

Analysis of profitability of banks: comparative study of domestic & foreign banks in India

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ABSTRACT: The objective of this study was overall profitability analysis of different private sectors banks in India based on the performances of profitability ratios like interest spread, net profit margin, return on long term fund, return on net worth & return on asset. Profitability is a measure of efficiency and control it indicates the efficiency or effectiveness with which the operations of the business are carried on. Recording profitability for the past period or projecting profitability for the coming period, measuring profitability is the most important measure of the success of the business. A business that is not profitable cannot survive. Conversely, a business that is highly profitable has the ability to reward its owners with a large return on their investment. Increasing profitability is one of the most important tasks of the business managers. Managers constantly look for ways to change the business to improve profitability. These potential changes can be analyzed with a support of income statement and balance sheet.

Keywords: AXIS, ICICI, KVB, SIB

I. INTRODUCTION

All those banks where greater parts of stake or equity are held by the private shareholders and not by government are called "private-sector banks". These are the major players in the banking sector as well as in expansion of the business activities India. The present private-sector banks equipped with all kinds of contemporary innovations, monetary tools and techniques to handle the complexities are a result of the evolutionary process over two centuries. They have a highly developed organisational structure and are professionally managed. Thus they have grown faster and stronger since past few years.

Private-sector banks have been functioning in India since the very beginning of the banking system. Initially, during 1921, the private banks like bank of Bengal, bank of Bombay and bank of Madras were in service, which all together formed Imperial Bank of India.

Reserve Bank of India (RBI) came in picture in 1935 and became the centre of every other bank taking away all the responsibilities and functions of Imperial bank. Between 1969 and 1980 there was rapid increase in the number of branches of the private banks. In April 1980, they accounted for nearly 17.5 percent of bank branches in India. In 1980, after 6 more banks were nationalized, about 10 percent of the bank branches were those of private-sector banks. The share of the private bank branches stayed nearly same between 1980 and 2000. Then from the early 1990s, RBI's liberalization policy came in picture and with this the government gave licences to a few private

banks, which came to be known as new private-sector banks.

1.1 Private-Sector Banks

The banks, which came in operation after 1991, with the introduction of economic reforms and financial sector reforms are called "new private-sector banks". Banking regulation act was then amended in 1993, which permitted the entry of new private-sector banks in the Indian banking sector. However, there were certain criteria set for the establishment of the new private-sector banks, some of those criteria being:

- a) The bank should have a minimum net worth of Rs. 200 crores.
- b) The promoters holding should be a minimum of 25% of the paid-up capital.
- c) Within 3 years of the starting of the operations, the bank should offer shares to public and their net worth must increased to 300 crores.

II. REVIEW OF LITERATURE

B.Satish Kumar (2008), in his article on an evaluation of the financial performance of Indian private sector banks wrote Private sector banks play an important role in development of Indian economy. After liberalization the banking industry underwent major changes. The economic reforms totally have changed the banking sector. RBI permitted new banks to be started in the private sector as per the recommendation of Narashiman committee. The Indian banking industry was dominated by public sector banks. But now the situations have changed new generation banks with used of technology and professional management

has gained a reasonable position in the banking industry.

III. OBJECTIVES OF THE STUDY

- To highlight the various profitability analysis of some selected private sectors banks
- To analyze the overall profitability of banks (i.e.,) Interest spread, Net profit margin, Return on Long term fund , Return on Net worth, & Return on asset.

IV. LIMITATION OF THE STUDY

- The study is related to a period of 10 years.
- As the data are only secondary, i.e., they are collected from the published annual reports.
- Due to limited span of time only profitability ratio is taken for the study.

V. OVERVIEW OF PROFITABILITY

Profitability is the primary goal of all business ventures. Without profitability the business will not survive in the long run. So measuring current and past profitability and projecting future profitability is very important. Profitability is measured with income and expenses. The following profitability ratios are.

5.1 Interest Spread %:Interest spread is the difference between the average lending rate and the average borrowing rate for a bank or other financial institution.

Interest Spread % = Total interest income minus total interest expenses / Average working fund

Table: 5.1(a) Analysis of mean, standard deviation & coefficient of variation.

