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Research Article

# Performance Evaluation of Selected Banks using Ratio Analysis

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## I N F O

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## A B S T R A C T

Ratio analysis a accounting tool, which can be used to measure the solvency, the probability and the over all financial strength of a business, by analyzing its financial accounts (specifically the balance sheet and profit and loss account). It is a quantitative method of gaining insight into company's liquidity,operational efficiency and profitability by comparing information contained in its financial statements. Ratio analysis can be used to establish a trend line for one company's results over a large number of financial reporting periods. This can highlight company changes that would not be evident if looking at a given ratio that represents just one point in time.

**Keywords:** Financial ratios, Operating revenue, Smart bank, Eagles model, Investment project

## Introduction

Banks are life blood & the nervous system of the Indian economy. Banking plays an important role in the economic development of a country & forms the core of money market in an advanced country. In India, the money market is characterized by the existence of both the organized & unorganized sectors. The organized sector includes commercial bank, co-operative banks & regional Rural banks while the unorganized sectors includes indigenous bankers and private money lenders. Among the banking institutions in the organized sector , the commercial banks are the oldest institutions having a wide network of branches, commanding utmost public confidence and having the lion's share in the total banking operations. Initially, they were established as corporate bodies with share-holding by private individuals, but subsequently there has been a drift towards state ownership and control.

In modern times banking is the kingpin of all business activity. It is an important instrument of mobilizing the community's resources through institutional framework. As a matter of fact, economic & industrial development of a country depends, is the main, upon how efficiently funds are managed by the banks. Hence, banking plays an important in the economic development of the country. Adequacy of capital and competency of management are the two pillars upon which the earnings of the banks depend. Sufficiency of capital instills depositor's confidence, which helps in mobilizing of deposits. Increase in deposits increases the leading business & therefore enhances the possibilities of income generation for the bank. Moreover, a bank with a sound capital base can take business opportunity more effectively and can concentrate well on dealing with problem arising from unexpected loses. The success & survival of a bank depends to a great extent upon the dedication & competence of its managers. A smart bank manager can, not only help to mobilize resources and deploy them in profitable channels, the manager can also reduce the amount of idle balances and help to more profits. The banks now focus on integrated balance sheet management where all the relevant factors which effect an appropriate balance sheet composition deserve consideration. Therefore various components of balance sheet are analyzed keeping in view the strengths of a bank. Analyzing assets & liability behaviour means managing both assets and liabilities simultaneously for the purpose of minimizing the adverse impact of interest rate movement, providing liquidity & enhancing the market value of equity.

### Statement of the Problem

Financial ratios are used almost universally by companies of all sizes to provide numerical information on the profitability, health & direction of the business. Financial ratios provide useful analysis & can help drive management toward making better decisions if they are interpreted correctly. However, there are some drawbacks to relying on these metrics.

Analysis and interpretation of financial statement is a regular exercise to review the performance of the company. It was proposed to conduct a review to study the short term prospects as well as the long term trends & to arrive at the conclusion on the performance of the company. Performance review resulting in taking corrective action optimizes the performance in the subsequent period.

After going through existing literature of the library reviewing various articles from everywhere and knowledgeable discussion with the concerned respected guide & by following the existing circumstances, the researcher has selected this topic, after considering available information, data, existing literate, external sources of information & other inclusive source. Researcher has framed following problem for this work.

## Need for the Study

Ratio analysis is a quantitative method of gaining insight into a company's liquidity, operational efficiency and profitability by comparing information contained in its financial statements. Effective planning & financial management are the keys to running a financially successful small business. Ratio analysis is critical for helping you understand financial statements, for identifying trends over time and for measuring the overall financial state of your business. In addition, lenders & potential investors often rely on ratio analysis when making lending and investing decisions.

### Significance of the Study

This study for the financial performance in major aspects as under:

1. It helpful in simplifying financial data.
2. It helpful in analysis of financial strength.
3. It helpful in decision-making.
4. It help financial forecasting.
5. It help in financial planning.

