

# Profitability Analysis: A Comparative Study of Selected Public and Private Sector Banks in India

## Abstract

A sound banking system efficiently mobilizes savings in productive sector a solvent banking system ensure that the bank is capable of meeting its obligation to the depositors. The banking system is dominant in India as it accounts for more than half of the assets of the financial sector. RBI is making necessary changes in its policy to ensure price stability in the economy. The main objective of these changes is to increase the efficiency of banking system as whole as well as individual institutions. So, it is necessary to measure the efficiency of Indian Banks so that corrective steps can be taken to improve the health of banking system.

**Keywords:** Profitability, Private, Public, Efficiency, Stability, Institutions.

## Introduction

A bank is a financial institution that provides banking and other financial services to their customers. A bank is generally understood as an institution which provides fundamental banking services such as accepting deposits and providing loans. There are also non-banking institutions that provide certain banking services without meeting the legal definition of a bank. Banks are a subset of the financial services industry. The banking sector offers several facilities and opportunities to the customers. All the banks safeguard the money and valuables and provide loans, credit and payment services such as checking accounts, money orders and cashier's cheques. The banks also offer investment and insurance products.

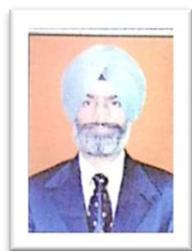
The banking sector is the lifeline of any modern economy. It is one of the important financial pillars of the financial sector, which plays a vital role in the functioning of any economy. A sound banking system efficiently mobilizes savings in productive sector a solvent banking system ensure that the bank is capable of meeting its obligation to the depositors. The banking system is dominant in India as it accounts for more than half of the assets of the financial sector. RBI is making necessary changes in its policy to ensure price stability in the economy. The main objective of these changes is to increase the efficiency of banking system as whole as well as individual institutions. So, it is necessary to measure the efficiency of Indian Banks so that corrective steps can be taken to improve the health of banking system.

## Profitability in Indian Banking System

The major portion of a bank's profit comes from the fees that it charges for its services and the interest it earns on its assets. Its major expense is the interest paid on its liabilities. The major assets of a bank are loans to individuals, businesses and other organizations and securities that it holds, while major liabilities are its deposits and that money that it borrows, either from other banks or by selling commercial papers in the money market.

Profits can be measured as a return on assets and as a return on equity. Because of leverage, banks can earn a much larger return on equity than on assets. In 2016 banks earned an average return on assets equal to 0.97%, where as the return on equity was 8.62%. Loans and advances are the bank's assets and are used to provide most of a bank's income. However, to make loans and buy securities, a bank must have money, which comes primarily from bank's owner in the form of bank capital, from depositors and money that it borrows from other banks or by selling debt securities. A bank buys assets primarily with funds obtained from its liabilities as can be seen from the following accounting equation:

$$\text{Assets} = \text{Liabilities} + \text{Bank capital (Owner's Equity)}$$



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However, not all assets can be used to earn income, because banks must have cash to satisfy cash withdrawal requests to customers.

#### **Factors Affecting Profitability of Banks**

There are various factors which have an attempt on profitability of banks. These factors are discussed as follows:

#### **Credit and Deposit Growth**

Slowed growth of the banking sector has been largely reflected in the performance of the Public Sector Banks (PSBs). On a year-on-year basis, credit growth declined to 9.7% from 10% and deposits growth declined to 10.7% from 12.9% between September 2014 and March 2015.

#### **Capital Adequacy**

This is that money of the banks, which they have to set aside for every rupee that they lend. PSBs continued to record the lowest capital to risk – weighted assets ratio (CRAR) among the bank groups. The CRAR of scheduled commercial banks at the system level improved marginally to 12.9% from 12.8% between September 2014 and March 2015.

#### **Asset Quality**

The gross non-performing advances of scheduled commercial banks (SCBs) as percentage of gross advances increased from 4.6% to 40.5% between September 2014 and March 2015. PSBs recorded the highest level of stressed assets at 13.5% of total advances as of March 2015, as compared to 4.6% of the private sector banks.

