



Priority Sector Advances & Profitability- A case of Indian Banking Industry

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Abstract: *Scheduled Commercial Banks (SCBs) were advised to grant at least 40% of their loans (measured in terms of Adjusted Net Bank Credit or ANBC) to borrowers in the priority sectors in order to provide institutional credit to those sectors and segments for whom it is difficult to get credit. Thus Priority Sector Advances constitutes very large proportion of the Total Advances in Banks Balance Sheet. The present study is a an attempt to analyze the Impact of Priority Sector Advances on Banks Profitability. All the scheduled commercial banks operating in India were considered for the analysis. Ratios of Priority Sector Advances to Total Advances (PSATA) of all commercial banks taken as an independent variables whereas, Return on Assets (ROA), Return on Investment (ROI), Return on Equity (ROE), Ratio of Operating Profit to Total Assets, (OPTA), and Ratio of Interest Income to Total Assets (INTTA) were taken as dependent variables. The study covers the period ranging from financial year 2004-05 to 2015-16 and entire dataset was taken from Reserve Bank of India website. The study reveals that there exists a statistically significant relationship between PSATA & INTTA and PSATA & ROE. However statistically significant relationship could not be found between PSATA and ROI, ROA & OPTA.*

Keywords: *Priority sector advances, profitability, PSATA, ROI, ROE, INTTA, OPTA*

I. INTRODUCTION

The concept of priority sector lending introduced in the credit policy of Reserve Bank of India in 1967-68 has emerged as the new paradigm of economic growth and plays a major role in driving away the poverty from the country. Typically, these are small loans to small and marginal farmers for agriculture and allied activities, loans to Micro and Small Enterprises for working capital and export financing, loans for small housing projects, education loans and other small loans to people with low income levels. Presently, the target for aggregate advances to the priority sector is 40 per cent of the Adjusted Net Bank Credit (ANBC) or the credit equivalent of Off Balance sheet Exposure (OBE), whichever is higher for domestic banks.

II. LITERATURE REVIEW

Sharifi O., & Akhter j. (2016) studied the impact of CDR on the profitability of the banks. Data of 26 Public Sector Banks were taken and study covered the period from 2008 to 2015. They found that the CDR impact positively on public sector bank's financial performance.

Pandya, B. (2015) studies the impact of Priority Sector Advances on Banks Profitability by taking data of all schedule commercial banks from 2004 to 2014 and found that there exists statistically significant relationship between PSATA and ROI, ROA, OPTA, INTTA. On the other hand ROE was found not to be statistically significant.

Swamy (2013) using panel data techniques analyzed the determinants of bank asset quality and profitability for the period 1997 to 2009. The study revealed that priority sector credit was found to be not significant in affecting NPAs. He concluded that capital adequacy and investment activity significantly affected the profitability of commercial banks apart from other accepted determinants of profitability, asserting that asset size had no significant impact on profitability.

Patidar (2012) examined the impact of priority sector lending on the Total NPA of Banks using tools like regression analysis and ratio analysis. The results showed significant impact of priority sector lending on total NPA of public sector banks whereas the impact of priority sector lending in case of private sector banks was not significant.

Ahmed (2010) concluded that with an increase in priority sector lending , there had been an increase in the volume of NPAs. Although he argued that non-priority sector advances were

Verma, P., & Kumar, N. (2008), conducted study on "Credit deposit ratio and ownership structure in the Indian banking sector- an empirical analysis" this study attempted to study whether some bank groups, based on ownership, are better at delivering credit in an efficient manner. They used econometric techniques over the time horizon of 1991 to 2006 and found that the foreign and



private bank groups exhibited the better C-D ratio, whereas public sector banks were found to need some attention and further scope of improvement exists.

Verma, P., & Kumar, N. (2007), conducted study on “ A study of credit deposit ratio in selected states of western India” The main objective of this study was to analyze the performance of C-D ratio of scheduled commercial banks of three major states of the western part of India i.e. Rajasthan, Gujarat and Maharashtra, and India as a whole. They found that the Maharashtra which is the backbone of growth and progress of Indian economy has been more volatile but performing well in terms of C-D ratio whereas Rajasthan and Gujarat are stable at lower level

Ganesan (2003) analyzed the impact of priority sector advances of public sector banks covering the period ranging from 1974 to 1999. He found that priority sector advances, concessional lending and cross subsidization of advances adversely affected the profitability of Indian Public sector banks. Haron (2004) finds a significant positive relationship between capital and ROA.

