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NON PERFORMING ASSETS OF COMMERCIAL BANKS – A STUDY WITH SPECIAL REFERENCE TO RATIO ANALYSIS

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ABSTRACT

The main aim of the study is to analyse the Gross Non Performing Assets to Gross Advances of commercial banks and know the Net Performing Assets to Net Advances of commercial banks. In order to realize the stated objectives, the researcher utilized a combined approach that embraces features of both descriptive and analytical research designs. Though several research studies on NPA in Indian banking sector are available, the studies on a closer look validated NPA problem using secondary data and most often depended ratio analysis to identify whether NPA is managed efficiently. A closer look into the studies highlighted insufficient analytical studies on the interaction between different bank specific performance indicators and macroeconomic indicators on incidence of NPA of banks. It is concluded that the average of capital adequacy ratio is high in ICICI bank and the average of capital adequacy ratio is low in Punjab National Bank. The capital adequacy ratio of ICICI bank has increased from 17.7 during the year 2014 to 18.42 during the year 2018. The study reveals that the average net NPA to net advances ratio is high in Punjab National Bank and the average net NPA to net advances ratio is low in HDFC. The net NPA to net advances ratio of Punjab National Bank has increased from 3 during the year 2014 to 11 during the year 2018.

KEY WORDS: Gross Non Performing Assets, Capital Adequacy Ratio, Net Advances Ratio and Gross Advances

INTRODUCTION

The asset quality is a prime concern and impacts various performance indicators, i.e., profitability, intermediation costs, liquidity, credibility, income generating capacity and overall functioning of banks. The reduction in asset quality results in accumulation of Non-Performing Assets (NPAs). Higher non-performing assets resulted in many bank failures. NPAs represent a real economic cost in modern days as they reflect the application of scarce capital and credit funds to unproductive use. It also affects the lending capacity since funds

are blocked and repayment is disturbed and has also resulted in additional cost for intermediation and realizing the NPAs.

STATEMENT OF THE PROBLEM

Banks serve as one of the foundation pillar of economy and hence, it is imperative that they should be sound, so that there is smooth flow of credit to various sectors. NPAs are the biggest problem, which are faced by the entire banking industry as they have catastrophic impact on the banks financial statements. Because of enormous NPAs, banks profitability get reduces, as provision has to be made on NPAs from profit of the business as per RBI guidelines, which gradually results in decreasing liquidity and causing high amount of losses. Banks are not able to bring in additional capital of their own and depend on Government for bail out measures of financial support. Furthermore, they face difficulty in creating adequate reserves and provisions as they are unable to earn sufficient amount of profit. In addition, soaring amount of NPAs in loan portfolio not only affects operational efficiency and credibility of banks but also ruin banks' goodwill in the eye of public. Hence, low ratio of NPAs has become a benchmark for the financial health of business.

OBJECTIVES OF THE STUDY

- ✓ To study the Gross Non Performing Assets to Gross Advances of commercial banks
- ✓ To know the Net Performing Assets to Net Advances of commercial banks

METHODOLOGY

In order to realize the stated objectives, the researcher utilized a combined approach that embraces features of both descriptive and analytical research designs. Though several research studies on NPA in Indian banking sector are available, the studies on a closer look validated NPA problem using secondary data and most often depended ratio analysis to identify whether NPA is managed efficiently. A closer look into the studies highlighted insufficient analytical studies on the interaction between different bank specific performance indicators and macroeconomic indicators on incidence of NPA of banks. The methodology for this research is designed considering the above aspects; to evaluate asset quality of public sector banks explained using the trend in movement non-performing assets.

