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ASSESSING THE FINANCIAL HEALTH OF THE INDIAN BANKING SECTOR: A SECONDARY DATA ANALYSIS OF NPAs IN PUBLIC AND PRIVATE SECTOR BANKS

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ABSTRACT :

India's banking sector, having an indispensable position in the economic growth of the country, has been experiencing a stiff challenge before them in the form of Non-Performing Assets (NPAs). NPAs are a great danger to Indian banks' profitability and working efficiency. Public sector banks tend to have more NPAs because of their public policy: they are bound to lend to priority sectors and supply institutions with these loans. Private sector banks keep a more scrutinized asset quality with tougher checks on the recovery processes due to tighter organizational risk management. This paper aims to examine the financial health of Indian banks, concretely measuring the influence of NPAs on critical financial performance ratios: ROA, ROE, Current Ratio, and CASA.

This study examines 12 banks comprised of six public and six private sector banks from 2013 to 2024 based on market capitalization. The investigations include quantitative methodology to establish asset performance of Non-Performing Assets along with financial indicators through the analysis of sectoral differences in risk exposure and resilience.

Keywords: Non-Performing Assets (NPA), Return on Equity (ROE), Return on Assets (ROA), Public sector banks, Private sector banks, CASA ratio.

Introduction

The financial state of Indian banks has been and continues to be a subject of constant concern, specifically concerning NPA. An NPA is an advance or loan that remains overdue beyond 90 days. The accrual of NPAs can spell doom for any type of commercial activity in banks, threatening their performance and bottom lines virtually entirely. The purpose of this research study is to examine the financial health of Indian banks by looking at the role of non-performing assets (NPAs) in performance measures, comparing private and public sector banks.

Public sector banks which account has an important percentage of the Indian banking system frequently have a higher NPA burden than the public sector banks. It is due to the government regulations mandating them to offer credit to priority industries, which have higher default risk. Private sector banks have greater lending freedom, which often results in higher asset quality and lower NPA ratios. A bank's performance requires attention to multiple aspects simultaneously. Banks must balance risk, profitability, and regulation without compromising performance. Banks face a challenge in balancing profitability, risk, and regulation. Attempting to limit risk can lead to a loss of profits. Assessing risk management and performance measures in banks is crucial in these scenarios.

To investigate the causal relationship between NPAs and these performance metrics. The sample constitutes 12 banks, including six public sector banks and six private sector banks, based on market capitalization.

The NPAs and performance metrics. Twelve banks were initially obtained as samples, including six private and six public sector banks, based on market capitalization. The time frame is from 2013 to 2024 (12 years) so that the long-time frame analysis can be done. The research employs a quantitative method to establish if higher NPAs have a negative effect on profitability (ROA and ROE), liquidity (Liquidity Ratio), and funding stability (CASA Ratio). This study aims to provide valuable insights into how Indian banks can manage NPA problems and improve financial resilience: by employing regression models and statistical tests. Non- performing assets are a problem that affects the whole banking system and not limited to Indian public sector banks.

1.1 Priority Sector Analysis

Since the nationalization of major commercial banks in 1969, the banking sector has been an important tool in achieving the government's development goals. Banks have offered substantial financial support for key sector initiatives. Key focuses of Prime Minister Indira Gandhi's 20-point programs included poverty reduction, job creation, self-employment promotion, and assistance for village and cottage industries, as well as encouragement for entrepreneurs and other socioeconomic development measures. As a result, different job creation initiatives, agricultural development programs, and small-scale industry activities have been identified as key sectors.

Essentially, some regions within a country, based on economic conditions or government goals, are classified as Priority Sectors, such as industry and agriculture, and can be further segmented. To promote growth in these sectors, the central bank authorizes banks to issue loans at reduced interest rates and discounts; this sort of lending is referred to as Prime Sector Lending. Priority sector lending was first adopted in 1972 in response to the National Credit Council's push for commercial banks to become more involved in these sectors. In 1974, banks were given a target of 33.33% for priority sector lending as a percentage of overall bank credit, which was later raised to 40% based on Dr. K S Krishnaswamy committee recommendations.

