FACTORS CONTRIBUTING TO PROFITS IN INDIAN PUBLIC SECTOR BANKS

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Abstract: A bank is generally understood as an institution which provides fundamental banking services such as accepting deposits and providing loans. This paper attempts to analyze the profitability of public sector banks in India. Public sector banks form major part of total banking system in India so there is a need to evaluate the profitability of these banks. This paper is primarily based on secondary data. The present paper will make an attempt to probe and understand the factors influencing the profitability of public sector banks. The presenter adopted CRAMEL ratio technique to observe the values and these factors have been adopted in the multivariate technique. In order to derive the open handed results from the information collected through secondary data, various statistical tools like mean, S.D, variance, Inter Correlation Matrix and Path Co-efficient analysis have been accomplished. The scope of the paper is confined to selected Public Sector Banks data period from 2007-08 to 2014-15. In the present paper, for the purpose of evaluating the performance of Public Sector Banks, 27 profitability ratios have been considered.

Introduction: The all India Rural Credit Survey Committee recommended the creation of one strong integrated, state sponsored, state partnered commercial banking institution with effective branches spread over the whole country. In pursuance of its recommendations, the Imperial bank was nationalized and renamed as a State Bank of India from July 1, 1955. Nationalization of the Imperial Bank of India heralded the entry of Public sector into commercial banking. To further strengthen the public sector banking structure, eight state associated banks were taken over by the State Bank of India as its subsidiaries with the passing of the State Bank of India (subsidiary banks) Act 1959.

Public Sector Banks (PSBs) being an important group of financial organizations of our economy, act as the back-bone of economic growth and prosperity. These banks are, therefore, treated as the instruments for conversion of static credit into dynamic credit. In terms of the role of Public Sector Banks (PSBs) in a planned economy, they may be distinguished from other financial institutions in as much as the former assist in the implementation of Government plans by providing the sinews of development. Primarily, the banks perform functions of a technical nature including the fulfillment of credit requirements as per Government's economic plans and controlling the utilization of these credits according to planned priorities.

Statement of the Problem: Profitability is a key performance parameter in banking sector, which reflects efficient utilization of all resources in an organization. The banks are now facing a number of challenges such as frequent changes in technology required for modern banking, stringent prudential norms, increasing competition, worrying level of non performing assets, raising customer expectations, increasing pressure on profitability, asset-liability management, liquidity and credit risk management, raising operating expenditure, shrinking size of spread and so on. The present study attempts to analyze the overall performance, profitability of selected public sector banks (PSBs) in India.

Objectives of the Study:

1. To identify the financial performance of PSBs with respect to CRAMEL and factors determining the profitability.
2. To present the findings and offer suitable suggestions to improve the profitability of the Public Sector Banks.

Period of Study: The study covered a period of 10 financial years from 2007-08 to 2014-15. The financial year starts from 1st day of April of a year and ends on 31st day of March of next year.

Methodology: The performance of a bank can be measured by a number of indicators. Among these, profitability is the most important and reliable indicator as it gives a broad indication of the capability of a bank to increase its earning.

Sampling Design: The researcher has selected 10 Public Sector Banks from the Scheduled Commercial Banks group by applying systematic random sampling technique. The total population of the Public Sector Banks functioning in India as on 31st March 2015 is 26. The researcher has identified the banks with a long standing life of 10 years at a stretch without any lapse of years or break of business operation. This sorting has reduced the quantum of banks to 10 in numbers.

(1) SB=State Bank of India (2) PB= Punjab National Banks (3) BB= Bank of Baroda (4) CB= Canara Bank (5) BI=Bank of India (6) UB=Union Bank of India (7) IB= Indian Bank (8)
AB=Allahabad Bank (9) IOB= Indian Overseas Bank (10) IDBI Bank

Data Collection: Out of the 26 Public Sector Banks (PSBs) fully owned by the government of India and classified as State Bank & its Associates (6) and Nationalized banks (20). The information collected for the study is purely based on secondary in nature. The data for the study has been collected from the banks which were functioning in India for the financial period from 2007-08 to 2014-2015. The required information are collected from the volumes of published reports by the Statistical Department of RBI, Mumbai, RBI bulletins, reports on trend and progress of banking in India, Report on currency and finance, books relating to Public Sector Banks, journals, magazines, and unpublished reports.

