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PROFITABILITY AND EFFICIENCY MEASUREMENT OF THE SELECTED PUBLIC SECTOR BANKS IN INDIA

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ABSTRACT

Earning quality of the bank reflects the quality of its profitability and its ability to maintain quality and earning consistently. Efficiency shows the bank's adherence with set norms, ability to plan and respond to changing environment and administrative capability. The purpose of this study is to analyze the financial data of five Indian public sector banks for the financial period 2009-10 to 2013-14 with a view to examining profitability and efficiency and overall performance of the banks based on these two categories only i.e. profitability and efficiency. The study found that that there was statistically significant difference in profitability and efficiency of the selected Indian public sector banks. Due to significantly higher NP margin as well as higher RONW, BOB was at the first position followed by SBI, SYN, UCO and IOB. Due to significantly higher NII and NNII as well as efficiently controlled IE; SBI occupied first position closely followed by BOB, IOB, SYN and UCO.

Key words: efficiency, profitability

INTRODUCTION

The Indian financial system has been regulated mainly by interest rate regulation, credit restrictions, equity market controls and foreign exchange controls. Indian Banking Sector is divided into four categories i.e. Public Sector Banks, Private Sector Banks, Foreign Banks in India and Scheduled Commercial Banks. Banks are considered to be very important financial mediators or institutions because they result into well being of saver as well as investors. Financing facilitates the flow of goods and services and the activities of the government. It also provides a great portion of the medium of exchange to the country. Banks are the backbone of the economy of the country because they play significant role in the effort to attain stable prices, high level of employment and sound economic growth. Hence, measurement of performance of the banking sector is an efficient measure and indicator to judge the soundness of economic activities of the economy. Sound financial health of banking sector is very vital not only to its depositors but is equally significant to the investors also. Improvement of economic efficiency of savers and investors raises overall improvement in living standard of the society at large. As a result, efforts are carried out to analyze the financial performance of the banking sector and manage it effectively. It helps in regulating the level of risk of banking sector. There is a considerable improvement in the supervisory system of banking sector as far as recovery, efficiency, assets quality, profitability, and liquidity is concerned. Such categories help in assessing and examining the performance and financial soundness of the banks.

The purpose of this study is to analyze the financial data of five Indian public sector banks for the financial period 2009-10 to 2013-14 with a view to examining profitability and efficiency and overall performance of the banks based on these two categories only i.e. profitability and efficiency. An attempt has also been made to rank the banks on the basis of their profitability and efficiency. Therefore, the objective of the study is to assess profitability and efficiency of Indian public sector banks.

With a view to evaluating profitability of Indian public sector banks, financial ratios such as net profit, return on assets and return on net worth have also been calculated. In order to assess the efficiency of India public sector banks, financial ratios such as Net Income to Total Funds, Non Net Income to Total Funds and Interest Expended to Total Funds have also been used.

It is hypothesized for this study that there is significant difference in profitability and efficiency of Indian public sector banks.

This study is organized as follows: the next section following introduction discusses the review of relevant literature. Third section throws light on methodology. The details of the results and analysis of the available data are described in fourth section and the final section presents the main conclusions.

THE LITERATURE REVIEW

Study by Spathis & Doumpos (2002) investigated the effectiveness of the Greek Banks on the basis of size of the assets of the bank. On the basis of return and operation factors, they used multi criteria methodology to classify Greek banks on the basis of banks profitability and efficiency between small and large banks.

The study by Pathak (2003) focused on financial parameters like deposits, profits, return on assets and productivity from the view point of Indian Private Sector Banks.

Study by Chien & Danw (2004) was based on innovative two-stage data envelopment analysis model. Bank with better efficiency does not always mean that it has better effectiveness was the upshot of the study.

Study by Balasubramanin (2007) revealed that private sector banks play an important role in development of Indian economy. After liberalization, the banking industry underwent major changes. The economic reforms have changed the banking sector. RBI permitted new banks to be started in the private sector as per the recommendation of the Narashiman Committee.

The study by Singla (2008) revealed that profitability position of the banks was reasonable and sustained at a moderate rate during the study period. Increasing interest covering ratio and maintaining debt equity ratio over 1:1 indicated strong solvency position of the banks. Negative correlation between return on net worth and the debt equity ratio was revealed during the study period. Even interest income to working funds also had negative association with interest coverage ratio. It was also divulged from the study that the Non-Performing Assets to net advances was negatively correlated with interest coverage ratio.

The study by Chaudhary & Sharma (2011) concluded that an efficient management information system should be developed. The bank staff involved in sanctioning the advances should be trained about the proper documentation and charge of securities and motivated to take measures in preventing advances turning into NPA. Public banks must pay attention on their functioning to compete private banks. Banks should be well versed in proper selection of borrower/project and in analyzing the financial statement.

