

# A Fundamental Analysis of Public Sector Banks In India

\* Prakash Tiwari

\*\* Hemraj Verma

## INTRODUCTION TO THE INDIAN BANKING INDUSTRY

Banks in India can be categorized into non-scheduled banks and scheduled banks. Scheduled banks constitute of commercial banks and co-operative banks. There are about 67,000 branches of Scheduled banks spread across India. During the first phase of financial reforms, there was a nationalization of 14 major banks in 1969. This crucial step led to a shift from Class banking to Mass banking. Since then, the growth of the banking industry in India has been a continuous process.

The Public Sector Banks (PSBs), which are the foundation of the Indian Banking system account for more than 78 per cent of the total banking industry assets. Unfortunately, they are burdened with excessive Non- Performing Assets (NPAs), massive manpower and lack of modern technology.

On the other hand, the Private Sector Banks in India are witnessing immense progress. They are leaders in Internet banking, mobile banking, phone banking, ATMs etc.

## STRUCTURE OF THE INDIAN BANKING INDUSTRY

- Public sector (Government owned) banks account for 75% of the assets; however, Indian private banks and foreign banks are growing rapidly and gaining a larger share.
- Standard Chartered Bank, Citibank and HSBC are the three largest foreign banks in India with more than 65% of the total assets of foreign banks.
- Most global players in banking & financial services including Goldman Sachs, Morgan Stanley, Merrill Lynch, JP Morgan, Deutsche Bank, UBS, Lehman Brothers, ABN Amro, Barclays, Calyon etc. are active in India.
- The Mutual Funds industry has both domestic and foreign companies - UTI Mutual Fund, Prudential ICICI, HDFC, Franklin Templeton, Birla and Tata.

Classification of Banks (2007)	Number of Banks	Total Assets (US\$ billion)
Public Sector Banks	28	481
Indian Private Banks	27	135
Foreign Banks	29	48
Total	84	664

Source: RBI

## SIZE OF THE INDIAN BANKING INDUSTRY

- India has a rapidly growing Banking and Financial Services sector based on sound fundamentals.
- Total banking assets of about US\$664 billion in 2006: CAGR of 22% p.a. over the last 2 years.
- Market capitalization (NSE) of over US\$834 billion in FY 07 and over US\$1 trillion in mid FY 08.
- Turnover has grown at a CAGR p.a. of 24% in 2007.

## CURRENT SCENARIO OF THE INDIAN BANKING INDUSTRY

In 2008, banking in India was generally fairly mature in terms of supply, product range and reach-even though reach in rural India still remains a challenge for the private sector and foreign banks. In terms of quality of assets and capital adequacy, Indian banks are considered to have clean, strong and transparent balance sheets relative to other banks in comparable economies in its region. The Reserve Bank of India is an autonomous body with minimal pressure from the government. The stated policy of the Bank on the Indian Rupee is to manage volatility but without any fixed exchange rate-and this has mostly been true.

With the growth in the Indian economy expected to be strong for quite some time-especially in its services sector,

---

\*Faculty, Department of Management Studies, Dehradun Institute of Technology-Dehradun, Uttarakhand.

E-mail: prakashtwr@yahoo.com

\*\*Faculty, Department of Management Studies, Dehradun Institute of Technology-Dehradun, Uttarakhand.

E-mail: hemrajverma@gmail.com

the demand for banking services, especially retail banking, mortgages and investment services are expected to be strong. One may also expect M&As, takeovers, and asset sales.

In March 2006, the Reserve Bank of India allowed Warburg Pincus to increase its stake in Kotak Mahindra Bank (a private sector bank) to 10%. This is the first time an investor has been allowed to hold more than 5% in a private sector bank since RBI announced norms in 2005 that any stake exceeding 5% in the private sector banks would need to be vetted by them.

Currently, India has 88 scheduled commercial banks (SCBs) - 28 public sector banks (that is with the Government of India holding a stake), 29 private banks (these do not have government stake; they may be publicly listed and traded on stock exchanges) and 31 foreign banks. They have a combined network of over 53,000 branches and 17,000 ATMs. According to a report by ICRA Limited-a rating agency, the public sector banks hold over 75 percent of total assets of the banking industry, with the private and foreign banks holding 18.2% and 6.5% respectively.