### Scope of the study

The scope of the study is limited to collecting financial data published in the annual reports of the company every year. The analysis is done to suggest the possible solutions. The study is carried out 5 years (2015-2019). It is analyze and interpret the relevant data of the company in a balanced way ratio analysis. The analysis is done to suggest the possible solutions.

### Objectives of the Study

- To evaluate the performance of sample banks using liquidity or short-term solvency, long-term solvency
- To assess the operating efficiency of the business
- To help in comparative analysis, inter-firm and intra-firm comparisions

### Research Methodology

The main aim of the study is to know the financial performance of the banks.

### Research

Any efforts which are directed to study of strategy needed to identify the problems and selection of best solutions for better results are known as research.

### Research Design

In view of the objects of the study listed above an exploratory research design has been adopted. Exploratory research is one which largely interprets & already available information and it lays particular emphasis on analysis and interpretation of the existing and available information.

- To know the financial status of the company
- To know the credit worthiness of the company
- To offer suggestion based on research finding

## Research Methodology

Eagles model is basically ratio-based model for evaluating the performance of banks. It is a management tool that measures earnings, asset quality, growth, liquidity, equity and strategy. The present study adopts analytical and descriptive design. The data of the sample banks from 2011 to 2019 has been collected from annual reports published by banks. Thirteen variables related to Eagles model are used in the study. For analyzing and interpreting the results, the statistical tools used are arithmetic mean, standard deviation, coefficient of variation, growth rate and t-test. The t-test is used to test the hypotheses. It determines the significant difference between the average value of selected public and private sector banks. The SPSS 19 software is used for data analysis. The present study is based on secondary data that has been collected from the annual reports and websites of the respective banks, magazines, journals, documents and other published information. The total assets of the selected banks for 2015 are presented in Eagles' model has been adopted for analyzing and comparing the banks. The following Eagles' parameters are considered for the study: Earnings (ROA, RONW and IOR), Asset Quality (gross NPA, net NPA and provision coverage ratio), Growth (loans and deposits), Liquidity (loan-to-deposit and investment-to-deposit ratio), Equity (capital adequacy) and Strategy (interest income to interest cost and non-interest income to non-interest cost).

## Ratio

### Meaning

Ratio is also a relationship between two groups or amounts that expresses how much bigger one is than the other.

In other words ratio is the relationship between two amounts, represented by two numbers or a percentage, expressing how much bigger one is the other.

Ex:- 2:6, 8:4 etc.

### Definition

In mathematics, a ratio is a comparison of two or more numbers that indicates their sizes in relation to each other.

A ratio compares two values. It shows you that when you have this much of something, you will need to have that much of something else.

### Ratio Analysis

Ratio analysis is the process of determining and interpreting numerical relationship based on financial statements.

In other words, ratio analysis is the technique of interpretation of financial statements with the help of accounting ratios derived from the balancesheet and profit & loss account.

## Types of Ratio Analysis

### Basic EPS

Earning Per Share (EPS), also called net income per share, is a market prospect ratio that measure the amount of net income earned per share of stock outstanding. In other words, this is the amount of money each share of stock would receive if all of the profits were distributed to the outstanding shares at the end of the year.

EPS or basic earnings per share is calculated by subtracting preferred dividends from net income & dividing by the weight average common shares outstanding. The earnings per share formula looks like this.

EPS = Net income preferred dividends/ Weighted average common shares outstanding.

### Book Value (Excl.Reval reserve)/ Share

Book value of equity per share (BVPS) is the equity available to common shareholders divided by the number of outstandings shares. This represents the minimum value of a company's equity.

BVPS metric can be used by investors to gauge whether a stock price is undervalued, by comparing it to the firm's market value per share.

BVPS = Total equity preferred equity/ Total shares outstandings.

### Book Value (Incl.reval Reserve)/ Share

Revaluation reserve is an accounting term used when a company creates a line item on its balance sheet for the purpose of maintaining a reserve account tied to certain assets. This line item can be used when a revaluation assessment finds that the carrying value of the asset has changed.

