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A STUDY ON NON-PERFORMING ASSETS OF PUBLIC AND PRIVATE SECTOR BANKS IN INDIA

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ABSTRACT

The Indian banking system has undergone significant transformation following financial sector reforms. Several provisioning norms have been introduced, and these are pressurizing banks to improve efficiency and trim down NPAs to improve the financial health in the banking system. In the background of these developments, this study strives to examine the state of affair of the Non performing Assets (NPAs) of the public sector banks and private sector banks in India. The study is based on the secondary data retrieved from Report on Trend and Progress of Banking in India. The scope of the study is limited to the analysis of NPAs of the public sector banks and private sector banks NPAs. It examines trend of NPAs in weaker sections in both public sector and private sector banks .The data has been analyzed by statistical tools such as percentages, Correlation, Trend Analysis and One Way ANOVA. The study observed that the private sector Banks were more efficient than the public sector banks. This is highly essential for the banks to focus their attention on growth of nonperforming assets and take appropriate measures to regulate their NPA.

Key Words: Non Performing Asset, Financial Institutions, Gross Advances, Profitability and Liquidity.

1. INTRODUCTION

Non Performing Assets (NPA) is a classification used by financial institutions that refer to loans that are in jeopardy of default. Once the borrower has failed to make interest or principal payments for 90 days the loan is considered to be a non-performing asset or non-performing loan. The Non Performing Asset is classified into Gross NPA and Net NPA. NPA means booking of money in terms of bad asset, which occurred due to wrong choice of client. Because of the money getting blocked the prodigality of bank decreases not only by the amount of NPA but NPA lead to opportunity cost also as that much of profit invested in some return earning project/asset. So NPA does not affect current profit but also future stream of profit, which may lead to loss of some longterm beneficial opportunity. Another impact of reduction in profitability is low ROI (Return on Investment), which adversely affect current earning of bank. Time and efforts of management is another indirect cost which bank has to bear due to NPA. If a bank is facing problem of NPA, then it adversely affects the value of bank in terms of market for credit. It will lose its goodwill and brand image and credit which have negative impact to the people who are putting their money in the banks.

2. LITERATURE REVIEWS

S.Aravanan, N.Vijayakumar (2001) examined the measurement of rating performance of Public Sector, Private Sector, and Foreign Banks. Selective indicators like Performance analysis ratio, NPA Mix Ratio, Rating the scale of Nonperforming assets are analyzed. The Larger amount of NPA in the banks determines the financial health in terms of Profitability, Liquidity and Economies scale of operation. Harpreet Kaur and Neeraj Kumar Saddy (2011) by comparing public sector banks and private sector banks, found that the extend of NPA is comparatively higher in public sector banks. Debarshi Ghosh and Suganya Gosh (2011) stated that public sector bank in India has been able to manage high level of Capital to Risk Assets Ratio to provide adequate cushion for any unexpected losses. Namita Rajput, Anupriya Arrora, Baljeet Kaur (2012) focused on Core banking solutions and observes that the prudential and provisioning norms improve the performance and consequently resulted into down of NPA. Tanmaya Kumar Pradhan (2012) examine the norms of the loan bank processing, and found that 92% of Bankers opine to go for out –of-court settlement than taking a legal action against defaulters. Bharathi Gupta (2012) focused the evaluation of operational performance of SBI & Associates and other public sector banks and conclude that public sector banks are in troubles like excessive man power, excessive NPA and excessive governmental equity and private sector banks are consolidating themselves through adoption of latest technology and system. Munib Badar and Atiya Yasmin Javid (2013) found that the long run relationship exists between non-performing loans and money supply and interest rate. Sakshi Jhamp and H.V.Jhamp (2013) found that the NPA was not the only factor in eroding the profitability of the banks as the NPAs to net advances ratio has been continuously on the decline. Priyanka Mohnani and Monal Deshmukh (2013) concluded that the magnitude of NPA was comparatively higher in public sector banks compared to private banks. Laveena, Meenakshi Malhotra (2014) examined the trend of NPA over the past eight years and relationship between

NPAs and profitability of private sector banks and the result showed the significant impact of priority sector lending on Gross NPA of private sector banks. Sushama Yadav (2014) found that Operational effectiveness of the bank is affected by the quality of advances which in turn has an impact of the profitability, liquidity and solvency position of the banks. Since only few studies were made to compare the Non Performing Assets of Private and Public Sector Banks, the present made an attempt to analyse the trend and comparative analysis of Sample Private and Public Sector Banks.

3. STATEMENT OF THE PROBLEM

The public sector banks should not be loaded with the doppelganger objectives of social welfare and profitability which seems to be mutually incongruent. While gross NPA reflects the quality of the loans made by banks, net NPA shows the actual burden of banks. The banks have to take a pivotal role to reduce NPAs in a time bound strategic approach. There has been an incessant decrease in the time period to declare a loan as non-performing. The continuous decrease in the time period is actually done to reduce gap between the International banking norms and Indian banking norms.