1.2 Public and Private Sector Banks in India (2025)

As of January 2025, India has a total of **12 public sector banks**. This number has decreased from 27 due to mergers that occurred in recent years. The list of these banks includes:

1. State Bank of India
2. Bank of Baroda
3. Central Bank of India
4. Canara Bank
5. Punjab National Bank
6. Bank of Maharashtra
7. Union Bank of India
8. UCO Bank
9. Indian Bank
10. Punjab and Sind Bank
11. Bank of India
12. Indian Overseas Bank

However, the private sector banking business is more varied, with a large number of independent banks. As of 2025, there are approximately 22 private sector banks are there in India.

1.3 Non-Performing Assets (NPAs) and Its Classification

According to a CARE Rating review, India has the greatest proportion of non-performing assets (NPAs) among the BRICS nations and ranks sixth on the list of countries with the highest NPA levels. The Reserve Bank of India states that "an asset becomes non-performing when it ceases to generate income for the bank".

Types of NPAs

1. Substandard Assets: Sub-standard assets are those that have been non-performing assets for less than 12 months.

Features: These assets are regarded to be riskier than conventional assets, although they have not become unrecoverable.

Provisioning Requirement: Banks must offer a 15% provision on outstanding amounts, regardless of the available security.

2. Doubtful Assets: An asset is considered questionable if it has been non-performing for at least 12 months.

Features: Such assets display all of the faults seen in poor assets, with the added element of loan payback being highly questionable and uncertain.

Provisioning Requirements: The longer the asset is unclear, the higher the provisioning requirements.

For example,

- Less than one year: 25%.
- 1–3 years: 40%
- Over three years: 100 percent.
- In addition, 100% provision is required for the unsecured portion of the loan.

3. Loss Assets: Loans that are deemed unrecoverable by the bank, internal/external auditors, or the Reserve Bank of India (RBI) and have no value to be preserved as bankable assets, even if there is salvage or recovery potential.

Provisioning Requirements: 100% of the outstanding loan amount must be supplied.

Financial Ratios and their Impact on Financial Well-Being

1. Net NPA Ratio: This metric calculates the percentage of NPAs after accounting for provisions. A greater net NPA ratio indicates that a bank has not appropriately planned for defaults, increasing its risk exposure.

2. Return on Assets (ROA): ROA measures how well a bank uses its assets to generate profit. Large NPAs typically result in increased provisioning expenses, which reduces net income and ROA.

3. Return on Equity (ROE): ROE measures a bank's profitability in relation to its shareholders' equity. Rising NPAs may reduce net income, resulting in a reduced ROE and making the bank less appealing to investors.

4. Liquidity Ratio: This ratio indicates a bank's ability to settle its short-term liabilities using its liquid assets. High NPAs might put pressure on liquidity since banks may need to maintain more capital for provisions.

5. CASA Ratio (Current Account Savings Account): A higher CASA ratio is preferable because it indicates lower-cost funds for the bank. It compares customer deposits in current and savings accounts with total deposits.

Soft Recovery Techniques Used by Banks in Loan Recovery

Soft recovery measures are those actions taken by banks or financial institutions to recover defaulted loans not through coercive means but rather, without taking up legal action. Primary intention of such measures is to make sure that the borrower, without coercion, returns voluntarily during the initial stages of loan defaulting.

The following techniques are commonly used for soft recovery:

- **Remaining calls or messages:** Banks normally call defaulters to remind them, send SMS or emails. These acts serve as gentle reminders to make payments due, the balances payable, or the consequences of not paying. By these means banks try to develop a sense of urgency or anxiety in the borrower to service his debt.
- **Personal Visits:** The bank staff members do visit the defaulter's houses or business premises to talk over the defaulted loan and possibilities of repayment. This face-to-face meeting enables
- one to understand the borrower's predicament and his perspective, so as to address his problems or impediments, and thereby attempt to frame a repayment plan that both find agreeable.
- **Financial Counselling:** Financial advisory or counselling service is made available by banks for defaulters with a view toward providing assistance in times of trouble in money management. All things pertaining to budgeting, debt management solutions, etc. are certainly topics that may be addressed in these counselling sessions.
- **Loan Restructuring:** Once again, banks might consider restructuring a loan if the borrower is in serious financial trouble. This could involve longer repayment time, lower interest rates, or altering the amounts of payments to meet the borrower's needs. This can allow the borrower to repay his loan according to his current economic situation.
- **Settlement and Negotiations:** When it comes to settlement options, banks are able to settle with delinquent borrowers on an agreement where a borrower pays a portion of their outstanding debt in exchange for the balance of debt being partially forgiven or written off. This last option is considered only if previous recovery efforts have failed.
- **Refinancing:** Where banks are able to put together many loans that need be refinanced into one, with improved terms like a lower interest rate or extended payment period.

