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Impact Of Non-Performing Assets On Profitability Of Banks In India

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Abstract:
For the economy to flourish, a strong banking sector is important. With increased competition, new information technologies, declining processing costs, the erosion of product and geographic boundaries and less restrictive governmental regulations made the banking sector more complex. With the implementation of new technology, the banking industry has seen significant changes, but the prevalence of Non-performing assets has impacted banks' overall performance and profitability and it has become a growing concern and burden on Nation's economic growth. It is time for the banking sector to take measures to control and reduce the menace of NPAs. This paper makes an attempt to perform an analysis of Non- performing Assets of 10 leading Indian Commercial of which five are public sector and five private sector banks and their effect on banksprofitability.

Keywords: Indian Banking Sector, Commercial Banks, Gross NPA; Net NPA; Advances; ROA; Performance Evaluation, Standard Deviation, ANOVA

Introduction:
The development of a country is perceived through economic growth which is driven by the prevailing financial system. A very crucial role is played by the financial system by intermediating between the flow of funds belonging to those who save and those who borrow either to invest in forming productive assets or for personal needs. The banks' financial health in terms of performance and profitability speaks volumes of the country's economic growth. The banking industry has seen significant changes since the process of liberalisation, but the presence of Non-performing assets has affected the overall performance and profitability of the banks. In the Indian Banking sector, NPAs has become the subject of much discussion and scrutiny. The policy makers, which comprise the Reserve Bank ofIndia (RBI), Ministry of Finance and related government and financial sector, regulatory entities have made several notable efforts to improve regulations in the banking sector. Growth, profitability and NPAs are considered as the matrix of the banks. It was found that a few banks have established an outstanding track record of innovation, growth and valuecreation.

Non-performing assets are assets that cease to generate income through interest earned on the principal loan amount and the repayment of the principal loan amount. When the borrower intentionally defaults on the loan payment or is unable to repay the loan

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due to poor economic conditions affecting his business etc., resulting non-performingasset.

Reasons being Non-Performing Asset: As per the efficient and cost effective norms suggested by Reserve Bank of India (RBI), a bank cannot book interest on an NPA onaccrual basis. It means the interests can be registered only when it has been actuallyreceived.
Therefore, it has become critical for the banking sector to either acquire interest or principal. This lead to the increase in the level of NPAs which is affecting the profitability of a bank.

NPA Parameters

Nature of facility	Parameters
Term Loan	Interest and/or instalment of principal remain overdue beyond 90 days
Overdraft/Cash Credit R	Remains "out of order" as indicated above
Bill Purchased/discounted	Remains overdue beyond 90 days
Crop Loans (short duration crops)	Instalment of principal or interest thereon remains overdue for 2 crop seasons
Crop Loans (Long duration crops)	Instalment of principal or interest thereon remains overdue for 1 crop season
Securitization transactions	Amount of liquidity facility remains outstanding beyond 90 days
Derivative transactions	Overdue receivables representing positive mark-to-market value of a derivative contract whichremains unpaid beyond 90 days from specified due datefor payment

What led to the rise in NPAs:

Some of the factors that lead to increased NPAs are external, such as decreases in global commodity prices that lead to slower exports. With the globalization, large corporations were granted loans for projects based on extrapolation of their recent growth and performance.The growth of highly leveraged loans and with the financial crisis of 2008, the repayment capability of these corporations decreased which lead to