4. NEED OF THE STUDY

Quantum increases in various classes of NPAs, Substandard, Doubtful, and Loss assets deplete asset quality. The attitude of the Government inhibiting the use of coercive methods of recovery has accelerated wilful default. The various relief and one time settlement Schemes have enabled marginal recovery of NPAs. Recovery through litigation is rather slow, since the number of executions pending is mounting in all the banks. Thus various other avenues of recovery, especially compromise settlements may be considered. However, impact on profitability and liquidity cannot be pushed to the back ground.

5. OBJECTIVES OF THE STUDY

The main objectives of the study are to analyze the Non-Performing Assets in Indian Commercial banks. The following additional objectives are framed in line with the main objectives.

- To analyze the trend of Non-Performing Assets of the Sample Private and Public Sector Banks.
- To compare the Non-Performing Assets of Sample Private and Public Sector Banks.
- To analyze the impact of Non-Performing Assets on Profitability and Liquidity of Sample Private and Public Sector Banks.

6. HYPOTHESES OF THE STUDY

NH_1: There is no significant difference in the Non – Performing Assets of Private and Public Sector Banks

NH_2: There is no significant impact of Non-Performing Assets on Profitability and Liquidity of Private and Public Sector banks.

7. DATA AND METHODOLOGY OF THE STUDY

7.1. SAMPLE SELECTION

This study considered 39 domestic banks in India for sample selection. It included both public and private sector banks. Among the 39 banks, only top 5 banks were selected on the basis of domestic market capitalization from both public and private sector banks. The sample selection is given in Table – 1.

7.2 SOURCES OF DATA AND SAMPLE PERIOD

The present study was mainly based on secondary data which were collected from www.rbi.org.in, Banking Statistics Reports and the Annual Reports of the respective banks through www.moneycontrol.com and prowess database. The other sources were various books, journals and website. The present study investigated the impact of NPA on financial performance of the Indian Public and Private Sector Banks in India. The data represented the Non –Performing Assets of the Private and Public Sector Banks from 01st April 2000 to 31st March 2013.

7.3 TOOLS USED FOR ANALYSIS

The tools namely Correlation, One Way ANOVA and Trend Analysis were used for the purpose of analysis of this study.

8. LIMITATIONS OF THE STUDY

- Only NPA was evaluated, other variables were not considered.
- The findings may differ when different sample period is considered.
- The study is restricted to analysing the impact of NPA only on Liquidity and Profitability of sample banks.

9. DATA ANALYSIS AND INTERPRETATION

TABLE – 1

SAMPLE SELECTION BASED ON DOMESTIC MARKET CAPITALIZATION OF BANKS AS ON 12/02/2014

S.No.	Banks in India	Market Capitalization Value (Rs. in Crore)
	Public Sector Banks	
1.	State Bank of India	188,819.53
2.	Bank of Baroda	38,728.81
3.	Punjab National Bank	35,566.13
4.	Canara Bank	18,164.37
5.	Indian Bank	10,000.00
	Private Sector Banks	
6.	HDFC Bank Limited	206,759.00
7.	ICICI Bank Limited	185,276.89
8.	AXIS Bank Limited	96,631.66
9.	Kotak Mahindra Bank Limited	80,379.65
10.	Federal Bank Limited	10,689.82

Source: www.moneycontrol.com

TABLE – 2

GROSS NPA RATIO OF THE SAMPLE BANKS

YEAR	AXIS BANK	FEDERAL BANK	HDFC BANK	KOTAK BANK	ICICI BANK	STATE BANK	INDIAN BANK	CANARA BANK	BANK OF BARODA	PUNJAB NATIONAL BANK
2000	0	12.15	3.62	0	0	0	42.23	0	15.98	0
2001	1545.51	13.22	3.17	0	0	0	36.40	0	15.26	12.34
2002	467.53	12.30	3.27	1.00	10.66	9.31	34.12	6.38	13.34	12.05
2003	0.32	8.49	2.26	1.21	9.44	7.08	30.99	6.11	11.79	12.38
2004	2.93	7.80	1.89	0.85	4.86	5.69	26.43	6.46	11.18	9.89
2005	1.99	7.68	1.72	0.70	3.03	4.34	17.17	3.92	7.65	6.19
2006	1.69	4.79	1.45	0.59	1.52	2.57	11.03	2.26	3.99	4.21
2007	1.13	3.02	1.40	2.54	2.11	2.05	7.23	1.52	2.50	3.51
2008	0.83	2.47	1.43	2.91	3.36	2.13	4.85	1.19	1.86	2.78
2009	1.10	2.63	2.01	4.15	4.42	2.09	4.81	1.57	1.29	1.62
2010	1.26	3.04	1.44	3.69	5.23	2.25	7.86	1.53	0.02	1.72
2011	1.12	3.59	1.06	0.02	4.64	2.52	6.39	1.49	1.38	1.81
2012	1.06	3.44	1.02	0.16	3.73	3.41	6.53	1.73	1.55	2.97
2013	1.22	3.52	0.97	1.56	3.31	3.68	8.30	2.58	2.43	4.36
AVERAGE	1.17	4.26	1.30	0.12	3.92	3.58	9.95	2.17	0.34	12.34

