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A Comparative Analysis of the Financial Ratios of Selected Banks in the India for the period of 2011-2014

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Abstract
Most financial statement analyses focus on firms belonging to industries that either contribute significantly to economic figures or posit in a highly competitive business environment. The objective of this paper is an analysis done to see the extent to which a company has implemented using rules financial performance is good and right. This study investigates performance of commercial banking sector for the period of April- 2011 to March -2014. Financial statements of Axis bank, ICICI bank, Federal bank and HDFC bank for the indicated periods were obtained from database such as CMIE, Prowess, money control and yahoo finance. Necessary information derived from these financial statements were summarized and used to compute the financial ratios for the four-year period. Financial ratios are tools used to measure the profitability, liquidity and solvency performance of four major Indian commercial banks. This research is to analyze the financial statements of these banks using liquidity ratios, activity ratios, leverage ratios, profitability ratios, and market value ratios. For liquidity, the following ratios were used: current ratio, quick or acid-test ratio. For activity, Inventory turnover ratio, debtor turnover ratio and working capital turnover ratios were used. For leverage, the following ratios were used i.e. debt ratio, equity ratio, and interest coverage ratio. For profitability, profit margin, net profit margin, return on assets, return on shareholder's equity, and earnings per share were used. For market value, price-earnings ratio and earning par share ratios were used.
Keywords: Current Ratio, Acid ratio, Quick ratio, Return on Assets (ROA), Return on Shareholder's Equity (RONW), Earning per share (EPS).

1.0 INTRODUCTION

The massive amount of numbers in a company's financial statements can be bewildering and intimidating to many investors. On the other hand, if you know how to analyze them, the financial statements are a gold mine of information. Financial statements are the medium by which a company discloses information concerning its financial performance. Followers of fundamental analysis use the information taken from financial statements to make investment decisions.

A recent article provides convincing evidence that data items stored in large databases have significant rates of errors (Klein, Goodhue and Davis, 1997). The problem is exemplified by the COMPUSTAT and CRSP Monthly Return Tape which are mistakenly thought to be accurate because they report information for publicly owned companies. However, both of these databases have significant error rates that distort analysis unless corrected (Kim, 1997; Courtnay and Keller, 1994; Kinny and Swanson, 1993; Bennin, 1980; Beedles and Simkowitz, 1978; and, Rosenberg and Houglet, 1974).Yusuf and Hakan, (2011) the short term creditors of a company like suppliers of goods of credit and commercial banks providing short-term loans are primarily interested in knowing the company's ability to meet its current or short-term obligation as and when these become due. Ohlso (1980) concluded from his research that firm size was directly related to firm financial performance with smaller firms more likely to fail than larger ones. Following the preceding studies, many additional research projects were undertaken in an attempt to validate the use of financial ratios for predicting financial performance of a firm. Some of the better known studies include Altman, Haldeman and Narayanan (1977), Norton and Smith (1979), and Mensah (1983). These studies, like their predecessors, fail to demonstrate that normality of distribution or those necessary sample assumptions have been met prior to analysis.

The paper proceeds as follows. In section 2, we explain the literature review detailed about the accounting and financial performance of banking sector. Section 3 applies the research problem, objectives and detailed methodology. Section 4 concludes the insights and result for all financial ratios has been applied to measure the performance of banks.

1.1 INDIAN BANKING SECTOR

1.1.1 AXIS BANK LIMITED

Axis bank limited (formerly UTI Bank) is the third largest private sector bank in India. It offers financial services to customer segments covering Large and Mid-Corporate, MSME, agriculture and retail business. Axis bank has its headquarters in Mumbai, Maharashtra. Axis bank began its operations in 1994, after the Government of India allowed new private banks to be established. The bank was promoted in 1993 jointly by the

administrator of the Unit Trust India (UTI), Life Insurance Corporation of India (LIC), General Insurance Corporation Ltd (GICL), National Insurance Company Ltd (NICL), The New India Assurance Company (TNIAC), The Oriental Insurance Corporation (TOIC), and United India Insurance Company (UIIC). The Unit Trust of India holds a special position in the Indian capital markets and has promoted many leading financial institutions in the country. Products: credit cards, consumer banking, corporate banking, finance and insurance, investment banking, mortgage loans, private banking, private equity and wealth management. Axis bank opened its registered office in Ahmedabad and corporate office in Mumbai in December 1993. The first branch was inaugurated on 2nd April 1994 in Ahmedabad by Dr. Manmohan Singh, the then finance minister of India. As on 31-Mar-2014, the bank had a network of 2402 branches and extension counters and 12,922 ATMs. Axis bank operates in four segments: Treasury operations, retail banking, corporate/wholesale banking and other banking business.

1.1.2 HOUSING DEVELOPMENT FINANCING CORPORATION (HDFC) BANK

HDFC bank is the fifth largest bank in India by assets, incorporated in 1994. It's the largest bank in India by market capitalization as of 24th February 2014. As on 2nd Jan 2014, the market cap value of HDFC was around USD 26.88B, as compared to credit suisse group with USD 47.63B. Its headquarters are in Mumbai, Maharashtra. The bank was promoted by the Housing Development Finance Corporation, a premier housing finance company (set up in 1977) of India.

Products: credit Cards, consumer banking, corporate banking, finance and insurance, investment banking, mortgage loans, private banking, private equity and wealth management. It operates in three segments: wholesale banking services, retail banking services and treasury operations. The bank has overseas branch operations in Bahrain and Hong Kong. As of 30th September 2013, HDFC bank has 3,251 branches and 11,177 ATMs, in 2,022 cities in India, and all branches of the bank are linked on an online real-time basis.

1.1.3 FEDERAL BANK LIMITED (FBL)

Federal bank limited is a major Indian commercial bank in the private sector. It began its operations in 1945. Though initially it was known as the Travancore federal bank, it gradually transformed into a full-fledged bank under the leadership of its founder, Mr. K P Hormis. The name federal bank limited was officially announced in the year 1947 with its headquarters nestled on the banks of the river Periyar. Since then there has been no looking back and the bank has become one of the strongest and most stable banks in the country. Its headquarters are at Aluva, Kochi and Kerala. It is the fourth largest bank in India in terms of capital base. As of 30th June 2014, federal bank has 1203 branches spread across 24 states and 1392 ATMs across the country. Products: loans, savings, debit cards, internet banking, travel cards, life insurance, general insurance etc. As government of India has decided to introduce 'Direct Cash Transfer' (DCT) of various welfare schemes directly to beneficiaries' bank account which is linked with Aaddhaar number w.e .f 1st January 2013, federal bank customers can link their Aaddhaar account.

1.1.4 INDUSTRIAL CREDIT AND INVESTMENT CORPORATION OF INDIA (ICICI) BANK

ICICI bank was established by the Industrial Credit and Investment Corporation of India (ICICI), an Indian financial institution, as a wholly owned subsidiary in 1994. The parent company was formed in 1955 as a joint-venture of the World Bank, India's public-sector banks and public-sector insurance companies to provide project financing to Indian industry. The bank was initially known as the Industrial Credit and Investment Corporation of India Bank, before it changed its name to the abbreviated *ICICI Bank.* The parent company was later merged with the bank. ICICI Bank launched internet banking operations in 1998. ICICI bank is an Indian multinational banking and financial services company. It headquarter is in Vadodara. As of 2014, it the second largest bank in India in terms of assets and market capitalization. The bank has a network of 3,800 branches and 11,162 ATMs in India, and has a presence in 19 countries. ICICI Bank is one of the big four banks of India, along with state bank of India, Punjab national bank and bank of Baroda. The bank has subsidiaries in the United Kingdom, Russia, and Canada; branches in United States, Singapore, Bahrain, Hong Kong, Sri Lanka, Qatar and Dubai international finance centre; and representative offices in United Arab Emirates, China, South Africa, Bangladesh, Thailand, Malaysia and Indonesia. The company's UK subsidiary has also established branches in Belgium and Germany.

