

Ratio Analysis of HDFC Bank

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Abstract – Ratio analysis is the very cardinal tool of financial analysis. It defines the relationship between two items of the financial statements of the organization or company. In financial analysis, ratio helps to determine the financial status and performance of the organization. Financial ratio provides the mathematical expressions for the representation of the relationship among the financial statement's entities. Ratios also help to encapsulate the large financial data of company to tell about the performance and financial performance of the organization. Secondary data has been used by the researcher to achieve the objective of the study. The time period for the data has been studied from 2013-14 to 2017-18.

Keywords – Net Profit ratio, Return on Capital Employed ratio, Return on Assets ratio, Operating ratio etc.

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INTRODUCTION

The input data for the ratio analysis mainly comes from the Income statement and Balance sheet. The income statement tells us about the historical record of sales, revenue etc and the balance sheet provides the information about the snapshot of assets and liabilities at particular time point. The things which has to be needed from the income or profit and loss statement are such as Revenue, cost of sales, Gross Profit, net profit (profit of the year) etc. The items which could be find out from the balance sheet are current assets , current liabilities , Inventories, trade Receivables, Long term Liabilities, Capitalization etc.

OBJECTIVES OF RATIO ANALYSIS

The objectives of the ratio analysis are mentioned below:

1. Calculating profitability
2. Assessment of Operational Efficiency
3. Assure satisfactory Liquidity
4. Overall Financial Strength
5. Comparison

The ratio analysis has been classified into two types such as Traditional Analysis and the functional Analysis. These two types has been further classified

1. Traditional Analysis
2. Functional Analysis

The Traditional division has three types:

- Profit and loss Ratios
- Balance Sheet Ratios
- Composite Ratios

Profit and loss ratios: When we take both items to compare from the profit and loss account then it is known as the profit and loss account. Other names we can use for it are Income statement ratios and Revenue statement ratios. For Example, Net ratio, the both items for net profit ratio has been taken from the Profit and loss account.

Balance sheet ratios: just like the profit and loss ratio, if both the items for ratio comparison are from balance sheet then it is known as balance sheet ratios. Unlike it, if both items we take from the different accounts, then it is known as the financial ratio (other than the accounting ratio) .

For example the current ratio, in current ratio, both items are from balance sheet such as the current liabilities and the current assets. Another examples are quick ratio, Debt-equity ratio etc.

Composite Ratio: it is combines ratio. The items for the ratio analysis will be taken by the analyzer from the different accounts. The one item will be from the income statement and another one will be from the balance sheet. To illustrate, return on the capital employed is a composite ratio. The profit will be received from the income statement and capital employed can be received from the balance

sheet to find out the return on the capital employed ratio.

1. **Functional division:** Now, let us move to functional division. Here, ratios are grouped together according to the function they perform in defining and deconstruct the accounting statements of the organization.

1. Liquidity Ratio
2. Leverage Ratio
3. Activity Ratio
4. Profitability Ratio
5. Coverage Ratio

2. **Profitability Ratios:** The fundamental motive of every business is to make profit. the enhancement in profit of business is necessary for survival of it .The profitability ratios calculate the efficiency of business of using its resources efficiently to earn the profit. Various profitability ratios are mentioned below:

- Net profit ratio
- Gross profit ratio
- Price earnings ratio
- Operating ratio
- Expense ratio
- Dividend yield ratio
- Dividend payout ratio
- Earnings per share ratio
- Return on equity ratio
- Return on capital employed
- Return on common stakeholder's equity ratio

Net profit ratio: it shows the association between net profit after taxes and sales. It tells us about the overall profitability of the business after considering the operating and non-operating items of profit and loss account. It reveals how much profit has been made by the business after meeting all expense from the net sales.

Mathematical formula for net profit ratio:

Net profit ratio = net profit after tax/sales *100.

Gross profit ratio: this ratio reveals the margin profit which a organization can earn from its trading and manufacturing activity. It is renowned tool to measure operational progress of the business.

General formula to calculate gross profit margin

$$\begin{aligned} \text{Gross profit ratio} &= \frac{\text{Gross profit}}{\text{net sales}} \times 100 \\ \text{Here, gross profit} &= \text{net sales} - \text{cost of goods sold} \\ \text{Cost of goods sold} &= \text{Opening stock} + \text{Net purchases} + \text{Direct expense} - \text{Closing stock} \\ \text{Net sales} &= \text{sales} - \text{sales returns} \end{aligned}$$

Operating profit ratio: the operating profit can be calculated with comparison of cost of goods sold and other operating expenses with the net sales.

