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An Empirical Study on NPA and its Impact on Profitability with special reference to Indian Banks.

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ABSTRACT:
As a whole, bank performance is affected by NPAs. While NPA levels grow, revenues from banking operations fall. Non-performing assets (NPAs) are a big concern in India's banking system right now (NPAs). The increase of non-performing loans (NPAs) has a direct influence on the country's economic well-being. Improved profitability necessitates efficient management of non-performing assets (NPAs). Losses and poorer profitability in the banking business are due to NPAs and liability discrepancies. Prosperity, bank advances, and bank indicators are all examined in this research of non-performing assets.
KEY WORDS: Non-performing assets are sometimes referred to as "uncollectible debt" or "advances" (NPAs).

INTRODUCTION:

There is a lot of anxiety about non-performing assets among all of India's banks. Insofar as NPAs function as an indicator of the health of the banking sector in India by directly impacting the bank's bottom line. With a surge in non-performing assets (NPA), the banks' ability to issue new loans and contribute to a thriving economy is being negatively impacted. In addition, NPAs show how banks

handle credit risk over the financial cycle.

When operating in India's new, more open banking environment, it is essential to manage risk. The banking industry's main issues are identifying the problem and coming up with a plan for resolving it. Risk is a part of the banking business. When people need money but don't have it, banks serve as a neutral third-party intermediary. Market, operational, and credit risks all need to be integrated into a single indicator in order to properly manage the various risks. As a result, the level of risk must be considered.Furthermore, in order to come up with a more accurate assessment of the combined market and operational risk in banking. Credit risk management is seen as a significant component in NPA management. Non-performing assets (NPAs) and their impact on bank profitability are examined in this research. "Non-performing assets" (NPAs) are one example.

A non-performing asset is an asset that is no longer generating money for the owner or the banker (NPA). Any time a borrower has missed more than 180 consecutive days of interest and/or instalment payments on a loan. The 180-

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day grace period for non-performance was reduced to 90 days on March 31st, 2004.Non-payment of taxes for less than a year. Low-quality assets must make up at least 15% of the bank's reserves

Doubtful assets must have been non-performing assets (NPAs) for at least 12 months in order to qualify.

There has been a loss of assets uncovered by external or internal auditors. Even if the whole debt is written off, there is no way to get your money back. One of the primary causes of NPAs is "dreadful loans" or "defaults". Defaulting on a loan payment is a serious matter in the world of finance. The following are some of the explanations on why this is the case:

Traditional banking processes characterised by poor lending practises

• The world outside of our own (business cycle, natural calamities, financial sickness, etc)

• Factor that becomes more significant with time (due to internal management of bank, like terms of credit, credit policy etc)

In addition to having a negative effect on the bank's books, NPAs have a negative impact on the national economy. Banks may hike interest rates on certain products in order to compensate the losses on non-performing loan portfolios.

Funds may be diverted from worthy projects to poor ones if bad loans are available. Due to a lack of good ideas and bad investments, the economy has been badly affected.

A lack of cash in the banking system might lead to a liquidity crisis.

Unless their deposits are protected, depositors will not get their money and may possibly suffer a loss. As a consequence, bank investors suffer.

Recommendations for further reading

According to Namita Rajput, Anu Priya Arora, and Baljeet Kaur, banks throughout the world face a serious challenge (2011). As a consequence of the rise in non-performing loans (NPAs), which have a negative influence on banks' lending activities, the value of the Loan-Disbursement process is reduced. As a result, increasing capital adequacy criteria, such as the CRAR measure, to evaluate banks' capacity to absorb losses from non-performing assets is critical. Public sector banks in India have a substantial cushion of CRAR in the case of capital adequacy adjustments causing unexpected losses. Non-performing assets (NPAs) have grown significantly in recent years, and this must be tackled with substantial effort throughout the distribution and payback periods of loans. A compromise settlement technique has recently become popular among banks as a means of resolving disputes.

Banks' capital and the financial sector's vulnerabilities are at risk due to non-performing assets (NPAs), according to research by B.Ravi Kumar1, B.V.S.SSubba Rao2, and G.D.V, Kusuma 3 (2018). Politics and the economy have a role as well. When it comes to the health of the Indian banking sector, managing assets has always been a difficult task. There might be a rippling effect if the financial sector collapses.

D.Jakkodi For Dr.P.Rengarajan (2016), funds in non-performing assets (NPAs) can't be put to good use and would have a detrimental influence on bank performance. People's life are significantly impacted by the NPA.