2.0 LITRATURE REVIEW

A recent article provides convincing evidence that data items stored in large databases have significant rates of errors (Klein, Goodhue and Davis, 1997). The problem is exemplified by the COMPUSTAT and CRSP Monthly Return Tape which are mistakenly thought to be accurate because they report information for publicly owned companies. However, both of these databases have significant error rates that distort analysis unless corrected (Kim, 1997; Courtnay and Keller, 1994; Kinny and Swanson, 1993; Bennin, 1980; Beedles and Simkowitz, 1978;

and, Rosenberg and Houglet, 1974).Yusuf and Hakan, (2011) explained the short term creditors of a company like suppliers of goods of credit and commercial banks providing short-term loans are primarily interested in knowing the company's ability to meet its current or short-term obligation as and when these become due. The short-term obligation of a firm can be met only when there are sufficient liquid assets. Therefore, a firm must ensure that it doesn't suffer from lack of liquidity or the capacity to pay its current obligation if a firm fails to meet such current obligations due to lack of good liquidity position ,its goodwill in the market is likely to be affected beyond repair.

Beginning with Beaver's (1966) expressed that standard financial ratios can predict the financial performance of firms, many subsequent studies have attempted to demonstrate the predictive value of various techniques for estimating actual business performance.

Foster, (1986) reviewed of the literature describing methods and theories for evaluating and predicting financial performance reveals that although methods have become increasingly complex, few researchers adequately address the problems associated with the sample used. For example, most ratio analysis studies use multivariate analysis that is based on the assumption of a normal distribution of the financial ratios. Without confirming the approximation of normality of ratio distribution, the researcher is at risk of drawing erroneous inferences. When considering the distribution of financial ratios in any database, the normality of the distribution can be skewed by data recording errors, negative denominators and denominators approaching zero.

Malhorta and McLeod, (1994) argued that the only way to assess future financial performance is through the inclusion of subjective measures.

Ross *et al*., (2007) implied that the most researchers divide the financial ratios into four groups i.e profitability, solvency, liquidity and activity ratios. Lasher, (2005) reviewed dept ratios **s**how how effectively the organization uses other people's money and whether it is using a lot of borrowed money. Tarawneh, (2006) described the nature of the organization influences the ratios employed. For example, in the case of a bank, the liquidity ratio is used to determine the amount of liquidity that a bank needs in order to meet its liabilities; a bank also uses profitability ratios. Lermack, (2003) argued the benefits of financial ratios analysis: Financial ratios are an important and well-established technique of financial analysis. The following are the benefits of financial ratios analysis.

Brigham and Ehrhardt (2010) stated "financial ratios are designed to help evaluate financial statements". Financial ratios are used as a planning and control tool. Financial ratios analysis is used to evaluate the performance of an organization: it aims to determine the strong and weak points and it offers solutions by providing appropriate plans.

Tiwari and Parray (2012) explained in detail the analysis of financial statements of Ranbaxy ltd. It provides insights into two widely used financial tools, ratio analysis and common size statements analysis. The objective of this paper is to help the reader understand how these tools should be used to analyze the financial position of a firm. To demonstrate the process of financial analysis, Ranbaxy Limited's balance sheet and income statements are analyzed in this paper. A financial statement is a collection of data organized according to logical and consistent accounting procedures. Its purpose is to convey an understanding of some financial aspect of a business firm. Financial analysis (also referred to as financial statement analysis or accounting analysis) refers to an assessment of the viability, stability and profitability of a business, sub business or project.

ACCOUNTING STATEMENTS

The Income Statement

While the balance sheet takes a snapshot approach in examining a business, the income statement measures a company's performance over a specific time frame. Technically, you could have a balance sheet for a month or even a day, but you'll only see public companies report quarterly and annually. The income statement presents information about revenues, expenses and profit that was generated as a result of the business' operations for that period.

The Balance Sheet

The balance sheet represents a record of a company's assets, liabilities and equity at a particular point in time. The balance sheet is named by the fact that a business' financial structure balances in the following manner:

Assets = Liabilities + Shareholder's\Equity ……. Eqn (1)

Assets represent the resources that the business owns or controls at a given point in time. This includes items such as cash, inventory, machinery and buildings. The other side of the equation represents the total value of the financing the company has used to acquire those assets. Financing comes as a result of liabilities or equity. Liabilities represent debt (which of course must be paid back), while equity represents the total value of money that the owners have contributed to the business - including retained earnings, which is the profit made in previous years.

2.1 Key financial ratios:

There are five categories of ratios used in financial statement analysis. These are:

(1) Liquidity ratios, which measure a firm's ability to meet cash needs as they arise.

(2) Profitability ratio, which measure the overall performance of a firm and its efficiency in managing assets, liabilities, and equity.

(3) Activity ratios or turnover ratio, which measures the liquidity of specific assets and the efficiency of managing assets.

(4) Assets turnover or management, which evaluates how well a company, is utilizing its assets to produce revenue.

(5) Long term debt of leverage ratios, which measure the extent of a firm's financing with debt relative to equity and its ability to cover interest and other fixed charges (Fraser & Ormiston, 2004); and

(6) Market value ratios bring to the stock price and give an idea of what investors think about the firm and its future prospects (Brigham & Houston, 2009).

2.2. LIQUIDITY RATIO

Current ratio

Liquidity ratios, that measures a company's ability to pay short-term obligations. If the current assets of a company are more than twice the current liabilities, then that company is generally considered to have good short term financial strength and vice versa. The current ratio formula is:

Current Ratio = Current assets / Current liablities ……..…….. Eqn (1.1)

Also known as "liquidity ratio", "cash asset ratio" and "cash ratio". The ideal ratio is 2:1

Quick ratio or acid test ratio

Quick ratio is an indicator of a company's short-term liquidity. The quick ratio measures a company's ability to meet its short-term obligations with its most liquid assets. For this reason, the ratio excludes inventories from current assets; the ideal ratio is 1:1 and is calculated as follows:

Quick ratio = current assets – (cash and equivalents + marketable securities + accounts receivable) / current liabilities …… Eqn. (1.2)

2.3 PROFITABILITY RATIO

Profit margin

A ratio of profitability calculated as profit after tax by net sales. Profit margin is very useful when comparing companies in similar industries. A higher profit margin indicates a more profitable company that has better control over its costs compared to its competitors. It is calculated as**:**

Profit Margin = Profit after tax / Net sales …….…….. (1.3)

Net profit margin

A ratio of profitability calculated as net income divided by revenues, or net profits divided by sales. It measures how much out of every rupee of sales a company actually keeps in earnings. Profit margin is very useful when comparing companies in similar industries. A higher profit margin indicates a more profitable company that has better control over its costs compared to its competitors. It is calculated as:

Net Income or Net Profit / Net Sales ……..…….. (1.4)

Return on shareholder's equity (RONW)

Net income is for the full fiscal year (before dividends paid to common stock holders but after dividends to preferred stock.) Shareholder's equity does not include preferred shares. It is also known as "return on net worth" (RONW).