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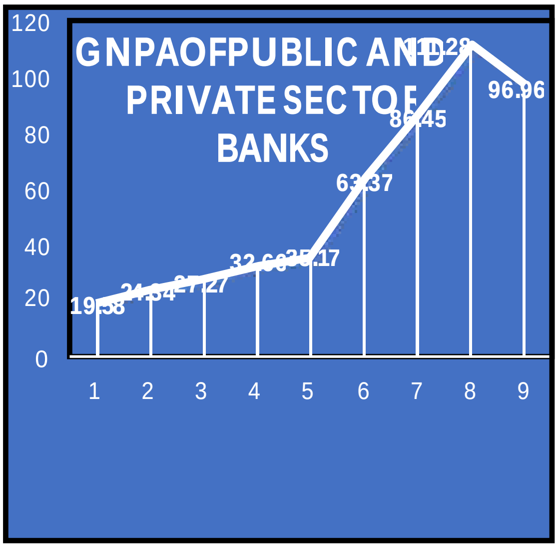
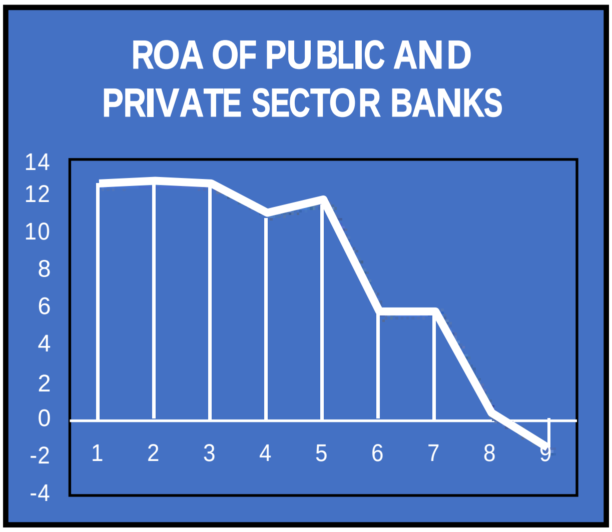
NPAs. The escalating NPAs made banks for higher provisions for losses in their books. More funds were set aside to pay for the anticipated losses leading to low profitability, which is measured by Return on Assets (ROA).

Return on Assets $\frac{Banks' net profits}{Banks' Net Assets}$

The increase of Gross NPAs (% of total loans) and the decline in Return on Assets (%) became the hour of the concern.





Review of literature:

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Approaches are developed to describe, forecast and learn the fact, the boundaries of the severe assumptions. The theoretical structure suggests and explains the theory which helps in outline the research problem under the study. NPA is a burning topic for the banking sector and many authors tried to study the reasons of NPA, the problems and impact of NPA on banking sector and tried to find solution or remedies of the growing problem of NPA. A number of papers have been written and gone through, and this part of this paper is attempting to present a review of all those are available in the same area of nonperforming assets of the public sector banks, private sector banks and other banks. This survey has conducted a study on the existing papers, articles, journals, and reports provided by different authors, groups and committees from time totime.

Dutta. A (2014): This paper studied the growth of NPA in the public and private sector banks in India, and analysed sector wise non-performing assets of the commercial banks. For the purpose of the study data has been collected from secondary sources such as report on Trend and Progress of Banking in India, RBI, Report on Currency and Finance, RBI Economic Surveys of India. ϖ Ahmad, Z., Jegadeeshwaran, M. (2013): The current paper is written on the NPA, and causes for NPA. Secondary data was collected for a period of five years and analysed by mean, CAGR, ANOVA and ranking banks. The banks were ranked as per their performance in managing the NPAs. The efficiency in managing the NPA by the nationalised banks was tested. ϖRanjan, R., Dhal, S.C. (2013): This paper explores an empirical approach to the analysis of the Indian commercial banks' nonperforming loans by regression analysis.

The empirical analysis evaluates as to how the NPLs are influenced by three major sets of economic and financial factors, i.e., terms of credit, bank size induced risk preferences and macroeconomic shocks. ϖPatidar, S.,Kataria, A. (2012): The study analyzed the percentage share of NPA as components of priority sector lending, the comparative study was conducted between SBI and Associates, Old Private Banks and New Private Banks and Nationalized Banks of the benchmark category, to find out the significant difference of the NPA and also find out the significant impact of Priority Sector Lending on the Total NPA of Banks using statistical tools like regression analysis and ratio analysis.

Objectives:

1. To find the trends in NPA Level of five Public and five Private sectorbanks
2. To examine the relationship between NPAs and financial performance (Return on Assets) of selected public and private sectorbanks.
3. To find out whether difference lies in the occurrence NPAs between the variousbanks

   – public and private sector, during the period of study

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Hypothesis of the study:

Null Hypothesis:

H1: There is significant relationship between the Gross NPAs of the public and private banks under study.