Review of Literature: Uppal (2009) examined the profitability which is an important criterion to evaluate the overall efficiency of a bank group. The paper examines the comparative trends in profitability behaviors of five major bank groups in the post liberalization and globalization era. The paper offers suggestions on the basis of empirical results to increase the profitability and measures should be taken to increase the level spread and curtail the burden.

Manoj (2010) assess the determinant of profitability of old private sector banks especially in Kerala state found that while non interest income is important determinant of profitability of new generation private sector banks, the old generation private sector Banks remained dependent in rural areas for their profitability. The study also stresses the crucial linkage between Govt. Securities (G-sec) and Net Interest Margin (NIM).

Bansal (2010) attempted to find out the impact of liberalization on productivity and profitability of public sector banks in India. While measuring profitability of all the PSBs, the trend analysis results showed that net profits in absolute terms have increased for majority of the PSBs but profitability has witnessed a decline. But a few banks have improved their profitability over the period of study.

Bank Specific and macroeconomic determinants of commercial bank profitability in Turkey was examined by **D. Alpher& A. Anbar** (2011). In this study is seemed that asset size has a positive and significant effect on profitability and larger banks achieve a higher ROA and ROE. Though bank loans have a positive impact on bank performance as it is expected to be the main source of income, a negative relationship was found between loans and profitability.

Guruswamy (2012) on the basis of analysis of profitability ratio it is printout that the profit in relation to working funds shows fluctuating trend during the study period in all the banks. The analysis reveals that associate banks has outstanding performance in respect of earning profits in relation to working fund compared to SBI. Further, there is no significant difference in profit after tax in relation to working fund ratio between the years and banks as per the ANOVA.

Statistical Techniques: The following factors are identified by the researcher to assess the financial performance and also responsible for the profitability of the Public Sector banks in either direction. i) Capital Adequacy, ii) Resource Deployed, iii) Asset Quality, iv) Management Quality, v) Earnings Quality and vi)Liquidity

R_1 =Ratio of Advances to Total Assets, R_2 =Ratio of Debt to Equity, R_3 =Ratio of Other Assets to Total Assets, R_4 =Ratio of Credit and Investments to Deposits, R_5 =Ratio of Fixed Assets to Total Assets, R_6 =Ratio of Other Liabilities to Total Assets, R_7 =Ratio of Equity paid-up to Capital Employed, R_8=Ratio of Operating Profit to Total Assets, R_9 =Ratio of Return on Total Assets, R_{10} =Ratio of Non-Operating Expenses to Total Assets, R_{11} = Ratio of Equity paid-up to Networth, R_{12} =Ratio of Return on Capital Employed, R_{13} =Ratio of Deposits to Total Assets, R_{14} = Ratio of Liquid Assets to Total Assets

To identify the prominent factors responsible for the profitability of Public Sector banks and to measure the extent of influence of the independent variables on the dependent variable the following tools were used:

1. Correlation analysis
2. Path co-efficient analysis
3. Correlation analysis

Correlation is the degree of association between two variables and it is represented in terms of coefficient known as correlation coefficient, which helps in measuring the magnitude and direction of the relationship between the variables. The correlation coefficient of selected independent variables with banks profitability has been worked out to identify the variables, which show higher association with the dependent variables. Correlation matrix is a table used to display correlation coefficients between these variables.

Path Coefficient Analysis: The direct effect of each of the explanatory variables on the dependent variable and the indirect effect of each explanatory variable on the dependent variable through other explanatory variables are furnished in the following Table.

Table 1:

S.NO	RATIOS/BANKS		SBI	PNB	BOB	CB	BOI	UBI	IB	AB	IOB	IDBI	F
1	Advances to Total Assets	Mean	0.528	0.563	0.554	0.58	0.599	0.588	0.526	0.548	0.554	0.609	1.307
		S.D	0.1	0.076	0.085	0.055	0.034	0.057	0.094	0.073	0.08	0.056	ns
		C.V(%)	18.878	13.513	15.392	9.57	5.726	9.701	17.877	13.294	14.448	9.134	
2	Debt to Equity	Mean	1.199	0.722	0.574	0.417	1.275	0.804	0.272	0.415	1.119	6.22	42.958
		S.D	0.423	0.489	0.379	0.399	0.26	0.338	0.408	0.386	0.75	2.339	Sig
		C.V(%)	35.299	67.728	66.075	95.56	20.425	42.08	150.279	93.122	67.01	37.596	
3	Other Assets to Total Assets	Mean	0.045	0.026	0.03	0.022	0.026	0.026	0.02	0.024	0.024	0.041	7.337
		S.D	0.008	0.005	0.011	0.006	0.005	0.006	0.007	0.013	0.003	0.019	Sig
		C.V(%)	17.787	19.695	37.039	25.529	20.25	23.784	34.984	51.409	12.942	47.116	
4	Credit and Investments to Deposits	Mean	0.706	0.679	0.644	0.665	0.66	0.716	0.455	0.658	0.68	1.619	1.425
		S.D	0.064	0.05	0.087	0.04	0.054	0.036	0.111	0.035	0.051	1.798	Ns
		C.V(%)	9.111	7.347	13.564	5.94	8.175	5.064	24.29	5.297	7.489	111.088	
5	Fixed Assets to Total Assets	Mean	0.005	0.009	0.009	0.01	0.009	0.012	0.013	0.012	0.009	0.016	7.941
		S.D	0.001	0.002	0.002	0.004	0.002	0.003	0.003	0.003	0.003	0.006	Sig
		C.V(%)	19.828	19.454	25.492	41.684	25.931	25.566	24.899	27.886	30.678	35.917	
6	Other Liabilities to Total Assets	Mean	0.103	0.059	0.051	0.052	0.051	0.054	0.055	0.04	0.053	0.07	5.877
		S.D	0.026	0.023	0.019	0.023	0.016	0.021	0.019	0.012	0.023	0.036	Sig
		C.V(%)	25.065	38.541	36.879	43.159	30.664	38.529	34.454	31.452	43.449	50.555	
7	Equity paid-up to Capital Employed	Mean	0.018	0.051	0.057	0.083	0.11	0.128	1.414	0.192	0.216	0.118	6.278
		S.D	0.005	0.018	0.013	0.035	0.058	0.043	1.496	0.062	0.095	0.024	Sig
		C.V(%)	30.004	34.843	22.014	42.463	52.872	33.386	105.798	32.315	43.726	20.312	

Table 2

S.NO	RATIOS/BANKS		SBI	PNB	BOB	CB	BOI	UBI	IB	AB	IOB	IDBI	F
8	Operating Profit to Total Assets	Mean	0.014	0.012	0.013	0.013	0.013	0.019	0.014	0.014	0.012	0.012	1.772
		S.D	0.002	0.004	0.005	0.004	0.005	0.007	0.004	0.005	0.003	0.004	ns
		C.V(%)	14.97	34.878	34.828	33.905	37.183	39.782	26.401	36.914	29.385	36.672	
9	Return on Total Assets	Mean	0.009	0.011	0.009	0.011	0.009	0.01	0.012	0.01	0.01	0.006	6.4
		S.D	0.001	0.001	0.002	0.002	0.003	0.002	0.003	0.002	0.003	0.001	Sig
		C.V(%)	9.529	11.004	20.042	16.409	36.514	18.084	23.579	22.18	33.087	19.585	
10	Non-Operating Expenses to Total Assets	Mean	0.01	0.01	0.01	0.01	0.01	0.011	0.01	0.012	0.01	0.005	2.314
		S.D	0.003	0.004	0.005	0.004	0.002	0.003	0.004	0.004	0.003	0.002	Ns
		C.V(%)	26.633	40.728	49.807	37.262	21.041	29.466	34.609	37.289	28.194	46.272	
11	Equity paid-up to Networth	Mean	0.003	0.005	0.007	0.008	0.012	0.015	0.091	0.017	0.02	0.025	7.041
		S.D	0.001	0.002	0.002	0.003	0.004	0.005	0.088	0.006	0.006	0.013	Sig
		C.V(%)	19.446	31.91	25.398	33.87	37.16	30.615	96.353	34.437	28.544	53.642	
12	Return on Capital Employed	Mean	0.294	0.358	0.332	0.407	0.392	0.481	0.449	0.421	0.362	0.215	4.177
		S.D	0.056	0.101	0.075	0.131	0.159	0.136	0.11	0.165	0.107	0.075	Sig
		C.V(%)	19.061	28.186	22.449	32.213	40.475	28.231	24.595	39.137	29.47	34.641	
13	Deposits to Total Assets	Mean	0.772	0.843	0.855	0.869	0.839	0.853	0.86	0.883	0.846	0.431	23.164
		S.D	0.015	0.02	0.014	0.012	0.007	0.017	0.01	0.017	0.027	0.27	Sig
		C.V(%)	1.94	2.319	1.589	1.37	0.824	1.94	1.121	1.901	3.228	62.771	
14	Liquid Assets to Total Assets	Mean	0.045	0.026	0.03	0.022	0.026	0.026	0.02	0.024	0.024	0.041	7.337
		S.D	0.008	0.005	0.011	0.006	0.005	0.006	0.007	0.013	0.003	0.019	Sig
		C.V(%)	17.787	19.695	37.039	25.529	20.25	23.784	34.984	51.409	12.942	47.116	

Inter-Correlation Matrix: The inter-correlation matrix of explanatory variables namely R2, R3, R4, R6, R8 with R11 as the dependent variable is furnished in the table given below.