## **REVIEW OF LITERATURE**

Literature review is a study involving a collection of literatures in the selected area of research in which the researcher has limited experience, and critical examination and comparison of them to have a better understanding. It also helps the researchers to update the past data, data sources and results and identify the gaps, if any in the researches. Thus, the reviews in the present study consist of the ones discussed below and they reveal that there are very scant studies in India emphasizing on the fundamental analysis of the banking sector.

Jim Berg (1999) conducted a study - "Fundamental Analysis Using Internet". This study examined that fundamental analysis looks at the fundamental issues that drive the value of the particular company. These issues include its financial position, its industry sector, and the current economic environment. The objective was to identify companies that may be considered undervalued in the market with a view to investing when the time is right. In this study, Jim Berg outlined more about what fundamental analysis is and how it could be used.

In this study, John Colnan (1994), Senior Research Analyst from SHAN Stockbroking's Research Department provides some brief pointers on what information to look for and how to make sense of what is available.

Mark P. Bauman (1996) conducted a study named, "A Review of Fundamental Analysis Research in Accounting". This paper has outlined the development of fundamental valuation model and reviewed related empirical work. First, an accounting-based expression for a firm's equity value has been developed into a rich theoretical framework. They verified its descriptive validity regarding the mapping of accounting numbers into stock prices. This paper identified three major issues associated with practical implementation of the model; the prediction of future profitability, the length of appropriate forecast horizon, and the determination of the appropriate discount rate.

Jon Lynch conducted a study, "Share Market Analysis-Fundamental Vs Technical Analysis", which reveals that in recent times, there has been a bigger push towards stock market research, which is being conducted by private individuals. This has been possible through the vast amount of information on the Australian stock market, now available online to any subscriber. This article explains the difference between the fundamental and technical analysis; the most common methods adopted to conduct research on the performance of stock markets.

Vanstone B. Finnie G. and Tan C. (2004) conducted a study entitled-"Enhancing Security Selection in the Australian Stock Market Using Fundamental Analysis and Neural Networks". This paper examines financial trading from the aspect of security selection. In practice, it is unrealistic for a financial trader to participate in the full market of tradable securities competing for investment capital. Essentially, there are two main methodologies used namely, fundamental analysis and technical analysis. This paper examines the practice of fundamental analysis and demonstrates how neural networks can be practically employed to enhance the fundamental selection process.

## **NEED AND OBJECTIVES OF THE STUDY**

An investor who would like to be rational and scientific in his investment activity has to evaluate a lot of information about past performance and the expected future performance of the companies, industries and the economy as a whole before taking the investment decision and hence, the present study attempts to analyze the profitability position of the sample companies.

Some of the objectives of conducting the study are as follows:

- To take investment decisions cautiously after studying risks involved in the same.
- To gain knowledge of evaluating intrinsic value of a firm.

- To acquire practical exposure of financial analysis of an enterprise.
- To get familiarity of scheming comparative efficiency of different firms.
- To analyze the profitability position of the sample banks.

## **HYPOTHESIS**

The study tests whether the selected variables of sample companies vary significantly during the study period. This specific hypothesis is tested at appropriate time while analyzing and interpreting the results.

The following hypotheses have been taken to put on test:

**H<sub>1</sub>:** The Earning Per Share (EPS) position of SBI, PNB, BOI, BOB and CB does not differ significantly.

**H<sub>2</sub>:** The Operating Profit Margin (OPM) position of SBI, PNB, BOI, BOB and CB does not differ significantly.

**H<sub>3</sub>:** The Net Profit Margin (NPM) position of SBI, PNB, BOI, BOB and CB does not differ significantly.

**H<sub>4</sub>:** The Debt Equity Ratio (DER) position of SBI, PNB, BOI, BOB and CB does not differ significantly.

**H<sub>5</sub>:** The Return on Equity (ROE) position of SBI, PNB, BOI, BOB and CB does not differ significantly.

**H<sub>6</sub>:** The Price Earning Ratio (PER) position of SBI, PNB, BOI, BOB and CB does not differ significantly.

**H<sub>7</sub>:** The Return on Assets (ROA) position of SBI, PNB, BOI, BOB and CB does not differ significantly.

## **METHODOLOGY**

The present study adopts an analytical and descriptive research design. The data of the sample companies (for a period of five years from 2003 to 2007) has been collected from the annual reports and the balance sheet published by the companies and the websites of the companies.