Source: Compiled from Annual Reports of the Banks and Calculated using Excel

Gross NPAs are the sum total of all loan assets that are classified as NPAs as per RBI guidelines as on Balance Sheet date. It consists of all the nonstandard assets like as sub-standard, doubtful, and loss assets. It can be calculated as a ratio of **Gross NPAs to Gross Advances.** It is interpreted from Table-2 that the Gross NPA Ratio of Axis bank is high in the year 2001 and 2002, it declined to 0.32 in 2003, recorded ups and downs from 2004 to 2013. In Federal Bank, the Gross NPA is lowest in 2007 and there is a slight increase till 2013. With an exception to the year 2009, there was a decreasing trend in HDFC Bank. The Kotak Bank had a decreasing trend from 2003 to 2006 and an increase during 2007 till 2009 and further decreased during 2012 and 2013. ICICI Bank had a decreasing phase from 2002 to 2006, an increasing phase from 2007 to 2010 and finally again decreasing phase from 2011 to 2013. State Bank has fluctuating trend whereas Indian Bank and Canara Bank has decreasing trend. The Bank of Baroda shows a high rate of increase in the year 2000 and it is being reduced from 2001 and 2013.The Punjab National Bank shows a decreasing trend from 2002 and 2013.

TABLE – 3

NET NPA RATIO OF THE SAMPLE BANKS

Year	AXIS BANK	FEDERAL BANK	HDFC BANK	KOTAK BANK	ICICI BANK	STATE BANK	INDIAN BANK	CANARA BANK	BANK OF BARODA	PUNJAB NATIONAL BANK
2000	0	12.15	3.31	0	0	0	42.23	0	15.98	0
2001	1545.52	13.22	1.37	0	0	0	36.40	0	15.26	12.34
2002	-510.53	9.71	1.46	-2.11	5.59	5.26	34.12	4.77	8.49	10219.52
2003	1.86	5.66	0.67	0.41	5.30	3.89	30.99	4.79	6.35	14545.18
2004	2.24	5.14	0.65	0.20	2.27	2.89	26.43	5.03	5.88	11015.98
2005	0.94	3.60	0.52	0.34	1.68	2.22	13.24	1.59	3.63	539.07
2006	1.26	0.73	0.38	0.39	0.74	1.33	9.40	0.85	1.13	-43.41
2007	0.71	0.05	0.65	2.34	1.04	1.09	6.11	0.74	0.93	2243.94
2008	0.58	0.49	0.72	2.50	1.61	1.24	4.16	0.77	0.94	1982.76
2009	0.80	0.76	1.41	3.20	2.09	1.30	4.38	1.30	0.27	420.98

2010	0.72	1.15	0.40	2.32	2.12	1.26	7.54	1.15	0.01	1186.06
2011	0.50	1.48	0.17	0.01	1.11	1.24	6.24	1.11	0.60	1980.40
2012	0.37	0.97	0.31	0.06	0.73	1.39	6.35	1.41	0.74	5021.44
2013	0.55	1.15	0.29	0.79	0.77	1.61	7.84	2.34	1.56	12579.25
AVERAGE	0.67	1.97	0.48	0.7463	1.51	1.99	9.43	1.60	0.19	12.34

Source: Compiled from Annual Reports of the Banks and Calculated using Excel

Net NPAs are those type of NPAs in which the bank has deducted the provision regarding NPAs. Net NPA shows the actual burden of banks. It can be calculated as the ratio of **Gross NPAs – Provisions to Gross Advances – Provisions.** It is interpreted Table 3 that the Net NPA Ratio of Axis Bank has a fluctuating trend with ups and downs. For Federal Bank there is decrease during the period 2002 to 2013. In HDFC Bank, the Net NPA is decreasing over the years 2000 to 2006; it is increasing for next three years, again at a decreasing trend for next four years. Thus there is a fluctuating trend. The Net NPA ratio of Kotak Bank is negative during 2002. The value ranges from 0.41 to 0.39 during 2003 to 2006. The value ranges from 2.34 to 3.20 at an increasing trend from 2007 to 2009. The value ranges from 2.32 to 0.79 at a decreasing trend from 2011 to 2013.In ICICI Bank the value ranges from 2.27 to 0.77 at a decreasing phase from 2004 to 2013. The trend of Net NPA ratio is fluctuating. In case of State Bank the Net NPA ratio is high during 2002. The value ranges from 3.89 to 1.61 during 2003 to 2013. The trend of Net NPA ratio is fluctuating. In Indian Bank the value ranges from 36.40 to 7.84 at a decreasing phrase from 2001 to 2013. The trend of Net NPA ratio is fluctuating. For Canara Bank the Net NPA ratio is 4.77 in 2002 and 5.03 in 2004. The value ranges from 1.59 to 1.41, with a decreasing phase from 2003 to 2012. The trend of Net NPA ratio is fluctuating. In Bank of Baroda the Net NPA ratio ranges between 15.26 and 1.56 between 2001 and 2013. In Punjab National Bank the Net NPA ratio is fluctuating between 10219.52 and 12579.25 over the years 2002 and 2013. Since in India, Bank Balance Sheets contain a huge amount of NPAs and the process of recovery and write off of loans is very time consuming, the provisions the banks have to make against the NPAs according to the Central Bank guidelines, are quite significant.

