

SCHEDULED COMMERCIAL BANKS OF INDIA- AN EMPIRICAL ANALYSIS

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Abstract:

In the light of the current economic slowdown and liquidity distress worldwide as well as in India, it becomes important to study the performance of banks since they make for the most critical part of any financial system. The given paper aims to take an overview of the banking sector in India as per the data disclosed by the Reserve Bank of India (RBI) from 2003-2007. The effort is to analyze the given data and, provide information about the banking industry and to have a quick overview and understanding of the banking sector in India.

Keywords : Banking, performance, efficiency

Introduction:

Banking Sector Reforms have changed the face of Indian banking industry. It is one segment of the Indian financial system which is significantly affected by the reforms in terms of competition and customer service. The reforms have led to the increase in resource productivity, increasing level of deposits, credits and profitability and decrease in non-performing assets, Bodla & Verma(2006). However, the profitability, which is an important criteria to measure the performance of banks in addition to productivity, financial and operational efficiency, has come under pressure because of changing environment of banking. An efficient management of banking operations aimed at ensuring growth in profits and efficiency requires up-to-date knowledge of all those factors on which the bank's profit depends.

The given paper is such an attempt. RBI periodically lists the relevant data of banking sector on its website for the perusal of the interested parties. The basic premise behind the research is to study this data and derive some information which may be used in due course of business, in a broader context if not specific context. The figures mentioned have been rounded to nearest integer for better understanding.

Literature Review:

Chipalkatti & Rishi (2007) presents information on a study, which evaluates the performance of Indian banks by using quantitative data on bank profitability and risk, subsequent to the market-oriented reforms in 1991. The study stresses an urgent need for improved risk management skills of Indian banks and their supervisors.

Bodla & Verma (2006) in their paper have made an attempt to identify the key determinants of profitability of Public Sector Banks in India. The analysis is based on step-wise multivariate regression model used on temporal data from 1991-92 to 2003-04. The study has indicated that the variables such as non-interest income, operating expenses, provision and contingencies and spread have significant relationship with net profits.

The paper of Das & Ghosh (2006) investigates the performance of Indian commercial banking sector during the post reform period 1992-2002. Data Envelopment Analysis (DEA) to measure efficiency of banks. Some variables used are bank size, ownership, capital adequacy ratio, non-performing loans and management quality. A close relationship is observed between efficiency and soundness as determined by bank's capital adequacy ratio. A multivariate analysis based on the Tobit model reinforces these findings.

The research of Ravi Kumar (2007) presents a comprehensive review of the work done, during the 1968-2005, in the application of statistical and intelligent techniques to solve the bankruptcy prediction problem faced by banks and firms. The review is categorized by taking the type of technique applied to solve this problem as an important dimension. Accordingly, the papers are grouped in the following families of techniques: (i) statistical techniques, (ii) neural networks, (iii) case-based reasoning, (iv) decision trees, (v) operational

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research, (v) evolutionary approaches, (vi) rough set based techniques, (vii) other techniques subsuming fuzzy logic, support vector machine and isotonic separation and (viii) soft computing subsuming seamless hybridization of all the above-mentioned techniques.

Research Methodology:

As on march 31, 2007 groups and number of banks can be listed as (also used in analysis):

1. State Bank of India and its Associates (SBIA), eight banks
2. Nationalized Banks (NB), 20 banks
3. Foreign Banks (FB), 29 banks
4. Other Scheduled Commercial Banks (OSCB), 25 banks
5. Regional Rural Banks (RRB), 96 banks. This group has not been included in the study as the study was focused on commercial banking.

After the categorization of data, 22 parameters are selected which are used to critically appraise the banks. The rationale for selecting these parameters is the need to have a perspective of assets, liabilities and income of the banks. Also few observations are made about certain non financial aspects of banks such as geographical distribution, location, number of branches and involvement in agriculture sector for which data used for analysis is taken till March 31, 2008. For the groups for the given parameters the data taken is from 2002-03 to 2006-07 and for some parameters it is taken for only 2006-07.

The parameters are taken as ratio rather than absolute values to include at least two components together for analysis.

Data and Analysis:

The given Tables as appendix illustrate the banking data as on March 31, 2007, comparing some important statistics' for the four groups. Some observations can be made as:

1. The range of cash to deposit ratio is 4.89 to 9.08 with the lowest with SBI and associates and highest with foreign banks. The low Standard Deviation 1.083 for all groups indicates a low variation over the time period. Groupwise Standard Deviation also reveals the same conclusion. The possible reason may be the statutory requirements effected by RBI.