A finite sample size of five banks listed on the National Stock Exchange (NSE) has been selected for the purpose of the study. They are State Bank of India (SBI), Punjab National Bank (PNB), Bank of India (BOI), Bank of Baroda (BOB) and Canara Bank (CB).

The variables used in the analysis of the data are Earning Per Share (EPS), Operating Profit Margin (OPM), Net Profit Margin (NPM), Debt Equity Ratio (DER), Return on Equity (ROE), Price Earning Ratio (PER) and Return on Assets (ROA).

While interpreting the results, the statistical tool of one-way Analysis of Variance (ANOVA) has been used.

## **SAMPLE DESIGN**

- **Sampling Technique:** The study is done with special reference to public sector banks. The reason being that the data or the financial statements are readily available for them. Apart from this, public sector banks are bound to disclose all their facts and figures publicly. Thus, the technique of 'Convenience Sampling' is being adopted for the study. The election of sample companies is made on the basis of market capitalization.
- **Sample Size:** Five Indian Public sector banks are chosen as sample size for the study on account of having the highest market capitalization.

## **DATA COLLECTION**

Financial statements are the raw data collected from various websites such as [www.moneycontrol.com](http://www.moneycontrol.com), [www.rbi.org](http://www.rbi.org), [www.investopedia.com](http://www.investopedia.com) and other company websites.

## **TIME PERIOD OF THE STUDY**

The study has been conducted during Mar 2008 to Sep 2008.

## **TOOLS USED FOR ANALYSIS**

- **Ratio Analysis:** Ratios have been calculated for the past five years for the purpose of analysis. Ratios being designed are named as:
- Earning Per Share (EPS), Operating Profit Margin (OPM), Net Profit Margin (NPM), Debt Equity Ratio (DER), Return on Equity (ROE), Price Earning Ratio (PER) and Return on Assets (ROA).
- **Analysis of Variance (ANOVA):** The statistical tool that is used for testing hypothesis is one-way Analysis of Variance (ANOVA).

## **FINANCIAL ANALYSIS**

This section of study embodies the calculation and analysis of selected variables taken into reflection for the study purpose. The ratios are being calculated by the aid of raw data available on the concerned website. The raw data encompasses Yearly Results and Balance Sheet of the sample companies. After calculation of ratios, analysis of individual ratio is being done. The statistical tool used for analysis is One-way Analysis of Variance (ANOVA).

Analysis is performed by using software known as SPSS.

The ratios being calculated for the purpose of analysis of financial performance are:

- ⇒ Earning Per Share (EPS).
- ⇒ Operating Profit Margin (OPM).
- ⇒ Net Profit Margin (NPM).
- ⇒ Debt Equity Ratio (DER).
- ⇒ Return on Equity (ROE).
- ⇒ Price Earning Ratio (PER).
- ⇒ Return on Assets (ROA).

The analysis and interpretation of the study is carried out by following the chronological order of the parameters mentioned above.

## RESULTS AND DISCUSSIONS

### EARNING PER SHARE (EPS)

Earning Per Share is the measure of a company's ability to generate after tax profits per share held by the investors. This ratio is computed with the help of the following formula as expressed in rupee terms:

$$\frac{\text{Earning after taxes and preferred dividends}}{\text{Total number of equity shares outstanding}}$$

The Earning per share position of the sample companies is summarized in Table 2 and discussed below.

Year	SBI	PNB	BOI	BOB	CB
2003	59	31.75	17.43	26.25	24.85
2004	69.94	41.79	20.66	32.83	32.63
2005	81.79	44.72	6.97	22.98	27.06
2006	83.73	45.65	14.37	22.62	32.76
2007	86.29	48.84	23.01	28.08	34.65
<b>Average</b>	76.15	42.55	16.488	26.552	30.39

*Source: Computed from the data available in annual reports of the bank concerned*

As shown in Table 2, the EPS of SBI, PNB, BOI, BOB and CB mostly showed an increasing trend. The EPS of SBI is substantially higher than that of PNB, BOI, BOB and CB every year as per the data taken from year 2003 to year 2007. On an average, SBI has generated EPS of Rs.76.15, highest among all, followed by PNB (42.55), CB (30.39), BOB (26.552) and then BOI (16.488), the lowest among the five sample companies. The analysis reveals that SBI is the most efficient bank in the terms of generating earning per share.