Bishnoi (1991) in his study found that the interest subsidy rates varied across the priority sectors, each of the priority sectors has shown tremendous increase in absorption of bank credit. The low recovery of credit also affects the bank performance. Considering these points he suggests that the entire length of priority sector schemes, procedures and system of credit delivery needs to be reviewed and revised for improvement in operational efficiency and profitability of the public sector banks.

Burke (1989) examined the determinants of banks’ performance for twelve countries selected from Europe, North America and Australia and found significant positive relation between capital adequacy and profitability. He proves that the higher the capital ratio is, the more profitable a bank will be.

After going through aforesaid literature, we attempt to make a contribution in the existing literature by examining the relationship between priority sector advances and bank profitability for entire banking sector from 2004-05 to 2015-16. This paper will thus try to highlight the relationship between the said variables.

III. STATEMENT OF RESEARCH PROBLEM

Priority sector advances form a significant chunk in the total advances of banks in India. As per the RBI guidelines bank are supposed to lend a 40% of their loans (measured in terms of Adjusted Net Bank Credit or ANBC) to the priority sectors for the overall socioeconomic development of the country. This paper aims to analyze the impact of priority sector advances of Scheduled Commercial Banks and its impact on their profitability.

IV. RESEARCH OBJECTIVES

The research study aims at achieving the following objectives

- a) To analyze the impact of priority sector advances on profitability of commercial banks in India
- b) To identify the profitability measure that is significantly affected by priority sector advances of commercial banks
- c) To measure the extent to which priority sector advances and profitability measures are correlated

V. RESEARCH HYPOTHESIS

In order to accomplish the aforesaid research objectives, following research hypotheses were formulated

HO1: There is NO significant relationship between Ratio of priority sector advances to total advances (PSATA) and ratio of operating profit to total assets (OPTA)

HO 2: There is NO significant relationship between Ratio of priority sector advances (PSATA) to total advances and ratio of interest income to total assets. (INTTA)

HO 3: There is NO significant relationship between Ratio of priority sector (PSATA) advances to total advances and Return on Equity (ROE)

HO 4: There is NO significant relationship between Ratio of priority sector advances (PSATA) to total advances and Return on Investments (ROI)

HO 5: There is NO significant relationship between Ratio of priority sector advances (PSATA) to total advances and Return on Assets (ROA)

VI. METHODOLOGY

The study primarily uses secondary data pertaining to all Scheduled Commercial Banks (SCBs) operating in India. The study covers the period ranging from FY 2004-05 to FY 2015-16. It covers all nationalized banks, private sector banks and foreign banks operating in India. The data for the study were taken from Reserve Bank of India website. Linear regression models were used to examine the relationship between independent and dependent variables.

VII. RESEARCH VARIABLES

Independent Variable

Ratio of Priority Sector Advances to Total Advances (PSATA) was taken as an independent variable. Ratio is taken for the study as there is possibility of existence of the size bias as large banks usually tend to have higher amounts of priority sector advances in absolute terms, which can be overcome by the Ratio.

Dependent Variables

Five different dependent variables were taken namely 1) Ratio of Operating Profit to Total Assets (OPTA), 2) Ratio of Interest Income to Total Assets (INTTA) 3) Return on Equity (ROE), 4) Return on Investment (ROI), and 5) Return on Assets (ROA). Again, here the ratios were taken to reduce size bias in the sample.

Table 1: Data of variable

Year	Ratio of priority sector advances to total advances	Ratio of interest income to total assets	Ratio of operating profits to total assets	Return on assets	Return on equity	Return on investments
2004-05	32.20	7.20	2.36	1.01	15.75	7.87
2005-06	33.81	7.21	2.12	1.01	14.77	7.65
2006-07	33.08	7.42	2.11	1.05	15.51	7.19
2007-08	31.55	7.92	2.15	1.12	15.98	7.33
2008-09	30.30	8.12	2.32	1.13	15.44	7.01
2009-10	31.22	7.37	2.17	1.05	14.31	6.54
2010-11	30.62	7.44	2.26	1.10	14.96	6.79
2011-12	28.99	8.45	2.24	1.08	14.60	7.52
2012-13	27.92	8.53	2.13	1.04	13.84	7.57
2013-14	28.43	8.32	2.04	0.81	10.69	7.58
2014-15	28.89	8.18	2.00	0.81	10.42	7.54
2015-16	30.33	7.92	1.96	0.31	3.59	6.79

(Source: <https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications>)

Regression Models

Model 1: $OPTA_{it} = \hat{\alpha}_0 + \hat{\alpha}_1 PSATA_{it}$

Model 2: $INTTA_{it} = \hat{\alpha}_0 + \hat{\alpha}_1 PSATA_{it}$

Model 3: $ROE_{it} = \hat{\alpha}_0 + \hat{\alpha}_1 PSATA_{it}$

Model 4: $ROI_{it} = \hat{\alpha}_0 + \hat{\alpha}_1 PSATA_{it}$

Model 5: $ROA_{it} = \hat{\alpha}_0 + \hat{\alpha}_1 PSATA_{it}$

Where,

$PSATA_{it}$ = ratios of priority sector advances to total advances of i th bank and t periods.