2. Considering the disbursement of credit by banks, foreign banks were most liberal with a credit-deposit ratio of 87% in 2005 and over the period, for all the groups this ratio has increased, barring two incidents where it has decreased over previous year.
3. The ratio of investment to deposit decreased for SBIA and Nationalized banks from 2005 to 2007, for OSCB it dropped every year and for FB it was fall and rise at the end. One possible reason which can explain this trend is the credit-deposit ratio as credit-deposit ratio and investment ratio have a complementary relationship.
4. With respect to Return on Assets (RoA), the foreign banks were found to be most efficient as the ratios for all the years were more than one, which means that for every one rupee of asset they earn at least one rupee. The worst trend was showed by SBIA. The average of return on equity (RoE) for SBIA and NB is around 18% and for OSCB and FB is around 14%. It is strange to observe that the return on investment (RoI) is around 8% for all groups over the period of five years. This relates to strict guidelines from RBI for investments by banks which are restricted to investment in high risk and high return securities and thus invest in low earning ,similar risk profile securities.
5. The average cost of funds is around 5%, lowest being for FB and for all groups over the time period the returns (RoA, RoE, RoI and return on advances) has been more than this cost. This signifies that all the banks in time period are financially sound with their earnings exceeding their costs.
6. With respect to group wise segmentation for FY 07-08 respectively, ratio of deposits to total liabilities was maximum for nationalized banks at 83.54% and lowest in foreign banks at 52.49%.
7. Investment in non-approved securities with respect to total investments was maximum in (OSCB) making them most risky of all four categories while interest income is also maximum in this category.
8. Operating profit on total assets, Return on assets and return on investments was highest in foreign banks highlighting its operating efficiency.

9. For 2006-07, outstanding advances in agriculture input financing of OSCB's, region wise was highest in southern region (38%) and lowest in North-east (0.3%) and in case of direct financing to farmers it was highest (39%) and lowest (0.7%). The figures indicate a biasness and lack of efficiency towards southern India. It was also found that the outstanding credit of direct financing to agriculture was almost double the indirect financing.
10. With respect to priority sector lending region wise for 2006-07, agriculture had maximum outstanding in southern region (Rs.85963 crore), small scale industries also had maximum outstanding in southern region (Rs.34815 crore). In educational loan accounts also the southern region has the lead with 622827 accounts. Priority sector advances to total advances was maximum for nationalized banks (32%).
11. Nonperforming Assets for 2007-08 and as per the available data was more in nationalized banks (Rs.24528 crore) in comparison to SBIA and associates at Rs. 15220 crore.
12. Among the NB's the maximum number of accounts in education loan was for Canara bank at 1.19 lakh and in housing loan it was with Bank of Baroda at 1.91 lakh apart from SBIA leading in both categories with 2.56 lakh and 8.8 lakh respectively (figures for 2007-08).
13. Investment by OSCB's in state government securities for 2006-07 was maximum in Uttar Pradesh state (Rs.15848 crore) and minimum in Arunachal Pradesh state (Rs.149 crore). Investment by OSCB's in government securities was at 78%, in other securities at 19% and the remaining in foreign securities which includes foreign government securities as well as other securities.
14. For region wise distribution of OSCB's for deposits and credit, 30% deposit and 37% of total credit was from western region amongst all regions, highlighting its importance over southern region. Per capita deposit and per capita credit was also highest in western region.
15. The total number of offices of all banks for 2006-07 was 74346 and out of it 30575 were in rural areas with the southern region taking the lead with 20682 offices of total offices in all regions.
16. The number of offices closed or merged of all the banks in FY 07-08 was a total of 81 of which 21 were in the rural sector. The same figure for FY 06-07 was 119 and 37 respectively (the figure includes all types of banks which come under the purview of RBI). This raises concern over rural banking and causes for these steps need to be examined. On the contrary the number of offices of Indian commercial banks opened outside India has grown from 106 in 2006 to 129 in 2008.
17. The priority sector advances for all the groups for all the years varies from 36.28 % to 21.91 % the highest being for the nationalized banks indication the influence of government with a preference for priority sector.
18. Secured advances as a part of total advances is on the higher side for SBIA, NB and OSCB but for FB's it is in the middle (54%). This indicates risk aversion of government banks and risk inclination of FB's. The fact that the return on advances of FB's is also high indicates that they are into more risk and more return game.
19. For FB's net interest is comparatively low but net interest margin and net interest income is significantly more than other groups. This indicates FB's charge high interest and pay low interest on credit and their major earnings are from interest spread. This is further validated by high operating profit and high intermediation cost figures for FB.
20. With respect to human resources as on March 31, 2007, in region wise spread of employees for SCB's 26% are concentrated in southern region. Wages to total expenses for all groups have increased for all years except for 2007 when it came down for SBIA, NB and OSCB but went up for FB.
21. Return on non approved securities was lowest with SBIA while same return was high for all other groups going to a high of 31% for OSCB. This may probably be because of SBIA invested in familiar non approved securities.