ANALYSIS AND INTERPRETATION

Table 1
Capital Adequacy Ratio of Banks

BANKS	2014	2015	2016	2017	2018	AVERAGE
SBI	12.96	12	13.12	13.11	12.6	12.76
PNB	12.11	12.89	11.28	11.66	9.2	11.43
BOB	12.28	12.6	13.17	13.17	12.13	12.67
CUB	15.01	16.52	15.58	15.83	16.22	15.83
FBL	15.14	15.46	13.93	12.39	14.7	14.32
SIB	12.53	12.01	11.82	12.37	12.7	12.28
ICICI	17.7	17.02	16.64	17.39	18.42	17.43
HDFC	16.07	16.79	15.53	14.55	14.82	15.75
AXIS	16.07	15.09	15.29	14.95	16.57	15.59

Source: https://www.rbi.org.in/

Table 1 clearly demonstrates that the average of capital adequacy ratio is high in ICICI bank and the average of capital adequacy ratio is low in Punjab National Bank. Table further demonstrates that the capital adequacy ratio of ICICI bank has increased from 17.7 during the year 2014 to 18.42 during the year 2018.

HYPOTHESIS TESTING

- **H_0:** Capital Adequacy Ratio of selected Public and Private Sector Banks does not differ significantly.
- **H_1:** Capital Adequacy Ratio of selected Public and Private Sector Banks differ significantly.

The following table shows the result of One-way ANOVA for Capital Adequacy Ratio of Banks.

Table 2
One-way ANOVA for Capital Adequacy Ratio of Banks

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	2.093609	4	0.523402	0.112689	0.977341	2.605975
Within Groups	185.7869	40	4.644673			
Total	**187.8805**	**44**				

Source: Computed data

INTERPRETATION

An analysis of variance showed that the effect of Capital Adequacy Ratio on selected public and private sector banks was not significant, F (4, 40) = 0.112689, P = 0.977341. So the Null Hypothesis is accepted. Hence, it is concluded that the Capital Adequacy Ratio of selected public and private sector banks does not differ significantly.

Table 3
Tier One Capital Ratio of Banks

BANKS	2014	2015	2016	2017	2018	AVERAGE
SBI	10	10	10	10	10	10
PNB	9	10	8	9	7	8.6
BOB	9	10	11	11	10	10.2
CUB	14	16	15	15	16	15.2
FBL	15	15	13	12	14	13.8
SIB	11	10	10	11	10	10.4
ICICI	13	13	13	14	16	13.8
HDFC	12	14	13	13	13	13
AXIS	13	12	13	12	13	12.6

Source: **https://www.rbi.org.in/**

Table 3 clearly highlights that the average tier one capital ratio is high in Central Union Bank and the average tier one capital ratio is low in Punjab National Bank. Table further highlights that the tier one capital ratio of Central Union Bank has increased from 14 during the year 2014 to 16 during the year 2018.

HYPOTHESIS TESTING

- **H_0:** Tier One Capital Ratio of selected Public and Private Sector Banks does not differ significantly.
- **H_1:** Tier One Capital Ratio of selected Public and Private Sector Banks differ significantly.

The following table shows the result of One-way ANOVA for Tier One Capital Ratio.

Table 4
One-way ANOVA for Tier One Capital Ratio

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	1.466667	4	0.366667	0.065347	0.991846	2.605975

Within Groups	224.4444	40	5.611111			
Total	**225.9111**	**44**				

Source: Computed data

INTERPRETATION

An analysis of variance showed that the effect of Tier One Capital Ratio on selected public and private sector banks was not significant, F (4, 40) = 0.065347, P = 0.991846. So the Null Hypothesis is accepted. Hence, it is concluded that the Tier One Capital Ratio of selected public and private sector banks does not differ significantly.

Table 5

Gross NPA to Gross Advances Ratio of Banks

BANKS	2014	2015	2016	2017	2018	AVERAGE
SBI	5	4	7	7	11	6.8
PNB	5	7	13	13	18	11.2
BOB	3	4	10	10	12	7.8
CUB	2	2	2	3	3	2.4
FBL	2	2	3	2	3	2.4
SIB	1	2	4	2	4	2.6
ICICI	0	4	6	9	10	5.8
HDFC	1	1	1	1	1	1
AXIS	1	1	2	5	7	3.2

Source: https://www.rbi.org.in/

Table 5 clearly indicates that the average gross NPA to gross advances ratio is high in Punjab National bank and the average gross NPA to gross advances ratio is low in HDFC. Table further indicates that the gross NPA to gross advances ratio of Punjab National bank has increased from 5 during the year 2014 to 18 during the year 2018.