Mathematical expression:

$$\text{Operating ratio} = \frac{\text{Operating expenses}}{\text{Net sales}} \times 100$$

Expense ratio: basically, we use this formula to find out the variation in the operating profit ratio. It shows the how much portion of the sales has been consumed by the expense on the operations of the enterprise. It reveals the relationship between the operating expenses and the net volume of the sales.

Formula:

$$\text{Expense ratio} = \frac{\text{Particular expense}}{\text{Net sales}} \times 100$$

Dividend Yield Ratio : this ratio reveals about the how much company annually gives to the stakeholders as dividend according to the market price of the share .most of the time, investors use it for having a look at dividend earning on constant basis .

Formula:

$$\text{Dividend yield ratio} = \frac{\text{Dividend per share}}{\text{Market value per share}}$$

Return on capital employed ratio: it tells us about business is able to generate sufficient business from the money invested in the business. This ratio is represented in the percentage.

$$\text{ROCE ratio} = \frac{\text{Income before interest \& tax}}{\text{Capital employed}}$$

Earnings per share ratio: It quantifies how much dollar of net earnings have been gained by share of

common stock .it is renowned for quantifying the overall profitable status of the firm and express in terms of dollar.

$$\text{EPS ratio} = \frac{\text{Net income - Preferred dividend}}{\text{Weighted average number of shares outstanding}}$$

The mathematical expression is like the formula for return on common stakeholder's equity ratio, but the difference is in the denominator of earning per share ratio mathematical expression the number of average share of common stock outstanding instead of common stakeholder's equity.

Return on equity: it reveals the overall profitability of the enterprise .it can be calculated net income after excluding the tax and interest from it by mean of stakeholder's equity.

$$\text{Return on total equity or return on stockholders' investment ratio} = \frac{\text{Income after interest \& tax}}{\text{Total average stockholders' equity}}$$

Return on common stakeholder's equity ratio: the return on stakeholder's equity ratio quantify that how successfully the company is generating the money for the benefits of the stakeholders. Most the time, ratio is represented in the percentage.

$$\text{Return on common stockholders' equity ratio} = \frac{\text{Net income - Preferred dividend}}{\text{Average common stockholders' equity}}$$

HDFC is India's head lodging account organization and appreciates a perfect reputation in India just as in worldwide markets. Since its beginning in 1977, the Corporation has kept up a steady and sound development in its activities to remain the market chief in home loans. Its extraordinary advance portfolio covers well over a million staying units. HDFC has created noteworthy skill in retail contract advances to various market portions and furthermore has an expansive corporate customer base for its lodging related credit offices. With its involvement in the money related markets, solid market notoriety, extensive investor base and extraordinary buyer establishment, HDFC was in a perfect world situated to advance a bank in the Indian condition.

REVIEW OF LITERATURE

Jinwei Zhu (2019): the objective of the study was to look at the changed effects of six factors on firm mechanical advancement execution in various innovative ventures in China. Through a relative investigation of information about development undertakings showcase board (GEM)- recorded organizations, this examination endeavors to get a few ends, to help firms in various cutting edge ventures use assets all the more normally and to improve mechanical advancement execution all the more viably plan/strategy/approach.

B.D. Belan and D.V. Simonenkov (2018): for the historical knowledge of Tom– Obinterfluve, we played out the relative examination of the chemical composition of water-and corrosive solvent vaporized divisions in dry stores, combined with an estimation of the proportion of submicron and coarse parts in close ground airborne in this foundation area, and an investigation of their mineral and material arrangement utilizing checking electron microscopy. Contrasts in the proportions of metals between the water-and corrosive solvent portions are uncovered. It is sensibly speculated that water-(corrosive) solvent mixes are essentially contained in the submicron (coarse) part.

Ahmad Azman Sulaiman (2018) : this study checks the strength of various banks held in Malaysia by using descriptive design based on variable inside the organization .the featur of bank are liquidity ratios , turnover ratio etc.

Research method: here, the Z-test had been used to check the strength by using records of financial statements of banks from 2000 -2011. The study showed the distinction between Islamic and the conventional banks. Islamic banks give less loan of money to cover defective loans than conventional banks in the matter of profitability ratio, the conventional banks have high profitability because of higher assets and Islamic banks have greater profitability ratio, because of the higher equity. The 11 conventional and 8 Islamic banks of Malaysia have stronger financial status. Both banks have to work and have to make condition better for uncertain economic failure and increased competition.

Faris Alshubiri (2018): This paper expects to survey and observationally break down the effect of marine generation fabricating on total national output (GDP) pointers as a similar report in Gulf Cooperation Council (GCC) nations. This investigation utilized systematic quantitative ways to deal with survey the effect of marine generation producing on GDP between GCC nations over the period from 2007 to 2015. The information was gathered from Global Competitiveness Reports amid 2006-2016 and from Food and Agriculture Organization of the United Nations, FAO 2015 reports.