The study by Prabhakar & LakshmiPrabha (2012) found the existence of consistency among the sector and suggested investors to follow perfect portfolio management in order to avoid risk involved in it.

The purpose of the study by Kaur (2012) is to examine the financial performance of public and private sector banks. The study found that the overall performance of Public Sector Banks is better than private Sector Banks over the period of study.

The study by Kumar & Malhotra (2013) found that Bank of Baroda was at the first position with overall composite ranking average of 6.05 due to its better performance in the areas of liquidity and asset quality, closely followed by Andhra Bank with overall composite ranking average of 6.15 because of its strength in the spheres of management efficiency, capital adequacy and asset quality. United Bank of India held the bottom most rank with overall composite ranking average of 14.60 due to management inefficiency, poor assets and earning quality. The study recommends that United Bank of India has to improve its management efficiency, assets and earning quality. Similarly Bank of Maharashtra should take necessary steps to improve its liquidity position and management efficiency.

The study by Goel & Bajpai (2013) used financial indicators like Liquidity, Capital Adequacy, and Profitability ratios to explain that there is no such great impact on Indian banks due to global recession for the time period 2006-2009.

The study byMohanraj & Gomathi (2013) finds that the banking sector faces profitability pressures due to higher funding costs, mark-to-market requirements on investment portfolios, and asset quality pressures due to a slowing economy. But Indian banks' global exposure is relatively small, with international assets at about 6 per cent of the total assets. The strong economic growth in the past, low defaulter ratio, absence of complex financial products, regular intervention by central bank, proactive adjustment of monetary policy and so called close banking culture has favored the banking industry in India in recent global financial turmoil.

The study by Yadav (2014) concludes that before the global recession foreign bank group was performing much better than other banking sectors. Private, Nationalized and SBI bank groups kept on performing almost same, but certainly better than RRBs for all the period of study. But, Indian banks have to innovate to take advantage of the new business opportunities and at the same time ensure continuous assessment of risks.

Return on Assets and Interest Income Size have negative correlation with operational efficiency, whereas positive correlation with Assets Utilization and Assets size. It is also revealed from the study that there exists an impact of operational efficiency, asset management and bank size on financial performance of the Indian Private Sector Banks Mistry &Savani (2015).A significant positive relationship exists between the size of the selected public and private sector banks and the extent of corporate social disclosures. It is also found that a significant positive relationship exists between the return on assets and the level of corporate social disclosure of the selected public and private sector banks under the study. Mistry (2014). A Comparative Study on the Profitability Performance of Public and Private Sector Banks was also done Mistry (2012) as well as commercial banks Mistry (2011).

From the above review of empirical works, it is clear that different authors have approached to study performance of banks in different ways in varying levels of analysis. These different approaches helped in the emergence of more and more literature on the subject over time. It gives an idea on extensive and diverse works on performance measurement of banks. It has been noticed that the studies on performance of banks in various aspects provide divergent results relating to the study period overlap or coincide. The main reason for divergence in the results is use of different method for the measurement of performance of banks. All the studies aimed to analyze the performance of banks in India & abroad with number of factors such as profitability, liquidity, efficiency, assets quality and control. The survey of the existing literature reveals that no specific work has been carried out to examine and ascertain the profitability and efficiency measurement of Indian public sector banks and thereby to assess overall performance thereof. The present study is an attempt in this direction and therefore, aims to enrich the existing literature on performance of banks in India.

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STUDY METHODOLOGY

Objectives of the Study

The present study aims:

1 To assess profitability and efficiency of Indian public sector banks.
2 To assess overall performance of Indian public sector banks.
3 To give recommendations and suggestions for profitability and efficiency improvement of Indian public sector banks.

Sample and Sampling Techniques

Looking to the objectives of the present study, there was the need to take a sample covering public sector only and hence a sample of following five banks has been selected using convenient sampling method.

1. Bank of Baroda (BOB)
2. Indian Overseas Bank (IOB)
3. State Bank of India (SBI)
4. Syndicate Bank (SYN)
5. UCO Bank (UCO)

Period of the Study

The study has been undertaken for the period of five years 2009-10 to 2013-14.

Hypothesis of the Study

The following hypothesis has been formulated and tested in this study:

H_0=there is no significant difference in profitability and efficiency of Indian public sector banks.

H_1=there is significant difference in profitability and efficiency of Indian public sector banks.

On the basis of literature review, financial ratios such as Net Profit, Return on Assets and Return on Net Worth have been selected with a view to evaluating profitability of Indian public sector banks; while in order to assess the efficiency, financial ratios such as Net Income to Total Funds, Non Net Income to Total Funds and Interest Expended to Total Funds have been selected. Five year average has been calculated with the help of simple arithmetic mean. Rank to average so computed for each ratio in various categories i.e. profitability and efficiencyhas been given and then composite rank to group mean for each category has been given. To assess overall performance, composite rank for each category has been taken together and average of ranks so taken has been calculated with the help of simple arithmetic mean and final ranking has been given. The hypothesis of the study has been tested with the help of ANOVA.