INTEREST SPREAD %				
YEAR	AXIS	ICICI	KVB	SIB
2002-2003	6.28	2.77	4.88	5.33
2003-2004	5.66	3.76	4.16	4.32
2004-2005	4.09	3.56	4.28	4.02
2005-2006	3.14	2.67	4.13	5.18
2006-2007	3.27	3.43	4.24	5.37
2007-2008	3.77	3.51	4.05	4.91
2008-2009	4.24	3.66	5.34	6.73
2009-2010	3.95	5.66	4.81	6.35
2010-2011	3.73	4.01	4.30	6.01
2011-2012	3.91	4.44	4.37	5.32
MEAN	4.204	3.747	4.456	5.354
SD	0.949	0.807	0.394	0.799
CV	22.573	21.537	8.842	14.92

As per table 8.1(a) it has been found that bank wise mean, standard deviation & coefficient of variation of interest spread of selected banks. SIB & KVB has highest mean value & ICICI has lowest value when compare to other banks. Standard deviation of total interest income & expenses to average working fund of AXIS has 0.949 with highest coefficient of variation of 22.573 % and KVB has 0.394 low standard deviation & coefficient of variation is 8.842% .

Hypothesis:

H0: $\mu_1 = \mu_2 = \mu_3 = \mu_4$ (There is no significant relationship between interest spread among different private sector banks in India)

H1: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$ (There is a significant relationship between interest spread among different private sector banks in India)

Table: 5.1(b) Analysis of ANOVA

Sources of variation	Sum of Square	Degrees of freedom	Mean Square	F (calculated value)	Table value (at 5 % level of significance)
Between Groups	13.7159	3	4.5719	7.0087	2.8662
With Groups	23.4837	36	0.6523		
Total	37.1996	39			

Since the calculated value of $F(7.0087)$ is greater than the table value (2.8662) as shown in table 8.1(b) ANOVA, null hypothesis is rejected .It is therefore ,concluded that there is a significant relationship between the interest spread of (AXIS,ICICI,KVB,SIB) private sectors banks in India.

5.2 Net Profit Margin: Net profit margin is the percentage of revenue remaining after all operating expenses, interest, taxes and preferred stock dividends (but not common stock dividends) have been deducted from a company's total revenue.

$$\text{Net profit margin \%} = \text{Net Profit} / \text{Revenue}$$

Table: 5.2(a) Analysis of mean, standard deviation & coefficient of variation.

NET PROFIT %				
YEAR	AXIS	ICICI	KVB	SIB
2002-2003	10.27	9.86	19.23	8.64
2003-2004	13.14	13.67	22.12	9.21
2004-2005	14.33	16.32	16.28	1.25
2005-2006	13.47	14.12	17.67	6.15
2006-2007	12.01	10.81	16.47	9.71
2007-2008	12.22	10.51	16.12	10.66
2008-2009	13.31	9.74	14.35	10.66
2009-2010	16.10	12.17	16.82	10.69
2010-2011	17.20	15.91	16.87	11.10
2011-2012	15.51	16.14	14.01	10.52
MEAN	13.756	12.925	16.994	8.859
SD	1.974	2.513	2.218	2.893
CV	14.350	19.422	13.051	32.656

As per table 8.2(a) it has been found that bank wise mean standard deviation & coefficient of variation of net profit margin of selected banks. KVB & AXIS has highest mean value & SIB has lowest value when compare to other banks. Standard deviation of net profit to revenue of SIB has 2.893 with highest coefficient of variation of 32.656 % and AXIS has 1.974 low standard deviation & high coefficient of variation is

14.350% and compare to KVB is low coefficient of variation of 13.051 % .

Hypothesis:

$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$ (There is no significant relationship between Net profit margin among different private sector banks in India)

$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$ (There is a significant relationship between Net profit margin among different private sector banks in India)

Table: 5.2(b) Analysis of ANOVA

Sources of variation	Sum of Square	Degrees of freedom	Mean Square	F (calculated value)	Table value (at 5 % level of significance)
Between Groups	336.0579	3	112.0193	17.1513	2.8662
With Groups	235.1242	36	6.5312		
Total	571.1821	39			

Since the calculated value of $F(17.1513)$ is greater than the table value (2.8662) as shown in table 8.2(b)ANOVA, null hypothesis is rejected .It is therefore ,concluded that there is a significant relationship between the net profit margin of (AXIS,ICICI,KVB,SIB) private sectors banks in india.