RONW = Net Income / Shareholder's Equity …….. (1.5)

Return on assets

An indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. The formula for return on assets is:

Net Income / Avg. total assets ……..…… (1.6)

2.4 MARKET BASED RATIOS

Earning per share

The portion of a company's profit allocated to each outstanding share of common stock. Earnings per share serve as an indicator of a company's profitability. It is calculated as:

EPS = Earning available / No. of share issued to shareholders ……..……...…. (1.7)

Price earning ratio

A valuation ratio of a company's current share price compared to its per-share earnings. It is calculated as:

P/E Ratio = Market price per share/ EPS …….. (1.8)

2.5 SOLVENCY RATIO

Inventory turnover ratio

A ratio showing how many times a company's inventory is sold and replaced over a period. The days in the period can then be divided by the inventory turnover formula to calculate the days it takes to sell the inventory on hand or "inventory turnover days. It is calculated as:

Inventory turnover ratio = Cost of goods sold / Average inventory …….. (1.9)

Debtor turnover ratio

An activity or turnover ratio is calculated as credit sales by average debtors. A high debtor turnover ratio is not good for a company. It is calculated as:

Debtor turnover ratio = Credit sales / Average debtors ……..…….. (1.10)

Working capital turnover

A measurement comparing the depletion of working capital to the generation of sales over a given period is known as working capital turnover. This provides some useful information as to how effectively a company is using its working capital to generate sales. It is calculated as:

Working capital turnover = Sales / Working capital ……..…….. (1.11)

Total asset turnover

It can be calculate as net sales divided by total assets. This is a measure of how well assets are being used to produce revenue. A high total asset turnover is beneficial for a company. It is calculated as:

Total asset turnover = Net sales / Total assets …… (1.12)

2.6 LEVERAGE RATIOS

Debt to equity

A measure of a company's financial leverage is calculated by dividing its total liabilities by stockholders' equity. It indicates what proportion of equity and debt the company is using to finance its assets. It is calculated as:

Debt to equity = Long term debt or liabilities / Total equity …….. (1.13)

Interest coverage ratio

A ratio used to determine how easily a company can pay interest on outstanding debt. The interest coverage ratio is calculated by dividing a company's earnings before interest and taxes (EBIT) of one period by the company's interest expenses of the same period: It is calculated as:

Interest coverage ratio = EBIT / Interest expenses …….. (1.14)

DUPONT ANALYSIS

A method of performance measurement has started by the DuPont Corporation in the 1920s. With this method, assets are measured at their gross book value rather than at net book value in order to produce a higher return on equity (ROE). Higher is the result, higher is the return on the equity.

The DuPont system helps the analyst see how the firm's decisions and activities over the course of an accounting period interact to produce an overall return to firm's shareholders, the return on equity (Fraser & Ormiston, 2004). Moreover, according to Brigham and Houston (2009), it is a formula that shows that the rate of return on equity can be found as the product of profit margin, total assets turnover, and the equity multiplier. It shows the relationships among activity, leverage, and profitability ratios. It is calculated as:

DuPont analysis = Profit after tax / Total assets …… (1.15)

3.0 RESEARCH METHODOLOGY

3.1 Research problem and objectives

This research paper aims to measure the financial performance of Indian banking industries such as (AXIS, ICICI, HDFC, and FEDERAL bank) for periods of April-2011 to March- 2014 using comparative financial ratios. As a research procedure, the researcher obtained the audited financial statements for the four periods (2011 to 2014) of Indian banking companies from Prowess and company's website. Financial information necessary for financial ratios were derived from these financial statements. These were then summarized and processed to come up with comparative financial ratios that were used in the analysis phase. As applied in this study, financial ratios were grouped into five categories i.e liquidity, profitability, solvency, market based ratio, and leverage ratio. This find out to provide an answer to the question: *what are the norms, industry figures, and peculiarities in the banking sector of the Indian market using liquidity, activity, leverage, profitability, and market value ratios?*

Moreover, this study specifically aims to meet the following objectives:

1. To determine the liquidity, activity, leverage, profitability, and market value ratios of AXIS, ICICI, HDFC, and FEDERAL bank.
2. To determine norms, industry figures, and peculiarities of the Indian banking sector.

3. To find comparative financial analysis among these banking companies.
4. To evaluate financial performance using DuPont analysis.

3.2 DESCRIPTIVE STATISTICS

TABLE 1 FINANCIAL RATIOS OF AXIS BANK

Table 1 explains the result of several financial ratios of AXIS BANK from 2011 to 2014. It contains liquidity ratio i.e. current ratio and acid test ratio, profitability ratio i.e. return on assets (ROA), return on net worth (RONW), return on capital employed (ROCE), earning par share (EPS), price earning ratio (P/E), net profit margin, and profit margin, activity ratio i.e. inventory turnover ratio, debtor turnover ratio, and working capital turnover assets turnover ratio i.e. fixed assets and total assets turnover. Leverage ratio i.e. debt to equity, interest coverage ratio, share holder's equity ratio, and return on total asset and finally, DuPont analysis have been employed in this paper to measured the financial performance of a company.

Ratios	2014	2013	2012	2011
Current Ratio	0.16	0.15	0.11	0.13
Quick Ratio	0.06	0.07	0.05	0.03
Return On Assets	8.41	7.35	6.46	5.62
Return On Shareholder's Equity	34.58	26.73	22.29	16.60
Earning Per Share	180.56	183.08	99.93	127.01
Price Earnings Ratio	9.30	10.57	11.14	16.10
Net Profit Margin	0.16	0.15	0.15	0.17
Profit Margin	0.43	0.37	0.34	0.34
Debtor Turn Over Ratio	0.11	0.11	0.11	0.09
Working Capital Turn Over	0.83	0.90	1.08	0.72
Total Assets Turn Over	0.10	0.10	0.10	0.08
Debt To Equity	709.35	633.09	614.86	524.75
Interest Coverage Ratio	0.33	0.30	0.30	0.39
DuPont Analysis	0.04	0.04	0.03	0.03

TABLE 2 FINANCIAL RATIOS OF ICICI BANK

Table 2 explains the result of several financial ratios of ICICI BANK from 2011 to 2014. It contains liquidity ratio i.e. current ratio and acid test ratio, profitability ratio i.e. return on assets (ROA), return on net worth (RONW), return on capital employed (ROCE), earning par share (EPS), price earning ratio (P/E), net profit margin, and profit margin, activity ratio i.e. inventory turnover ratio, debtor turnover ratio, and working capital turnover assets turnover ratio i.e. fixed assets and total assets turnover. Leverage ratio i.e. debt to equity, interest coverage ratio, share holder's equity ratio, and return on total asset and finally, DuPont analysis have been employed in this paper to measured the financial performance of a company.

ICICI BANK				
Ratios	**2014**	**2013**	**2012**	**2011**
Current Ratio	0.02	0.02	0.02	0.02
Quick Ratio	0.00	0.01	0.00	0.01
Return On Assets	6.63	5.73	4.70	4.24
Return On Shareholder's Equity	17.07	13.33	9.96	7.48
Earning Per Share	479.99	169.49	99.70	66.79
Price Earnings Ratio	12.32	13.84	16.44	22.68
Net Profit Margin	0.18	0.17	0.16	0.16
Profit Margin	0.36	0.32	0.28	0.26
Debtor Turn Over Ratio	0.11	0.11	0.10	0.10
Working Capital Turn Over	0.93	0.82	0.81	0.68
Total Assets Turn Over	0.09	0.09	0.08	0.08
Debt To Equity	421.35	379.63	343.23	290.98
Interest Coverage Ratio	0.35	0.32	0.28	0.30
DuPont Analysis	0.03	0.03	0.02	0.02

TABLE 3 FINANCIAL RATIOS OF HDFC BANK

Table 3 explains the result of several financial ratios of HDFC BANK from 2011 to 2014. It contains liquidity ratio i.e. current ratio and acid test ratio, profitability ratio i.e. return on assets (ROA), return on net worth (RONW), return on capital employed (ROCE), earning par share (EPS), price earning ratio (P/E), net profit margin, and profit margin, activity ratio i.e. inventory turnover ratio, debtor turnover ratio, and working capital

turnover assets turnover ratio i.e. fixed assets and total assets turnover. Leverage ratio i.e. debt to equity, interest coverage ratio, share holder's equity ratio, and return on total asset and finally, DuPont analysis have been employed in this paper to measured the financial performance of a company.