$OPTA_{it}$ = ratios of operating profit to total assets of i th bank and t periods

$INTTA_{it}$ = ratios of interest income to total assets of i th bank and t periods

ROE_{it} = return on equity of i th bank and t periods

ROA_{it} = returns on assets of i th bank and t periods

ROI_{it} = returns on investments of i th bank and t periods

Tools of Analysis

We have used Correlation Coefficient to find out the Correlation between variables. We have used simple Linear Regression for all the five models described in the study. T statistics was used at $\alpha = 0.05$ to test the significance of regression coefficient. All the statistical calculations were done by running GRETL 1.9.7 software.

VIII. RESULTS AND DISCUSSION

Descriptive Statistics

The results of descriptive statistics are presented in table 2. It is evident from the table that the mean value of ROE (13.321%) was highest among all five dependent variables with a higher standard deviation of 3.568. It implies that Indian scheduled commercial banks have witnessed on an average 13.321% return for their shareholders during the period 2004-5 to 2015-16 however with heavy volatility. Whereas, mean value of Return on Assets (ROA) was lowest with the mean of 0.959%. This implies that Indian Scheduled commercial banks' performance was not impressive in terms of Return on Assets (ROA) however it was steady in nature with very low standard deviation (Table 2).

The interest income to total assets ratio (INTTA), Return on Investment (ROI) and operating profit to total asset ratio (OPTA) were also having very low standard deviation indicating lesser volatility.

Table 2: Descriptive Statistics of all variables

Variables	Mean	Median	Std. Deviation	C.V.	Skewness	Kurtosis	Minimum	Maximum
PSAT	30.612	30.477	1.8542	0.06	0.199	-0.992	27.919	33.807
OPTA	2.155	2.139	0.121	0.056	0.107	-0.92	1.9641	2.3565
INTTA	7.839	7.923	0.49	0.063	-0.026	-1.516	7.1958	8.5268
ROE	13.321	14.687	3.568	0.267	-1.884	2.655	3.5851	15.982
ROI	7.279	7.421	0.413	0.056	-0.433	-1.041	6.5400	7.8681
ROA	0.959	1.046	0.23	0.239	-2.07	3.422	0.31000	1.1272

Testing of Hypotheses

In order to test all five hypotheses, five regression models were run. The results of these models are summarized below.

Table 3: Result of Pearson Correlation

Pearson Correlation	PSATA	OPTA	INTTA	ROE	ROI	ROA
PSATA	1	0.2171	-0.8839	0.3614	-0.0675	0.2022
OPTA	0.2171	1	-0.2695	0.7445	0.0595	0.7131
INTTA	-0.8839	-0.2695	1	-0.2904	0.1934	-0.1488
ROE	0.3614	0.7445	-0.2904	1	0.211	0.9785
ROI	-0.0675	0.0595	0.1934	0.211	1	0.1438
ROA	0.2022	0.7131	-0.1488	0.9785	0.1438	1

Hypothesis#1

Table 4 reports the results of model 1. Results suggested that the correlation coefficient between PSATA and OPTA was statistically weak ($r = 0.2171$, $p < 0.05$). Results of the model 1 indicate that 4.7% variation in OPTA is explained by PSATA ($R^2 = 0.047138$). Results of T test prove that there is NO significant relationship between (PSATA) and (OPTA) ($t = .9199$, $p > 0.05$).

Pearson Correlation	0.2171
R square	0.047138
Adjusted R square	-0.048148
t-value	0.9199
Sig. (P)	0.3793

Hypothesis# 2



Table 5 shows the results of model 2. Results suggested that the correlation coefficient between PSATA and INTTA was statistically strong but negative ($r = -0.8839$, $p < 0.05$). Results of model 2 highlights that 78.12% variation in INTTA is explained by PSATA ($R^2 = 0.781274$). The results of t test indicate that there is significant relationship between (PSATA) and (INTTA) ($t = -9.171$, $p < 0.05$).