### Operating Revenue/ Share

Operating revenue is revenue generated from a company's primary business activities. Distinguishing operating revenue from total revenue is important as it provides valuable information about the productivity & profitability of a company's primary business operations.

### Net Profit Share

The net profit ratio includes the total revenue of the firm. It takes into account both the operating incomes as well as non-operating income. Then it compares net profits to these incomes. This ratio too represented as a percentage. The formula for net profit ratio is.

This ratio helps measure the overall profitability of the firm. It indicates the portion of the net revenue that is available to the proprietors. It also reflects on the efficiency of the business is a very important ratio for investors & financiers.

Net profit ratio = Net profit/Net revenue*100 (or)
= Net profit after tax/Net sales

### Net Profit Margin

The net profit margin is equal to how much net income or profit is generated as a percentage of revenue. Net profit margin is the ratio of net profits to revenues for a company or business segment.

It is typically expressed as percentages but can also be represented in decimal form. The net profit margin illustrates how much of each dollar in revenue collected by a company translates into netprofit.

NPM = R - COGS - E - I - T/ R*100

Where:

R = Revenue
COGS = The cost of goods sold
E = Operating & other expenses
I = Interest
T = Taxes

### Net Income per Employee Ratio

It is a company's net income divided by no of employees. This number shows the company how efficient it is with its employees. Theoretically, the higher the net income per employee the better. Aside from increasing the productivity of employ's, this number could be increased by a number of other factors.

## Interest Income Ratio

It is the amount paid to an entity for lending its money or letting another entity use in funds. On a large scale, interest income is the amount earned by an investor's money that he places in an investment project. A very simple & basic way of computing it is by multiplying the principal amount by the interest rate applied, considering the number of months or years the money lent.

Interest income is usually taxable income & is presented in the income statement for the simple reason that it is an income account.

## Total Assets Ratio

Total debt to total assets is a leverage ratio that defines the total amount of debt relative to assets. This metric enables comparisons of leverage to be made across different companies.

In other words total debt to assets is a measure of the company's assets that are financed by debt, rather than equity.

TD/ TA = Short-term debt + Long-term debt / Total assets.

## Interest Expense Ratio

Interest expense is the cost of money or recorded on the income statement.

In other words interest expense is the cost incurred by an entity for borrowed funds. It is a non-operating expense shown on the income statement. It represents interest payable on any borrowings-bonds, loans, convertible debt or lines of credit.

## Data Analysis and Interpretation

### Earnings per Share

The below graph and table 1 interpreates that the basic EPS among five responded out of which HDFC bank EPS level very high then compare to the next four despondence where has the data collected & mentioned below state that the five years EPS level of HDFC (58.916) is high and later SBI(7.452) returns EPS level is second highest & the next EPS level of Axis bank (20.1) and rest to respondance that is Canara and Andhra bank have a negative rate in their EPS levels that is Canara bank -8.03 and Andhra bank 8.36 respectively and even it has been clearly explained with the help of graph mentioned below.

The above table (Table 2) interpreates that the book value among the five respondance the Canara bank has the highest returns from the last 5 years is 461.34 with the risk level of 67.88% and the HDFC bank has an returns of 368.29 with the risk level of 117.76% later the Axis bank gives up to returns of 230.178 & with the risk level of 27.07% and next to respondance SBI has returns of 230.928 with the risk level of 29.53%. And the last respondance that is Andhra bank which has the least returns that is 126.22 with the risk level of 55.53%.

From the above information I can suggest that Axis bank has on highest growth rate when compare to the next four respondance with growth rate of 0.082%. Hence we can conclude that the book value are Axis bank is highest/ the gives the best returns and better book value per share.