HDFC BANK				
Ratios	**2014**	**2013**	**2012**	**2011**
Current Ratio	0.12	0.11	0.10	0.15
Quick Ratio	0.02	0.02	0.02	0.02
Return On Assets	7.79	7.42	6.65	6.09
Return On Shareholder's Equity	40.87	31.79	24.16	18.18
Earning Per Share	601.22	294.70	274.90	199.12
Price Earnings Ratio	18.73	21.46	46.03	25.42
Net Profit Margin	0.17	0.16	0.16	0.16
Profit Margin	0.40	0.36	0.35	0.35
Debtor Turn Over Ratio	0.12	0.12	0.12	0.11
Working Capital Turn Over	1.07	1.27	1.27	0.73
Total Assets Turn Over	0.10	0.10	0.10	0.09
Debt To Equity	868.42	705.20	581.40	479.20
Interest Coverage Ratio	0.37	0.35	0.34	0.42
DuPont Analysis	0.04	0.04	0.03	0.03

TABLE 4 FINANCIAL RATIOS OF FEDERAL BANK

Table 4 explains the result of several financial ratios of FEDERAL BANK from 2011 to 2014. It contains liquidity ratio i.e. current ratio and acid test ratio, profitability ratio i.e. return on assets (ROA), return on net worth (RONW), return on capital employed (ROCE), earning par share (EPS), price earning ratio (P/E), net profit margin, and profit margin, activity ratio i.e. inventory turnover ratio, debtor turnover ratio, and working capital turnover assets turnover ratio i.e. fixed assets and total assets turnover. Leverage ratio i.e. debt to equity, interest coverage ratio, share holder's equity ratio, and return on total asset and finally, DuPont analysis have been employed in this paper to measured the financial performance of a company.

FEDERAL BANK				
Ratios	**2014**	**2013**	**2012**	**2011**
Current Ratio	0.21	0.15	0.19	0.10
Quick Ratio	0.13	0.09	0.12	0.01
Return On Assets	3.63	2.26	2.02	1.90
Return On Shareholder's Equity	7.92	4.69	3.57	2.84
Earning Per Share	15.25	21.82	19.14	34.85
Price Earnings Ratio	24.69	10.08	11.75	13.56
Net Profit Margin	0.11	0.13	0.13	0.11
Profit Margin	0.18	0.13	0.13	0.12
Debtor Turn Over Ratio	0.12	0.10	0.09	0.09
Working Capital Turn Over	0.62	0.70	0.50	0.96
Total Assets Turn Over	0.10	0.09	0.08	0.08
Debt To Equity	382.89	367.42	311.02	262.36
Interest Coverage Ratio	0.18	0.22	0.25	0.21
DuPont Analysis	0.02	0.01	0.01	0.01

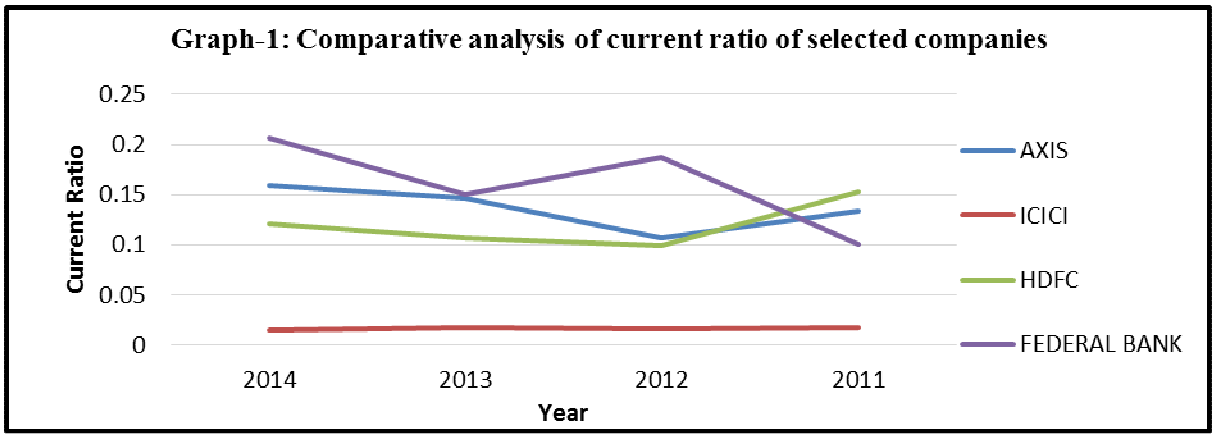
4. RESULTS AND LEARNING INSIGHTS

This part of the research paper is organized using the five categories of financial ratios. Specific ratios for each category are also presented and discussed. At the end of this part, the DuPont equation derived was also presented and discussed.

4.1 LIQUIDITY RATIOS

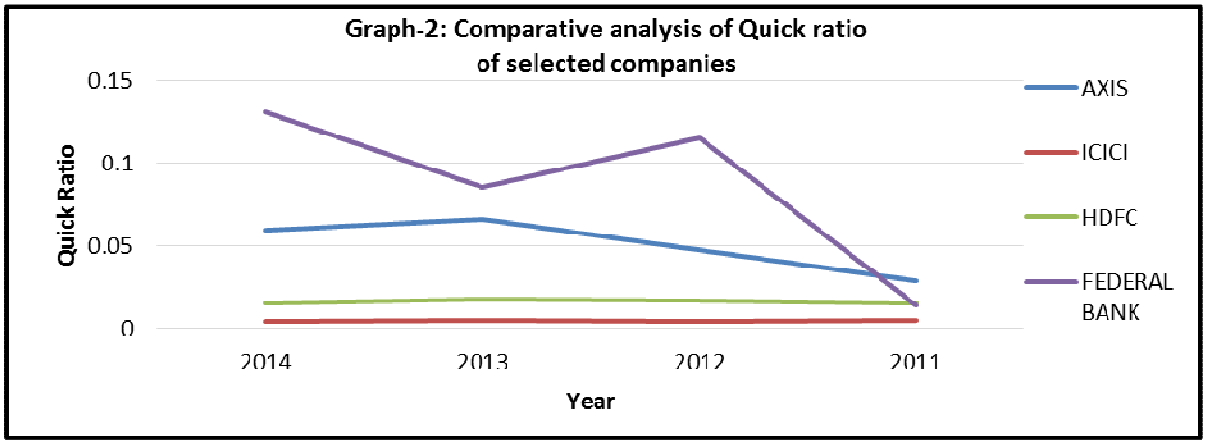
4.1.1 Current ratio: analysis and insights

This ratio shows the current assets available to cover current liabilities at the balance sheet date. There should be a reasonable buffer of current assets over current liabilities as an indication of the ability of the firm to pay its debts as and when they fall due. From the year 2011-2014, the current ratio for ICICI bank is almost constant. The current ratio for Axis and HDFC has declined drastically from 2011 to 2012 and then remained almost equal and then increased for the year 2014 in the graph. So we infer that Federal bank has greater no of resources to pay off its current debts.



4.1.2 Quick ratio: **analysis and insights**

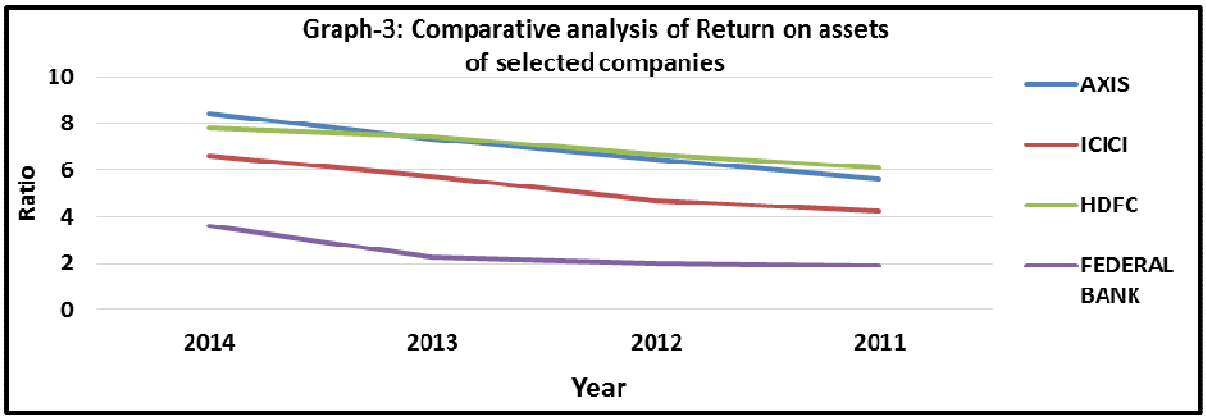
As a supplement to current ratio, quick or acid-test ratio aims to show the more liquid current assets available to pay the more immediately payable liabilities. With reference to current assets, the results are not significantly affected since only inventories are not considered here. Initially, the quick ratio for ICICI and HDFC is almost constant about 0.05 and 0.01 respectively for the years 2011-2014. But from the year of 2011-2013, the ratio for Axis bank has increased from 0.02 to 0.06 and then fallen to 0.05 in the year 2014. The ratio for Federal bank has increased drastically to 0.13 from 2011-2014. So, we infer that Federal bank has the ability to pay off its liabilities.