#### **Risks**

The levels of risk continue to be a matter of concern. However, the banking Stability Indicator shows that risks to the banking sector have become marginally moderate since the publication of the previous financial stability report.

#### **Banking Structure**

Structure of the banking system its impact on the profitability of banks. The diversified banking structure with operations spread across region having operating economic/business profiles, like Indian Public Sector banks will have higher operating costs in view of a larger network, lower margins due to greater competition.

#### **Size of Bank**

When banks are considered in groups of big, medium or small size, the bigger size banks have greater scope economies of scale. The percentage of total expenses to working funds is lower for bigger size banks than for small size banks. Whereas in other countries like European Investment Banks, a study of America and Japanese banks have observed that there is no convincing correlation between the size of bank and earning power.

#### **Reforms Of Banking Sector In India**

Banking sector reforms were initiated to upgrade the operating standard, health and financial soundness of the bank. An efficient banking system can promote greater amount of investment which can help to achieve a faster growth of the economy. In 1991, the country was caught into deep crisis. The government of India has set up committee under the chairmanship of M. Narsimham, which worked for the

liberalization of banking practices, to examine all aspects relating to structure, organization and functioning of Indian banking system with the aim to enhance the efficiency, productivity and profitability of banks.

#### **Narsimham Committee (1998)**

1. Minimum capital to risk asset ratio be increased from \*% to 10% in 2002.
2. Bank should aim to reduce to 3% of gross NPAs.
3. Entry of new private sector banks and foreign banks to continue.
4. Introduction of laws governing electronic fund transfer.

#### **Need of The Study**

This study attempts to measure the relative profitability of banks in India. In this top five Public sector banks and Private sector banks have been taken on the basis of higher capitalization. Different indicators are used to measure profitability and performance of banking sector. Segmentation of the banking sector in India is chosen on the basis of nature of ownership, i.e. public sector and private sector banks in last ten years starting from 2006-07 to 2015-16. Many studies have been taken up so far on the profitability analysis of banks as a whole sector be it private or public. Most of the studies were theoretical in nature. Some studies got restricted to finding the causes of lower profitability among banks and giving suggestion at micro level. Secondly, the Public and Private Sector Banks are the centroid of Banking Industry. A comparison is required among the performance of the banks.

This study compares the financial performance of the top five Public and Private sector banks on the basis of various selected parameters or profitability ratios i.e. Return on Assets, Return on Equity and Return on Investment, so that an estimate can be made about the progress of that bank group.

#### **Objectives of The Study**

The study is conducted to achieve the following objectives:

1. To analyze the profitability of selected Public and Private Sector Banks individually.
2. To compare the bank-wise profitability performance across selected banks.

#### **Review of Literature**

The literature review encloses different empirical studies that had been conducted with regard to Profitability Analysis or group level by various academics, professionals, research agencies in India and abroad. A brief of the literature on the Profitability Analysis is the following:

Prasad and Ravinder (2011) analyzed the profitability of four major banks in India i.e. SBI, PNB, ICICI bank and HDFC bank for the period 2005-06 to 2009-10. Statistical tools like arithmetic mean, one way ANOVA Turkey HSD test have been applied for the purpose of study. The profitability of the banks evaluated by using parameters like operating profit margin, gross profit margin, net profit margin, earning per share, return on equity, return on assets, price earnings ratio and dividend payout ratio. The study revealed that the SBI performed better in terms of earning per share and dividend payout ratio, while

PNB performed in terms of operating profit margin and return on equity. The HDFC bank out performed in terms of gross profit margin, net profit margin, return on assets and price earnings ratio. The study revealed that ICICI bank paid highest portion of earnings as dividend to shareholders.

Goel and Chitwan Bhutani Rekhi (2013) For this study, he has used public sector banks and private sector banks. Hence different proxy indicators are used for measuring productivity of banking sector. Segmentation of the banking sector in India was done on banks asset size. Overall, the analysis supports the conclusion that new banks are more efficient than old ones. The public sector banks are not as profitable as other sector are. It means that efficiency and profitability are interrelated. The key to increase performance depends upon ROA and ROI.

