Pacific Business Review International
Volume 6, Issue 12, June 2014

Profitability of State Bank of India: An Analysis

Dr. Kingshuk Adhikari
Assistant Professor
Department of Commerce
Assam University, (A Central University)
Silchar, India

Nitashree Barman
Research Scholar
Department of Commerce
Assam University, (A Central University)
Silchar, India

Pinkumoni Kashyap
Research Scholar
Department of Commerce
Assam University, (A Central University)
Silchar, India

Abstract

The paper attempts to analyse the profitability of State bank of India for the period of seven years. Apart from studying the trend of different components of both income and expenditure, performance of the bank has been analysed with the parameters like OPTWF, ROA, ROE, ROI and EPS. There is a significant difference not only between the components of income but also across the components of expenditure. The paper concludes that the profitability performance of the SBI is not consistent during the study period. The bank should focus more on diversification of income and should also curtail operating expenses in order to improve profitability performance.

Keywords:

Income, Expenditure, Operating Expenses, Profit, Interest

Introduction

Background of the Study

Financial system has a great role to play in economic development of a country. A well-functioning financial sector facilitates efficient intermediation of financial resources, which creates money in the economy. In a country like India, public sector banks have an edge over private sector banks in terms of size, geographical reach and access to low cost deposits. Large size of business enables them to cater to the larger credit needs of corporate as well as other sections of the society. Geographical reach through a large number of branches increases their access to low cost deposits and lowers the portfolio risk through diversification. The access to low cost deposits enables them to the corporate at competitive rates (Pathak, 2005:479). At present, there are 26 public sector banks in India out of which 19 nationalised banks, one IDBI bank and other six banks are SBI and its Associates. SBI is the biggest commercial bank in India. Compared to other Indian commercial banks it has wide business networks and been able to access to a wide coverage of areas. Thus, the assessment of profitability performance of such a big bank has its own importance having implication towards its own financial health as well as economic condition of the economy. Besides, if the profitability performance shows increasing trend, it signals that the concern is moving towards the development stage along with right strategy welcoming future benefits and opportunities.

Review of Literature

The theoretical literature implies that profit earned by a particular concern indicates its strength in yielding benefits from all sorts of its efforts injected in earning the same. On the other hand, profitability indicates the earning ability or earning power of a particular source to which it is affected. Over the period, there are various profitability-based studies conducted in the area of banking and some of them have been reviewed as follows

D'suza (2002) discovered that the profitability of the public sector banks in late nineties improved relatively to that of private and foreign banks. In this context, Mathur (2002) and Nayak (2001) argued that private banks perform better than public banks only because the private sector banking has a legal support and makes them free from the adversaries of extraneous pressures as well as they are least involved in socio-economic policies of the government. Vijayakumar (2002) discovered declining trend of gross profit ratio of public sector banks in pre reform period indicating the funds not used profitably. However, Bhide, Prasad and Gosh (2002) and Ketkar and Ketkar (2009) experienced positive impact of the banking sector reforms on the profitability of the public sector banks but RBI mandate of priority sector lending and inadequate risk management techniques etc continues to hurt both the efficiency and profitability. Chauduri (2002) suggested that the public sector banks in India are neither strong nor very weak but they do not have any further capacity to bear the burden of government policies. Patnaik and Patnaik (2005) concluded that the profitability position of SBI is better than that of other public sector bank groups. In contrast to it, Kaur and Kapoor (2007) found that the relative efficiency of Nationalized Banks was higher than the relative efficiency of State Bank of India and associates of SBI Group. Guruswamy (2012) evaluated the profitability performance of state bank of India and found that among the associate banks, state bank of Patiala, state bank of Hyderabad, state bank of Indore and state bank of Bikaner proved to be most dynamic in earning profit compared to State Bank of India. Badola and Verma (2006) concluded that explanatory power of spread, non-interest income, provisions and contingencies, operating expenses is significant while credit deposit ratio, non-performing asset as percentage to net advances and business per employee are found with low explanatory power.