Conclusions:

There is a need to look into the banking policy for rural sector, especially in the light of increased economic power and greater access to urban sector by the rural sector. Public private partnership model can be implemented for priority sector lending thus

reducing obligation of the banks and releasing money in other segments of the economy. Also there should be a uniform priority sector lending policy across all bank groups in order to boost investment in this sector.

The high investment of FB's in unsecured advances raise concern about viability of the banks and need strict guidelines in order to avoid any major banking failures.

Annexure:

Table 1 : Capital letters indicate respective parameters

A=Total Deposit to Total Liabilities

B=Term Deposit to Total Deposit

C=Priority sector advances to total advances

D=Term loan to total advances

BANK GROUPS	YEAR	Cash to Deposit	Credit to Deposit	Investment to Deposit	A	B	C	D	Secured Advances to Total Advances
SBIA	2003	4.89	48.39	57.12	79.16	63.03	28.94	39.18	87.56
SBIA	2004	6.04	50.94	57.24	78.81	60.68	30.81	45.18	84.64
SBIA	2005	4.99	56.31	51.56	80.63	60.95	32.33	52.03	79.10
SBIA	2006	5.72	68.52	41.44	78.40	56.60	33.64	53.90	79.05
SBIA	2007	7.08	76.16	33.41	78.61	57.11	32.66	54.86	78.60
NATIONALISED BANKS	2003	6.69	52.32	46.82	86.99	63.75	33.74	39.33	87.15
NATIONALISED BANKS	2004	7.32	51.92	47.60	86.10	63.22	36.28	45.01	86.66
NATIONALISED BANKS	2005	6.96	61.17	45.71	81.17	62.99	35.50	51.24	84.95
NATIONALISED BANKS	2006	7.57	68.01	37.85	81.64	61.79	36.18	52.66	82.15
NATIONALISED BANKS	2007	7.16	70.38	33.29	83.27	64.57	34.69	54.86	82.66
OSCB	2003	7.90	66.55	51.53	70.11	76.13	22.19	64.05	91.89
OSCB	2004	8.09	63.45	50.45	73.12	70.13	26.46	65.02	90.22
OSCB	2005	6.78	70.34	44.71	73.53	69.52	25.74	65.49	86.06
OSCB	2006	5.51	73.04	42.14	74.95	69.61	30.59	68.40	83.23
OSCB	2007	7.43	75.14	38.89	74.05	70.17	31.58	70.31	81.42

FOREIGN BANKS	2003	6.58	75.27	58.86	59.56	66.22	21.91	47.86	67.43
FOREIGN BANKS	2004	9.08	75.50	51.89	58.79	57.14	23.23	45.02	65.99
FOREIGN BANKS	2005	7.82	87.18	49.61	56.23	51.95	25.77	49.16	63.56
FOREIGN BANKS	2006	7.13	85.77	46.05	57.06	49.47	26.87	48.04	57.67
FOREIGN BANKS	2007	8.05	83.78	47.40	54.24	56.83	27.44	49.25	54.34

Table 2 : Numbers indicate parameters.