Pearson Correlation	-0.8839
R square	0.781274
Adjusted R square	0.759402
t-value	-9.171
Sig. (P)	0.000003

Hypothesis# 3

Table 6 depicts the results of model 3. Results suggested that the correlation coefficient between PSATA and ROE was statistically moderate ($r = 0.3614$, $p > 0.05$). Results of model 3 highlights that 13.05% variation in ROE is explained by PSATA ($R^2 = 0.130578$). The results of t test indicate that there is significant relationship between (PSATA) and (ROE) ($t = 2.497$, $p > 0.05$).

Pearson Correlation	0.3614
R square	0.130578
Adjusted R square	0.043636
t-value	2.497
Sig. (P)	0.0316

Hypothesis# 4

Table 7 shows the results of model 4. Results suggested that the correlation coefficient between PSATA and ROI was statistically very weak ($r = -0.0675$, $p < 0.05$). Results of the model 4 reveal that PSATA explains 0.45% variation in ROI. ($R^2 = 0.004558$). The results of t test indicate that there is NO significant relationship between (PSATA) and (ROI) ($t = -0.2354$, $p > 0.05$).

Pearson Correlation	-0.0675
R square	0.004558
Adjusted R square	-0.094986
t-value	-0.2354
Sig. (P)	0.8186

Hypothesis# 5

Table 8 represents the results of model 5. Results suggested that the correlation coefficient between PSATA and ROA was statistically weak ($r = 0.2022$, $p < 0.05$). Results of model 5 suggest that 4.08% variation in ROA is explained by PSATA ($R^2 = 0.040879$). Results of t test indicate that there is NO significant relationship between (PSATA) and (ROA) ($t = 1.402$, $p > 0.05$).

Pearson Correlation	0.2022
R square	0.040879
Adjusted R square	-0.055033
t-value	1.402
Sig. (P)	0.1912

IX. FINDINGS AND CONCLUSIONS

Table 9: Result of Hypothesis

Null Hypothesis	Pearson Correlation	Result	R2	Hypothesis result	T Test (P value) 5%	Hypothesis result
HO1: There is NO significant relationship between (PSATA) and (OPTA)	0.2171	Weak	0.047138	Accepted	0.3793	Accept
HO 2: There is NO significant relationship between (PSATA) and (INTTA)	-0.8839	Strong	0.781274	Rejected	0.000003	Reject
HO 3: There is NO significant relationship between (PSATA) and (ROE)	0.3614	Moderate	0.130578	Rejected	0.0316	Reject
HO 4: There is NO significant relationship between (PSATA) and (ROI)	-0.0675	Weak	0.004558	Accepted	0.8186	Accept
HO 5: There is NO significant relationship between (PSATA) and (ROA)	0.2022	Weak	0.040879	Accepted	0.1912	Accept

The study examined the relationship between priority sector advances and five measures of bank profitability encompassing the sample of all scheduled commercial banks operating in India. The basic objective of the study was to further an existing literature by providing empirical evidence regarding the priority sector advances and impact thereof on bank profitability.

The study reveals that Ratio of Interest Income to Total Assets (INTTA) has very strong negative correlation with Priority Sector Advances to Total Advances (PSATA) (Table No. 3), meaning whenever (PSATA) increases INTTA tend to decrease. In other words higher PSATA is having negative impact on INTTA. However there exists positive moderate correlation between Return on Equity (ROE) and Priority Sector Advances to Total Advances (PSATA) (Table No. 3).

The correlation between Operating Profit to Total Assets (OPTA) & Ratio of Priority Sector Advances to Total Advances (PSATA), between Return on Assets (ROA) & Ratio of Priority Sector Advances to Total Advances (PSATA) and between Return on Investments (ROI) & Ratio of Priority Sector Advances to Total Advances (PSATA) is weak in nature (Table No. 3).

The study also reveals that Ratio of Interest Income to Total Assets (INTTA) and Return on Equity (ROE) have statistically significant relationship with Ratio of Priority Sector Advances to Total Advances (PSATA) whereas Return on Assets (ROA), Return on Investments (ROI) and Ratio of Operating Profit to Total Assets (OPTA) do not have statistically significant relationship with Ratio of Priority Sector Advances to Total Advances (PSATA) supporting the result obtained in Correlation Coefficient.

X. IMPLICATIONS OF THE STUDY

The results of the study offer several implications for the banks. The study reveals that priority sector advances affects INTTA & ROE of the banks. This suggests that banks should exercise caution while advancing loans to priority sector else it would be adversely affect the Interest Income to Total Assets (INTTA) of the Bank and will have positively moderate affect on ROE.

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