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The ratio is higher for public sector banks. As a means of boosting productivity and profits, the government has taken a number of steps to reduce non-performing assets (NPAs). Non-performing loans (NPAs) in our financial institutions are still higher than average compared to worldwide standards. Good credit customers deserve loans from banks, and banks should do all they can to make this happen. I think it's a bad idea to have no NPAs. In order to speed the bank's turnaround, its senior executives must do more. So that banks' profitability, liquidity, and solvency are not adversely affected, the government should make it easier for pending matters to be resolved.

AN OVERVIEW OF THE PROBLEM:

Non-performing assets (NPA) have become the most significant threat to the banking industry in India in recent years. Even though the RBI and the Finance Ministry have taken several important steps to reduce NPA, no real results have been seen. Non-performing assets (NPAs) are rising at almost every SBI, Andhra Bank, and Axis Bank branch (NPAs). Over the last 13 years, NPA patterns at SBI and AndhraBank and Axis Bank will be used to assess the impact of NPA on bank net profits.

The research's objectives are as follows:

Using NPAs as a study variable, three chosen banks will be analysed over time to evaluate their general patterns and dynamic nature.

Build a forecasting model using GNPA (dependent variable) and time as inputs (Independent variable).

A forecasting model may be constructed using NNPA (Dependent variable) and time data (Independent variable).

THE FOLLOWING ARE PART OF THE RESEARCH METHODS

Data collection and analysis methodology describes the procedures to be followed, the equipment to be utilised, the scope and sample size to be used for data gathering, and the methodologies to be drawn from the results..

What are the goals of this study?

Non-performing assets at SBI, Andhra Bank, and Axis Bank have been tracked during a 13-year period, according to this investigation.

Information gathering:

Gathering data from secondary sources is used to accomplish the above stated goals. SBI, Andhra Bank, and Axis Bank's annual reports, as well as information from the Internet and RBI bulletins and research papers, were used to compile the data, which spans the years 2005 to 2017. THE DATA ANALYSIS TOOLS

NPA-related secondary source data was evaluated, collated, and organised into the necessary tables. Table data were used to draw conclusions. WHERE DO I START?

Tables and the coefficient of correlation have been used to examine the data. Tables are used to compare SBI, Andhra Bank, and Axis Banks' total advances, gross NPA, net NPA, and profitability.

7. **HYPOTHESIS:**

The NPA trends of the institutions examined show no major differences. When it comes to non-performing assets (NPAs), the banks under consideration show substantial variation. H0-2: NPA and Time have no line of relationship.

Ha -2: The NPA and the passage of time are linked in some way.

In first and foremost,

DATA TYPES AND SOURCES

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What Happened When The three institutions under examination have been the subject of records kept by the Reserve Bank of India for a period of 13 years.

There are two types of non-performing assets: gross and net (NNPA-Net). The study was carried out between 2005 and 2017. (13 years)

All of the data has been gathered from the Reserve Bank of India (RBI).

Accredited records from the government's archives

The following is the procedure:

Descriptive statistics for the general trend were obtained in Stage 1 of the study.

Stage 2: Linear regression is used as a forecasting technique by using R-Squared values.

The Linear Regression Model is used in the second stage.

Yc = a+bx + a+bx + a+bx

In this example, the answer Yc is dependent on It is independent of the other factors since it is a prediction.

When x equals 0, an is the value of y.

There is an inaccuracy in this phrase, which is called the slope of the line.

Stage 3: A one-way analysis of variance (ANOVA) is used to determine if there is a difference in linearity between the GNPA and NNPA of the three banks, and the hypotheses are evaluated using the F-Statistic Value.

8:**DATA ANALYSIS AND INTERPRETATION:**

Table 1. Descriptive Statistics

Bank	Minimum	Maximum	Mean		Skew	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
SBIGNPA	96281	98172	326717.23	1.315	.616	1.279
SBINNPA	49114	55807	165001.54	1.837	.616	3.608
ABGNPA	3681	11443	26000.08	1.729	.616	2.500
AXGNPA	2747	60875	17884.46	1.444	.616	1.768
ABNNPA	473	60357	13098.92	1.529	.616	1.534
AXNNPA	1122	25221	6361.00	2.226	.616	5.321

Forecasting Models Based on GNPA in case of Andhra Bank

Model	R	RSquare	Adjusted RSquare	Std.Error of the estimate
1	.817[a]	.667	.637	20888.741

To describe a model as moderately accurate, look for an R-squared value between 0.5 and 1. Andhra Bank's forecasting model is based on Regression Coefficients: GNPAANB = 7277.571+0.817X.

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Forecasting Models Based on GNPA in case of Axis Bank

Model	R	RSquare	Adjusted RSquare	Std.Error of the estimate
1	.902[a]	.814	.797	7928.923

The high R Square indicates that the model's forecasting performance is excellent. Therefore, the model is said to be quite accurate. GNPAAXIS = 4072.885+0.902X may be expressed as a forecasting model for Axis Bank based on regression coefficients.