Table 3: Correlation Matrix

Ratios	**R2**	**R3**	**R4**	**R6**	**R8**	**R11**
R2 - Debt to Equity	1					
R3 - Other Assets to Total Assets	0.621	1				
R4 - Credit and Investments to Deposits	0.98	0.614	1			
R6-Other Liabilities to Total Assets	-0.605	-0.816	-0.641	1		
R8 - Operating profit to Total Assets	-0.86	-0.761	-0.861	0.824	1	
R11- Equity paid - up to Networth	-.756**	-.811**	-.739**	.686**	.784**	1

Table 4: Direct & Indirect Effects of Independent Variables on Y- R14

Ratios	**R6**	**R7**	**R8**	**R10**	**R12**	**R14**
R2- Debt to Equity	**-0.41**	**-0.361**	0.065	0.06	**-0.111**	-0.756
R3- Other Assets to Total Assets	**-0.255**	**-0.581**	0.041	0.081	**-0.098**	-0.811
R4- Credit and Investments to Deposits	-0.402	-0.357	0.066	0.064	-0.111	-0.739
R6-Other Liabilities to Total Assets	0.248	0.474	-0.042	-0.1	0.106	0.686
R8-Operating Profit to Total Assets	**0.353**	**0.442**	-0.057	-0.082	**0.129**	0.784

*Significant at 5 % level. **Significant at 1 % level.

Findings (Tables 1 through Table 4): It is found that the Advances to Total Assets ratio ranged from 0.526 in Indian Bank to 0.609 in IDBI Bank among the Banks. The Debt to Equity ratio ranged from 0.272 in Indian Bank to 6.220 in IDBI Bank among the Banks. The Other Assets to Total Assets ratio ranged from 0.020 in Indian Bank to 0.045 in State Bank of India among the Banks. The Credit and Investments to Total Assets ratio ranged from 0.455 in Indian Bank to 1.619 in IDBI Bank among the Banks. The Fixed Assets to Total Assets ratio ranged from 0.005 in State bank of India to 0.016 in IDBI Bank among the Banks. The Other Liabilities to Total Assets ratio ranged between 0.012 in Allahabad Bank to 0.103 in State Bank of India among the Banks. The Equity Paid-up to Capital Employed ratio ranged from 0.018 to 1.414 among the Banks. The Operating Profit to Total Assets ratio ranged from 0.012 to 0.019 among the Banks. The Return on Total Assets ratio ranged from 0.006 to 0.012 among the Banks. The Non Operating Expenses to Total Assets ratio ranged from 0.005 to 0.012 among the Banks. The Equity Paid-Up to Networth ratio ranged from 0.003 to 0.091 among the Banks. The Return on Capital Employed ratio ranged from 0.215 to 0.481 among the Banks. The Deposits to Total Assets ratio ranged from 0.431 to 0.883 among the Banks. The Liquid Assets to total Assets ratio ranged from 0.020 to 0.045 among the Banks.

It is found that the inter-correlation between the selective explanatory ratios namely R2, R3, R4, R6 and R8 is significant. The correlation all the explanatory variables with the dependent variable R14 is significant. The explanatory variables, the variable R2 showed higher negative direct effect on the dependent variable R14. The variable R2 also had higher negative indirect effect on R14 through R7 and R12.The variable R3 showed higher negative direct on R14. This variable also had higher negative indirect effect on R14 through R6 and R4. The variable R8 showed higher positive direct on R14. This variable also had higher positive indirect effect on R14 through R6 and R7. Hence the three variables R2, R3 and R8 are substantially important contributing variable for the dependent variable R14.