The EPS position of sample companies is compared and tested using the following hypothesis. The details are shown in Table 3.

### HYPOTHESIS TESTING

**Ho:** EPS of SBI, PNB, BOI, BOB and CB does not differ significantly.

**Ha:** EPS of SBI, PNB, BOI, BOB and CB differ significantly.

Source of Variation	SS	Df	MS	F-ratio	5% F-limit
Between Groups	10634.8	4	2658.69	53.581	F (4, 20)= 2.87
Within Groups	992.402	20	49.62		
Total	11627.2	24			

**Note:** One-way ANOVA has been performed in SPSS

**Inference:** Since the calculated value of F is 53.581- which is greater than the table value of 2.87 ( $CV > TV$  at 5% significance level), the null hypothesis is rejected and the alternative hypothesis is accepted. Hence, it is concluded that the EPS position of SBI, PNB, BOI, BOB and CB differ significantly.

### OPERATING PROFIT MARGIN (OPM)

Operating Profit Margin indicates how effective a company is at controlling the costs and expenses associated with their normal business operations. This ratio is found out using the following formulae and expressed in

percentage terms.

$$\frac{\text{Operating Profit} * 100}{\text{Net Sales}}$$

The Operating Profit Margin position of the sample companies is depicted in Table 4 and discussed below.

Year	SBI	PNB	BOI	BOB	CB
2003	66.38	57.37	57.51	64	63.56
2004	54.45	52.15	54.4	55.13	55.93
2005	55.15	55.35	51.39	46.8	54.9
2006	54.97	59.69	58.73	53.49	60.78
2007	63.96	61.96	62.19	64.12	66.5
<b>Average</b>	58.982	57.304	56.844	56.708	60.334

*Source: Computed from the data available in annual reports of the companies concerned*

As it can be observed in Table 4, among all the sample companies, CB has sustained the highest operating profit margin followed by SBI which has registered a reasonably higher margin. On an aggregate basis, CB is highly successful in controlling the expenses by registering an average OPM of 60.334% followed by SBI, PNB, BOI and BOB which could make average OPM of 58.982%, 57.304%, 56.844 and 56.708% respectively. Thus, it is found that CB is the most efficient company in controlling costs and expenses when compared to other sample companies.

The OPM position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 5.

#### **HYPOTHESIS TESTING**

*Ho: OPM position of SBI, PNB, BOI, BOB and CB does not differ significantly.*

*Ha: OPM position of SBI, PNB, BOI, BOB and CB differ significantly.*

Source of Variation	SS	DF	MS	F-ratio	5% F-limit
Between Groups	49.48	4	12.37	0.431	F (4, 20)= 2.87
Within Groups	573.562	20	28.678		
Total	623.041	24			

**Note:** One-way ANOVA has been performed in SPSS

**Inference:** Since the calculated value of F is 0.431, which is less than the table value of 2.87 (CV < TV at 5% significance level), the null hypothesis is accepted and hence it is concluded that the operating profit margin position of SBI, PNB, BOI, BOB and CB does not differ significantly.

#### **NET PROFIT MARGIN (NPM)**

Net Profit Margin indicates how much a company is able to earn after accounting for all the direct and indirect expenses to every rupee of revenue. This ratio is calculated by using the following formula and is expressed in percentage terms.

$$\frac{\text{Net Profit} * 100}{\text{Net Sales}}$$

The Net Profit Margin position of the sample companies is depicted in Table 6 and is discussed below.

Year	SBI	PNB	BOI	BOB	CB
2003	10	11.25	14.35	12.67	15.3
2004	12.08	14.25	17.39	15.73	19.09
2005	13.27	16.66	5.63	10.52	14.65



<b>2006</b>	12.31	15.01	9.97	11.64	15.41
<b>2007</b>	11.49	13.34	12.23	11.14	12.5
<b>Average</b>	11.83	14.102	11.914	12.34	15.39

*Source: Computed from the data available in annual reports of the companies concerned*

The data in Table 6 reveals that Canara Bank outperformed other banks in terms of net profit margin. Also, there is stagnation in the NPM position of SBI. The highest NPM of Canara Bank is 19.09% in 2004, which of BOI, BOB, PNB and SBI are 17.39%, 15.73%, 14.25% and 12.08% respectively. On an aggregate basis, the mean NPM of Canara Bank is 15.39%, the highest, followed by PNB (14.102), BOB (12.34%), BOI (11.914%) and SBI (11.83%), the lowest among the five sample companies. Thus, it can be concluded that Canara Bank is the most efficient company in controlling indirect expenses in comparison to SBI, PNB, BOI and BOB.