Srivataw Kumar (2013) This paper investigated the performance of selected foreign and new private sector banks using certain financial performance indicators. Descriptive statistics and paired t-test have been employed to analyze and to draw the conclusion. The study makes use of secondary data. The relevant data has been collected through the Statistical Table relating to banks in India, trend and progress of India, various published reports AND OTHER STUDIES. Performance has been compared by dividing the total study period into two parts via supra and Umbra periods. The study shows that the asset qualities of the banks shows improving trends throughout the study period both in respect of New Private Sector Banks. It has also been found that New Private Sector Banks improved the quantum of priority sector lending in the Supra period by taking advantage of the existing provisions.

Anjum Bimal (2014) Banking Sector plays an important role in present economic scenario of a country. The Indian banking sector sees tremendous change in past few years. After the 2008 global financial crisis, many developments have been seen in the Indian banking sector also. These developments affect the performance of Indian Banks. The present paper highlights the major indicators of performance of banks in past years (2008-09 to 2012-13). The study is restricted to selected banks from each sector. For the purpose of study three banks from each sector selected for study. The selection is made on the basis of assets size and capitalization of banks.

From the studies it can be concluded that various studies have taken place on the topic of profitability analysis of banks. But no study has been conducted on comparison of sector-wise top banks. So, the comparative study of top banks is very important as the study of these banks have the potential to provide the picture of our banking sector in terms of its profitability.

#### **Sample of The Study**

Top five public sector banks and top five private sector banks have been taken on the basis of high capitalization for the purpose of this study. Foreign sector banks have been excluded.

**Table 1.1 Shows Capitalization of Selected Public-Private Sector Banks**

<b>Five Private Sector Banks (On the basis of higher capitalization in crores)</b>	<b>Five Public Sector Banks (On the basis of higher capitalization in crores)</b>
HDFC (478,310.69)	State Bank of India (286,799.87)
ICICI (203,446.04)	Bank of Baroda (40860.31)
Kotak Mahindra Bank (196,321.88)	Punjab national Bank (43,108.89)
Axis bank (130,624.780)	Bank of India (23,791.61)
IndusInd Bank (100,011.56)	Canara Bank (23,300.29)

It can be seen from the above table that State Bank of India has 286,799.87 cr., Capitalization. Bank of Baroda has 40860.31 cr., Punjab National Bank, has 40650.31 cr., Bank of India has 23791.61 cr., Canara Bank has 23,300 cr., HDFC has 478,310.69 cr., ICICI Bank has 203,446.04 cr., Kotak Mahindra Bank has 196,321.88 cr., Axis Bank has 130,624.78 cr., IndusInd Bank has 100,011.56 cr.

#### **Time Period of The Study**

The study covers the period of ten years from 2007 to 2016. Long period has been taken as it will enlighten us clearly about the trends followed during the last ten years. Moreover, during this time period, Indian economy has gone through various ups and downs.

#### **Data Collection**

The data which has been selected for the study is secondary in nature so primary data has not been accessed for this study. The various data collection sources are balance sheets of banks, annual reports of banks, journals, magazines and newspapers. Since RBI is the controller of all banks, so, the RBI website has been used to access the data needed of all the banks under study. From the analysis of annual reports, the amount of total deposits, total advances, net of the sample banks covers under study for the period to 2007 to 2016 have been taken and analyzed for the purpose of study.

#### **Hypothesis of The Study**

These are the hypothesis which has been framed for the present study.

#### **Hypothesis 1:**

**H<sub>0</sub>:** There is no significant difference in Profitability ratios of all banks.

**H<sub>1</sub>:** There is significant difference in Profitability ratios of all Banks.

#### **Hypothesis2:**

**H<sub>0</sub>:** There is no significant difference in profitability ratio of top five Public and Private sector Banks.

**H<sub>2</sub>:** There is significant difference in profitability ratios of top five Public and Private Sector Banks.

#### **Ratios Used in The Study**

The various financial tools which have been used for analysis and interpretation are return on Assets, Return on Equity and return on Investment. For the further processing of data collected to derive meaningful results, both simple and advanced statistical tools have been used. In some cases

simple statistics like average and percentage have been applied. The ANOVA and T-test have been used to test the hypothesis of the study.