H2: There is significant relationship between the Net NPAs of the banks under study. H3: There is significant relationship between the ROA of the banks and NPA.
H4: There is significant difference between the Gross NPA of Public and Private sector banks understudy.

H5: There is significant difference between the ROA of Public and Private sector banks understudy.

Research Methodology:

Sources of data collection:

The present study is empirical in nature. Data is collected from the official website of banks, RBI website, Journals, and financial website like money control.com, etc. With the help of judgmental sampling, five banks from each public and private sector were selected.

Sample size:

The sample consists of Five Public sector banks – State Bank of India, Punjab National Bank, Bank of Baroda, IDBI and Central Bank and Five Private Sector Banks – ICICI, HDFC, AXIS Bank, Kotak Mahindra Bank and INDUSIND Bank.

Period of study:

The present study is based on secondary data and for a period of 9 years ie., from 2011 to 2019 were taken to examine the impact of banks financial performance in the context of Gross NPA, Net NPA for selected public and private sector banks.

Statistical Techniques:

Graphs have been used to show the growing Gross NPAs, Net NPAs, and decline of ROAs of the 10 banks selected for study to show the growth of NPAs and the ROA.

Financial Tools – Ratio Analysis and Statistical Tools (i.e.) Mean and ANOVA test have been used for data analysis.

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MEAN = Sum of variable/N

Standard Deviation (SD) = √∑X2/N-(∑X/N)
Coefficient of Variation (COV) = SD/MEAN* 100 One way Anova

LIMITATION OF THE STUDY :

1. The study is related to a period of 10years.

2. As the data are only secondary i.e. they are collected from the published annualreports.

3. Profitability ratio and NPA have been taken for thestudy.

SCOPE OF STUDY:

The study shows India's five Public and five Private sector banks' status of Gross NPA, Net NPA and profitability position in terms of ROA. This is the process of comparing income to output and determining how much profit has been made over a particular period of time. The profitability analysis conducted provides an evidence of banks earning potential and managementefficiency.

Data Analysis:

Gross NPA: It is the total amount of outstanding NPAs in the borrowable amount, excluding the interest receivable. As per the RBI regulation, once the account is classified as NPA, interest cannot be debited to the NPA account and apportions it as profit. Therefore, banks will record the interest receivable from the NPA account in a separate book and recover the same once the account is regularized by the borrower.

Net NPA: The Net NPA is the amount of Gross NPA less (1) interest debited to borrower and not recovered and not recognized as income and kept in interest suspense (2) amount of provisions held in respect of NPA and (3) amount of claim received and not appropriated.

Return on Assets: ROA is the ratio between Net Profit and Total Assets. It is a Key Profitability ratio measuring the efficiency of Asset management. The return on assets ratio is also known as return on investment relates to the firm's assets base and what kind of return they are getting on their investment in their assets. A high ROA indicates that management is effectively utilizing the company's assets to generate profit. Return on Assets% = Net Profit / Total Assets

One Way Anova:

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Gross NPA of Public & Private sector banks

GNPA		Sumof squares	Degrees of freedom	Mean Square	F	Significance
	Between groups	984.263	8	123.033	4.589	0.000
	Within groups	2171.741	81	26.812		
	Total	3156.004	89			

As per the analysis IDBI has the highest mean 11.76667 and HDFC has the least mean 1.065556 and the one way anova shows that there is significant relationship between the Gross NPAs to the total assets of the above banks during the period of 2011-2019 and we fail to accept the null hypothesis.

Net NPA of Public & Private sector banks

NNPA		Sumof squares	Degrees of freedom	Mean Square	F	Significance
	Between groups	285.692	8	35.711	4.338	0.000
	Within groups	666.805	81	8.232		
	Total	952.497				

As per the analysis IDBI has the highest mean 6.266667 and HDFC has the least mean 0.277778 and the one way anova shows that there is significant relationship between the Gross NPAs to the total assets of the above banks during the period of 2011-2019 and we fail to accept the null hypothesis.