The NPM position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 7.

### **HYPOTHESIS TESTING**

*Ho: NPM position of SBI, PNB, BOI, BOB and CB does not differ significantly.*

*Ha: NPM position of SBI, PNB, BOI, BOB and CB differ significantly.*

<b>Table 7: One-way ANOVA for NPM</b>					
Source of Variation	SS	DF	MS	F-ratio	5% F-limit
Between Groups	49.22	4	12.305	1.75	F (4, 20)= 2.87
Within Groups	140.665	20	7.033		
Total	189.885	24			

Note: One-way ANOVA has been performed in SPSS

**Inference:** Since the calculated value of F is 1.75 which is less than the table value of 2.87 ( $CV < TV$  at 5% significance level), the null hypothesis is accepted and hence it is concluded that the NPM position of SBI, PNB, BOI, BOB and CB does not differ significantly.

### **DEBT EQUITY RATIO (DER)**

Debt Equity Ratio compares the creditors' funds with owners' funds. It indicates how much money is being placed by the creditors as that of equity holders. It represents the proportion of borrowed funds in the total capital of the company. This ratio is calculated by using the following formula and expressed in terms of times.

$$\frac{\text{Total Debt}}{\text{Net Worth}}$$

The Debt to Equity position of the sample companies is depicted in Table 8, and is discussed below.

<b>Table 8: Debt Equity Ratio of sample companies</b>					
Year	SBI	PNB	BOI	BOB	CB
<b>2003</b>	17.75	18.96	19.34	15.27	17.4
<b>2004</b>	16.41	17.8	18.83	14.39	16.58
<b>2005</b>	16.04	12.97	18.99	14.74	15.88
<b>2006</b>	14.86	13.47	20.02	12.55	16.38
<b>2007</b>	15.18	13.59	21.46	14.57	13.9
<b>Average</b>	16.048	15.358	19.728	14.304	16.028

*Source: Computed from the data available in annual reports of the companies concerned*

The data in Table 8 reveals that BOI has achieved the highest Debt Equity Ratio every year for the data taken for the period of 2003 to 2007 and is followed by SBI. BOB alone has registered the lowest ratio. Even the five year average Debt Equity Ratio of BOI is significantly higher (19.728 times) than that of SBI (16.048 times), CB (16.028 times), PNB (15.358 times) and BOB (14.304 times). Thus, it is inferred that BOB has the least proportion of debt fund in its total capital and hence is the most efficient bank among all other sample companies. BOB has the highest portion of its self owned funds in the capital structure followed by BOB, PNB, CB and SBI.

The DER position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 9.

### **HYPOTHESIS TESTING**

*Ho: DER position of SBI, PNB, BOI, BOB and CB does not differ significantly.*

**Ha: DER position of SBI, PNB, BOI, BOB and CB differ significantly.**

<b>Table 9: One-way ANOVA for DER</b>					
Source of Variation	SS	DF	MS	F-ratio	5% F-limit
Between Groups	83.79	4	20.95	8.019	F (4, 20)= 2.87
Within Groups	52.249	20	2.612		
Total	136.048	24			

**Note:** One-way ANOVA has been performed in SPSS

**Inference:** Since the calculated value of F is 8.019 which is greater than the table value of 2.87 (CV > TV at 5% significance level), the null hypothesis is rejected and the alternative hypothesis is accepted. Hence, it is concluded that the DER position of SBI, PNB, BOI, BOB and CB differ significantly.

### **RETURN ON EQUITY (ROE)**

Return on Equity is seen as a measure of how well a company used reinvested earnings to generate additional earnings. This is computed using the following formula and is expressed in percentage terms.

$$\frac{\text{Earning after Taxes and Preferred Dividends} * 100}{\text{Net Worth}}$$

The Return on Equity position of the sample companies is depicted in Table 10 and discussed below.