RESULT AND ANALYSIS

Table 1 Profitability of the Indian Public Sector Banks

	2014	2013	2012	2011	2010	Mean	Rank
Net Profit (NP)							
BOB	10.86	11.73	15.17	17.18	15.44	14.076	1
IOB	2.42	2.5	5.41	8.04	6.14	4.902	5
SBI	6.24	8.93	8.67	7.22	8.67	7.946	3
SYN	9.3	12.06	8.06	8.5	7.23	9.03	2
UCO	7.72	3.49	7.2	7.48	9.72	7.122	4
Return on Assets (ROA)							
BOB	881.36	790.06	693.62	557.45	431.4	670.778	2
IOB	130.9	145.63	135.34	131.96	116.54	132.074	4
SBI	1,973.97	1,827.88	1,583.05	1,314.51	1,309.46	1601.774	1
SYN	207.47	197.14	133.56	116.17	100.1	150.888	3
UCO	110.64	104.43	94.72	82	65.74	91.506	5

Return on Net Worth (RONW)						
BOB	13.21	14.43	18.4	20.31	20.23	17.316	1
IOB	3.72	4.21	9.73	13.13	11.13	8.384	5
SBI	9.61	14.32	14.44	12.8	14.11	13.056	4
SYN	14.31	18.59	16.34	15.74	15.58	16.112	3
UCO	13.45	7.86	17.6	17.61	28.02	16.908	2
Composite Profitability							
	NP	ROA	RONW	Group Mean	Rank		
BOB	1	2	1	1.333333	1		
IOB	5	4	5	4.666667	5		
SBI	3	1	4	2.666667	2.5		
SYN	2	3	3	2.666667	2.5		
UCO	4	5	2	3.666667	4		
Source: Computed from Annual Reports							

Table 1 depicts profitability of the selected banks of Indian public sector. Profitability was measured with the financial ratios such as NP, ROA and RONW. As far as NP was concerned BOB was on the top position, followed by SYN, SBI, UCO and IOB. In case of ROA, SBI occupied the first position, followed by BOB, SYN, IOB and UCO. BOB led the selected banks in case of RONW too, followed by UCO, SYN, SBI and IOB.

On the basis of group mean of three profitability ratios, BOB was at the top position with group mean of 1.33. SBI and SYN jointly shared second position with group mean of 2.66. UCO was at the fourth place with group mean of .66 and IOB was at the bottom with group mean of 4.66.

Table 2 Efficiency of the Indian Public Sector Banks

	2014	2013	2012	2011	2010	Mean	Rank
Net Interest Income/Total Funds (NII)							
BOB	2.08	2.35	2.61	2.82	3.35	2.642	4
IOB	2.5	2.27	3.08	3.32	3.39	2.912	2
SBI	7.82	3.09	3.33	2.95	4.11	4.26	1
SYN	2.36	2.74	3.44	3.34	2.63	2.902	3
UCO	2.5	2.42	2.48	2.75	2.26	2.482	5
Non Net Interest Income/Total Funds (NNII)							
BOB	0.9	0.89	1	1.01	0.36	0.832	2
IOB	0.84	0.85	0.21	0.21	0.16	0.454	3
SBI	1.68	1.65	1.71	2.21	0.88	1.626	1
SYN	0.56	0.59	0.19	0.23	0.31	0.376	5
UCO	0.6	0.5	0.24	0.31	0.32	0.394	4
Interest Expended/ Total Funds (IE)							
BOB	4.47	4.82	4.79	4.11	4.27	4.492	2
IOB	6	6.66	6.5	5.13	5.67	5.992	5
SBI	0.55	5.4	5.15	4.4	4.85	4.07	1
SYN	5.57	5.86	6.03	4.8	5.44	5.54	3
UCO	6	6.43	6.26	5.02	5.81	5.904	4
Composite Efficiency							

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	NII	NNII	IE	Group Mean	Rank
BOB	4	2	2	2.666667	2
IOB	2	3	5	3.333333	3
SBI	1	1	1	1	1
SYN	3	5	3	3.666667	4
UCO	5	4	4	4.333333	5
Source: Computed from Annual Reports					

Table 2 depicts efficiency of the selected banks of Indian public sector. Efficiency was measured with the financial ratios such as NII, NNII and IE. As far as NII was concerned SBI was on the top position, followed by IOB, SYN, BOB and UCO. In case of NNII, SBI occupied the first position, followed by BOB, IOB, UCO and SYN. SBI led the selected banks in case of IE too, followed by BOB, SYN, UCO and IOB.

