSBs) due to the fact that private sector banks (PVBs) have succeeded where PSBs failed by leveraging technology and expert management. The emergence of private sector new-generation banks has caused significant structural changes to India's banking system. The ranks and positions of banks have changed over time as a result of their varied performances. This study intends to assess the most recent crop of private banks in India by employing the CAMEL model. The study made use of secondary data. Here we take a look at the 10 private banks' performance using selected metrics from the CAMEL model: ICICI, Axis, HDFC, YES, Kotak Mahindra, IndusInd, INDUSIND BANK, Bandhana, IDFC FIRST, and

DCB. The data was culled from the relevant banks' annual reports and Money Control throughout a five-year period, from 2014–15 to 2018–19. Bandhana Bank has jumped to the top of the rankings, with HDFC Bank and others following closely behind, according to the statistics. Using one-way ANOVA, the researchers discovered that there was a considerable amount of variation in the banks' performance. Reading this study may help the participants make better selections about these banks.

Gupta, Prof (Dr) Sumeet & Verma, Renu. (2008).With the advent of rural banking and remote banking, the banking industry in India has grown in maturity, both in terms of supply and the breadth of products it offers. When it comes to capital adequacy and asset quality, Indian banks are seen as having robust, open, and clean balance sheets. This study uses the CAMEL model to examine the main private sector banks in India's financial performance as a whole. Further, it makes an effort to use the Composite Ranking Method to compare the performance of these banks.

3. RESEARCH METHODOLOGY

Study Period:The time frame of this research is from March 2014 all the way up to March 2023.

Statistical Tools Employed:Data analysis employ a range of financial and statistical methods, including Ratio Analysis, Descriptive Statistics.

Sample Size:The study includes a sample of three private sector banks (HDFC, ICICI, and Kotak). The selection criteria for these banks are based on their market capitalization and net profits.

Limitations Of the Study:The results cannot be applied to a broader population since the research covers a period of 10 years. There has to be more than just looking at the asset quality metric when evaluating banks' financial performance.

Data Collection: HDFC, ICICI, and Kotak Bank's annual reports provided the bulk of the secondary data used in the research. Journals, websites, banking bulletins, periodicals, and magazines are some other sources. Using Asset Quality as a CAMEL metric, the following ratios were calculated to assess the banks' financial performance.

4. DATA ANALYSIS & DISCUSSION

Gross NPAs As Percentage of Gross Advances Ratio: Gross NPA (GNPA)

Table: Interpretation of Composite Asset Management Ratios of Select Private Sector Banks (HDFC, ICICI and KOTAK)

Ratio / Criteria	Particulars	HDFC	ICICI	KOTAK
(1) Gross NPAs as Percentage of Gross Advances Ratio	Average	1.08%	6.12%	2.16%
	Rank (Overall)	1	4	2

	Average (Sector Wise)	3.12%	3.12%	3.12%
	Rank (Sector Wise)	1	1	1
(2) Gross NPAs as Percentage of Assets Ratio	Average	1.74%	5.01%	1.36%
	Rank (Overall)	2	5	1
	Average (Sector Wise)	2.70%	2.70%	2.70%
	Rank (Sector Wise)	1	1	1
(3) Net NPAs as Percentage of Net Advances Ratio	Average	0.29%	1.98%	0.82%
	Rank (Overall)	1	3	2
	Average (Sector Wise)	1.03%	1.03%	1.03%
	Rank (Sector Wise)	1	1	1
(4) Net NPAs as Percentage of Assets Ratio	Average	0.18%	1.24%	0.68%
	Rank (Overall)	1	3	2
	Average (Sector Wise)	0.70%	0.70%	0.70%
	Rank (Sector Wise)	1	1	1
(5) Total Investments to Total Assets Ratio	Average	24.18%	23.44%	24.36%
	Rank (Overall)	3	2	4
	Average (Sector Wise)	23.99%	23.99%	23.99%
	Rank (Sector Wise)	1	1	1

The table above displays the composite asset management ratios of three private sector banks: HDFC, ICICI, and KOTAK Bank. In terms of Gross Nonperforming Assets as a Percentage of Gross Advances Ratio, HDFC Bank secured the top overall rating and the lowest average ratio of 1.08 percent. This achievement was due to their exceptional credit risk management and effective recovery methods. Of the private sector banks that were taken into account, ICICI Bank placed fourth with a ratio of 6.12% and KOTAK Bank ranked second with a ratio of 2.16%.

The best performance and overall top position were attained by KOTAK Bank in the instance of Gross Nonperforming Assets as a Percentage of Assets Ratio, with the lowest average ratio of 1.36%. HDFC Bank came in at 1.74%, just below first place. ICICI Bank's non-performing loan to total asset ratio of 5.01% placed it fifth overall, higher than the average for all banks.

In terms of Net Nonperforming Assets as a Percentage of Net Advances Ratio, HDFC Bank remained in first place and maintained its best position with an average ratio of 0.29%. Out of all the private sector banks that were taken into account, ICICI Bank finished in last position with 1.99% of the market, followed by KOTAK Bank with 0.82%. Better provisioning practices and prudent financial management lead to lower net nonperforming asset ratios.

Also, when comparing the average ratio of net nonperforming assets to total assets, HDFC Bank once again ranked top with a ratio of just 0.18%. After ICICI Bank came in third with 1.24%, KOTAK Bank came in second with 0.68%. This demonstrates that HDFC Bank has superior control of impaired assets relative to their total assets.