<b>Table 10: Return On Equity (%) of sample companies</b>					
Year	SBI	PNB	BOI	BOB	CB
2003	18.05	20.88	24.03	17.62	24.56
2004	18.19	22.12	25.15	18.85	25.48
2005	18.1	17.28	7.62	12.02	18.16
2006	15.47	15.35	14.07	10.54	18.83
2007	14.24	14.76	19.05	11.87	13.72
<b>Average</b>	16.81	18.078	17.984	14.18	20.15

**Source:** Computed from the data available in annual reports of the companies concerned

Among all the five banks, Canara Bank has made the highest ROE of 25.48% in 2004, followed by BOI (25.15%) in 2004 and PNB (22.12%) in 2004. The data in Table 10 indicates that BOI registered the lowest RoE of 7.62% in 2005. If we talk about aggregate figures, the CB has registered highest RoE of 20.15% followed by PNB (18.076%), BOI (17.984%), SBI (16.81%) and BOB (14.18%). Thus, Canara Bank is the most efficient bank in generating additional earnings by using invested earnings other than four sample companies.

The ROE position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 11.

### **HYPOTHESIS TESTING**

**Ho: ROE position of SBI, PNB, BOI, BOB and CB does not differ significantly.**

**Ha: ROE position of SBI, PNB, BOI, BOB and CB differ significantly.**

<b>Table 11: One-way ANOVA for ROE</b>					
Source of Variation	SS	DF	MS	F-ratio	5% F-limit
Between Groups	95.358	4	23.839	1.134	F (4, 20)= 2.87
Within Groups	420.356	20	21.018		
Total	515.713	24			

**Note:** One-way ANOVA has been performed in SPSS

**Inference:** Since the calculated value of F is 1.134 which is less than the table value of 2.87 (CV < TV at 5% significance level), the null hypothesis is accepted and hence it is concluded that the RoE position of SBI, PNB, BOI, BOB and CB does not differ significantly.

### **PRICE EARNING (P/E) RATIO**

Price Earning Ratio highlights the connection between the price and recent company's performance. This ratio moves either side only when price and profits get discounted. This ratio is calculated by using the following formula and is expressed in terms of times.

$$\frac{\text{Share Price at a given time}}{\text{Earning Per Share}}$$

The Price Earnings position of the sample companies is depicted in Table 12 and is discussed below.

<b>Table 12: Price Earning Ratio of sample companies</b>					
<b>Year</b>	<b>SBI</b>	<b>PNB</b>	<b>BOI</b>	<b>BOB</b>	<b>CB</b>
<b>2003</b>	4.32	3.21	2.17	3.28	2.86
<b>2004</b>	8.16	7.99	2.85	7.4	4.44
<b>2005</b>	7.58	8.78	14.75	9.48	7.39
<b>2006</b>	10.9	10.32	9.17	10.17	8.15
<b>2007</b>	10.85	9.66	7.29	7.66	5.62
<b>Average</b>	8.362	7.992	7.246	7.598	5.692

**Source:** Computed from the data available in annual reports of the companies concerned.

The data in Table 12 reveals that only SBI achieved the highest price earning ratio for each year from 2003 to 2007, followed by PNB, BOB and BOI. CB has registered the lowest Price Earning ratio. Even the five year price earning ratio of SBI is significantly higher (8.362) than that of PNB (7.992), BOB (7.598), BOI (7.246), and CB (5.692). Thus, it is inferred that there is more responsiveness between the earning capacity and the share price in case of SBI than that of other banks and SBI has done better in the share market. There is also an increasing trend in the price earnings position of SBI.

The P/E Ratio position of sample companies are compared and tested using the following hypothesis. The details are shown in Table 13.

#### **HYPOTHESIS TESTING**

*Ho: PER position of SBI, PNB, BOI, BOB and CB does not differ significantly.*

*Ha: PER position of SBI, PNB, BOI, BOB and CB differ significantly.*

<b>Table 13: One-way ANOVA for PER</b>					
<b>Source of Variation</b>	<b>SS</b>	<b>DF</b>	<b>MS</b>	<b>F-ratio</b>	<b>5% F-limit</b>
Between Groups	21.268	4	5.317	0.497	F (4, 20)= 2.87
Within Groups	213.779	20	10.689		
Total	235.048	24			

**Note:** One-way ANOVA has been performed in SPSS

**Inference:** Since the calculated value of F is 0.497, which is less than the table value of 2.87 ( $CV < TV$  at 5% significance level), the null hypothesis is accepted and hence it is concluded that the P/E ratio position of SBI, PNB, BOI, BOB and CB does not differ significantly.