HYPOTHESIS TESTING

- **H_0 :** Gross NPA to Gross Advances of selected Public and Private Sector Banks does not differ significantly.
- **H_1 :** Gross NPA to Gross Advances of selected Public and Private Sector Banks differ significantly.

The following table shows the result of One-way ANOVA for Gross NPA to Gross Advances.

Table 6

One-way ANOVA for Gross NPA to Gross Advances

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	174.0889	4	43.52222	3.037611	0.028109	2.605975
Within Groups	573.1111	40	14.32778			
Total	**747.2**	**44**				

Source: Computed data

INTERPRETATION

An analysis of variance showed that the Gross NPA To Gross Advances Ratio on selected public and private sector banks was significant, F (4, 40) = 3.037611, P = 0.028109. The Null Hypothesis is rejected and the Alternative Hypothesis is accepted. Hence, it is concluded that the Gross NPA to Gross Advances Ratio of selected public and private sector banks differ significantly.

Table 7
Net NPA to Net Advances Ratio of Banks

BANKS	2014	2015	2016	2017	2018	AVERAGE
SBI	3	2	4	4	6	3.8
PNB	3	4	9	8	11	7
BOB	2	2	5	5	5	3.8
CUB	1	1	2	2	2	1.6
FBL	1	1	2	1	2	1.4
SIB	1	1	3	1	3	1.8
ICICI	1	2	3	5	5	3.2
HDFC	0.3	0.2	0.3	0.3	0.4	0.3
AXIS	0.4	0.44	1	2	4	1.57

Source: https://www.rbi.org.in/

Table 7 clearly reveals that the average net NPA to net advances ratio is high in Punjab National Bank and the average net NPA to net advances ratio is low in HDFC. Table further reveals that the net NPA to net advances ratio of Punjab National Bank has increased from 3 during the year 2014 to 11 during the year 2018.

HYPOTHESIS TESTING

- **H_0 :** Net NPA to Net Advances of selected Public and Private Sector Banks does not differ significantly.
- **H_1 :** Net NPA to Net Advances of selected Public and Private Sector Banks differ significantly.

The following table shows the result of One-way ANOVA for Net NPA to Net Advances.

Table 8
One-way ANOVA for Net NPA to Net Advances

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	54.20716	4	13.55179	2.710158	0.043485	2.605975
Within Groups	200.0148	40	5.000369			
Total	**254.2219**	**44**				

Source: Computed data

INTERPRETATION

An analysis of variance showed that the effect of Net NPA To Net Advances Ratio on selected public and private sector banks was significant, F (4, 40) = 2.710158, P = 0.043485. Since the 'p' value is less than 0.05, the Null Hypothesis is rejected and the Alternative Hypothesis is accepted. Hence, it is concluded that the Net NPA to Net Advances Ratio of selected public and private sector banks differ significantly.

Table 9
Return on Asset Ratio of Banks

BANKS	2014	2015	2016	2017	2018	AVERAGE
SBI	0.6	0.63	0.42	0.38	-0.18	0.37
PNB	0.6	0.5	-0.59	0.18	-1.6	-0.18
BOB	0.68	0.47	-0.8	0.19	-0.33	0.04
CUB	1.38	1.41	1.42	1.42	1.48	1.42
FBL	1.12	1.21	0.52	0.72	0.63	0.84
SIB	0.92	0.51	0.52	0.52	0.4	0.57

ICICI	1.64	1.72	1.34	1.26	0.77	1.35
HDFC	1.72	1.73	1.73	1.68	1.64	1.7
AXIS	1.62	1.59	1.56	0.61	0.03	1.08

Source: https://www.rbi.org.in/

Table 8 clearly indicates that the average return on asset ratio is high in Central Union Bank and the average return on asset ratio is low in Punjab National Bank. Table further indicates that the return on asset ratio of Central Union Bank has increased from 1.38 during the year 2014 to 1.48 during the year 2018.