Hard recovery measures used by banks in loan recovery

1. SARFAESI Act: The SARFAESI Act, enacted in 2002, provides banks and financial institutions with the legal framework to recover their dues from defaulting borrowers without court intervention.

The given below is the process how banks use it for loan recovery:

- Enforcement of Security Interest: Under the SARFAESI Act, banks have the power to enforce the security interest in the collateral provided by the borrower. This means that if a borrower defaults on a loan, the bank can take possession of the collateral without the need for a court order.

- **Issue of Demand Notice:** Before taking any action under the SARFAESI Act, banks are required to issue a demand notice to the borrower, providing them with an opportunity to repay the outstanding dues within a specified period.
- **Possession and Sale of Collateral:** If the borrower fails to repay the dues within the specified period, the bank can take possession of the collateral and either sell or lease

  it to recover the outstanding debt. This process is carried out through authorized officers appointed by the bank.
- **Right to Appeal:** Borrowers have the right to appeal against the actions taken by the bank under the SARFAESI Act to the Debt Recovery Tribunal (DRT) within 45 days of receiving the possession notice.

2. Debt Recovery Tribunal: DRTs are specialized quasi-judicial bodies established under the Recovery of Debts Due to Banks and Financial Institutions Act (RDDBFI Act), 1993. Banks use DRTs for the speedy resolution of causes related to the recovery of debts. The given below is the process how they work:

- **Filing of Cases:** Banks can file cases with DRTs to recover debts above a specified limit (currently ₹20 lakhs).
- **Recovery Certificates:** If the DRT is satisfied that the borrower owes the debt to the bank, it issues a recovery certificate to the bank, empowering it to recover the debt.
- **Enforcement of Recovery Certificates**: Banks can use the recovery certificate to initiate legal proceedings for the recovery of dues. This includes attachment and sale of properties, garnishment of wages, and other measures to recover the outstanding debt.
- **Appeals:** Both banks and borrowers have the right to appeal against the orders of DRTs to the Appellate Tribunal established under the RDDBFI Act.

3. One Time Settlement (OTS): Banks may offer OTS schemes to defaulting borrowers, allowing them to settle the outstanding dues by paying a negotiated lump sum amount. OTS schemes provide borrowers with an opportunity to resolve their debts at a discounted rate and avoid legal action.

4. Asset Reconstruction Companies (ARCs): ARCs are specialized financial institutions that acquire non-performing assets (NPAs) from banks and financial institutions with the aim of recovering the dues. The given below is the different process of how banks use ARCs for loan recovery:

- **Transfer of NPAs:** Banks transfer their NPAs to ARCs at a mutually agreed value, usually at a discount to the book value of the assets.
- **Recovery Efforts:** ARCs employ various strategies to recover the dues from NPAs, including debt restructuring, asset management, and legal action against defaulting borrowers.
- **Debt Restructuring:** ARCs may restructure the debts of defaulting borrowers to make repayment more feasible, thereby increasing the chances of recovery.
- **Asset Sale:** If restructuring efforts fail, ARCs may sell the distressed assets to investors at a discounted price. This allows banks to recover a portion of their dues and offload NPAs from their balance sheets.
- **Profit Sharing:** ARCs share the recovered amount with the banks in proportion to their respective stakes in the underlying assets.

5. Public Auctions: Banks conduct public auctions to sell seized assets, including properties, vehicles, and equipment, to recover outstanding dues. These auctions are typically advertised through newspapers and online platforms to attract potential buyers.