5.3 Return on long term fund: This ratio establishes the relationship between net profit and the long term fund.

The term long term fund refers to total investment made in the business of long run.

$$\text{Return on Long term fund \%} = \text{EBIT} / \text{Long term fund}$$

TABLE: 5.3(a) Analysis of mean, standard deviation & coefficient of variation

RETURN ON LONG TERM FUND %				
YEAR	AXIS	ICICI	KVB	SIB
2002-2003	157.32	119.87	93.09	186.55
2003-2004	129.51	106.69	77.01	155.32
2004-2005	70.55	70.54	60.43	102.59
2005-2006	88.56	56.24	63.05	82.83
2006-2007	119.74	82.46	70.10	102.54
2007-2008	71.17	62.34	90.21	97.58
2008-2009	97.35	56.72	101.19	112.64
2009-2010	66.34	44.72	99.90	118.87
2010-2011	72.29	42.97	95.12	123.92
2011-2012	88.75	52.09	110.47	155.98
MEAN	96.158	69.464	86.057	123.882
SD	28.744	24.699	16.395	30.632
CV	29.892	35.556	19.051	24.726

As per table 8.3(a) it has been found that bank wise mean, standard deviation & coefficient of variation of return on long term fund of selected banks. SIB & AXIS has highest mean value & ICICI has lowest value when compare to other banks. Standard deviation of EBIT to Long term fund of SIB has 30.632 with coefficient of variation of 24.726 % and KVB has 16.395 low standard deviation with lowest coefficient of variation of 19.051%

Hypothesis:

H0: $\mu_1 = \mu_2 = \mu_3 = \mu_4$ (There is no significant relationship between Return on Long term fund among different private sector banks in India)

H1: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$ (There is a significant relationship between Return on Long term fund among different private sector banks in India)

Table: 5.3(b) Analysis of ANOVA

Sources of variation	Sum of Square	Degrees of freedom	Mean Square	F (calculated value)	Table value (at 5 % level of significance)
Between Groups	15626.49	3	5208.831	7.0937	2.8662
With Groups	26434.26	36	734.2849		
Total	42060.75	39			

Since the calculated value of F(7.0937) is greater than the table value (2.8662) as shown in table 8.3(b) ANOVA, null hypothesis is rejected .It is therefore ,concluded that there is a significant relationship between the return on long term fund of (AXIS,ICICI,KVB,SIB) private sectors banks in india.

5.4 Return on Net Worth: The return on equity ratio which is also known as the return on net worth

is used by investors to determine the amount of return they are receiving from their capital investment in a company. Companies can increase their return on equity percentage by buying back their stock, increasing earnings, or using more debt to fund operations.

Return on Net worth % = Profit after tax / Equity share holder fund

Table: 5.4 (a) Analysis of mean, standard deviation & coefficient of variation.

RETURN ON NET WORTH %					
YEAR	AXIS	ICICI	KVB	SIB	
2002-2003	25.22	17.38	25.28	24.29	
2003-2004	26.39	20.93	25.35	23.56	
2004-2005	18.19	18.86	14.30	2.05	
2005-2006	18.28	14.33	16.58	9.29	
2006-2007	19.37	13.17	16.54	15.26	
2007-2008	12.21	8.94	17.50	13.27	
2008-2009	17.77	7.58	17.46	15.14	
2009-2010	15.67	7.79	20.74	15.93	
2010-2011	17.83	9.35	19.65	17.25	
2011-2012	18.59	10.70	18.52	19.82	
MEAN	18.952	12.903	19.192	15.586	
SD	3.934	4.579	3.488	6.234	
CV	20.757	35.487	18.174	39.999	

As per table 8.4(a) it has been found that bank wise mean, standard deviation & coefficient of variation of return on net worth of selected banks. KVB & AXIS has highest mean value & ICICI has lowest value when compare to other banks. Standard deviation of profit after tax to equity shareholder fund of SIB has 6.234 with highest coefficient of variation of 39.999 % and KVB has 3.488 low standard deviation with lowest coefficient of variation of 18.174%

Hypothesis:

H0: $\mu_1 = \mu_2 = \mu_3 = \mu_4$ (There is no significant relationship between Return on Net worth among different private sector banks in india)

H1: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$ (There is a significant relationship between Return on Long term fund among different private sector banks in india)

Table: 5.4(b) Analysis of ANOVA

Sources of variation	Sum of Square	Degrees of freedom	Mean Square	F (calculated value)	Table value (at 5 % level of significance)
Between Groups	269.328	3	89.776	3.6938	2.8662
With Groups	874.943	36	24.303		
Total	1144.271	39			

Since the calculated value of F(3.6938) is greater than the table value (2.8662) as shown in table 8.4(b) ANOVA, null hypothesis is rejected .It is therefore ,concluded that there is a significant relationship between the return on net worth of (AXIS,ICICI,KVB,SIB) private sectors banks in india.