Objectives of the Study

1. To analyze the trend of income and expenditure of State Bank of India;
2. To assess the degree of correlation across the various components of profit earned by the State Bank of India.
3. To evaluate the profitability performance of State Bank of India over the study period.

Hypotheses of the Study

H_{01}: There are no significant differences across the different components of income and expenditure.

H_{02}: There is no significant difference between the trend of income and expenditure.

H_{03}: The profitability performance of the State Bank of India is not significant during the study period.

Scope and Methodology

The present study is based on secondary data collected from the annual reports of State Bank India. The analysis of profitability of the bank is being carried out from 2006-07 to 2012-13. In order to analyse the profitability performance of the bank certain ratios have been considered such as Operating Profit as a percentage to Working Funds, Return on Assets, Return on Equity, Return on Investment, Earning per share. Such ratios as well as the components of profit of the bank have been further analysed through index, mean, coefficient of variation and compound annual growth rate. The study employed Karl Pearson's coefficient in order to find the correlation of various components of income and expenditure with the net profit earned as well as across the components. Further, the study used student's *t* test and ANOVA for testing the hypotheses. All the calculation and testing of hypotheses have been processed through MS Excel and PASW 18 version.

Results and Discussion

Trend of Income

Table 1 analyses the trend of income of State Bank of India for the period 2006-07 to 2012-13. During the study period, the bank earned average total income of ₹ 88268 crores with coefficient of variation of 37.10 percent out of which interest income amounted to ₹ 75507 crores with coefficient of variation of 39.26 percent and other income to ₹12761 crores with coefficient of variation of 28.61 percent. The bank earned highest income of ₹ 135692 crores in 2012-13 and lowest of ₹ 44008 crores in 2007-08 resulting compound annual growth rate of 20.64 percent. However, the bank's income earning performance was finest in 2008-09 with index of 132.67 percent compared to previous as well as succeeding index values.

Table 1: Trend of Income of State Bank of India

(Base Year 2006-07=100)

Year (As on 31st March)	Interest income (₹ in Crore)	Index (in %)	Other income (₹ in Crore)	Index (in %)	Total Income (₹ in Crore)	Index (in %)
2006-07	37242 (84.63)	100	6765 (15.37)	100	44008 (100)	100
2007-08	48950 (84.92)	131.44	8695 (15.08)	128.53	57645 (100)	130.99
2008-09	63788 (83.41)	130.31	12691 (16.59)	145.96	76479 (100)	132.67
2009-10	70994 (82.59)	111.30	14968 (17.41)	117.94	85962 (100)	112.40
2010-11	81394 (83.72)	114.65	15825 (16.28)	105.73	97219 (100)	113.10
2011-12	106521 (88.13)	130.87	14351 (11.87)	90.69	120873 (100)	124.33
2012-13	119657 (88.18)	112.33	16035 (11.82)	111.73	135692 (100)	112.26
Mean	75507		12761		88268	
CV	39.26		28.61		37.10	
CAGR	21.47		15.47		20.64	

Source: Based on the annual reports of the State Bank of India for the relevant years

Note: Figures in parentheses indicate the relative share of respective components in total income

With regard to other income, the highest index was in 2008-09 and lowest in 2011-12 with 90.69 percent. Like interest income, the bank earned highest income of ₹ 16035 crores in 2012-13 but its compound annual growth rate is lower by 6 percent. Besides, the relative share of interest income is higher than the other income over the study period. Thus, during the entire study period, the trend of income and of its components fluctuated and the bank's highest source of revenue is interest income earned on all types of its loans and advances as well as investment but it has a comparatively high degree of variation.

In respect of the equality of earning under the two heads, the *t* test finds that there is a significant difference between interest income and other income at the 0.05 level (2-tailed) with *t* value of 5.558 and p value of .0001 and therefore, rejecting the null hypothesis of no significant difference between the interest income and other income.