Forecasting Models Based on GNPA in case of State Bank of India

Model	R	RSquare	Adjusted RSquare	Std.Error of the estimate
1	.891[a]	.793	.775	129242.719

The high R Square indicates that the model's forecasting performance is excellent. Therefore, the model is referred to be Highly Precise in this context. The GNPASBI forecasting model for SBI Bank may be expressed as GNPASBI = 62260.912+0.891X.

Forecasting Models Based on NNPA in case of Andhra Bank

Model	R	RSquare	Adjusted	Std.Error of the
1	.830[a]	.690	.661	11317.085

The high R Square indicates that the model's forecasting performance is excellent. Therefore, the model is referred to be Highly Precise in this context. In the example of Andhra Bank, NNPAAB = 4147.538+0.830X may be used as the regression coefficients for the forecasting model.

Model	R	RSquare	Adjusted RSquare	Std.Error of the estimate
1	.804[a]	.647	.615	4124.593

The high R Square indicates that the model's forecasting performance is excellent. That is why it is referred to as a High Precision model. The Axis Bank forecasting model may be phrased as the following using regression coefficients:

The NNPAAxis is 1372.357 +0.804X.

Forecasting Models Based on NNPA in case of SBI Bank

Model	R	RSquare	Adjusted RSquare	Std.Error of the estimate

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1	a. 851	.725	.700	80289.490

The high R Square indicates that the model's forecasting skill is high, making it very accurate. SBI Bank's forecasting model may be stated as NNPASBI= 32028.692 +0.851X, which is based on regression coefficients.

Analysis of Variance (One Way ANOVA)

		Sum of Squares	df	Mean Square	F	Sig.
AB	Between Groups	4385748842.308	2	2192874421.154	4.165	.024
	Within Groups	18952195792.615	36	526449883.128		
	Total	23337944634.923	38			
AXIS	Between Groups	2132450313.897	2	1066225156.949	9.052	.001
	Within Groups	4240560400.000	36	117793344.444		
	Total	6373010713.897	38			
SBI	Between Groups	693809878853.128	2	346904939426.564	10.889	.000
	Within Groups	1146861940515.231	36	31857276125.423		
	Total	1840671819368.359	38			

The null hypothesis is ruled out since the significance values are less than 0.05.. This means that there may be non-linearity in the GNPA, NNPA, and Time connections of banks.

STATUTORY CONDITIONS

While this study's focus was on NPAs, other research have shown that macroeconomic concerns such as the global recession and increasing inflation have a significant impact on banks' NPAs.

RESULTS OF THE STUDY:

The model's ability to predict the future is limited, as shown by its R Square value. As a result, the model's precision is described as "Medium." On the basis of Regression Coefficients, the GNPAANB = 7277.571+0.817X is the Andhra Bank's forecasting model.

Excellent predicting performance is shown by the model's high R Square. As a result, the model's accuracy may be considered high. Based on regression coefficients, GNPAAXIS = 4072.885+0.902X may be used as a forecasting model for Axis Bank.

The model's predicting performance is outstanding based on the high R Square. As a result, the model's accuracy may be considered high. SBI Bank's forecasting model may be stated asGNPASBI = 62260.912+0.891

NNPA-based Prediction Models

Excellent predicting performance is shown by the model's high R Square. As a result, the model's accuracy may be considered high. Based on regression coefficients, Andhra Bank's forecasting model is NNPAAB = 4147.538+0.830X.

Excellent predicting performance is shown by the model's high R Square. As a result, the model's accuracy may be considered high. The forecasting model for Axis Bank may be expressed by regression coefficients as NNPA = 1372.357 + 0.804X.

The model's predicting performance is outstanding based on the high R Square. As a result, the model's accuracy may be considered

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high. Using Regression Coefficients, the SBI Bank forecasting model can be written
At 32028.692 +0.851X, NNPASBI is

FINAL THOUGHTS:

Forecasting:
The GNPA-based forecasting models are promising when used for absolute forecasting.
Relative forecasting is more appropriate for NNPA-based forecasting models.
In most cases, the models are accurate
The symmetry of time:
A dynamic nature may be inferred from the GNPA and NNPA temporal connections. As a consequence, keeping track of it becomes more challenging.

CONCLUSIONS AND RECOMMENDATIONS

First, public sector banks need to reinforce their current credit evaluation system and stress on an unified lending policy framework with standard practise of close pre-sanction approvals and post-sanction follow-ups.
For the non-priority sector, public sector banks in India should use a selective approach to loan provision. Borrowers' creditworthiness should be the primary consideration in determining whether or not they are eligible for a loan or advance. Before extending loans, banks should use their market intelligence to gather information on the borrower.
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