Features: These assets are regarded uncollectible and have such a low value that carrying them as assets is not practicable

Table 1, Literature Review, Source - Author's Interpretation

Details	Objective	Variables	Methodology	Result	Limitations
B. Senthil Arasu et al. (2019)	To understand the level of Non-Performing Assets (NPA) and its influence on the profitability of banks.	Gross NPA, Net NPA, Return on Assets (ROA)	The study examined data from 10 banks in both the public and private sectors, covering the period from April 2014 to March 2018. It employed statistical methods including mean, standard deviation, Pearson	The study founds a strong positive correlation between Gross NPA and Net NPA, while also indicating a significant negative correlation between NPA and ROA. It suggested that regulators and bank	The study relies on secondary data from a single source, which could impact its reliability. It spans just five years, which restricts the scope of analysis. Furthermore, it concentrates only on the 10 banks with the

			cross-correlation, and linear regression models to explore the relationship between non-performing assets (NPA) and profitability.	officials should implement necessary measures to decrease NPAs and enhance recovery mechanisms to boost profitability.	highest NPAs, leaving out foreign and co-operative banks.

Table 2, Literature Review, Source - Author's Interpretation

Santosh Kumar Das & Pradyuman Singh Rawat (2018)	To explore the dimensions of Non-Performing Assets (NPAs) in Indian Scheduled Commercial Banks and assess their impact on banking performance.	Non-Performing Assets (NPAs), Return on Assets (ROA), Return on Equity (ROE)	The research made use of secondary data from multiple sources, such as the Reserve Bank of India, concentrating on the asset quality and performance of Indian Scheduled Commercial Banks during a defined timeframe. It included quantitative analysis with statistical tools to analyze the data.	It was seen that NPAs play an important role on the profitability of all types of banks with a significant effect on Public Sector Banks (PSBs) in particular as per the conclusion of this paper. It highlights an alarming rise in NPAs, especially in the corporate loan segment, which weighs down aggregate banking performance and liquidity. The recommendations ranged from improving recovery	The nature of the secondary data with which the study is dependent upon, limits the comprehensiveness of the research due to the absence of primary data collection. Moreover, it focuses more on PSBs and may not capture the situation of all bank types in India. They only analyze trends over certain time frames, so in the longer run, they can miss trends.

Table 3, Literature Review, Source - Author's Interpretation

				mechanisms to addressing systemic drivers of NPAs.	
Dhananjaya Kadanda, Krishna Raj (2018)	The primary objective of the study is to investigate the extent and growth of non-performing assets (NPAs) in Indian public sector banks (PSBs) and analyze the interbank disparity in NPA management. The study also aims to identify the	Non-performing assets (NPAs), Operating efficiency of banks, Capital adequacy, GDP growth rate, Interest rates, Profitability of banks	The research employs a dynamic panel analysis to examine the determinants of NPAs in public sector banks. It analyzes data from various sources, including the Reserve Bank of India, and focuses on both macroeconomic factors	The findings indicate that: Since the crisis, public sector banks (PSBs) have been struggling to return to profitability amid mounting non-performing assets (NPAs).	The paper does note a few limitations: The focus is largely on public sector banks, which may not be representative of all the banks. The analytical part may be limited by the availability of data, as well as the very nature of

	determinants of NPAs in these banks.		and bank- specific characteristics affecting NPAs.	Government debt service ratio and recent NPA are also influential factors in ascertaining NPAs. It indicates that the existing mechanisms for tackling bad debts,	the explicit bank-specific measurement issues. The study does not reflect more qualitative things affecting NPAs, like

Table 5, Literature Review, Source - Author's Interpretation

	profitability and economic growth.			and enhanced regulatory oversight. The report highlights the need for a holistic approach to deal with the underlying issues that lead to NPAs instead of only looking at recovery.	like borrower behavior and socio-economic impacts, which can also drive NPAs.
Varuna Agarwala & Nidhi Agarwala (2019)	To investigate the contribution of different banks to NPAs in the Indian banking sector from 2010 to 2017.	Non-performing assets (NPAs), types of banks (private sector, nationalized banks, SBI and associates), growth rates of NPAs.	Secondary data collected from the Reserve Bank of India form 2010-2017; geometric mean used for analysis.	Private sector banks show lower NPAs growth compared to nationalized banks and SBI associates; significant increase in NPAs for nationalized banks.	Parallels with issues in India, limited to 2010-2017, only public sector banks, and secondary data.
Efficiency of Indian banks with non-performing assets:	Non-performing assets (NPAs) affect the efficiency and	• desirable outputs (net interest income)	• two-stage network DEA model	The standard two-stage model showed a 40.7% average system efficiency for	The use of a relatively short period of time frame may capture the movements towards

Methodology

This research examines the firm relationships between the Non-Performing Assets (NPAs) of public and private sector banks on their return on equity, return on assets, liquidity ratio, and CASA ratio over a 12-year period (2013-2024). Secondary data for the said period has been employed to determine any association among variables and establish their causal effects.