In terms of average investment-to-asset ratio, KOTAK Bank had the highest at 24.36%, followed by HDFC Bank at 24.18%, and ICICI Bank at 23.44%. As a whole, ICICI Bank ranked second, HDFC Bank third, and KOTAK Bank fourth for this ratio. The ratio of a bank's total financing to its assets is known as the investment-to-assets ratio, and it is one indicator of the quality of the bank's asset portfolio management.

Table 2: Interpretation of Composite Asset Quality Ratios and Ranking of Selected Private Sector Banks

Sector / Banks	Gross NPAs to Gross Advances Ratio (%)	Rank (WG)	Rank (BG)	Gross NPAs to Assets Ratio (%)	Rank (WG)	Rank (BG)	Net NPAs to Net Advances Ratio (%)	Rank (WG)	Rank (BG)	Net NPAs to Assets Ratio (%)	Rank (WG)		Total Investments to Total Assets Ratio (%)	Rank (WG)	Rank (BG)
PRIVATE SECTOR BANKS															
HDFC	1.06%	1	1	1.72%	2	2	0.28%	1	1	0.18%	1	1	24.12%	2	3

ICICI	6.04%	3	4	3.42%	3	5	1.96%	3	3	1.28%	3	3	23.52%	1	2
KOTAK	2.16%	2	2	1.32%	1	1	0.82%	2	2	0.66%	2	2	24.46%	3	4
Average (Sector Wise)	3.09%		1	2.15%		1	1.02%		1	0.71%		1	24.03%		1

There is a table up there that shows the ranking and composite asset quality ratios of three private sector banks: HDFC Bank, ICICI Bank, and KOTAK Bank. Gross Nonperforming Assets to Gross Advances, Net Nonperforming Assets to Net Advances, Net Nonperforming Assets to Assets, Total Investments to Total Assets, and Gross Nonperforming Assets to Assets are the important ratios that are used to base the study. These ratios demonstrate the banking institution's control over non-performing assets and its capacity to maintain good asset quality.

With a Gross NPAs to Gross Advances Ratio of 1.06%, HDFC Bank topped the group and the whole set of selected banks. This is because of sophisticated algorithms for evaluating credit and well-organised recovery operations. When it came to private sector banks, ICICI Bank took third position with a ratio of 6.04%, while KOTAK Bank came in second with a ratio of 2.16%. The reduced ratios at HDFC and KOTAK demonstrate better management of loan assets and reduced exposure to credit risk.

In terms of Gross Nonperforming Assets to Total Assets Ratio, KOTAK Bank outperformed all other banks in the group and the industry with a ratio of 1.32%. With 1.72%, HDFC Bank placed second in the group, while ICICI Bank came in second with 3.42%. Based on the data, KOTAK and HDFC demonstrated superior management of their non-performing assets relative to their total assets.

With a ratio of only 0.28%, HDFC Bank was able to retain its assets in the best possible shape, making it #1 in the industry. Third place in the group went to ICICI Bank with 1.96%, just ahead of KOTAK Bank with 0.82%. Successful recovery and provisioning measures have been put in place by banks whose net nonperforming asset percentages are lower.

The exceptional performance of HDFC Bank was further validated when the bank achieved the lowest Net NPAs to Assets Ratio of 0.18% and took first place globally. After KOTAK Bank (0.66%), ICICI Bank (1.28%) was the selected private sector bank in third place. These results show that HDFC Bank kept their impaired asset percentage low compared to its entire asset portfolio.

With a ratio of 23.52%, ICICI Bank ranked second overall and first among private sector banks when looking at Total Investments to Total Assets. The second-place finisher in the group was HDFC Bank with 24.12%, followed by KOTAK Bank with 24.46 percent. The asset management plan as a whole allocates assets toward investing activities, and this ratio shows.

5. DISCUSSION

The asset quality parameter is determined by evaluating the following ratios: gross nonperforming assets to gross advances, total assets to net nonperforming assets, net nonperforming assets to total advances, total investments to total assets, and gross nonperforming assets to total assets. As high numbers indicate poor asset quality and inefficient management of non-performing assets, it is preferable to keep these ratios low. Private sector banks HDFC Bank, KOTAK Bank, and ICICI Bank were ranked according to their ability to keep excellent assets. For the most part, private banks did a good job meeting the asset quality measure. The reduction of non-performing assets is a result of better credit evaluation procedures, recovery processes, and risk management. A key objective for private sector banks was the decrease of non-performing assets, which are defined as assets that do not contribute to the company's profitability. Private sector banks saw an improvement in asset quality and financial stability as a whole. This was due to their implementation of more stringent provisioning rules and better strategies for recovering and managing nonperforming assets.

6. CONCLUSION

The CAMEL model was employed in this study to examine the asset quality performance of a selection of private sector banks in India from 2014 to 2023. The research included many ratios to analyse financial performance. These included gross nonperforming assets to gross advances, total assets to total nonperforming assets, net nonperforming assets to total assets, total investments to total assets, and net nonperforming assets to net advances. During the study period, private sector banks maintained reasonably healthy assets and effectively handled non-performing assets. In comparison to the other selected banks, HDFC Bank fared better on key measures of asset quality, including lower nonperforming asset ratios, thorough credit assessment procedures, robust provisioning policies, and rapid recovery procedures. Even tho ICICI Bank's nonperforming asset ratio (NPA) was among the highest of the selected banks, Kotak Bank's consistent asset management processes helped it do well as well. Expertise in non-performing asset management is crucial for banks to maintain financial stability, generate profits, and operate effectively, according to the report. Strong risk management regulations and ongoing monitoring of advances may help banks enhance the quality of their assets and their overall financial performance.

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