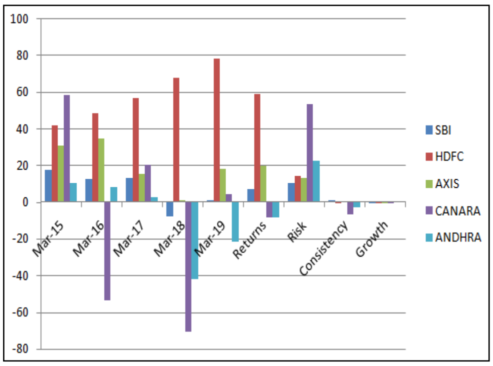


**Figure 1**

**Table 1**

| Year | | Basic EPS (Rs.) | | | |
|---|---|---|---|---|---|
| | SBI | HDFC | AXIS | Canara | Andhra |
| Mar-15 | 17.55 | 42.15 | 31.18 | 58.59 | 10.82 |
| Mar-16 | 12.98 | 48.84 | 34.59 | -53.61 | 8.6 |
| Mar-17 | 13.43 | 57.18 | 15.4 | 20.63 | 2.56 |
| Mar-18 | -7.67 | 67.76 | 1.13 | -70.47 | -42.12 |
| Mar-19 | 0.97 | 78.65 | 18.2 | 4.71 | -21.66 |
| Returns | 7.452 | 58.916 | 20.1 | -8.03 | -8.36 |
| Risk | 10.47563936 | 14.60552395 | 13.40044216 | 53.38121767 | 22.8658479 |
| Consistency | 1.405748706 | 0.247904202 | 0.666688665 | -6.647723247 | -2.73514927 |
| Growth | -0.515131854 | 0.168759858 | -0.125924758 | -0.467524841 | #NUM! |

**Table 2**

| Year | Book Value (Excl. Reval Reserve) (Rs.) | | | | |
|---|---|---|---|---|---|
| | SBI | HDFC | AXIS | Canara | Andhra |
| Mar-15 | 172.04 | 247.39 | 188.47 | 556.68 | 166.94 |
| Mar-16 | 185.85 | 287.47 | 223.12 | 484.75 | 161.41 |
| Mar-17 | 196.53 | 349.12 | 232.83 | 474.01 | 166.87 |
| Mar-18 | 217.69 | 409.6 | 247.2 | 396.59 | 90.24 |
| Mar-19 | 247.53 | 547.89 | 259.27 | 394.68 | 45.64 |
| Returns | 203.928 | 368.294 | 230.178 | 461.342 | 126.22 |
| Risk | 29.53352366 | 117.7697407 | 27.07627504 | 67.88665311 | 55.53506505 |
| Consistency | 0.144823289 | 0.319771 | 0.117631898 | 0.147150385 | 0.439986255 |
| Growth | 0.095215552 | 0.219910048 | 0.082997638 | -0.082386329 | -0.276903421 |

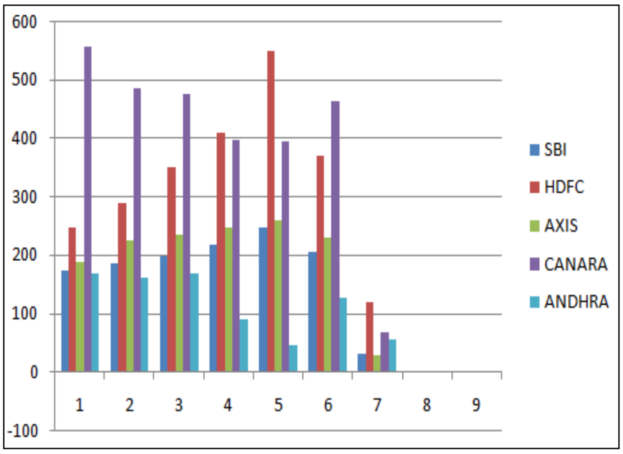


**Figure 2**

The above graph and table interpreates that the operating revenue of Canara bank is highest out of five respondance in which the average returns of Canara bank is with 721.67% and for the remaining respondance where the returns of HDFC 274.93, SBI with returns of 230.944 andhra bank with returns of 202.16.

From this analysis I can interpreate that Canara bank has given an highest them compare to the rest four respondance and Axis bank has the lowest returns with less operating revenue.