**Bank-Wise Profitability Analysis Of Selected Public And Private Sector Banks**

Profitability depicts the relationship of the absolute amount of profit with other factors. Profitability is a relative concept which is quite useful in decision making. The rate of profitability and volume of profits are therefore, rightfully considered as indicators of efficiency in the deployment of resources of banks. Profitability indicates earning capacity of banks. It highlights the managerial competency of the banks. It also portrays work culture, operating efficiency of the bank. A bank buys assets primarily with funds obtained from its liabilities.

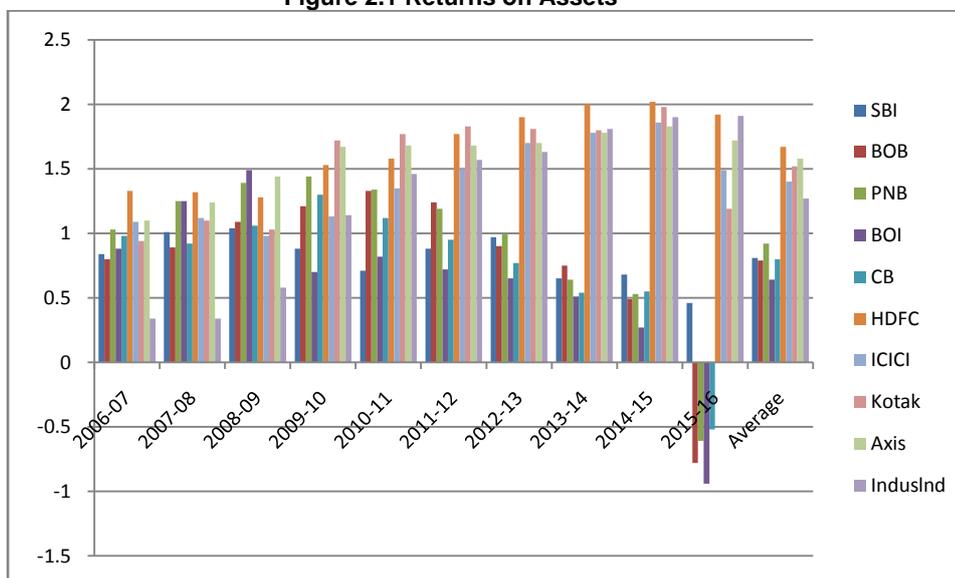
Profitability of banks is affected by a number of factors. Some of these are endogenous, some are exogenous and structural. This includes changes in monetary policy. Changes in qualitative credit control like changes in Cash Reserve ratio, Statutory Liquidity Ratio. Manipulation of bank rates, qualitative credit controls like selective credit control measures. Various other factors like careful control of expenditure, timely recovery of loans are endogenous. In the present study efforts have been made to look into the trend of profitability of selected banks in terms of profitability ratios. Following ratios have been used to evaluate the profitability of the selected banks.

1. Return on Assets (ROA)
2. Return on Equity (ROE)
3. Return on Investment (ROI)

**Table 1.2 Return on Assets of selected Banks in India (%)**

Year	SBI	BOB	PNB	BOI	CB	HDFC	ICICI	Kotak	Axis	IndusInd
2006-07	0.84	0.80	1.03	0.88	0.98	1.33	1.09	0.94	1.10	0.34
2007-08	1.01	0.89	1.25	1.25	0.92	1.32	1.12	1.10	1.24	0.34
2008-09	1.04	1.09	1.39	1.49	1.06	1.28	0.98	1.03	1.44	0.58
2009-10	0.88	1.21	1.44	0.70	1.30	1.53	1.13	1.72	1.67	1.14
2010-11	0.71	1.33	1.34	0.82	1.12	1.58	1.35	1.77	1.68	1.46
2011-12	0.88	1.24	1.19	0.72	0.95	1.77	1.50	1.83	1.68	1.57
2012-13	0.97	0.90	1.00	0.65	0.77	1.90	1.7	1.81	1.70	1.63
2013-14	0.65	0.75	0.64	0.51	0.54	2.00	1.78	1.80	1.78	1.81
2014-15	0.68	0.49	0.53	0.27	0.55	2.02	1.86	1.98	1.83	1.90
2015-16	0.46	-0.78	-0.61	-0.94	-0.52	1.92	1.49	1.19	1.72	1.91
Average	0.81	0.79	0.92	0.64	0.80	1.67	1.4	1.52	1.58	1.27