#### **RETURN ON ASSETS (ROA)**

Return on assets measures the overall efficiency of capital invested in business. It indicates what the yield is for every rupee invested in assets. This is computed using the following formula and is expressed in percentage terms.

$$\frac{\text{Earning after Taxes and Preferred Dividends} * 100}{\text{Total Assets}}$$

The Return on Assets position of the sample companies is depicted in Table 14 and discussed below.

<b>Table 14: Return On Assets (%) of sample companies</b>					
<b>Year</b>	<b>SBI</b>	<b>PNB</b>	<b>BOI</b>	<b>BOB</b>	<b>CB</b>
<b>2003</b>	0.83	0.98	1.11	1.01	1.24
<b>2004</b>	0.9	1.08	1.19	1.14	1.34
<b>2005</b>	0.94	1.12	0.36	0.71	1
<b>2006</b>	0.89	0.99	0.62	0.73	1.01
<b>2007</b>	0.8	0.95	0.79	0.72	0.86
<b>Average</b>	0.872	1.024	0.814	0.862	1.09

**Source:** Computed from the data available in annual reports of the companies concerned.

Among all the five banks, CB has achieved the highest yield of 1.34% in 2004 and 1.24% in 2003. The data in the Table 14 indicates that BOI registered the lowest RoA of 0.36% in the year 2005. The average ROA of CB and



PNB are (1.09% and 1.024% respectively) almost same while that of SBI, BOB and BOI are a bit lower (0.872%, 0.862% and 0.814% respectively). Thus, CB and PNB are more efficient in generating yield over assets and hence their overall efficiency is better than other three sample companies.

The ROA position of sample companies are compared and tested by using the following hypothesis. The details are shown in Table 15.

### HYPOTHESIS TESTING

*Ho: ROA position of SBI, PNB, BOI, BOB and CB does not differ significantly.*

*Ha: ROA position of SBI, PNB, BOI, BOB and CB differ significantly.*

Table 15: One-way ANOVA for ROA					
Source of Variation	SS	DF	MS	F-ratio	5% F-limit
Between Groups	0.279	4	6.981	1.704	F (4, 20)= 2.87
Within Groups	0.819	20	4.096		
Total	1.098	24			

Note: One-way ANOVA has been performed in SPSS

**Inference:** Since the calculated value of F is 1.704 which is less than the table value of 2.87 ( $CV < TV$  at 5% significance level), the null hypothesis is accepted and hence it is concluded that the RoA position of SBI, PNB, BOI, BOB and CB does not differ significantly.

### MAJOR FINDINGS

- The Earning per Share of SBI is substantially higher than that of PNB, BOI, BOB and CB for the data taken from 2003 to 2007. On an average, SBI has generated EPS of Rs. 76.15, making SBI one of the most efficient banks in the terms of generating earnings.
- Canara Bank has sustained the highest operating profit margin of 60.334%. Thus, it is found that CB is the most efficient company in controlling costs and expenses as compared to other sample companies.
- Canara Bank has outperformed other banks in terms of net profit margin with an aggregate of 15.39% and is followed up by PNB, BOB, BOI and SBI.
- BOB has the highest portion of its self owned funds in the capital structure followed by BOB, PNB, CB and SBI.
- CB has registered highest ROE of 20.15% and is thus the most efficient in generating additional earnings by using invested earnings than other four banks.
- There is more responsiveness between the earning capacity and the share price in case of SBI as it has the highest price earning ratio for each year from 2003 to 2007.
- The average Return on Assets of CB and PNB are 1.09% and 1.024% respectively. Therefore, CB and PNB are more efficient in generating yield over assets and hence their overall efficiency is better than that of the other three sample companies.

### CONCLUSION

The fundamental analysis which aims at developing an insight into the economic performance of the business is of paramount importance from the view point of investment decisions. Thus, the present study has been conducted to examine the economic sustainability of the five major banks in the Indian banking sector: SBI, PNB, BOI, BOB and the CB. The study reveals that SBI has performed better in terms of Earning Per Share and Price Earning Ratio than PNB, BOI, BOB and CB. Therefore, there is more responsiveness between the earning capacity and the share price in case of SBI despite the fact that its profit margin ratios are not better than that of other four banks.