4.2 PROFITABILITY RATIO

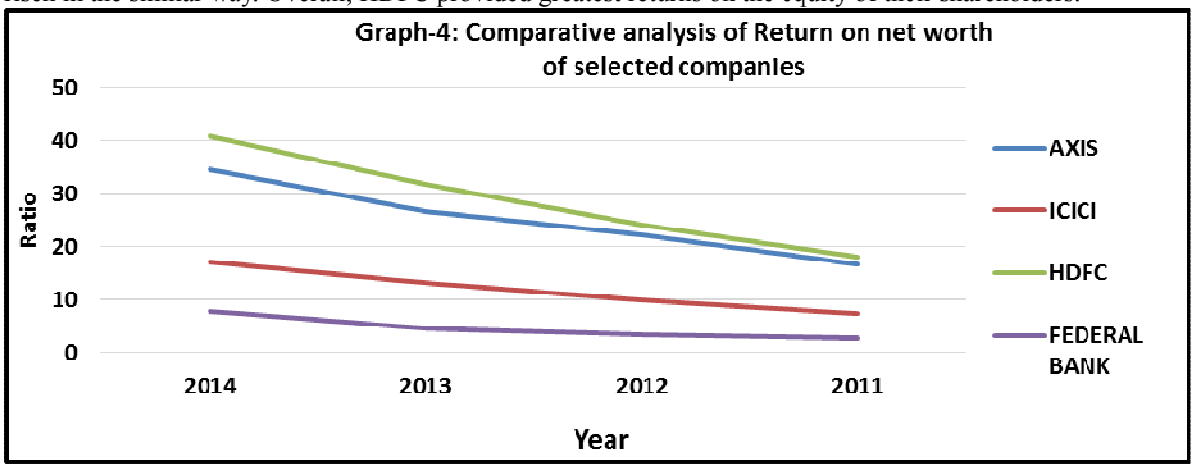
4.2.1 Return on assets: analysis and insights

Generally, the higher this ratio is the more effective. This ratio indicates the effectiveness of using assets to generate revenues. Similar to the previous financial ratio, as a rule of thumb, to be considered effective, it should be at least 0.30 times. Using this, it can be said that all four firms keep an effective mechanism on utilizing their total assets. The return on assets of HDFC and Axis banks is almost similar but there is a slight difference only in the year 2014 i.e. 7.7 and 8.4 respectively. The ratios of ICICI and Federal banks are increasing side by side in the same manner. Here, we can say that Axis bank has been able to use its assets efficiently to generate good profit.



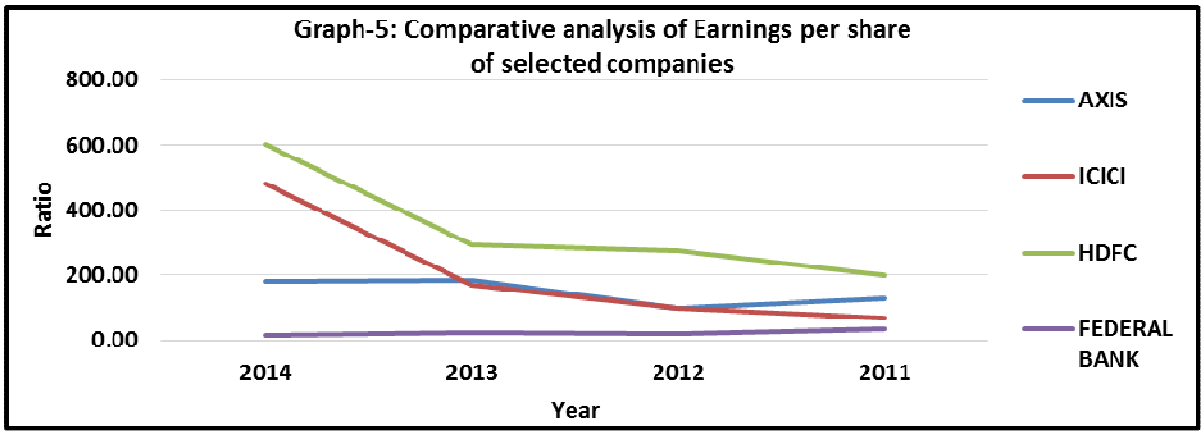
4.2.2 Return on net worth: analysis and insights

This ratio measures the rate of return on net worth's investment. This is considered as the most important financial ratio as this has something to do with the return on shareholder's equity. As a rule of thumb, the higher the RONW, the better is the firm's financial performance. In this study, 2014 is a great year for Axis bank's shareholders since the RONW rose to 8.4 in 2014 from 5.6 in 2013. The RONW for ICICI and Federal banks has risen in the similar way. Overall, HDFC provided greatest returns on the equity of their shareholders.



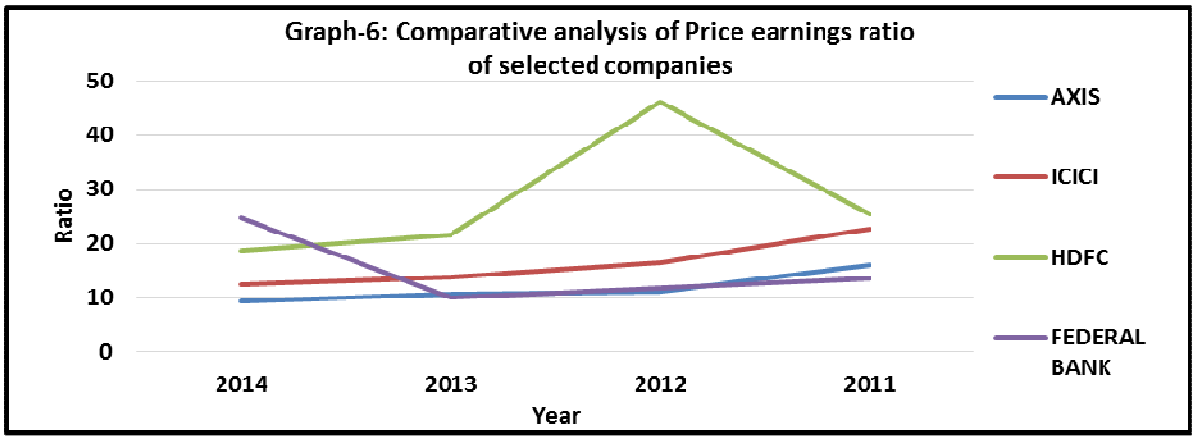
4.2.3 Earning per share: analysis and insights

This ratio indicates the ability of the firm's assets to generate operating income. As a rule of thumb, the higher this ratio is the better. It is important to realize that this ratio shows the return shareholders are actually achieving on their investment, using current market value for listed shares. In 2014, Axis bank has recorded its best EPS of 180.56 over the past four years. EPS had risen from 127.01 in 2011 to 183 in 2013. ICICI bank also showed progressive EPS of 479.9 in 2014 from its value of 66.79 in 2011. HDFC had kept its earning per share steady from 199.12 in 2011 to 601.22 in 2014. Federal had recorded its EPS of almost constant over the past four years. The shareholders can be assured that Axis and ICICI banks can be considered the safe players in terms of investment.