Research Objectives

1. The study intends to explore the financial health of the banking sector in India. The study shall find the relationship of Net Non-Performing Assets (NNPA) with profitability and liquidity of Indian banks.
2. To provide policy recommendations improving the performance of the banks. Evidence-based suggestions directed towards efficacious NPA management would significantly contribute to policymakers and regulators in this regard.
3. To conduct an extensive review of literature on Non-Performing Assets (NPAs) and their effect on the performance of Indian banks.
4. To conduct an in-depth qualitative assessment of the current status of Non-Performing Assets (NPAs) in Indian banks.

To examine the economic impact of Non-Performing Assets (NPAs) on lending behaviour and market confidence, keeping in mind the important role valuation by banks contribute to economic growth and stability, is paramount in guiding banks in a stable economy. The study aims to give a detailed examination of how Non-Performing Assets (NPAs) affect key performance indicators in Indian banks. Through independent and dependent variables comprising profitability ratios, liquidity, and CASA, this study aims to submit findings that may be useful to advance banking best practices and regulatory decisions.

Data collection

- **Public and Private Sector Banks Annual Reports:** The first point of reference will be the annual reports of all six public and six private sector banks to be studied. The information typically included in these reports with the financial statement would be Return on Assets, Return on Equity, some liquidity ratios, and the Current Account Savings Account ratio.
- **Reserve Bank of India (RBI) Database:** RBI database publishes statistical tables concerning various facets of the Indian banking sector from which industry-specific inputs can be procured for comparative study.
- **Manual Data Extraction:** The financial data for ROA, ROE, liquidity ratio, CASA ratio and NPA will be manually extracted from the selected banks during a period of 4 years.
- **Screener and Money control:** The data were gathered from Screener.com and Moneycontrol.com, which provide in-depth statistics on the financial and banking industries. This method was used to come up with essential financial variables such as ROA, ROE, liquidity ratios, CASA ratios, and NPA data for the selected public and private sector banks in India.

Sample Size & Method of Sampling

Sample Size: The study analyzed twelve Indian banks, which together represent a mix of both public and private sector banks.

Method of Sampling:

1. **Purposive Sampling:** banks selected based on their market capitalization and market impact to ensure diversity representation.
2. **Time-Series & Panel Data Analysis:** Through twelve years (2013-2024) of financial data collected, it covers both short-term and long-term effects of NPAs on performance measures.

Independent Variable (IV)

Net Non-Performing Assets (Net NPA): Net NPA is that part of the total loans of a bank that has become bad and has not been supplied. It indicates the quality of a bank's assets and its financial stability. A higher NPA increase indicates poor credit management, which will negatively affect profitability and liquidity.

Dependent Variables (DV)

- **Return on Assets (ROA):** ROA assesses the efficiency of the bank in earning profits based on the total assets it possesses. A drop in the ROA figure may mean poor financial performance, most likely emulating from the high provisioning for NPAs.
- **Return on Equity (ROE):** ROE is the measure of the bank's profitability when compared with the equity shareholders. High NPAs reduce profits and affect ROE.
- **Liquidity Ratio:** This ratio indicates the extent to which a bank can meet its short-term obligations. Rising NPAs can pull down liquidity as funds become locked in the form of bad loans.
- **CASA Ratio:** The CASA ratio is the ratio of demand and savings deposits to the overall sum of a bank's deposits. A high CASA ratio means low-cost of funds, but a rising NPAs situation works against this sentiment of confidence among depositors, which can affect the ratio.