**Figure 2.1 Returns on Assets**



The above table and figure above shows the ratio of return on assets of ten banks of study i.e. SBI, Bank of Baroda, and PNB. Bank of India, Canara Bank, HDFC bank, ICICI Bank, Kotak Mahindra bank, Axis bank and IndusInd bank during the study period i.e. 2017-16. It can be observed from the figure that he ratio of ROA of SBI and Bank of Baroda showing mixed trend during the period under study. As the ROA ratio of PNB shows the increasing trend from 2006-07 to 2015-16. Similarly the ROA ratio of Bank of India and Canara Bank also shows the mixed trend as there is increasing and decreasing trend in the

period of the study. The ratio of ROA of HDFC bank can be seen from the graph which shows the increasing trend from year over year. The story of ICICI bank also has increasing trend in the ratio of ROA during the study period. Kotak Mahindra Bank has mixed trend during the study period as Axis bank and IndusInd Bank has increasing trend in the ratio of Return on Assets during study period.

The analysis of above ROA ratio shows that there exists difference in ROA among all banks. In order to check whether the difference among banks is

statistically significant or not ANOVA is applied. ANOVA is applied with the following hypothesis:

**H<sub>0</sub>**

There is no significant difference in Profitability ratios of all Banks.

**H<sub>1</sub>**

There is significant difference in Profitability ratios of all Banks.

**Table 1.3 ANOVA Results for ROA**

Ratio	Banks	Average	F-Value	P-Value
Return On Assets	SBI	0.81	6.141	.000*
	BOB	0.79		
	PNB	0.92		
	BOI	0.64		
	CB	0.80		
	HDFC	1.67		
	ICICI	1.40		
	KOTAK	1.52		
	Axis Bank	1.58		
IndusInd Bank	1.27			

As seen from table 1.2, the average of the ratio is higher in HDFC (1.67%) followed by Axis Bank (1.58%), Kotak 91.52) and ICICI Bank (1.40%). HDFC enjoys all the features of being a "Good" bank as nature of business is subject to moderate changes like to deal with Reserve Bank of India measures such as Cash Reserve Ratio, Repo Rates etc. Also it

enjoys steady competitive advances and brilliant management quality with good corporate governance. Also the growth of bank is going in increasing manner as it proves in the study period i.e. 2006-07to 2015-16.

The F-value computed for ROA for banks is 6.141 with p-value 0.000. The results depict that the difference in Return on Assets among selected banks are found to be statistically significant as evidenced by the computed p-value (0.000) which is less than 0.05. Hence, null hypothesis (H<sub>0</sub>) is rejected. Thus there exists significant difference between ROA among selected sample banks during the period of the study. The difference exists among banks because all banks do not have similar efficiency of managing its assets. The performance of banks depends on various factors like types of risk it is encountering regulations, capital of bank, policies of bank etc.