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TABLE - 4

PROBLEM ASSETS RATIO OF SAMPLE BANKS

YEAR	PROBLEM ASSETS RATIO OF THE BANKS									
	AXIS BANK	FEDERAL BANK	HDFC BANK	KOTAK BANK	ICICI BANK	STATE BANK	INDIAN BANK	CANARA BANK	BANK OF BARODA	PUNJAB NATIONAL BANK
2000	0	6.45	1.05	0	0	0	17.39	0	0	0
2001	2.10	7.28	0.94	0	0	0	15.09	0	0	0
2002	1.96	6.28	0.94	0.69	4.78	3.44	14.09	2.93	6.33	5.67
2003	1.17	4.32	0.87	0.70	4.67	2.71	12.06	3.02	5.45	5.77
2004	1.14	3.97	0.79	0.31	2.42	2.30	10.57	3.14	4.68	4.56
2005	0.82	4.03	0.85	0.43	1.64	1.98	7.88	2.15	3.51	2.96
2006	0.76	2.72	0.69	0.37	0.88	1.38	5.20	1.35	2.11	2.16
2007	0.57	1.79	0.72	1.39	1.19	1.23	4.41	0.90	1.46	2.09
2008	0.45	1.44	0.68	1.60	1.89	1.25	2.74	0.70	1.10	1.67
2009	0.61	1.51	1.08	2.40	2.54	1.20	2.94	0.99	0.81	1.02
2010	0.73	1.87	0.82	2.05	2.61	1.35	4.82	0.98	0.86	1.08
2011	0.66	2.22	0.61	1.19	2.47	1.54	3.95	0.93	0.88	1.16
2012	0.63	2.15	0.59	0.94	1.94	2.17	4.17	1.20	1.00	1.90
2013	0.70	2.19	0.58	0.91	1.79	2.40	5.38	1.52	1.46	2.81
AVERAGE	0.69	2.52	0.71	1.24	2.10	2.06	5.73	1.36	1.92	2.29

Source: Compiled from Annual Reports of the Banks and Calculated using Excel

It is interpreted from the above table that the Problem Assets Ratio is decreases from 0.57 in 2007 to 0.45 in 2008. The Problem Assets ratio is at a increasing trend from 2009 to 2013. Thus over the entire period the trend is fluctuating. In Federal Bank the Problem Assets Ratio was at a decreasing phase from 2001 to 2008 except during 2005. It again increases for next three years. In HDFC Bank, the Problem Assets Ratio was at a decreasing phase from 2001 to 2008 except during 2005. It again increases for next three years. In Kotak Bank the Problem Asset ratio decreases from 1.19 to 0.91 during 2011 to 2013. The trend of Problem Asset Ratio is a fluctuating trend. In ICICI Bank among the 11 year period, the four year period of 2009 to 2012 is at a decreasing phase. Thus the trend is fluctuating. In State Bank of India it is interesting to note that the Problem Asset ratio is high during 2002 with a value of 3.44. The Problem Asset ratio is at a decreasing trend from 2003 to 2013. In Indian Bank, the Problem Asset Ratio decreases from 15.09 to 5.38, between 2001 and 2013. The trend of Problem asset ratio is fluctuating. Canara Bank noted that the Problem Asset ratio is at a decreasing trend ranging from 2.15 to 1.52 between 2005 and 2013. The Problem Asset Ratio is fluctuating. Bank of Baroda noted decreasing trend, varying between 5.45 and 1.46 for the years from 2003 to 2013. The trend of Problem asset ratio is fluctuating. In Punjab National Bank, the Problem Asset ratio is fluctuating between 5.67 and 5.77 for the years 2002 to 2003.