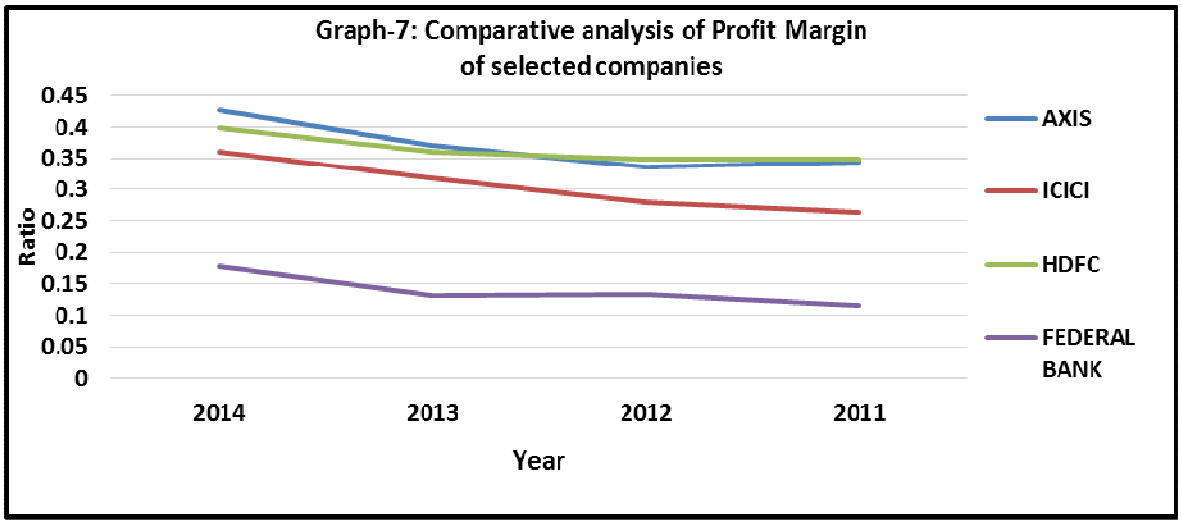
4.2.4 Price earning ratio: analysis and insights

This ratio shows how much investors are willing to pay per peso of reported profits. The price earning ratio for Federal has always been growing from 13.5 to 24.6 from 2010 to 2013, Whereas HDFC showed up and down trend from 25.4 to 18.7. Axis and ICICI banks rates constantly declined. So, we can conclude that Federal has the best price earning ratio among other banks.



4.2.5 Profit margin: analysis and insights

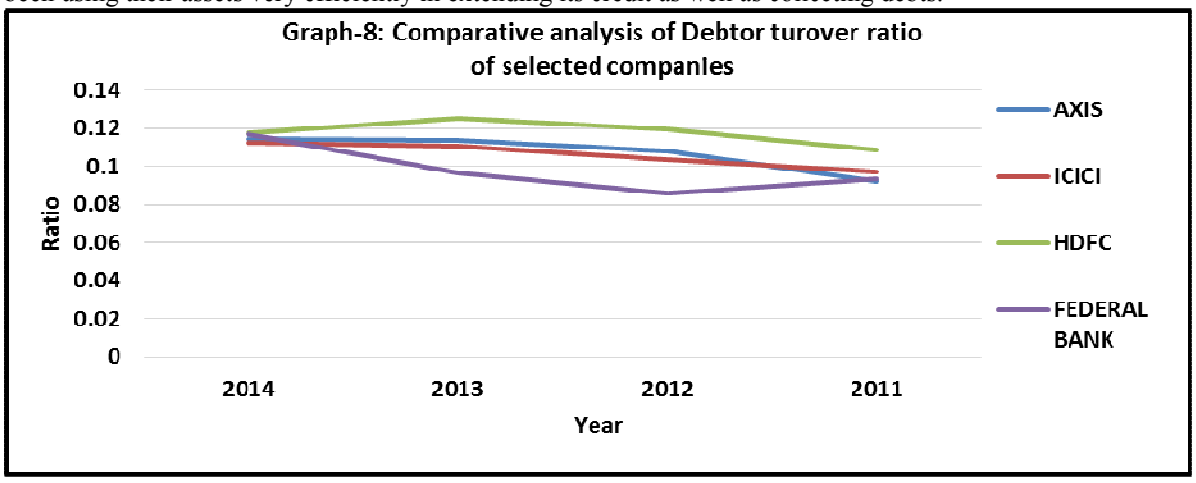
This ratio measures operating income relative to peso revenue. As a rule of thumb, a higher operating margin is preferred since lower profit margin (as compared with similar firm) may mean higher accounting costs. The profit margin in the year 2011 was highest and almost same for Axis and HDFC banks. The growth increased from 0.26 to 0.36. The margin has increased from 0.11 in 2011 to 0.17 for Federal bank in 2014. So, we can conclude that Axis and HDFC have a better control over all expenses.



4.3 Activity Ratio

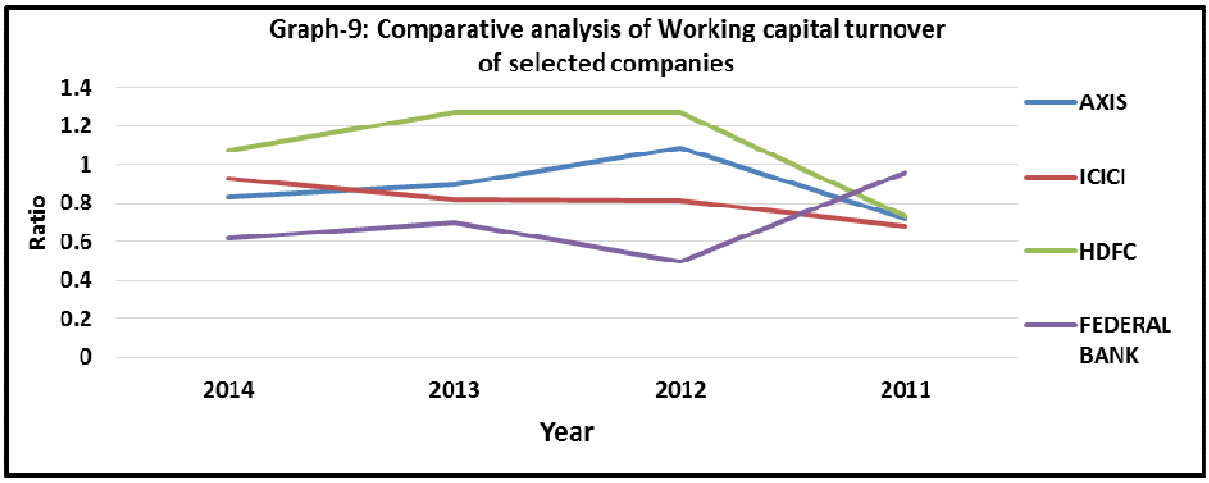
4.3.1 Debtor turnover ratio: analysis and insights

The debtor turnover ratio helps gauge the liquidity of accounts receivable, the ability of the firm to collect from customers. It may also provide information about a firm's credit policies. For instance, it is increasing over time or is higher than the industry average, the firm's credit policies could be too lenient and accounts receivable not sufficiently liquid. All banks have almost same debtor turnover ratio in 2011 and in 2014 also. So, all banks have been using their assets very efficiently in extending its credit as well as collecting debts.