**Return On Equity (ROE)**

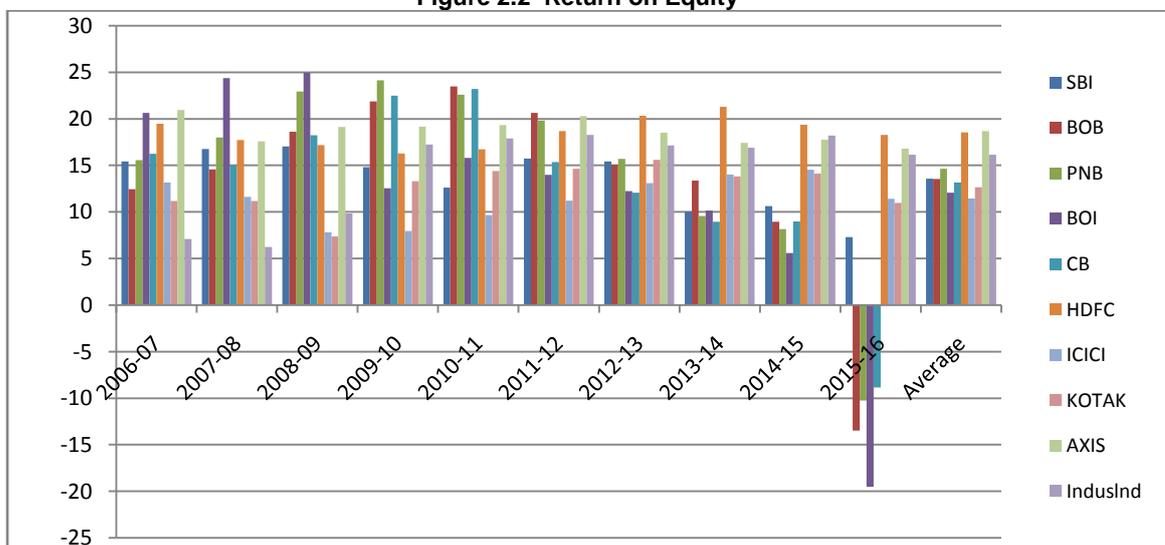
It is measure of profitability that reveals how much the profit a company generates with the money shareholders have invested. ROE is the amount of net income returned as as percentage of shareholders equity. ROE is sometimes called "Return on Net Worth". ROE is more than a measure of profit; it's a measure of efficiency. The formula for ROE is as follows:

$$\text{Return on Equity} = \text{Net Income} / \text{Shareholder's equity} * 100$$

**Table 1.4 Return on Equity of selected Banks in India (%)**

Year	SBI	BOB	PNB	BOI	CB	HDFC	ICICI	KOTAK	AXIS	IndusInd
2006-07	15.41	12.45	15.55	20.65	16.25	19.46	13.17	11.19	20.96	7.10
2007-08	16.75	14.58	18.01	24.38	15.01	17.74	11.63	11.19	17.60	6.24
2008-09	17.05	18.62	22.92	24.97	18.25	17.17	7.80	7.36	19.12	9.84
2009-10	14.80	21.86	24.12	12.56	22.48	16.30	7.96	13.29	19.15	17.25
2010-11	12.62	23.47	22.60	15.79	23.20	16.74	9.65	14.39	19.34	17.91
2011-12	15.72	20.64	19.80	14.00	15.36	18.69	11.20	14.65	20.29	18.26
2012-13	15.43	15.07	15.70	12.25	12.08	20.34	13.10	15.60	18.53	17.15
2013-14	10.03	13.36	9.57	10.14	8.95	21.28	14.02	13.82	17.43	16.89
2014-15	10.62	8.96	8.17	5.57	8.97	19.37	14.55	14.12	17.75	18.22
2015-16	7.30	-13.48	-10.27	-19.50	-8.86	18.26	11.43	10.97	16.81	16.14
Average	13.57	13.55	14.64	12.08	13.15	18.54	11.45	12.65	18.70	16.14

**Figure 2.2 Return on Equity**



It can be observed from the above table and figure that the ratio of ROE of SBI showing mixed trend during the period of the study. As the ROE ratio of Bank of Baroda, Punjab National Bank, bank of India and Canara Bank has decreasing trend. The ratio of ROE of HDFC bank can be seen from figure which shows the increasing trend from year to year. The story of ICICI bank also has increasing trend in the ratio of ROE during the study period. Kotak Mahindra Bank has mixed trend during the study period as Axis bank and IndusInd Bank has increasing trend in the ratio of Return on equity during study period.

The analysis of above ROE shows that there exist differences in ROE among all banks. In order to check whether the differences among banks are statistically significant or not ANOVA is applied.