5.5 Return on Asset: (ROA) is a financial ratio that shows the percentage of profit that a company earns in relation to its overall resources (total assets).

Return on asset % = Net profit / Total asset

Table: 5.5 (a) Analysis of mean, standard deviation & coefficient of variation.

RETURN ON ASSET %				
YEAR	AXIS	ICICI	KVB	SIB
2002-2003	0.99	1.13	2.02	0.95
2003-2004	1.12	1.31	2.27	0.91
2004-2005	0.86	1.20	1.34	0.09
2005-2006	0.98	1.01	1.50	0.47
2006-2007	120.80	270.37	196.88	102.83
2007-2008	245.13	417.64	220.61	126.34
2008-2009	284.50	444.94	250.26	113.76
2009-2010	395.99	463.01	297.60	129.83
2010-2011	462.77	478.31	198.23	15.00
2011-2012	551.99	524.01	252.68	17.87
MEAN	206.513	260.293	142.339	50.805
SD	201.198	220.390	117.973	55.738
CV	97.426	84.669	82.881	109.709

As per table 8.5(a) it has been found that bank wise mean standard deviation & coefficient of variation of return on asset of selected banks. ICICI & AXIS has highest mean value & SIB has lowest value when compare to other banks. Standard deviation of net profit to total asset of ICICI has 220.390 with coefficient of variation of 84.669 % and SIB has 55.738 low standard deviation with highest coefficient of variation of 109.709%

Hypothesis:

H0: $\mu_1 = \mu_2 = \mu_3 = \mu_4$ (There is no significant relationship between Return on asset among different private sector banks in india)

H1: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$ (There is a significant relationship between Return on asset among different private sector banks in India)

Table: 5.5(b) Analysis of ANOVA

Sources of variation	Sum of Square	Degrees of freedom	Mean Square	F (calculated value)	Table value (at 5 % level of significance)
Between Groups	243581	3	81193	2.7555	2.8662
With Groups	1060773	36	29465		
Total	1304354	39			

Since the calculated value of F(2.7555) is less than the table value (2.8662) as shown in table 8.5(b) ANOVA, null hypothesis is accepted .It is therefore ,concluded that there is no significant relationship between the return on asset of (AXIS,ICICI,KVB,SIB) private sectors banks in india.

VI. FINDINGS

- Interest spread of all selected banks SIB has high percent of 6.73 at the end of March 2009 and ICICI has low percent of 2.77 at the end of March 2003.
- Net profit margin of different banks shows that net increasing the period of March 2003 KVB has highest percent of 22.12 and compare to other banks SIB has low percent of 1.25.
- Return on long term fund reveals that 186.55 percent over all private sectors banks SIB has highest in the period of March 2003 and ICICI

at the end of March 2011 sudden decreasing to 42.97 percent.

- Return on net worth shows that high percent of AXIS has 26.39 at the end of March 2004 and compare to all other remaining banks SIB has low percent of 2.05 at the end of March 2005.
- Return on asset gives the clear picture of 551.99 percent has highest in the period of March 2012 and SIB has very low percent of 0.09 at the end of March 2005.

VII. CONCLUSION

Profitability of private sector banks in India plays major role in banking sector without profit the investors cannot invest in this business. A strong financial system promotes investment by financing productive business opportunities, mobilizing savings, efficiently allocating resources and makes easy the trade of goods and services. To conclude that there is difference among the mean value of interest spread, net profit margin, return on

long term fund and return on net worth and there is no difference among the mean value of return on asset of private banks. So profitability ratios are employed by the management in order to assess how efficiently they carry on their business operations and also it is suggested for the entire bank to take effective steps to improve the operating efficiency of the business.

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