Problem Statement/Rationale of the Study

The Indian banking system is seeing the constant rise in Non-Performing Assets (NPAs), which is one major threat to the financial soundness and operational efficiency of banks. With the increase in NPAs, some crucial performance indicators such as Return on Assets (ROA), Return on Equity (ROE), liquidity, and the CASA ratio witness reductions. The aim of this study is to investigate the intertwined relations between non-performing assets (NPAs) and a set of major indicators, among others ROA, ROE, liquidity ratio, and CASA ratio. Extreme levels of NPAs can be daunting with the pressure they put on the financial viability of the banks by necessitating banks to use substantial amounts of funds to cater for possible losses. The risk of distribution will engage the banks into lesser profits, thus the Return on Assets (ROA) and Return on Equity (ROE) are all thus reduced. Therefore, liquidity may also decrease, making it difficult for banks to meet their financial durations and lending capabilities to various stakeholders.
Lastly, it can reduce the confidence of the market players, which are really out of the control of the banks and, furthermore, add salt into the wound of the problems creating a self- reinforcing loop putting the banking sector in jeopardy.

Research Gaps:

1. To identify the difference in NPA trends between public and private sector banks, while most existing studies focus primarily on public sector banks because of the compelled priority sector lending. This study includes a comparative analysis, combining public and private banks to get the findings.
2. To investigate the long-term trend of NPAs with respect to financial indicator impacts extended over a multinomial span of 13 years (2013-2024) as it will give a clearer understanding of the problem
3. To provide new insights by examining the impact of ROA, ROE, Liquidity ratio, and CASA Ratio on NPAs since earlier studies would individually consider these parameters only.
4. To suggest modern and practical solutions/strategies for reducing NPAs in Indian banks.

Economic Indicators

The study considered a variety of financial indicators as follows:

1. **Return on Assets:** Return on Assets is a profitability measure of the bank based on the total assets.
2. **Return on Equity:** Return on Equity, or ROE, may be determined with perspectives of returns over shareholders' equity.
3. **Liquidity Ratio:** It refers to the bank's capability to repay short-term debts.

4. **CASA Ratio:** The CASA Ratio compares low-cost current and savings accounts to total deposits.

The data collection forms the basis for empirical research through which the interaction of net NPAs on the financial performance will be quantified within the Indian banking sector. Using this information, the analysis is intended to apply many methodologies of panel data regression along with the application of statistical techniques to discover any patterns and relationships which will be useful in influencing and supporting banking policy and then mitigating risks.

Sample size and Determination

An observation unit, for this study, is each year-bank. This provides for the panel data structure to have 13 years (2011-2023) with 12 banks, resulting in a total of 156 observations (13 years
* 12 banks). A panel data study with 156 observations is thought to be sufficient for most econometric techniques. Hence, the sample size allows incorporation of time-series effects (change within a given bank over time) and cross-sectional effects (difference between banks) while allowing for sufficient degrees of freedom for conducting a statistical analysis.

Hypothesis

The study attempts to investigate how the level of Net Non-Performing Assets (Net NPA) affects the four financial performance indicators, which are Return on Assets (ROA), Return on Equity (ROE), Liquidity Ratio, and CASA Ratio.

Hypothesis Statements

H1: There is a significant relationship between Net NPA and Return on Assets (ROA).

ROA measures the efficiency of a bank in generating profit out of its total assets. Higher NPAs are likely to be hunched upon to become steadily deteriorating asset quality in the event of increase in provisioning required for bad loans, thus eating into profits. Hence, the study assumes that rise in Net NPA has a negative impact on ROA indicating weakness in financial health.

H2: There is a significant relationship between Net NPA and Return on Equity (ROE).

The ROE is an indicator of that return available to the shareholders from investments made in the equity of a company. High NPAs reduce the profits available, as more provisioning charges off the loans are created. Hence, the hypothesis disagrees with the assumption of an increase in Net NPA leading to a fall in returns for shareholders.

H3: There is a significant relationship between Net NPA and Liquidity Ratio.

H4: There is a significant relationship between Net NPA and CASA Ratio.

CASA or Current Account Saving Account ratio indicates the proportion of cheaper deposits in a bank's borrowing structure. A very high level of NPAs can put down depositors' confidence and may cause them to withdraw their CASA accounts, further pushing the bank to rely heavily on costly borrowings. Therefore, this study posits that an increase in Net NPA has a negative impact on CASA Ratio.