Suggestions: Indian banking section is mainly controlled by government as PSB's being leaders in this sphere. It is suggested that government should formulate bank specific policies and should implement these policies through Reserve Bank of India for upliftment of Public Sector Banks. Public sector banks should try to upgrade technology and should formulate customer friendly policies to face competition at National and International level. Profits are to be generated by way of high volume of business coupled with better services. However while marching towards this, the bank has to come across various risks such as Credit risk, capital risk, liquidity risk, market risk etc.

Conclusion: The researcher has applied the different ratios and found significant of debt to equity, other assets to total assets, fixed assets to total assets, fixed assets to Networth and other liabilities to total assets. In terms of profitability, Majority of the banks has registered above the benchmark (more than one per cent) on ROA, Equity paid up to Networth, Return on capital employed and deposits to total assets.

It has been observed that the banking sector in India has responded very positively in the field of enhancing the role of market forces regarding measures of prudential regulations of accounting, income recognition, provisioning and exposure and introduction of CRAMELS supervisory rating system. All the banks has to take necessary steps to improve the overall performance of the banking sector.

References:

1. Alpher, D. & Anbar, A.,(2011) Bank Specific and Macroeconomic Determinants of Commercial Bank Profitability: Empirical Evidence from Turkey, Business and Economics Research Journal, Volume 2. Number 2, 2011, pp. 139-152.
2. Amandeep (1993) “Profits and Profitability in Commercial Banks, Deep and Deep Publications”, New Delhi, Ed.1.
3. Bansal, Disha,(2010) “Impact of Liberalization on Productivity and Profitability of Public Sector Banks in India”, Ph.D thesis, Saurashtra University, Rajkot, March 2010.
4. Bhatia, Saveeta and Verma, Satish (1999) “Factors Determining Profitability of Public Sector banks in India: An Application of Multiple Regression Model”, Prajnan, January – March.
5. Bolda B.S., & Verma, R. (2007). Determinants of Profitability of Banks in India: A Multivariate Analysis”, Journal of ServicesResearch,Vol.6, 75-89.
6. Chandra, M. (1992), “On Increasing Profitability of Public Sector Banks- A Note”, Pinmy Economic Review, Vol.33, No.2, pp. 20-38.
7. Chandan, C. L., & Rajput, P.K. (2002), Profitability analysisofbanksinIndia:Amultipleregressionapproach,Indian Management Studies Journal. 6, 119-129.
8. Chopra,K (2005) Managing Profitability and Productivity in Public Sector Banking, ABS publications, Jalandhar.
9. Das, Abhiman (1999), “Profitability of Public Sector Banks: A Decomposition Model,”Reserve Bank of IndiaOccasionalPapersVol.20,No.1,pp. 1-10.
10. Dr.D.Guruswamy, (2012) “Analysis of profitability performance of SBI and its Associates”, ZENITH *International Journal of Business & Management* Research Vol.2, Issue 1, January 2012.
11. John A. Goddard and John O.S Wilson (2004), “The Profitability of European Banks: A Cross-Sectional and Dynamic Panel Analysis,” Manchester School, Vol.72, No.3, pp. 363-381.
12. Luther, J.C.1976. Report of JC Luther, Committee on Productivity, Efficiency & Profitability in Commercial banks, Bombay 1976.
13. Meghna Goel, ICT Based Knowledge Management in Health Care; Business Sciences International Research Journal ISSN 2321 – 3191 Vol 2 Issue 1 (2014), Pg 310-314
14. Manoj P K.,(2010) "Determinants of Profitability and Efficiency of Old Private Sector Banks in India with Focus on Banks in Kerala State." *International Research Journal of Finance and Economics,* Issue 47, 2010, pp 8-20.
15. Ojha, J. (1997) “Productivity and Profitability of Public Sector Banks in India: An International Comparison”, SBI Monthly Review (July).
16. Patnaik, U.C. and Patnaik M., (2005), “Profitability in Public Sector Banks,” Sonali Publications Pvt Ltd, New Delhi.
17. Reserve Bank of India, Report on Trend and Progress of Banking in India, Various issues.
18. Shah, S.G. (1978). Bank Profitability – The Real Issues”, The Journal of the Indian Institute of Bankers, 4, 130-144.
19. Toni Uhomoibhi Aburime (2008), “Determinants of Bank Profitability: Company – Level Evidence from Nigeria,” Banking and Finance Research Group,Vol.7,No.3, pp. 133-146.
20. Uppal, R.K.,(2009) “Indian Banking – Prime Determinants of Profitability, Emerging Issues and Future Outlook,” *GITAM Journal of Management*, Vol.7, No.2, 2009, pp. 78- 106.

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