**Table 1.5 ANOVA Results for ROE**

Ratio	Banks	Average	F-Value	P-Value
RETURN ON EQUITY	SBI	13.57	1.060	.400*
	BOB	13.55		
	PNB	14.64		
	BOI	12.08		
	CB	13.15		
	HDFC	18.54		
	ICICI	11.45		
	KOTAK	12.65		
	Axis Bank	18.70		
	IndusInd	16.41		

The F-value computed for ROE for banks is 1.060 with p-value 0.400. The results depict that the differences in Return on Equity among selected banks i.e. SBI, BOB, PNB, BOI, CB, HDFC, ICICI, KOTAK MAHINDRA BANK, AXIS BANK and INDUSIND banks are found to be not statistically significant as evidenced by the computed p-value 0.400\* which is more than 0.05. Hence, Null hypothesis (H<sub>0</sub>) is accepted. Thus there exists no difference between ROE among selected sample banks during the period of study. A higher return on Equity indicates that the bank is effectively using the contributions of equity investors to generate additional profits and return the profits to investors at an attractive level. Axis bank got fourth place on the basis of higher capitalization. Axis Bank enjoys zero balance facility, track the banking activities efficiently and free cash deposit. These features made Axis Bank to become high in Return on Equity.

**Return on Investment (ROI)**

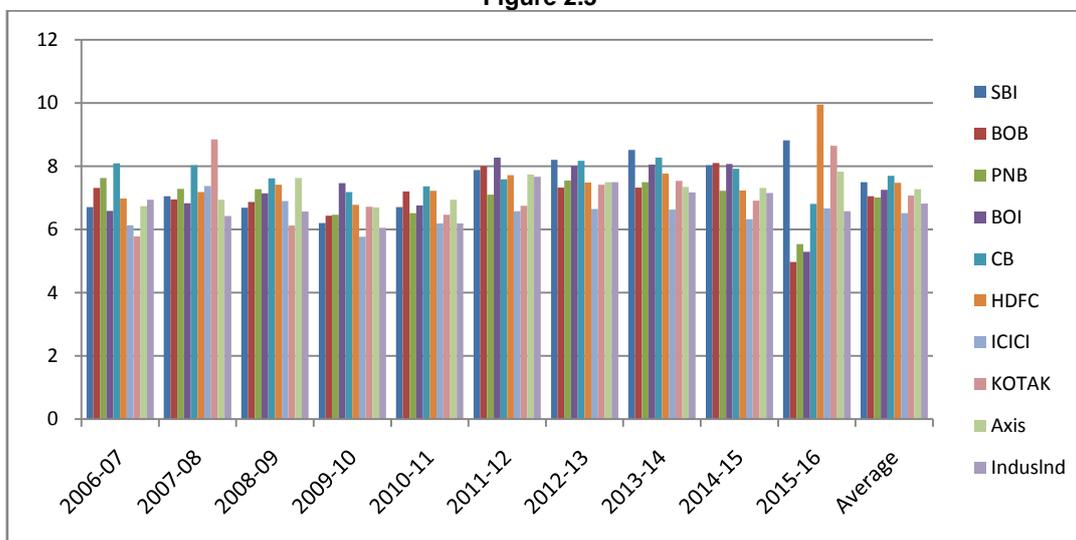
It is a profitability measure that evaluates the performance by dividing net profit by net worth. ROI is the most common profitability ratio. The most frequently used method to find out the ROI is to divide net profit by total assets. The formula of return on equity is as follows:

$$\text{Return on Investment ratio} = \frac{\text{Net Profit}}{\text{Total Assets}} \times 100$$

**Table 1.6 Return on Investment of Selected Banks in India (%)**

Years	SBI	BOB	PNB	BOI	CB	HDFC	ICICI	KOTAK	Axis	IndusInd
2006-07	6.71	7.31	7.63	6.59	8.09	6.98	6.13	5.78	6.74	6.94
2007-08	7.05	6.95	7.28	6.83	8.03	7.18	7.37	8.85	6.94	6.42
2008-09	6.69	6.87	7.27	7.14	7.62	7.41	6.90	6.12	7.63	6.57
2009-10	6.20	6.43	6.46	7.46	7.18	6.78	5.77	6.72	6.70	6.05
2010-11	6.71	7.20	6.52	6.76	7.36	7.22	6.19	6.46	6.94	6.19
2011-12	7.88	8.00	7.10	8.27	7.59	7.72	6.58	6.75	7.74	7.67
2012-13	8.20	7.32	7.55	8.01	8.17	7.48	6.65	7.41	7.49	7.49
2013-14	8.52	7.32	7.50	8.05	8.27	7.77	6.63	7.54	7.34	7.17
2014-15	8.03	8.10	7.22	8.07	7.92	7.23	6.32	6.91	7.31	7.15
2015-16	8.82	4.97	5.54	5.29	6.81	9.95	6.67	8.65	7.83	6.58
Average	7.49	7.05	7.01	7.25	7.70	7.47	6.52	7.07	7.27	6.82