Trend of Expenditure

Table 2 depicts the trend of expenditure of State Bank of India for the period 2006-07 to 2012-13. During the study period, the bank incurred average total expenditure of ₹ 79178 crores with coefficient of variation of 37.59 percent in which interest expenses amounted to ₹ 47396 crores with coefficient of variation of 37.82 percent, operating expenses of ₹ 19824 crores with coefficient of variation of 33.99 percent and provisions & contingencies of ₹ 11957 crore with coefficient of variation of 48.90 percent. Although, the bank incurred highest expenditure of ₹ 121587 crores in 2012-13 with compound annual growth rate of 20.63 percent, its cost saving performance was excellent during the year evident by comparatively lower index of 111.38 percent. Further, in absolute term, all the components of expenditure increases over the study period except provisions & contingencies in 2012-13. The compound annual growth of interest expenses is highest with 20.60 percent followed by provision & contingencies with 20.82 percent while it is lowest in case of operating expenses with 16.31 percent. However, index of the interest expenses was highest in 2007-08 with143.93 percent and comparatively lower in 2010-11 with 103.27 percent. In case of operating expenses, the index gradually increased and rose to 129.84 percent in 2009-10 but it was static during the next two succeeding years with 113.27 percent and then it declined to 112.33 percent in 2012-13.

Table 2: Trend of Expenditure of State Bank of India

(Base Year 2006-07=100)

Year	Interest Expended (₹ in Crore)	Index (in %)	Operating Expenses (₹ in Crore)	Index (in %)	Provisions & Contingencies (₹ in Crore)	Index (in %)	Total expenditure (₹ in Crore)	Index (in %)
2006-07	22184 (56.21)	100	11824 (29.96)	100	5459 (13.83)	100	39466 (100)	100
2007-08	31929 (62.71)	143.93	12609 (24.76)	106.64	6378 (12.53)	116.85	50916 (100)	129.01
2008-09	42915 (63.71)	134.41	15649 (23.23)	124.11	8794 (13.06)	137.87	67358 (100)	132.29
2009-10	47322 (61.62)	110.27	20319 (26.46)	129.84	9155 (11.92)	104.10	76796 (100)	114.01
2010-11	48868 (54.94)	103.27	23015 (25.87)	113.27	17071 (19.19)	186.47	88954 (100)	115.83
2011-12	63230 (57.92)	129.39	26069 (23.88)	113.27	19866 (18.20)	116.37	109166 (100)	122.72
2012-13	75326 (61.95)	119.13	29284 (24.09)	112.33	16977 (13.96)	85.46	121587 (100)	111.38
Mean	47396		19824		11957		79178	
CV	37.82		33.99		48.90		37.59	
CAGR	22.60		16.31		20.82		20.63	

Source: Based on the annual reports of the State Bank of India for the relevant years

Note: Figures in parentheses indicate the relative share of respective components in total expenditure

The index of provisions & contingencies was highest in 2010-11 with 186.47 percent and lowest in 2012-13 with 85.46 percent. Besides, the relative share of interest expended is higher than the other components over the study period. Thus, the trend of expenditure as well as its components are not steady over the study period and the bank incurred highest expenditure under the head of interest expended which includes interest paid on all types of deposits, borrowings and all other payments like interest on participation certificates, penal interest paid etc. However, the incurrence of operating expenditure is more consistent to interest expenditure while the provisions & contingencies have a highest degree of variation. About the first hypothesis, single factor ANOVA finds that there exist statistically significant differences across the various components of expenditure at the 0.05 level (2-tailed) with *F* value of 18.141and p value of .000.

Correlation Matrix

Table 3 shows the correlation matrix of various components of net profit earned by the SBI. Among the components of income, interest income has a very high degree correlation with net profit and it is significant at the 0.05 level while other income has a fairly high degree correlation with net profit and it is significant at the 0.01 level. In case of expenditure, both interest expended and operating expenses have a very high degree positive correlation with net profit at the 0.05 level of significance but the former is highly correlated than the later. On the other hand, provisions & contingencies have a fairly high degree correlation with net profit at the 0.01 level of significance. Besides, all the heads of expenditure have a very high degree of correlation with interest income and operating expenses is comparatively have high degree of correlation with other income.