TABLE - 5

TOTAL PROVISIONING RATIO OF SAMPLE BANKS

YEAR	TOTAL PROVISIONING RATIO OF THE BANKS									
	AXIS BANK	FEDERAL BANK	HDFC BANK	KOTAK BANK	ICICI BANK	STATE BANK	INDIAN BANK	CANARA BANK	BANK OF BARODA	PUNJAB NATIONAL BANK
2000	0	0	10.88	0	0	0	0	0	0	0
2001	0	0	57.81	0	0	0	0	0	0	0
2002	16.98	337.73	56.58	304.08	210.29	45.97	0	378.46	39.72	347.55
2003	42.25	423.73	47.50	66.47	228.14	46.88	0	438.02	49.25	262.21

2004	24.85	489.64	66.31	76.76	187.54	50.62	0	431.38	50.37	164.71
2005	53.21	848.18	70.05	51.72	223.99	49.93	22.90	165.49	54.59	102.44
2006	26.11	1091.41	74.39	34.53	194.49	48.99	14.73	158.84	72.47	99.67
2007	37.76	1007.61	53.77	8.18	198.03	47.41	15.54	193.29	63.48	133.70
2008	30.80	857.98	50.15	14.42	192.21	42.17	14.27	285.52	50.04	145.57
2009	27.43	960.39	30.61	23.65	189.37	38.42	8.89	581.07	79.14	113.30
2010	43.29	1170.30	72.87	38.10	168.11	44.36	4.00	393.79	57.20	145.09
2011	56.20	1555.52	84.09	67.46	131.56	51.25	2.44	390.11	57.05	200.88
2012	65.70	2141.68	69.92	63.88	124.44	60.13	2.71	533.28	52.89	379.65
2013	55.31	2398.48	70.55	49.70	130.24	57.11	5.45	1045.87	36.59	321.84
AVERAGE	47.17	55.80	63.03	42.17	151.05	45.23	5.23	372.36	42.94	206.08

Source: Compiled from Annual Reports of the Banks and Calculated using Excel

It is interpreted from Table 5 that the Total Provisioning Ratio of Axis Bank is highest during 2012 and lowest during 2001. The years 2011 to 2013 have the Total Provisioning Ratio of more than the average value of 47.17. Federal Bank had increase from 337.73 in 2002 to 1091.41 in 2006. Followed by a decrease in 2008, it increases till 2013. The trend is an increasing trend except a downward movement in 2008. HDFC Bank has a fluctuating trend, with a lowest ratio of 10.88 and a highest ratio of 84.09 among the 13 years ranging from 2000 to 2013. In Kotak Bank it is noted that the Total Provisioning ratio decreases from 66.47 in 2003 to 49.70 in 2013. A fluctuating trend of Total Provisioning Ratio is found. It is noted that the Total Provisioning ratio of ICICI Bank is fluctuating from 187.54 in 2004 to 130.24 in 2013. In State Bank it is noted that the Total Provisioning ratio is at a decreasing trend from 2005 to 2009. In Indian Bank, the Total Provisioning ratio is at a decreasing trend, with the values ranging from 14.73 to 5.45, between 2006 and 2013. Canara Bank noted fluctuating Total Provisioning ratio between 378.46

and 1045.87 during 2002 to 2013. Bank of Baroda shows decrease from 57.20 to 36.59 in the years 2010 to 2013. Punjab National Bank has decline from 347.55 to 321.84 over the years 2002 to 2013. The trend of Total Provisioning ratio is fluctuating for the banks Axis Bank, Federal Bank, HDFC Bank, Kotak Bank, ICICI Bank, State Bank, Indian Bank, Canara Bank, Bank of Baroda and Punjab National Bank.

TABLE – 6

ONE WAY ANOVA

Variables	F	Sig.
Gross NPA	11.794	.001
Net NPA	6.511	.012
Problem Assets Ratio	10.122	.002
Total Provisioning Ratio	4.310	.040

Source: Compiled from Annual Reports of Sample Banks and Calculated using SPSS

H01 - There is no significant difference in the Gross NPA of Private and Public Sector Banks.

H01(a) - There is no significant difference in the Gross NPA of Private Sector Banks.

H01(b) - There is no significant difference in the Gross NPA of Public Sector Banks.

H02 - There is no significant difference in the Net NPA of Private and Public Sector Banks.

H02(a) - There is no significant difference in the Net NPA of Private Sector Banks.

H02(b) - There is no significant difference in the Net NPA of Public Sector Banks.

H03 - There is no significant difference in the Problem Assets Ratio of Private and Public Sector Banks.

H03(a) - There is no significant difference in the Problem Assets Ratio of Private Sector Banks.

H03(b) - There is no significant difference in the Problem Assets Ratio of Public Sector Banks.

H04 - There is no significant difference in the Total Provisioning Ratio of Private and Public Sector Banks.

H04(a) - There is no significant difference in the Total Provisioning Ratio of Private Sector Banks.

H04(b) - There is no significant difference in the Total Provisioning Ratio of Public Sector Banks.