**Figure 2.3**



The table and figure above shows that ratios of Return on Equity of top five Public and Private Sector Banks. It can be observed that the ratio of ROI of SBI and Bank of Baroda showing increasing trend during the period of study. The ROI of Punjab National Bank also shows the increasing trend from 2006-7 to 2015-16. Similarly, the ROI of Bank of India and Canara Bank shows the mixed trend as there is increasing and decreasing trend in the period of study. In comparison to Public Sector Banks the Private Sector Banks has increasing trend of Return on Investment. The ratio of ROI of HDFC Bank can be seen from the figure which shows the increasing trend from year over year. Axis Bank and IndusInd Bank has mixed trend in the ratio of Return on Investment during study period. The ratio of return on investment shows the increasing trend in most of the years of study period.

The analysis of above ROI ratio shows that there exist differences in ROI among all banks. In order to check whether the differences among banks are statistically significant or not ANOVA is applied.

**Table 1.7 ANOVA Results for ROI**

Ratio	Banks	Average	F-Value	P-value
RETURN ON ASSETS	SBI	7.49	2.290	.023*
	BOB	7.05		
	PNB	7.01		
	BOI	7.25		
	CB	7.70		
	HDFC	7.47		
	ICICI	6.52		
	Kotak	7.07		
	Axis	7.27		
IndusInd	6.82			

F-value computed for ROI for banks is 2.290 with P-value 0.023. The results depicts that the differences in Return on Assets among selected banks are found to be statistically significant as evidenced by the computed P-value (0.023) which is less than 0.05. Hence, Null hypothesis ( $H_0$ ) is rejected. Thus there exists significant difference between ROI among selected sample banks during the period of study. Canara Bank has high ROI as compared to other selected banks in the study. As the interest rates of Canara Bank vary from 4% per annum for depositors held for period between 7 days to 1 year. Central Bank has various attractive plans as for deposits above 1 crore (per annum), rates of interest range from 6.25% p.a. to 8.75% for deposits held between 1 to 10 years. Other various features of CB are that it provides loans available against FD accounts, closures before maturity, withdrawal facility available in multiples of Rs. 1000, while the rest of the amount will attract interest as applicable.

#### Findings of The Study

- At 5% significance level, p-value is  $0.000 < 0.05$ . This indicates that there is significant difference between the profitability ratio of ROA of selected banks i.e. SBI, Bank of Baroda, Punjab National Bank, Bank of India, Canara Bank, HDFC Bank,

ICICI Bank, Kotak Mahindra Bank, Axis bank and IndusInd Bank. Hence, the null hypothesis has been rejected because p value is less than 0.05.

- At 5% significance level, p value is  $0.400 > 0.05$ . This indicates that there is significance difference between the ratios of ROE of selected banks. Hence, the null hypothesis has been because of p value is more than 0.05.
- At 5% significance level, p value is  $0.023 < 0.05$ . This indicates there is no significance difference between the ROI ratio of the selected sample banks. Hence, the null hypothesis has been rejected because of p value is less than 0.05.

#### Conclusion

The profitability analysis is one of the important and dangerous concepts that have created a ruckus in banking system. The study shows that the Profitability of the Private Sector Banks is higher than Public Sector Banks in most of the years under study. HDFC has the highest ratio of ROA among all the selected banks. Similarly, the highest ratio of ROE is of Axis Bank. On the basis of ROI, the highest ratio is of Canara Bank, among all the banks.

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