4.3.2 Working capital ratio: analysis and insights

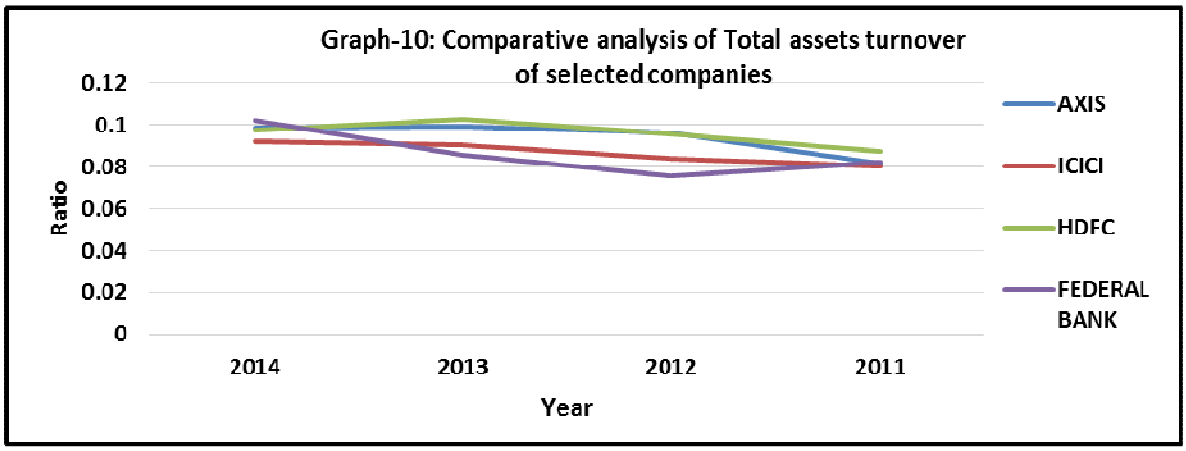
Working capital ratio has been used to find out the running or day to day financial activities. By used this ratio, one can easily find the required amount and monetary fund to meet the funds. The working capital turnover in the year 2011 was highest for federal at 0.96 followed by HDFC at 0.73, Axis at 0.72 and ICICI at 0.67. All the companies showed a rise in the ratio in the next year except federal declining at 0.49. The capital turnover ratio was going up for all companies till 2012. So, we can conclude that all HDFC had a better capital turnover than other banks.



4.4 Assets turnover ratio

4.4.1 Total assets turnover: analysis and insights

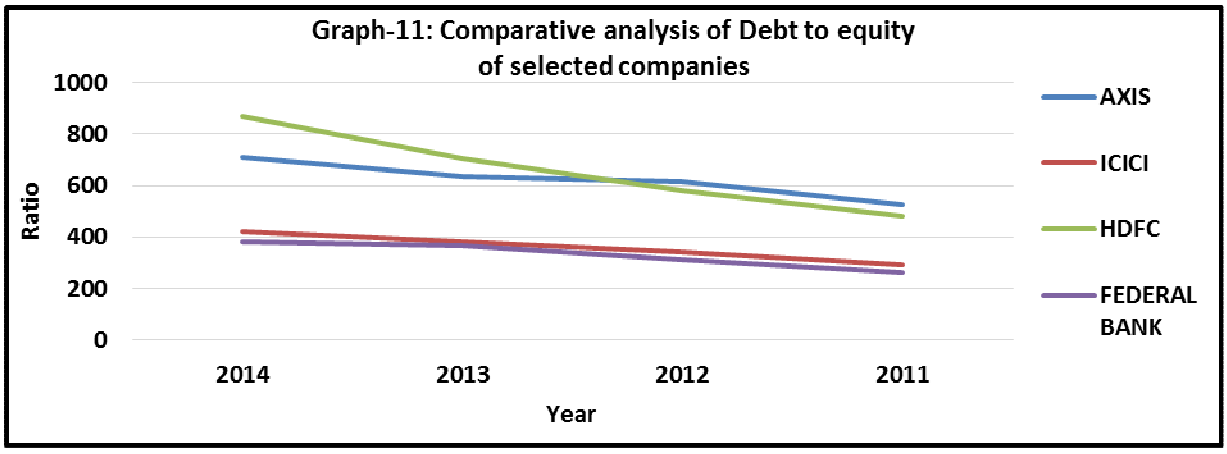
Generally, the higher this ratio is the more effective. In other words, this ratio indicates the effectiveness of using total assets to generate revenues. Similar to the previous financial ratio, as a rule of thumb, to be considered effective, it should be at least 0.30 times. Using this, it can be said that all four firms keep an effective mechanism on utilizing their total assets. In the year 2011Axis had the asset turnover of 0.081 followed by HDFC, ICICI and Federal of 0.087. The growth was same for all companies till 2013, after that Federal turnover caught up highest of 0.10 in 2014 followed by Axis, HDFC and ICICI at last. So we can conclude that over the last 4 years, Federal bank has been able to regenerate the assets to generate sales.



4.5 Leverage Ratio

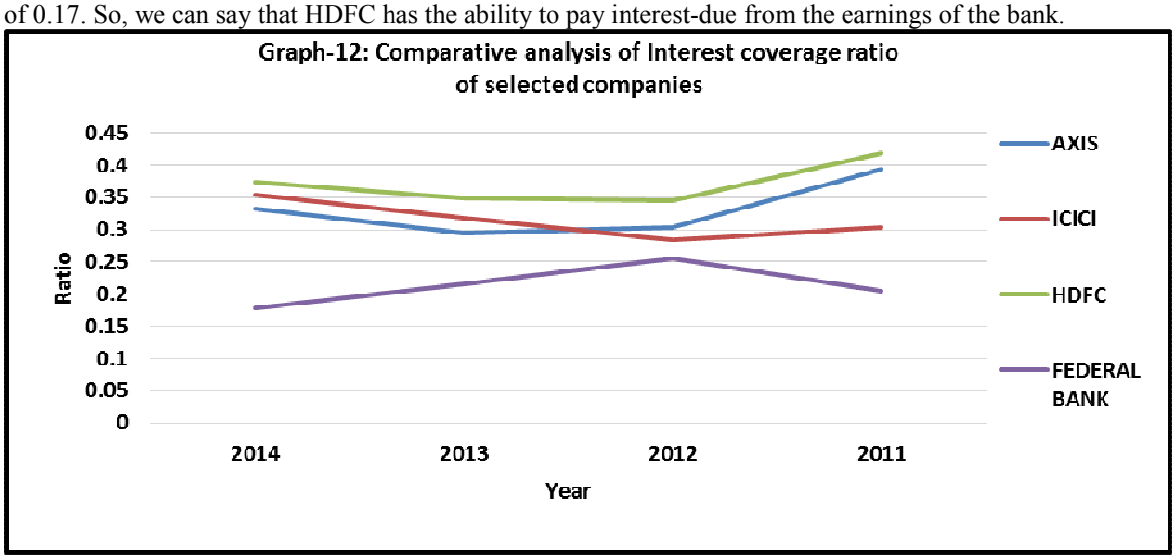
4.5.1 Debt to equity ratio: analysis and insights

This ratio shows the dependence on debt (borrowing) finance compared with equity funding. The greater is the reliance on debt financing, the greater is the level of interest and the greater the risk from exposure to rising interest rates. Firms listed on stock exchange tend to follow a pattern of raising additional finance through borrowing for a number of years and then raise equity though issuing new shares. Equity will be used more when the interest rate is too high, the share market perceives certain levels of debt funding to be bad, or market conditions favor a share issue just like in the case of rising share prices. Axis bank had a high debt to equity ratio of 524.7 in 2011 which had risen to 709.3 in 2014. Similarly, HDFC too has a high ratio ranging from 479.1 in 2011 to 868.4 in 2014. ICICI and Federal have managed to keep its ratio within the limits with the result that it enjoys lesser financial risk. Hence it can be inferred that HDFC is the best investment option among the four owing to its null debt record.