TABLE - 7

CORRELATION RESULTS BETWEEN NPA AND PROFITABILITY VARIABLES

NAME OF THE BANK	PROFITABILITY VARIABLES	GROSS NPA	NET NPA
		(Karl Pearson Correlation value)	
AXIS BANK	Interest Margin	0.762**	-0.427
	Net Profit Margin	0.725**	-0.286
	Asset Utilization	0.233	0.057
	ROA	0.842**	-0.380
	ROE	0.864**	-0.184
	Equity Multiplier	0.922**	-0.159
FEDERAL BANK	Interest Margin	0.713**	0.638*
	Net Profit Margin	0.230	0.130
	Asset Utilization	-0.433	-0.624*
	ROA	0.772**	0.582*
	ROE	0.267	0.322
	Equity Multiplier	-0.174	0.069
HDFC BANK	Interest Margin	0.516	-0.194
	Net Profit Margin	-0.617*	-0.304
	Asset Utilization	0.799**	-0.296
	ROA	-0.120	0.215
	ROE	0 .562*	-0.522
	Equity Multiplier	0.621*	-0.548*
ICICI BANK	Interest Margin	0.332	-0.309
	Net Profit Margin	-0.178	-0.417
	Asset Utilization	0.264	-0.171
	ROA	0.055	-0.405

	ROE	0.383	-0.255
	Equity Multiplier	0.577*	0.212
KOTAK BANK	Interest Margin	0.884**	0.638*
	Net Profit Margin	-0.669**	0.879**
	Asset Utilization	-0.254	-0.219
	ROA	0.350	0.340
	ROE	0.307	-0.152
	Equity Multiplier	0.563*	0.174
STATE BANK OF INDIA	Interest Margin	0.153	-0.450
	Net Profit Margin	0.384	-0.485
	Asset Utilization	0.321	-0.374
	ROA	0.339	-0.445
	ROE	0.730**	0.286
	Equity Multiplier	0.718**	0.295
INDIAN BANK	Interest Margin	-0.004	0.717**
	Net Profit Margin	-0.013	-0.878**
	Asset Utilization	-0.038	0.701**
	ROA	-0.085	-0.916**
	ROE	0.542*	-0.826**
	Equity Multiplier	0.475	0.717**
CANARA BANK	Interest Margin	-0.312	-0.322
	Net Profit Margin	0.194	-0.572*
	Asset Utilization	-0.093	0.256
	ROA	0.264	-0.532
	ROE	0.647*	0.267
	Equity Multiplier	0.768**	0.479
BANK OF INDIA	Interest Margin	0.237	0.318

	Net Profit Margin	-0.403	-0.702**
	Asset Utilization	0.459	0.903**
	ROA	-0.351	-0.512
	ROE	-0.003	-0.516
	Equity Multiplier	0.128	-0.595*
PUNJAB NATIONAL BANK	Interest Margin	0.100	0.366
	Net Profit Margin	0.028	0.351
	Asset Utilization	0.204	0.212
	ROA	-0.176	-0.250
	ROE	0.250	-0.470
	Equity Multiplier	0.381	0.124

Source: Compiled from Annual Reports of the Banks and Calculated using SPSS

There is positive correlation between the Gross NPA and Profitability variables except for asset utilisation at 1% level of significance and there is inverse relationship between Profitability Variables and Net NPA except Asset Utilisation in case of Axis Bank.

For Federal Bank there is Positive Correlation between the Gross NPA and Profitability variables except for asset utilization and Equity Multiplier. There is positive relationship between Profitability Variables and Net NPA except for Asset Utilisation.

The Positive Correlation between the Gross NPA and Profitability variables except for Net Profit Margin and ROA was observed in case of HDFC Bank and there is inverse relationship and there is inverse relationship between Profitability Variables and Net NPA except for ROA.

The correlation results of ICICI Bank observed positive relationship between the Gross NPA and Profitability variables except for Net Profit Margin. There is inverse relationship between Profitability Variables and Net NPA except for Equity Multiplier.

For Kotak Bank, Positive Correlation between the Gross NPA and Profitability variables except for Net Profit Margin and Asset Utilisation is recorded. The positive relationship between Profitability Variables and Net NPA except for Asset Utilisation and ROE is observed.

State Bank of India recorded Positive Correlation between the Gross NPA and Profitability variables. However inverse relationship between Profitability Variables and Net NPA except for ROE and Equity Multiplier is recorded.

There is Inverse Correlation between the Gross NPA and Profitability variables except for ROE and Equity Multiplier in case of Indian Bank. There is inverse relationship between Profitability Variables and Net NPA except for Interest Margin, Asset Utilisation and Equity Multiplier.

Canara Bank found that there is Positive Correlation between the Gross NPA and Profitability variables except for Interest Margin and Asset Utilisation. There is inverse relationship between Profitability Variables and Net NPA except for Interest Margin, Net Profit Margin and Equity ROA.

The Positive Correlation between the Gross NPA and Profitability variables except for Net Profit Margin, ROA and ROE is observed for Bank of India. There is inverse relationship between Profitability Variables and Net NPA except for Interest Margin and Asset Utilisation.

With regard to Punjab National Bank, there is Positive Correlation between the Gross NPA and Profitability variables except for ROA. There is positive relationship between Profitability Variables and Net NPA except for ROA and ROE.