Table 3: Correlation Matrix of Various Components of Net Profit

	Interest Income	Other Income	Interest Expended	Operating Expenses	Provisions & Contingencies	Net Profit
Interest Income	1					
Other Income	.832*	1				
Interest Expended	.991**	.854*	1			
Operating Expenses	.980**	.876**	.966**	1		
Provisions & Contingencies	.907**	.784*	.855*	.919**	1	
Net Profit	.957**	.802*	.983**	.903**	.765*	1

Source: Computed

Note: *. Correlation is significant at the 0.05 level (2-tailed)

**. Correlation is significant at the 0.01 level (2-tailed)

Result of testing of second hypothesis states that the trend between income and expenditure of SBI is not significant at the 0.05 level (2-tailed) with *t* value of 0.012 and p value of .991which implies that income and expenditure of the bank correlate positively with each other as depicted in the Table 3. In other words, incurrence of marginal increase in expenditure results to marginal increase in income and vice –versa. Thus, management of the SBI is efficient in converting its efforts in terms of expenditure into benefits in terms of earning profit but not the increased volume of output i.e. net profit.

Profitability Analysis

Operating Profit as percentage to Working Fund (OPTWF): It measures the percentage of average of working fund earned by banks as net profit. As per the RBI guidelines, the average working fund means the fortnightly average total of assets. The ratio is calculated by total operating profit divided by average working fund multiplied by hundred. Table 4 shows that during the study period the SBI has been able to generate average of 2.03 percentage of its working fund with coefficient of variation of 10.18 percent. The performance of the parameter is drastically fluctuated over the study period and resulted to CAGR of 1.30 percent. Thus, the profitability performance of the bank is not consistent during the study period. The one-sample *t* test shows that the profitability performance measured by operating profit as percentage to working fund is significant at the 0.05 level with *t* value of 25.999 .The bank efficiently utilised its working fund in 2011-12 evident by highest ratio and performed poor in 2009-10 indicated by lowest ratio. However, its growth performance was excellent in 2010-11 and opposite the case in 2009-10.

Table 4: Operating Profit as percentage to Working Fund (OPTWF) of SBI

Year	2007	2008	2009	2010	2011	2012	2013	Mean	CV	CAGR
OPTWF (%)	1.86	1.96	2.05	1.75	2.17	2.38	2.01	2.03	10.18	1.3
YOY Growth (%)	0.00	5.38	4.59	(14.63)	24.00	9.68	(15.55)			

Source: Based on the compiled data from annual reports of the State Bank of India and statistical tables relating t o banks in India for the relevant years

Return on Average Assets (ROA): It indicates the number of cents earned on each rupee of assets and tells how effectively a bank is using the resources at its disposal. An increasing trend of ROA implies a higher asset-intensity as well as improving profitability of the bank and vice versa. It is measured by the net profit divided by average total assets multiplied by hundred. Table 5 presents that during the study period, on an average, the SBI has generated earnings of .90 percent on its average total assets with the variation of 12.24 percent in its yearly performance. The variation in performance for the two extreme study period resulted to CAGR of 1.34 percent. Thus, the profitability performance of the bank is not consistent over the study period. However, the result of one-sample *t* test shows that the profitability performance based on the ratio is significant at the 0.05 level with *t* value of 21.608. The bank earned highest returns from its assets in 2008-09 but its yearly growth performance was excellent in 2011-12. In 2010-11, the bank earned lowest return as well as it s growth performance was also worst during the period.