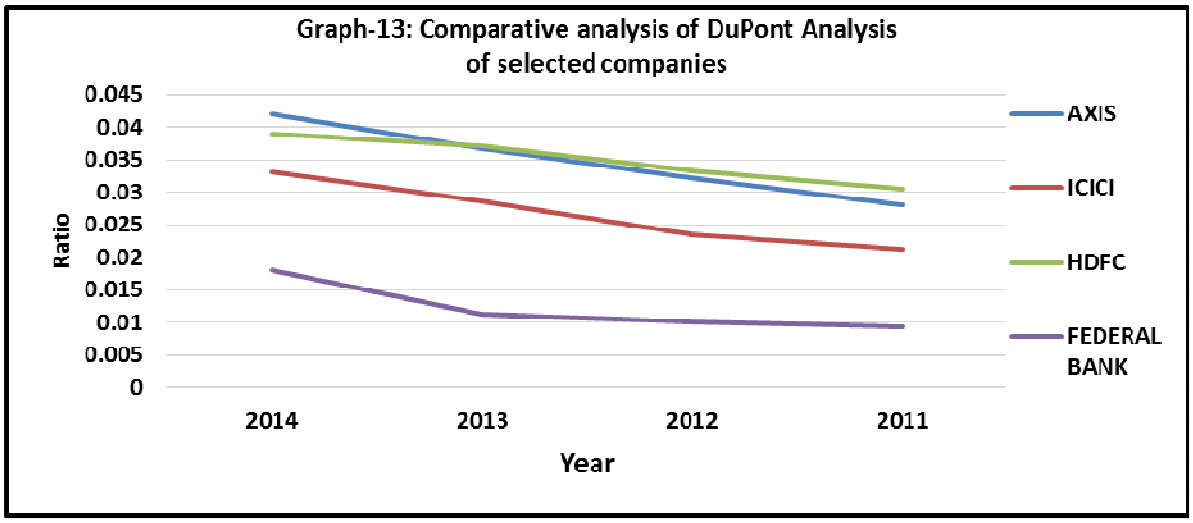
4.5.2 Interest coverage ratio: analysis and insights

The higher the times interest earned ratio the better; however, if a firm is generating high profits, but no cash flow from operations, this ratio is misleading. HDFC recorded its interest coverage ratio in 2014 of 0.37, the other values ranging from 0.41 in 2011 to 0.34 in 2013. Axis and HDFC banks had recorded its interest coverage ratio almost in the same manner. Federal had a high ratio in 2012 of 0.25 and had the lowest figures in 2014, i.e. of 0.17. So, we can say that HDFC has the ability to pay interest-due from the earnings of the bank.



4.6 DuPont analysis: analysis and insights

Having considered individual financial ratios as well as groups of financial ratios measuring short-term liquidity, operating efficiency, capital structure and long-term solvency, and profitability, it is helpful to complete the evaluation of a firm by considering the interrelationship among the individual ratios.



Conclusion

After conducting a comprehensive financial ratio analysis of the above four banks, the following conclusions are made: If liquidity ratios of all the companies are compared then it is found that only Federal bank has the ideal current ratio of 2:1. However by comparing the Profitability ratio, Activity turnover ratio, Assets turnover ratio, Leverage ratio and DuPont analysis of all the companies, it is seen that HDFC and Federal has fairly stable asset turnover ratio which indicates its efficient utilization of resources in revenue generation. Also, Federal has the best price earning ratio among other banks. The total assets turnover ratio of Federal bank shows that it keeps significantly highly assets to meet the debts. Therefore it is inferred that overall Federal bank is the most financially stable company in comparison to others.

References

Altman, I. E., R. G., Narayana, P., "Zeta Analysis: A New Model to identify Bankruptcy Risk of corporations," Journal of Banking and Finance, June 1977, 29-54.
Altman, I. E., Avery, R. B., Eisenbeis, R. A., and Sinkey, Applications of Classification Techniques in Business, Banking, and Finance, JAI Press, 1981.
Altman (1981) attempted to improve conventional ratio analysis by using multivariate analysis on a sample of manufacturing firms, 105 bankrupt firms and 2,058 non bankrupt firms.
Beaver, W. H., "Financial Ratios as Predictors of Failure," Journal of Accounting Research, supplement, 1966, 71-127.
Bhattacharya, Asish. K. (2007). "Introduction to Financial Statement Analysis", Elsevier, New Delhi , 1st edition, Chapter -03 , Ratio Analysis, pp.32-45.
Bennin, Robert, "Error Rates and COMPUSTAT: A Second Look," The Journal of Finance, Vol.
XXXV, No. 5, December 1980, 1267-1271.
Beedles, William L. and Simkowitz, Michael A., "A Note on Skewness and Data Errors," The Journal of Finance, Vol. XXXIII, No. 1, March 1978, 288-293.
Brigham, E.F. and M.C. Ehrhardt, 2010. Financial Management Theory and Practice. 13th Edn., South-Western Cengage Learning, Mason, OH, ISBN: 1439078106, pp: 1184.
Chandra Prasanna, Financial Management, Tata Mc-Graw Hill, New Delhi, 1998.
Courtenay, S. M. and Keller, S. B., "Errors in Databases - An Examination of the CRISP Shares-Outstanding Data," Accounting Review, Vol. 69, Iss 1, 1994, 285-291.
Foster, George, Financial Statement Analysis, Prentice-Hall, Englewood Cliffs, 1986.
Gupta S.P., Management Accounting, Sahitya Bhawan Publications, Agra, 2005.
Klein, B. D., Goodhue, D. L. and Davis, G. B., "Can humans detect errors in data?" MIS Quarterly, Vol. 21, Iss 2, 1997, 169-194.
Kim, Dongcheol, "A reexamination of firm size, book-to-market, and earnings price in the crosssection of expected stock returns," Journal of Financial and Quantitative Analysis, December 463- 489, 1997.
Kinney, Michael R. and Swanson, Edward P., "The accuracy and adequacy of tax data in COMPUSTAT," The Journal of the American Taxation Association, Spring 121, 1993.
Khan, M.Y. (1988). "Financial Management", Tata Mc-Graw Hill , New Delhi,1st edition, Chapter -03 , Financial Statement Analysis: Ratio Analysis, pp.114-15.
Kothari C.R., Research Methodology, New Age Publishers, New Delhi, 2004.

Lasher, W.R., 2005. Practical Financial Management. 4th Edn., South-Western College Pub., USA., ISBN-10: 0324260768, pp: 784.
Lermack, H., (2003) Steps to a basic company financial analysis. Philadelphia University, Philadelphia, USA.
Mensah, Y. M., "The Differentiated Bankruptcy Predictive Ability of Specific Price Level Adjustments: Some Empirical Evidence." The Accounting Review, 228-245.
Malhorta and McLeod, (1994) argued that the only way to assess future financial performance is through the inclusion of subjective measures.
Norton, C. L., & Smith, R. E., "A Comparison of General Price Level and Historical Cost Financial Statements in the Prediction of Bankruptcy," The Accounting Review, January, 1979, 72-87.
Ohlso (1980) concluded from his research that firm size was directly related to firm financial performance with smaller firms more likely to fail than larger ones.
Rosenberg and Houglet, "Error Rates in CRISP and COMPUSTAT Data Bases and Their Implications," Journal of Finance, Vol. 29, September 1974.
Ross, S., R. Westerfield, B. Jordan, A. Mazin and Z.F. Abidin *et al*., 2007. Financial management fundamentals in Malaysia. McGraw-Hill, Malaysia.
Tarawneh, M., (2006) a comparison of financial performance in the banking sector: Some evidence from Omani commercial banks. Int. Res. J. Finance Econ., 101-112.
Tiwari, a., and Parray, F.S., (2012) Analysis of short-term financial position – a case study of Ranbaxy ltd, Arth Prabhand: A Journal of Economics and Management, Vol.1 (6), ISSN 2278 - 0629, pp. 36-50.
Yusuf, G., and Hakan, C., (2011) Date Envelopment Analysis: An augmented method for the analysis of firm performance, International Research Journal of finance and Economics, Vol. 79.

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