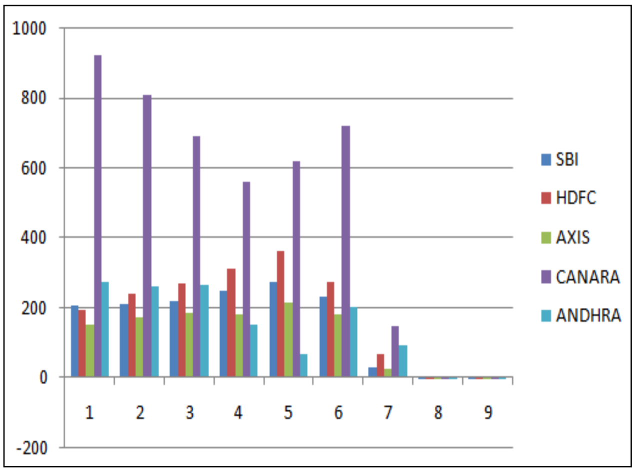


**Figure 3**

**Table 3**

| Year | Operating Revenue(Rs.) | | | | |
|---|---|---|---|---|---|
| | SBI | HDFC | AXIS | CANARA | ANDHRA |
| Mar-15 | 204.13 | 193.38 | 149.67 | 920.67 | 271.52 |
| Mar-16 | 211.26 | 238.2 | 172.02 | 810.73 | 258.89 |
| Mar-17 | 220.13 | 270.46 | 185.98 | 692.92 | 264.66 |
| Mar-18 | 247.07 | 309.2 | 178.37 | 562.6 | 149.93 |
| Mar-19 | 272.13 | 363.43 | 213.82 | 621.45 | 65.63 |
| Returns | 230.944 | 274.934 | 179.972 | 721.674 | 202.126 |
| Risk | 28.19453635 | 65.24216259 | 23.26905176 | 144.6604294 | 91.24658969 |
| Consistency | 0.122083866 | 0.23730118 | 0.129292622 | 0.200451214 | 0.451434203 |
| Growth | 0.074527158 | 0.170852815 | 0.093272418 | -0.093588201 | -0.298827064 |

**Table 4**

| Year | Net Profit (Rs.) | | | | |
|---|---|---|---|---|---|
| | SBI | HDFC | AXIS | Canara | Andhra |
| Mar-15 | 17.55 | 40.76 | 31.04 | 56.87 | 10.59 |
| Mar-16 | 12.82 | 48.64 | 34.51 | -51.8 | 7.93 |
| Mar-17 | 13.15 | 56.78 | 15.36 | 18.78 | 2.56 |
| Mar-18 | -7.34 | 67.38 | 1.07 | -57.58 | -28.47 |
| Mar-19 | 0.97 | 77.4 | 18.19 | 4.61 | -9.66 |
| Returns | 7.43 | 58.192 | 20.034 | -5.824 | -3.41 |
| Risk | 10.2964727 | 14.58145809 | 13.37503757 | 48.57272619 | 16.02578079 |
| Consistency | 1.385797133 | 0.25057496 | 0.66761693 | -8.340097218 | -4.699642461 |
| Growth | -0.515131854 | 0.17388809 | -0.125061058 | -0.466414002 | #NUM! |

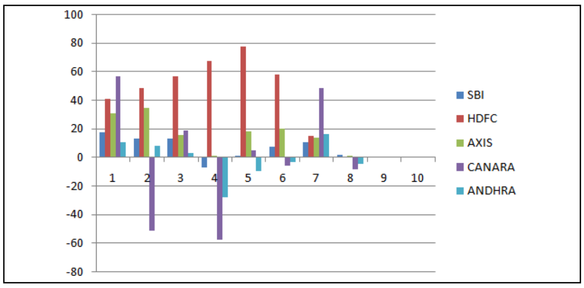


**Figure 4**

The above graph and table interpreates that the net profit among five responded out of which HDFC bank is net profit level is very high than compare to the next four respondance where has mentioned the above the state that the five years net profit level of returns 58.192 of HDFC is high and later Axis bank level of returns 20.034 is second highest of net profit and next SBI level of returns 7.43 andhra bank level of returns -3.41 and lastly Canara bank level of returns -5.824 respectvely and even has been clearly explained with the help of graph mentioned above. I can suggest that the HDFC is gives the highest and best returns than compare to the respondance to the net profit.