TABLE – 8

CORRELATION RESULTS BETWEEN NPA AND PROFITABILITY VARIABLES

NAME OF THE BANK	LIQUIDITY VARIABLES	GROSS NPA	NET NPA
AXIS BANK	Liquid Assets to Total Assets	0.638*	-0.173
	Liquid Assets to Deposits	0.819**	0.291
	Loans to Deposits	0.314	0.359
	Loans to Assets	-0.017	0.420
	Loans to Investments	0.286	0.195
	Net Cash Flow to Total Assets	-0.542	0.052

	Net Cash Flow to Total Liabilities	-0.537	0.052
	Net Cash Flow to Total Deposits	-0.517	0.049
FEDERAL BANK	Liquid Assets to Total Assets	0.077	0.257
	Liquid Assets to Deposits	0.270	0.302
	Loans to Deposits	0.850**	0.045
	Loans to Assets	0.813**	0.004
	Loans to Investments	0.893**	0.152
	Net Cash Flow to Total Assets	-0.093	-0.095
	Net Cash Flow to Total Liabilities	-0.086	-0.075
	Net Cash Flow to Total Deposits	-0.064	-0.072
HDFC BANK	Liquid Assets to Total Assets	-0.170	-0.131
	Liquid Assets to Deposits	-0.169	-0.136
	Loans to Deposits	0.367	-0.304
	Loans to Assets	0.398	-0.316
	Loans to Investments	-0.233	0.722
	Net Cash Flow to Total Assets	-0.123	-0.448
	Net Cash Flow to Total Liabilities	-0.106	-0.455
	Net Cash Flow to Total Deposits	-0.360	0.553
ICICI BANK	Liquid Assets to Total Assets	-0.141	-0.105
	Liquid Assets to Deposits	0.387	0.863**
	Loans to Deposits	-0.495	-0.430
	Loans to Assets	-0.251	-0.588*
	Loans to Investments	-0.087	-0.592*
	Net Cash Flow to Total Assets	-0.374	0.270
	Net Cash Flow to Total Liabilities	-0.374	0.270
	Net Cash Flow to Total Deposits	-0.272	0.464
	Liquid Assets to Total Assets	0.371	0.246

KOTAK BANK	Liquid Assets to Deposits	-0.350	-0.454
	Loans to Deposits	-0.184	0.038
	Loans to Assets	0.887**	0.580*
	Loans to Investments	0.563*	0.311
	Net Cash Flow to Total Assets	0.415	0.162
	Net Cash Flow to Total Liabilities	-0.235	-0.061
	Net Cash Flow to Total Deposits	-0.271	-0.031
STATE BANK OF INDIA	Liquid Assets to Total Assets	0.383	-0.408
	Liquid Assets to Deposits	0.403	-0.397
	Loans to Deposits	-0.707**	0. 633*
	Loans to Assets	0.572*	-0.084
	Loans to Investments	0.718**	0.176
	Net Cash Flow to Total Assets	0.250	0.113
	Net Cash Flow to Total Liabilities	0.250	-0.408
	Net Cash Flow to Total Deposits	0.250	-0.397
INDIAN BANK	Liquid Assets to Total Assets	-0.289	-0.693**
	Liquid Assets to Deposits	0.738**	-0.703**
	Loans to Deposits	-0.659**	0.513
	Loans to Assets	0.488	-0.674**
	Loans to Investments	0.758**	-0.304
	Net Cash Flow to Total Assets	-0.060	-0.161
	Net Cash Flow to Total Liabilities	-0.069	-0.693**
	Net Cash Flow to Total Deposits	-0.072	-0.703**
CANARA BANK	Liquid Assets to Total Assets	0.206	0.217
	Liquid Assets to Deposits	0.203	0.194
	Loans to Deposits	-0.244	-0.230
	Loans to Assets	-0.269	-0.373

	Loans to Investments	-0.250	0.590*
	Net Cash Flow to Total Assets	0.215	-0.432
	Net Cash Flow to Total Liabilities	0.196	0.217
	Net Cash Flow to Total Deposits	0.185	0.194
BANK OF BARODA	Liquid Assets to Total Assets	-0.229	-0.745**
	Liquid Assets to Deposits	-0.288	-0.188
	Loans to Deposits	-0.495	-0.880**
	Loans to Assets	-0.386	-0.865**
	Loans to Investments	-0.300	-0.729**
	Net Cash Flow to Total Assets	-0.054	-0.342
	Net Cash Flow to Total Liabilities	-0.111	-0.745**
	Net Cash Flow to Total Deposits	-0.116	-0.188
PUNJAB NATIONAL BANK	Liquid Assets to Total Assets	-0.130	-0.132
	Liquid Assets to Deposits	-0.102	-0.152
	Loans to Deposits	0.634**	0.057
	Loans to Assets	0.649**	0.089
	Loans to Investments	-0.045	-0.259
	Net Cash Flow to Total Assets	-0.197	-0.132
	Net Cash Flow to Total Liabilities	-0.197	-0.132
	Net Cash Flow to Total Deposits	-0.203	-0.152

Source: Compiled from Annual Reports of the Banks and Calculated using SPSS

Axis Bank recorded positive correlation between the Gross NPA and Liquidity variables except for Loans to assets, Net Cash Flow to Total Assets, Net Cash Flow to Liabilities and Net Cash Flow to Total Deposits at 1% level of significance and there is positive correlation between Liquidity Variables and Net NPA except for Liquid Assets to Total Assets.