On the basis of group mean of three efficiency ratios, SBI was at the top position with group mean of 1. BOB was at the second position with group mean of 2.66, while IOB was at the third place with group mean of 3.33. SYN was at the fourth place with group mean of 3.66, while UCO at the last place with group mean of 4.33.

Table 3 Overall Performance of Indian Public Sector Banks

	Group Mean of Composite Profitability	Group Mean of Composite Efficiency	Mean	Rank
BOB	1.333333	2.666667	2	2
IOB	4.666667	3.333333	4	4.5
SBI	2.666667	1	1.833334	1
SYN	2.666667	3.666667	3.166667	3
UCO	3.666667	4.333333	4	4.5

For the purpose of assessment of the overall performance of Indian Public sector banks, composite rating and resultshave been calculated and presented in Table 3. The study found that State Bank of India was at the first with overall composite ranking average of 1.83, followed by Bank of Baroda with 2, Syndicate Bank with 3.16, and both Indian Overseas Bank and UCO Bank with 4.

Table 4 ANOVA Result

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F- Value
Between Groups	9.9476E-14	1	9.95E-14	6.28269E-14
Within Groups	12.666668	8	1.583334	
Total	12.666668	9		

For determining whether there was any significant difference between the means of profitability and efficiency ratios, ANOVA: Single factor has been applied on the data shown in Table 4. The ANOVA result has been presented in Table 4. The ANOVA result revealed that the calculated value of 'F' was more than the critical value of 'F' (5.317655) for 1,8 degree of freedom at 5% level of significance. It meant that there was statistically significant difference in profitability and efficiency of Indian public sector banks.

CONCLUSIONS

Findings

As far as profitability was concerned,

1. Due to significantly higher NP margin as well as higher RONW, BOB was at the first position followed by SBI, SYN, UCO and IOB. It showed greater earning quality of BOB which reflected the quality of its profitability and its ability to maintain quality and earning consistently. It revealed consistency of future earnings too.
2. Despite comparatively much greater ROA, SBI was jointly at the second position with SYN due to average NP margin as well as average RONW. Greatest ROA showed that the productivity of funds management was higher.
3. Closely near to the highest RONW helped SYN to share second position with SBI in spite of average NP margin below average ROA.

4. Regardless of ample RONW and average NP margin, UCO was at the fourth place due to the lowest ROA. It showed inefficiency utilization of assets.
5. IOB was at the bottom position due to lowest NP margin as well as least RONW.

As far as efficiency was concerned,

1. Due to significantly higher NII and NNII as well as efficiently controlled IE; SBI occupied first position closely followed by BOB, IOB, SYN and UCO. It showed SBI's adherence with set norms, ability to plan and respond to changing environment and administrative capability.
2. Though low NII, BOB was at the second place because NNII was significantly above average and IE was controlled.
3. Though the highest IE, IOB was at the third place with higher NI and average NNII. The highest IE showed inefficient control.
4. With lowest NNII and average NII as well as IE, SYN had fourth rank.
5. UCO was at the bottom position due to lowest NII and lower NNII as well as higher IE.

As far as overall performance was concerned,

1. The study found that SBI was at the first with overall composite ranking average of 1.83, followed by BOB with 2, SYN with 3.16, and both Indian Overseas Bank and UCO Bank with 4 and hence no bank was at the last place.
2. SBI's first position was the result of greater efficiency (reflected by control over IE and better NNI as well as NNII) and better profitability position.
3. Greater profitability and better efficiency position helped BOB to remain at the second place.
4. Better profitability and middling efficiency were the grounds for keeping SYN at third place.
5. Lower profitability and average efficiency and vice a versa were the reasons for occupying fourth position jointly by IOB and UCO respectively.

The study found that that there was statistically significant difference in profitability and efficiency of the selected Indian public sector banks.

Suggestions

To improve profitability and efficiency, it is suggested that

1. BOB should focus on improving NP margin through efficient control over operating overheads in general and selling, administrative, operating expenses in particular.
2. IOB should focus on controlling IE with a view to improve its earning quality.
3. Though SBI was at the first position, it is suggested to take measures to increase NNI and to control operating overheads in general and selling, administrative, operating expenses in particular.
4. SYN should carry out steps to make significant increase in NNI as well as NNII with a view to improve NP margin.
5. UCO should focus on controlling IE as well as increasing NII.

Conclusion

It can be concluded that periodical scanning of the profitability and efficiency facilitates the banks to examine overall performance as well as diagnose their financial health and alert supervisory bodies, investors, clients, stakeholders and researchers to take preventive measures for its sustainability.

FURTHER SCOPE FOR THE STUDY

The study is limited to the period of five years only, which can be extended. As it comprises of only two parameters i.e. profitability and efficiency; parameters like capital adequacy, liquidity, recovery, assets quality can be added. Comparative study between public and private sector banks can also be carried out since it focuses only on selected Indian public sector banks only.

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