Null Hypothesis

H0: There is no significant relationship between Net NPA and financial performance measures (ROA, ROE, Liquidity Ratio, and CASA Ratio). The null hypothesis assumes that Net NPA variations do not significantly affect the bank's profitability, liquidity, or composition of deposits. If rejected, that may validate the alternative hypothesis that NPAs significantly affect financial performance.

Significance and Contribution of the Study to Discipline

Non-performing assets (NPAs) pose systematic threat to the banking industry's stability and operation. It becomes necessary to shed light on the causes of NPAs in public banks, as it helps to identify the some of the above risks can be minimized and even successfully mitigated by a comprehensive and timely assessment of the root causes of the problem of NPAs. The only feasible way for regulatory and central bank authorities, as well as bank management, to meet with the challenges of the banking sector is to enhance risk management frameworks, improve asset quality, and strengthen the financial system. The study among others examines the elements that are the NPA drivers as well as their influence on bank performance. Therefore, finding the main reasons for NPAs can prove beneficial for public banks in strengthening the state of their finances, increasing their capacity to face possible economic fluctuations and thereby ensuring the safety and confidence of the depositor and market credibility.

Suggestions

Capacity building and training

Public and commercial banks must constantly invest in capacity building and training programs so that their employees can equip themselves with these manage credit risks appropriately. Such programs should include credit analysis, risk assessment, restructuring of loans, and recovery mechanisms so as to enable the staff to manage NPAs effectively.

Optimization of Capital Allocation

New capital allocation techniques should involve moving resources away from other high-risk assets toward lower-risk assets and changing equity, debt, and reserves of borrowers for expected NPA nonperforming assets losses. This could support enough buffers above the regulatory limit and bolster financial resilience against unknown shocks.

Automated Communication Systems

Inability of banks and borrowers to communicate properly and timely reminders about loan repayment is among the greatest reasons for loan defaults. Automated systems sending reminders, notices, and updates to resolution options are other measures that further reduce NPAs as it significantly increases the borrower's awareness and attention.

Automated Reminder Systems

The AI-based communication tools offered to banks permit automatic SMS, email, and application reminders to be sent out to their borrowers regarding outstanding EMIs, late payments, and restructuring opportunities.

Behavioural analytics for proactive communication

Banks using AI and machine learning should be able to identify troubled borrowers who are at risk even before their loans default, based on their spending behavior and transaction history. The awareness can then offer proactive outreach to such borrowers before their loans turn into nonperforming assets.

Incentive Programs

Develop a reward scheme for the timely repayment of loans. Rewards may be in the forms of interest reduction on future loans, rebates, or other monetary incentives.

Waiver of Penalties

Borrowers who can repay their loans in a month or two after a jump in their EMI payment obligation may get penalty waivers.

Limitations of the study

The study does not have all the public and private sectors banks for the study only top six private and public banks based on their market capitalization are taken into the study.

1. The paper does not account for all possible factors affecting NPAs. It does cover all the variable that requires to examine the NPA management.

2. The study does not delve deeply into the qualitative aspects affecting NPAs, such as governance issues and political interference.
3. Limited to the 12 years (2013-2024) data. It should be of at least 15-18 years for long term analysis.

Conclusion

Assessing the Financial Health of the Indian Banking Sector: A Secondary Data Analysis of NPAs in Public and Private Sector Banks deals with some critical issues that influence financial stability and on the aspect of performance. Empirical evidence indicates that many factors such as Return on Assets (ROA) Return on Equity (ROE), the Liquidity Ratio, and CASA ratio have had and relative more crucial influences among others on NPAs in public and private banks. This leads to the conclusion that these findings reiterate the importance of proactive risk management measures and performance in how NPA levels can be controlled. Profitability or ROA-better banks had better asset quality thereby indicating efficient resource utilization and sounder lending practices. The efficient liquidity management for maintaining deposit levels and sufficient cash reserves also came to the forefront as critical strategies for managing liquidity risks and ensuring asset quality amid an economic downturn. It is still a fact that the NPA in the priority sector remains larger as compared to the non-priority sector. The study stresses the importance of applying automated communication systems, having financial literacy workshop programs, and establishing a much more purposeful loan restructuring operation for small-value loans.

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