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ROA:

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
SBI	9	4.10	1.63	5.73	2.9444	.43500	1.30499
PNB	9	10.59	.65	11.24	5.0722	1.21229	3.63686
BOB	9	5.14	.35	5.49	2.6867	.66752	2.00257
IDBI	9	15.63	1.06	16.69	6.2667	1.93095	5.79286
CENTRAL	9	10.55	.55	11.10	5.5878	1.21059	3.63178
ICICI	9	4.17	.72	4.89	2.1744	.54467	1.63401
HDFC	9	.20	.20	.40	.2778	.02763	.08288
AXIS	9	3.15	.25	3.40	1.1044	.37921	1.13763
KOTAK	9	.65	.61	1.26	.8911	.07456	.22369
INDUSIND	9	.94	.27	1.21	.4411	.09910	.29730
Valid N (listwise)	9						

Descriptive Statistics

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
SBI	1.287	.717	1.588	1.400
PNB	.465	.717	-1.070	1.400
BOB	.331	.717	-1.774	1.400
IDBI	.898	.717	-.677	1.400
CENTRAL	.350	.717	-1.233	1.400
ICICI	1.055	.717	-.375	1.400
HDFC	.426	.717	-1.530	1.400
AXIS	1.263	.717	.468	1.400
KOTAK	.239	.717	-1.133	1.400
INDUSIND	2.686	.717	7.493	1.400
Valid N (listwise)				

ROA		Sumof squares	Degrees of freedom	Mean Square	F	Significance
	Between groups	25.135	8	3.142	2.549	0.016
	Within groups	99.838	81	1.233		
	Total	124.973	89			

As per the analysis IDBI has the least mean -1.343 and HDFC has the highest mean 3.386 and the one way anova shows that except in the year 2011, there is significant relationship between the ROA to the total assets of the above banks during the period of 2011-2019 and we fail to accept the null hypothesis.

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A further study has been conducted to understand the Gross NPA Ratio and Net NPA Ratio with the ROA.

ROA With GNPA		Sum of squares	Degrees of freedom	Mean Square	F	Significance
	Between groups	124.208	84	1.479	9.668	0.009
	Within groups	0.765	5	0.153		
	Total	124.973	89			

As the F value is 9.668 which isvery greater than the significance value 0.009, we fail to accept the null hypothesis and accept the alternate hypothesis that there is significant relationship between Gross Non-Performing Assets and Return onAssets.

ROA With NNPA		Sum of squares	Degrees of freedom	Mean Square	F	Significance
	Between groups	123.909	76	1.630	19.918	0.000
	Within groups	1.064	13	0.82		
	Total	124.	89			

As the F value is 19.918 which isvery greater than the significance value 0.000, we fail to accept the null hypothesis and accept the alternate hypothesis that there is significant relationship between Gross Non-Performing Assets and Return onAssets.

Conclusion: The Indian Banking Sector is mainly dominated by the Public Sector Banks. Globalization has encouraged multinationals and foreign banks to set up their business unit in India.

It shows that the selected public sector banks and private sector banks are different in terms of total assets, their gross NPAs and Net NPAs and the efficiency factors. Analysis shows that there exist differences exist in terms of their total assets, Gross NPAs, Net NPAs and in their mean value of Return on Assets.

The private sector banks like HDFC Bank, Axis Bank have efficiently carry their business operations to have control on NPAs and focus on ROAs.

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Public Sector Banks in India specially IDBI, PNB have performed rather poorly during the last few years. For the most part this has been on account of Non Performing Asset (NPA) related worries which have so far been brushed under the carpet.

Recommendations & further study:

When the anova was conducted year wise there was no significance found during the year 2011. Inspite of the financial crisis in mid 2008, banks could work and manage efficiently the NPAs till 2011, but because of the inflow of the foreign banks and the continuous development of technology there is a research gap between the performance of the banks and their operations management which can be studied further. Though there are some genuine reasons for the rise of NPAs in India due to external and internal reasons, which can be reduced by proper implementation of data analytics, artificial Intelligence and machine learning.

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