With regard to Federal Bank there is positive correlation between the Gross NPA and Liquidity variables except for Net Cash Flow to Total Assets, Net Cash Flow to Total Liabilities and Net Cash Flow to Total Deposits at 1% level of significance and there is positive correlation between Liquidity Variables and Net NPA except for Net Cash Flow to Total Assets, Net Cash Flow to Total Liabilities and Net Cash Flow to Total Deposits.

There is inverse relation between the Gross NPA and Liquidity variables except for Loans to Deposits and Loans to Assets and there is inverse relation between Liquidity Variables and Net NPA except for Loans to investments in case of HDFC Bank.

ICICI Bank recorded inverse relation between the Gross NPA and Liquidity variables except for Liquid Assets to Deposits. There is inverse relation between Liquid Assets to Total Assets, Loans to Deposits, Loan to Assets, Loan to Investments and Net NPA whereas Liquid Assets to Deposits, Net Cash Flow to Total Assets, Net Cash Flow to Total Liabilities and Net Cash Flow to Total Deposits are positively correlated to Net NPA.

The results of correlation for Kotak Bank found positive correlation between Liquidity variables and Gross NPA except for Liquid Assets to Deposits and Loans to Deposits which are inversely related. There is a positive correlation between liquidity variables and Net NPA whereas the Liquid Assets to Deposits, Net Cash Flow to Total Liabilities and Net Cash Flow to Total Deposits are inversely related.

The results relating to State Bank of India revealed that all the liquidity variables are positively correlated to Gross NPA except the Loan to Deposits. There is inverse relationship between the liquidity variables and Net NPA except the Loan to Deposits, Loan to investments and Net Cash Flow to Total Assets are positively correlated to Net NPA.

Indian Bank recorded inverse relationship between the Liquidity variables such as Liquid Assets to Total Assets, Loans to Deposits, Net Cash Flow to Total Assets, Net Cash Flow to Total Liabilities and Net Cash Flow to Total Deposits whereas the other variables are positively correlated to Gross NPA. There is an inverse relationship between Liquidity Variables and Net NPA except the Loan to Deposits which is positively correlated.

The results of Canara Bank recorded positive correlation between the Liquidity Variables and Gross NPA except for Loan to Deposits, Loan to Assets, Loans to Investments which are inversely related whereas all the variables except Loans to Deposits, Loans to Assets and Net Cash Flow to Total Assets are inversely related to Net NPA.

Bank of Baroda found inverse relationship between Liquidity Variables and Gross NPA and there is also inverse relationship between Liquidity Variables and Net NPA.

Punjab National Bank observed inverse relationship between Liquidity variables and Gross NPA except the Loans to Deposits and Loans to Assets. There is inverse relationship between Liquidity variables and Net NPA except the Loans to Deposits and Loans to Assets.

10. FINDINGS

Non-Performing Assets growth rate is one of the major problems which the banking sector is being affected a lot. Though the private sector banks are affected, they are able to overcome the problem by adopting a time bound strategic approach and their rate of efficiency is high compared with public sector banks.

11. SUGGESTIONS

- The Bank Officials should conduct recovery camp by giving advance notice to the borrowers mentioning the date of recovery camps.
- The norms for assessing the credit worthiness should further be strengthened.
- Banks should expeditiously and properly claim indemnity from organizations like Deposit Insurance and Credit Guarantee Corporation called DICGC, Export Credit Guarantee Corporation called ECGC, Credit Guarantee Fund Trust for small scale industries, Insurance Companies etc and invoke Government/other personal guarantees to recover loan dues and reduce non - performing assets.
- Compromise routes proposals can be taken up considering the history of the borrowal account, security available, net worth of the borrower/guarantor, time value of offer made etc.

12. CONCLUSION AND IMPLICATIONS

This study analyses the trend of NPA and the impact of NPA on profitability and liquidity of Public and Private sector Banks. Growing Non Performing Assets is one of the biggest problems in banking sectors. If proper management of the NPA is not under taken it would hamper the efficiency of the Banks. If the concept of NPA is very lightly it would be dangerous for the Banking sector. In this study, both Public sector banks and Private sector banks are affected. Finally it can be concluded that private sector Banks were more efficient than the public sector banks. So public sector banks should concentrate more to take an immediate action for reducing the Non-performing assets. This is highly essential for the banks to focus their attention on growth of nonperforming assets and take appropriate measures to regulate their NPA.

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