Table 5: Return on Average Assets (ROA) of SBI

Year	2007	2008	2009	2010	2011	2012	2013	Mean	CV	CAGR
ROA (%)	0.84	1.01	1.04	0.88	0.71	0.88	0.91	0.90	12.24	1.34
YOY Growth (%)	0.00	20.24	2.97	(15.38)	(19.32)	23.94	3.41			

Source: Based on the compiled data from annual reports of the State Bank of India and statistical tables relating t o banks in India for the relevant years

Return on Equity (ROE): It indicates how well a bank uses shareholder's investment fund to generate profit. In other words, it reflects a bank's efficiency at generating profits from every unit of shareholders' equity. It is calculated by dividing net profit by average shareholder's equity multiplied by hundred.

Table 6: Return on Equity (ROE) of SBI

Year	2007	2008	2009	2010	2011	2012	2013	Mean	CV	CAGR
ROE (%)	14.24	17.82	15.07	14.04	12.84	14.36	15.94	14.90	10.73	1.9
YOY Growth (%)	0.00	25.14	(15.43)	(6.83)	(8.55)	11.84	11.00			

Source: Based on the compiled data from annual reports of the State Bank of India and statistical tables relating to banks in India for the relevant years

Table 6 depicts that during the study period, on an average, the SBI has utilised efficiently the shareholder's equity fund to the extent of 14.90 percent return with the variation of 10.73 percent in its yearly performance. The compound annual growth performance of the parameter figured to 1.90 percent and its yearly growth performance has high variation. One-sample t test shows that the profitability performance measured by return on equity is significant at the 0.05 level with t value of 24.651.

Return on Investment (ROI): It indicates whether a bank is using its resources in an efficient manner. A high ROI means the investment gains compare favourably to investment cost. It is measured as the return on investment divided by total investments multiplied by hundred. Table 7 provides that on an average, the SBI could generate 7.08 percent of its investments with the variation of 9.85 percent in its yearly performance. Besides, the parameter registered with CAGR of 3.40 percent. Thus, the profitability performance based on this parameter is not steady over the study period but significant tested by one-sample t test at the 0.05 level with t value of 26.873.

Table 7: Return on Investment (ROI) of SBI

Year	2007	2008	2009	2010	2011	2012	2013	Mean	CV	CAGR
ROI (%)	6.71	7.05	6.69	6.31	6.71	7.88	8.20	7.08	9.85	3.40
YOY Growth (%)	0.00	5.07	(5.11)	(5.68)	6.34	17.44	4.06			

Source: Based on the compiled data from annual reports of the State Bank of India and statistical tables relating to banks in India for the relevant years

Earnings per Share (EPS): It indicates whether earning power of the bank has increased. It is calculated by multiplying the net profit after tax with weighted average total number of equity shares.

Table 8: Earnings per Share (EPS) of SBI

Year	2007	2008	2009	2010	2011	2012	2013	Mean	CV	CAGR
EPS (₹)	86.1	126.62	143.77	144.37	130.16	184.31	210.06	146.48	27.58	16.03
YOY Growth (%)	0.00	47.06	13.54	0.42	(9.84)	41.60	13.97			

Source: Based on the compiled data from annual reports of the State Bank of India and statistical tables relating to banks in India for the relevant years

Table 8 reveals that during the study period, on an average, the SBI has been able to produce per share earnings of 146.48 thousand with the variation of 27.58 thousand in its yearly performance. The EPS was highest in 2012-13 with the amount of ₹ 210 .06 thousands and lowest of ₹ 86.10 thousands in 2006-07. Besides, during the study period, the compound annual growth performance of the parameter was 16.03 percent. Thus, the profitability performance based on this parameter was well in 2007-08 along with highest growth rate while worst in 2006-07 as well as its growth performance was worst in 2010-11. One-sample *t* test shows that the profitability performance measured by earnings per share is significant at the 0.05 level with *t* value of 9.594.