1=Interest Income to Total Advances

2=Net Interest Margin to Total Advances

3=Net Interest Income to Total Advances

R= Return on Non approved Securities to Total Investment

BANK GROUPS	Year	ROA	ROE	ROAdv	ROI	R	1	2	3
SBIA	2003	0.96	20.88	9.04	9.74	13.38	8.66	2.9	1.7
SBIA	2004	1.08	22.08	7.93	8.87	11.47	7.85	2.98	2.09
SBIA	2005	0.96	18.76	7.49	8.39	9.74	7.49	3.27	1.61
SBIA	2006	0.9	16.92	7.77	7.86	12.45	7.48	3.22	1.44
SBIA	2007	0.88	16.31	8.46	7.57	14.5	7.52	3	1.04
NATIONALISED BANKS	2003	1.04	19.32	9.82	10.18	21.27	8.86	3.16	1.77
NATIONALISED BANKS	2004	1.28	23.2	8.72	9.22	19.23	8	3.29	2
NATIONALISED BANKS	2005	0.94	16.45	8.21	8.23	19.04	7.38	3.13	1.42
NATIONALISED BANKS	2006	0.86	14.65	8.13	7.83	18.61	7.17	2.92	
NATIONALISED BANKS	2007	0.92	15.97	8.79	7.73	19.13	7.56	2.85	0.88
OSCB	2003	1.04	16.41	10.93	8.96	30.96	8.66	2.05	2.57
OSCB	2004	1.05	16.81	9.78	7.62	28.46	7.71	2.42	2.3
OSCB	2005	0.89	13.28	8.5	6.18	30.58	6.61	2.51	1.6
OSCB	2006	1	13.34	8.72	6.64	28.04	7.05	2.74	1.62
OSCB	2007	0.98	13.71	9.55	7.26	25.51	7.77	2.77	1.69

FOREIGN BANKS	2003	1.59	14.24	10.7	8.28	24.11	7.85	3.42	2.69
FOREIGN BANKS	2004	1.78	15.17	8.96	8.26	21.08	7.12	3.73	3.18
FOREIGN BANKS	2005	1.37	11.72	8.15	6.98	20.07	6.33	3.54	2.67
FOREIGN BANKS	2006	1.74	14.18	8.54	8.3	21.8	6.96	4.05	3.04
FOREIGN BANKS	2007	1.92	15.98	9.77	8.77	21.2	7.55	4.36	2.91

Table 3 : Capital letters indicate parameters

X= Intermediation Cost to Total Assets

Y=Wages to Total Expenses

Z= Operating Profit to Total Assets

BANK GROUPS	Year	X	Y	Z	Cost of Deposit	Cost of Borrowings	Cost of Funds
SBIA	2003	2.21	19.7	2.38	7.02	2.08	6.88
SBIA	2004	2.32	22.27	2.75	5.83	1.43	5.69
SBIA	2005	2.28	23.64	2.6	4.96	2.57	4.86
SBIA	2006	2.39	24.35	2.28	4.83	5.11	4.84
SBIA	2007	2.13	21.01	1.91	4.87	5.54	4.92
NATIONALISED BANKS	2003	2.47	21.37	2.47	6.21	5.37	6.2
NATIONALISED BANKS	2004	2.36	23.21	2.93	5.15	4.4	5.14
NATIONALISED BANKS	2005	2.28	23.88	2.27	4.56	1.58	4.42
NATIONALISED BANKS	2006	2.07	21.42	1.86	4.45	1.77	4.26
NATIONALISED BANKS	2007	1.84	17.89	1.89	4.96	2.3	4.81
OSCB	2003	2.08	8.6	2.54	6.62	0.96	5.45
OSCB	2004	2.24	10.32	2.48	5.26	1.58	4.72
OSCB	2005	2.18	11.8	1.93	4.14	1.53	3.81
OSCB	2006	2.41	12.15	1.95	4.46	3.27	4.33
OSCB	2007	2.33	10.94	2.13	5.37	3.61	5.18

FOREIGN BANKS	2003	2.85	12.49	3.26	5.31	5.13	5.26
FOREIGN BANKS	2004	2.97	14.95	3.95	3.87	4.56	4.04
FOREIGN BANKS	2005	3.05	16.13	3.16	3.11	3.83	3.29
FOREIGN BANKS	2006	3.32	18.22	3.77	3.16	5.01	3.63
FOREIGN BANKS	2007	3.24	20.06	4.02	3.6	5.31	4.03

Table four : Standard Deviation of Cash-Deposit ratio for the groups.

Bank Group	S.D.
SBIA	0.890368
NATIONALISED BANKS	0.335203
OSCB	1.043553
FOREIGN BANKS	0.953414

Table five : Average value of returns (2003-2007)

Bank Group	Average Return on Equity	Average Return on Investment	Average Cost of Funds
SBIA	18.99	8.486	5.438
NATIONALISED BANKS	17.918	8.638	4.966
OSCB	14.71	8.562	5.202
FOREIGN BANKS	14.258	8.118	4.05

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