On the other hand, Canara Bank has fared better in terms of OPM, NPM, ROE and ROA. BOB has the highest portion of self-owned funds in its capital structure but is least efficient in controlling costs and expenses. BOI has registered lowest earning capacity, highest debt proportion accompanying least yield over its assets. The study also reveals that PNB is efficient in generating yield over assets which indicates that its overall efficiency is good.

### RECOMMENDATIONS

After performing a profound analysis of the major players of the Indian banking industry, the following suggestions might be looked over:

1. The investors with long term perspective of investment should invest their riches in the company that is registering high profit margins constantly. Canara Bank resolves this rationale of the investors.

(Contd. on page 52)

qualification and private employees with income level between Rs 3,00, 000 to Rs. 4,50,000 and urban residents have a high level of investment.

## **BIBLIOGRAPHY**

1. [www.outlookmoney.com](http://www.outlookmoney.com)
2. <http://in.rediff.com/money/perfin.html>
3. IRDA Annual Reports 2000-01 to 2005-06.

---

*(Contd. from page 16)*

## **BIBLIOGRAPHY**

- 1) Business India, Jan.2008-“2008 where to invest”
- 2) Lalit K.Bansal (1997) “Merchant Banking and Financial Services”, Chandigarh.:Unistar Books Pvt. Ltd.
- 3) Ludhiana Stock Exchange-Annual Report 2006-07
- 4) Ludhiana Stock Exchange-bulletin
- 5) Previous Reports of ICICI, HDFC, IndiaBulls.
- 6) Varshney P.N. and Mittal D.K.(2005), “Indian Financial System”, Sixth Edition, New Delhi:Sultan Chand and Sons
- 7) [www.bse.com](http://www.bse.com)
- 8) [www.cSDL.com](http://www.cSDL.com)
- 9) [www.ise.co.in](http://www.ise.co.in)
- 10) [www.nsdLindis.co](http://www.nsdLindis.co)

---

*(Contd. from page 32)*

2. Investors with short term outlook for investment should prefer SBI as their investment intention because there is more responsiveness between the earning capacity and the share price in case of SBI despite the fact that its profit margin ratios are not better than that of other companies.
3. The investors who are risk averse may invest their capital in Bank of Baroda as it has the highest portion of self-owned funds in its capital structure.
4. BOI has registered lowest earning capacity, highest debt proportion and least yield over its assets, therefore, immediate investment in the same should be evaded.
5. The study also revealed that PNB is efficient in generating yield over assets which indicates that its overall efficiency is good. The investors with an objective of earning moderate returns might invest in PNB.

## **BIBLIOGRAPHY**

- 1) Jim Berg (1999), Fundamental analysis using internet, past edition of ASX investor update e-mail newsletter,([www.asx.com.au](http://www.asx.com.au))
- 2) John colnan (1994), Fundamental analysis, SHAW Stock broking Ltd.,by ASX investor update E-mail newsletter,([www.qsx.com.au](http://www.qsx.com.au)).
- 3) Jon Lynch, “Share Market Analysis-Fundamental analysis vs. Technical analysis”, ([www.eninarticle.com](http://www.eninarticle.com))
- 4) Mark P Bauman (1996), “A Review of Fundamental analysis research in accounting”, Journal of accounting literature, ([www.findarticles.com](http://www.findarticles.com))
- 5) Vastone B, Finnie G and Tan C(2004), “Enhancing security selection in the Australian stock market using fundamental analysis and neural networks” (Artificial Intelligence and soft computing).
- 6) Punithavathy Pandian (2005) “Security analysis and portfolio management” Vikas Publication Pvt.Ltd, New Delhi
- 7) Sunder Sanker,Shefali Shah and Rajesh Tiwari “security market and products” Indian Institute of Banking and Finance by Taxman New Delhi.
- 8) [www.indiainbusiness.nic.in/invest-india/bankfinsys.htm](http://www.indiainbusiness.nic.in/invest-india/bankfinsys.htm)
- 9) [www.rbi.org.in](http://www.rbi.org.in)