The above graph and table interpreates that the net profit margin among five respondance out of which the HDFC bank is highest out of five respondance and the returns 21.11% and remaining respondance where the returns of SBI bank 3.602%, Axis bank with the returns of 11.63%, Canara bank with the returns of -1.506% and lastly Andhra bank returns of -5.154%.

Finally I can suggest that HDFC bank is gives the highest return than compare to another respondance. So we can conclude that HDFC bank is gives the best return to the net profit margin.

The above graph and below table 6 interpreates that the interest income among five respondance with the returns of SBI 6.768%, HDFC with the returns of 8.04%, Axis bank with the level of return 7.272%, Canara bank with the returns of 7.288% and finally Andhra bank with the returns of 8.052%.

**Table 5**

| Year | Net Profit Margin (%) | | | | |
|---|---|---|---|---|---|
| | SBI | HDFC | AXIS | Canara | Andhra |
| Mar-15 | 8.59 | 21.07 | 20.73 | 6.17 | 3.90 |
| Mar-16 | 6.06 | 20.41 | 20.06 | -6.38 | 3.06 |
| Mar-17 | 5.97 | 20.99 | 8.26 | 2.17 | 0.96 |
| Mar-18 | -2.96 | 21.79 | 0.60 | -10.23 | -18.98 |
| Mar-19 | 0.35 | 21.29 | 8.50 | 0.74 | -14.71 |
| Returns | 3.602 | 21.11 | 11.63 | -1.506 | -5.154 |
| Risk | 4.747754206 | 0.50019996 | 8.612339984 | 6.658500582 | 10.83167946 |
| Consistency | 1.318088341 | 0.023694929 | 0.740527944 | -4.421315127 | -2.101606415 |
| Growth | -0.55071831 | 0.002600187 | -0.199788284 | -0.411513318 | #NUM! |

**Table 6**

| Year | Interesy Income (%) | | | | |
|---|---|---|---|---|---|
| | SBI | HDFC | AXIS | Canara | Andhra |
| Mar-15 | 7.44 | 8.20 | 7.68 | 7.98 | 8.33 |
| Mar-16 | 6.95 | 8.49 | 7.80 | 7.96 | 8.81 |
| Mar-17 | 6.48 | 8.02 | 7.40 | 7.09 | 8.11 |
| Mar-18 | 6.38 | 7.54 | 6.62 | 6.68 | 7.42 |
| Mar-19 | 6.59 | 7.95 | 6.86 | 6.73 | 7.59 |
| Returns | 6.768 | 8.04 | 7.272 | 7.288 | 8.052 |
| Risk | 0.432978059 | 0.348783601 | 0.513926065 | 0.64239396 | 0.563045291 |
| Consistency | 0.0639743 | 0.043381045 | 0.070671901 | 0.088144067 | 0.069926141 |
| Growth | -0.029874054 | -0.007710675 | -0.027833338 | -0.041696569 | -0.022989584 |