Summary and Conclusion

The main emphasis of the present paper is to assess the profitability performance of State Bank of India for the period of seven years i.e. from 2006-07 to 2012-13. The study has considered five parameters for measuring the performance such as operating profit as a percentage to working funds, return on assets, return on equity, return on investment, Earning per share. During the study period, on an average, the bank earned total income of ₹ 88268 crores with compound annual growth rate of 20.64 percent for which the bank incurred total expenditure of ₹ 79178 crores with compound annual growth rate of 20.63 percent. The other income out of the components of income has lowest coefficient of variation of 28.61 percent and in case of expenditure, it is operating expenses with coefficient of variation of 33.99 percent. The result of *t* test proves that there is a significant difference between the components of income and single factor ANOVA also finds that there are significant differences across the components of expenditure. Moreover, the *t* test shows that there is not a significant difference between the trend of income and expenditure thereby indicating approximately equal marginal performance between the two. All the components of income as well as expenditure correlate positively with net profit earned by the bank. Finally, on an average, the bank has generated return of 2.03 percent of its working fund, .90 percent on its total assets, 14.90 percent on its shareholders equity fund, 7.08 percent of its investments. Besides, on an average, the bank could produce per share earnings of 146.48 thousand. The analysis of the study reveals that the profitability performance measured by the different parameters fluctuated throughout the study period and the performance measured by the return on investment ratio is more consistent as its coefficient of variation is least with 9.85 percent. However, the result of one-sample *t* test shows that the profitability performance based on various measurements is statistically significant. Thus, it is to conclude that the profitability performance of the SBI is not consistent during the study period but statistically significant. Further, the management of the bank is efficient in converting its efforts in terms of expenditure into benefits in terms of earning profit but not the increased volume of output i.e. net profit. The bank has no control over external factors having experience of highest volatility in earning interest income and incurring interest expenditure. Thus, the bank should focus more on earning other income, and curtailing operating expenses having comparatively higher degree of consistency in order to have improved profitability performance.

References

Badola, B.S. & Verma, R. (2006). Determinants of Profitability Banks in India-A Multivariate Analysis. *Delhi Business Review*, 7(2), 79-88.

Bhide, M.G, A. Prasad & Gosh, S. (2002). Banking Sector Reforms, A Critical Overview. *Economic and Political Weekly*, XXXVII (5), 399-08.

Chaudhuri, S. (2002). Some Issues of Growth and Profitability in Indian Public Sector Banks. *Economic and Political Weekly*, XXXVII (22), 2155-62.

D'Souza, E. (2002). How well has Public Sector Banks Done? A Note. *Economic and Political Weekly*, XXXVII (9), 867-70.

Guruswamy D. (2012). Analysis of Profitability Performance of State Bank of India and its Associates. *ZENITH International Journal of Business Economics and Management Research,* 2, 1-20.

Kaur, N. & Kapoor, R. (2007). Profitability Analysis of Public Sector Banks in India. *Indian Management Studies Journal*, 11, 167-180.

Ketkar, K. W. & Ketkar, S. L. (2008, May). Performance and Profitability of Indian Banks in the Post Liberalization Period. Presented at the 2008 World Congress on *National Accounts and Economic Performance Measure for Nations*, May 13-17, 2008, Washington DC. Retrieved from <http:// www.indexmeasures.ca/dc2008/papers/ketkar17940.pdf>

Mathur, K.B.L. (2002). Public Sector Banks in India, Should They be Privatised?. *Economic and Political Weekly*, XXXVII (23), 2245-56.

Nayak, D.N. (2001). Liquidity, Productivity and Profitability of Foreign Banks and Domestic Banks in India-A Comparative Analysis. *Economic and Political Weekly*, XXXVI (4), 305-20.

Pathak, B. (2010). Financial Indian System. India: Dorling Kindersley Pvt. Ltd.

Patnaik, U.S. & Patnaik, M. (2005). Profitability in Public Sector Banks. New Delhi: Sonali Publications.

Vijayakumar, A. (2002), *Profitability of Indian Public Sector Banks in Eighties*. In A. Vijayakumar (Ed.) Research Studies in Commerce and Management (pp. 81-85). New Delhi: Classical Publishing Company.