HYPOTHESIS TESTING

- **H_0 :** Return on Asset of selected Public and Private Sector Banks does not differ significantly.
- **H_1 :** Return on Asset of selected Public and Private Sector Banks differ significantly.

The following table shows the result of One-way ANOVA for Return on Asset Ratio.

Table 10

One-way ANOVA for Return on Asset Ratio

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	4.03608	4	1.00902	1.903147	0.128759	2.605975
Within Groups	21.2074	40	0.530185			
Total	**25.24348**	**44**				

Source: Computed data

INTERPRETATION

An analysis of variance showed that the effect of Return on Asset Ratio on selected public and private sector banks was not significant, F (4, 40) = 1.903147, P = 0.128759. The Null Hypothesis is accepted**.** Hence, it is concluded that the Return on Asset of selected public and private sector banks does not differ significantly.

Table 11

Net Interest Margin Ratio of Banks

BANKS	2014	2015	2016	2017	2018	AVERAGE
SBI	2.74	2.68	2.42	2.28	2.16	2.46
PNB	2.93	2.74	2.29	2.08	1.94	2.39
BOB	1.81	1.84	1.89	1.94	2.15	1.93
CUB	3.03	2.89	3.13	3.39	3.58	3.2
FBL	2.98	2.87	2.73	2.65	2.59	2.76
SIB	2.54	2.31	2.38	2.25	2.37	2.37
ICICI	2.77	2.94	2.94	2.81	2.61	2.81
HDFC	3.75	3.79	3.89	3.83	3.76	3.8
AXIS	3.11	3.07	3.2	3	2.69	3.01

Source: https://www.rbi.org.in/

HYPOTHESIS TESTING

H_0 : Net Interest Margin of selected Public and Private Sector Banks does not differ significantly.

H_1 : Net Interest Margin of selected Public and Private Sector Banks differ significantly.

The following table shows the result of One-way ANOVA for Net Interest Margin Ratio.

Table 12
One-way ANOVA for Net Interest Margin Ratio

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.229698	4	0.057424	0.168314	0.953273	2.605975
Within Groups	13.647	40	0.341175			
Total	13.8767	44				

Source: computed data

INTERPRETATION

An analysis of variance showed that the effect of Net Interest Margin Ratio on selected public and private sector banks was not significant, F (4, 40) = 0.168314, P = 0.953273. The Null Hypothesis is accepted. Hence, it is concluded that the Net Interest Margin of selected public and private sector banks does not differ significantly.

SUGGESTIONS

- The higher the Capital Adequacy Ratio, the better capacity of the banks to pay of its obligations and safety against bankruptcy.
- High non-performing assets of Public sector banks is an alarming note that they have to find cautious approach of lending and assured collection of debts in time for which a multifaceted approach like careful assessment of potential borrowers, continuous monitoring and follow up of customers, timely collection procedures through advance reminders and the like., is very much essential.
- Return on equity is the most important ratio that measures the financial performance of the financial institutions. The profit earning capacity of the firm shows how well the banks are managing its earning assets to earn profitable revenues. Therefore it has to be given highest priority.

CONCLUSION

It is concluded that the average of capital adequacy ratio is high in ICICI bank and the average of capital adequacy ratio is low in Punjab National Bank. The capital adequacy ratio of ICICI bank has increased from 17.7 during the year 2014 to 18.42 during the year 2018. The study reveals that the average net NPA to net advances ratio is high in Punjab National Bank and the average net NPA to net advances ratio is low in HDFC. The net NPA to net advances ratio of Punjab National Bank has increased from 3 during the year 2014 to 11 during the year 2018. The average tier one capital ratio is high in Central Union Bank and the average tier one capital ratio is low in Punjab National Bank. The tier one capital ratio of Central Union Bank has increased from 14 during the year 2014 to 16 during the year 2018.

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