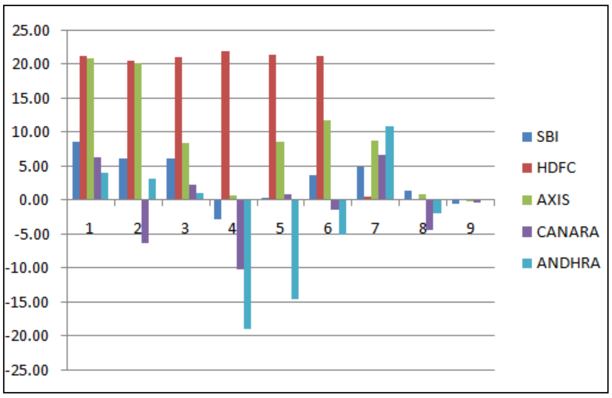


**Figure 5**

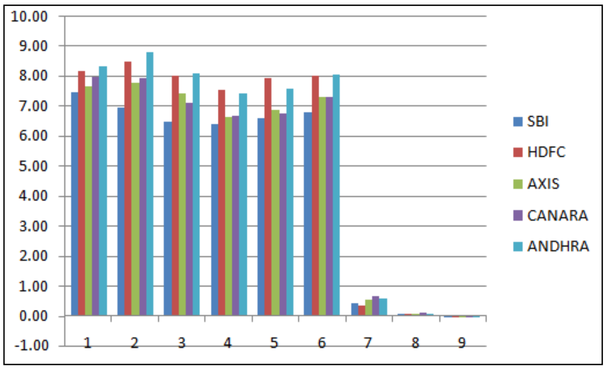


**Figure 6**

Finally I can suggest that Andhra bank is highest returns than compare the respondance the SBI, HDFC, AXIS & CANARA bank with the returns 8.052%. We can conclude that Andhra bank is highest and gives the best return to the interest income.

## Findings

- The level of returns of Basic EPS recorded in SBI bank, HDFC bank, AXIS bank, CANARA bank and ANDHRA bank as 7.452, 58.916, 20.1, -8.03 and -8.36 respectively. The highest level of returns records in HDFC bank. The lowest level of returns recorded in CANARA bank.
- The growth rate of book value recorded in ANDHRA bank, CANARA bank, AXIS bank, HDFC bank and SBI bank as -0.276, -8.082, 0.082, 0.219 & 0.095 respectively. The highest level of growth rate recorded as AXIS bank and lowest is HDFC bank.
- Among five years out of five respondance the level of returns operating revenue as recorded in SBI bank, HDFC bank, AXIS bank, CANARA bank and ANDHRA bank as 230.944, 274.934, 179.972, 721.674 & 202.126 respectively. The highest level of returns recorded as CANARA bank and lowest is AXIS bank.
- The total level of returns for net profit as recorded in SBI, HDFC, AXIS, CANARA & ANDHRA banks as Rs.7.43, 58.192, 20.034, -5.824 and -3.41 respectively. The lowest level of returns is recorded ANDHRA bank & highest is recorded as HDFC bank.
- The study found that in the year Mar 2015-19, the returns of net profit margin of HDFC bank (21.11%) is the highest among all the selected banks followed by SBI, AXIS andHRA bank and CANARA bank (-1.506%) has the lowest returns of net profit margin.
- The study found that in the year Mar 2015-19 andHRA bank (8.052%) has performed well and has the highest level of returns of interest income and SBI bank (6.768%) have lowest returns among all the selected banks.

## Suggestions

- The banks should improve their capital base by issuing more share to the public or through government contribution.
- The banks should bring new product/services based on the aspirations of customers.
- The bank should motivate and impart right knowledge about banking to their staff.
- The banks should be improve the financial performance.

## Conclusion

The project of ratio analysis in the production concern is not merely a work of the project. But a brief knowledge and experience of that how to analyze the financial performance of the firm. The study undertaken has brought in to the light of the following conclusions. According to this project I came know that from the analysis of financial statements the banking industry play important role in nation's growth/development and entire economy revolves around its strength. In modernization and growth is mirror of nation's economy which can be only achieved by heavy investment largely borrowed funds. Banks being socio-economic entity depending largely upon leverage financing are bound to satisfy their investors and stakeholders and have to justify risk undertaken by them.

In last, along with performance it is also important for a bank to understand the relationship between profitability & variables in balanced scorecard frame work, since performance can be improved if the influencing factors are known. Banks are organizer, promoter and architect of nation economy, their growth is regarded as mirror of nation economical strength. In order to become global from local they have to become competitive and fundamentally strong. This study has revealed the fact that future of Indian banks is bright, they are achieving the expected targets and will grow with time and become more competitive under unforeseen circumstances and will make India proud of their strategic universal economic domination.

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