Akihito Amai (2017): This research studies the current debt over pay ratio rulemaking in the united kingdom. In the United States, the Securities and Exchange Commission issued a standard that requires open organizations to uncover the proportion of the yearly pay of their CEO to the middle of their representatives' compensation in 2015. The United Kingdom has considered making a comparable standard under Prime Minister Theresa May.

Ravichandran, M. & Subramaniam M. Vankata (2016) : the main logic behind this study was to look at Force motors limited's study reliability, flexibility and profitability .the expense on the operations can be checked with the help of ratio analysis such as solvency ratios, liquidity ratios etc, it provides the relationship between short term capital , capital budgeting and earned benefits of the company.

Mathur Shivam and Aggarwal Karathi (2016): Ratios are brilliant and logical way to confirm the financial status of the firm .the company received many prizes and accomplishment because of new discoveries and advances in technology.

Jothi, K. & Geethalakshami, A (2016): this study tried to quantify the profitability and finance status of the chosen Indian automobile companies with the help of statistics tools such as mean deviation, ratio analysis, correlation etc.

Kumar Mohan M. S , vasu.V. Narayan .T (2016): this study contains different ratios such as current ratio, net profit ratio, etc. and another various mathematical tools like mean, standard deviation, and then they applied z test and check the scores which shows the great correlation between the stability and profitability ratios excluding the return on assets and z-scores reveals the great financial status of the organization.

Kaur Harpreet (2016): The researcher tries to check the quality and quantity performance of the Maruti Suzuki in the India in last few years. The scholar took secondary data from the official websites and analyze with the help of financial ratio assets .the ratios shows the company is doing well with good financial status in automobile industries.

Hari Govinda Rao and et. al. (2013): This study contains the ratio analyses on the performance of the **Private Housing Corporation In India** .the main focus was on quantifying the profitability and liquidity ratio to check the financial status of the company .basically, there is trade-off between the liquidity and profitability to attain the fortunate financial status .the main aim of the study was to check the finance status and its significances .the scholar find out the satisfactory level of profitability and liquidity . Shareholders can invest their money without risk.

RESEARCH METHODOLOGY

Need of the Study

The examination will persuade different specialists to make further investigation on improving the money related position of the organizations. The scientist's trusts that this investigation will offer ides to the organizations with respect to their monetary position through budgetary examination and can propose measures for further improving the money related

position of the organizations in coming future to boost their investors riches.

OBJECTIVES OF THE STUDY

1. To analyse the liquidity position of the HDFC Bank.
2. To compare the profitability of the HDFC Bank and indicating the overall efficiency of the Bank.
3. To make conclusion and suggestions.

THE RESEARCH DESIGN

Research configuration implies a general structure or plan for the exercises to be attempted over the span of an examination ponder. It includes choices with respect to what, where, when, how much and by what implies concerning an examination consider. It establishes a blue print for the gathering, estimation and investigation of information. Descriptive research design has been used by the researcher to achieve the objectives of the study.

Information Collection

Secondary sources of data has been used by the researcher to achieve the objectives of the study.

Data Analysis

For estimating different wonders and examining the gathered information successfully and effectively to make sound inferences, distinctive proportions have been utilized. The gathered information were altered, characterized and classified for investigation. The investigative apparatus utilized in this examination is graphical strategy to think about the execution of Various Banks .The MS-Excel instrument is utilized to break down the information.

Limitations of the study

- All of the information used in ratio analysis is derived from actual historical results. This does not mean that the same results will carry forward into the future.
- The information on the income statement is stated in current costs (or close to it), whereas some elements of the balance sheet may be stated at historical cost (which could vary substantially from current costs). This disparity can result in unusual ratio results.
- If the rate of inflation has changed in any of the periods under review, this can mean

that the numbers are not comparable across periods.

- The information in a financial statement line item that you are using for a ratio analysis may have been aggregated differently in the past, so that running the ratio analysis on a trend line does not compare the same information through the entire trend period.
- A company may change its underlying operational structure to such an extent that a ratio calculated several years ago and compared to the same ratio today would yield a misleading conclusion.

DATA ANALYSIS AND INTERPRETATIONS

Profitability ratio

(i) Net profit ratio = net profit after tax / net income *100

Table 4.1

| Year | Net profit after tax | Net income | Ratio |
|------|----------------------|------------|-------|
| 2018 | 6777.42 | 72385.52 | 9.3 |
| 2017 | 9801.09 | 73660.76 | 13.3 |
| 2016 | 9726.29 | 68062.48 | 14.2 |
| 2015 | 11175.35 | 61267.27 | 18.2 |
| 2014 | 9810.48 | 54606.02 | 17.9 |

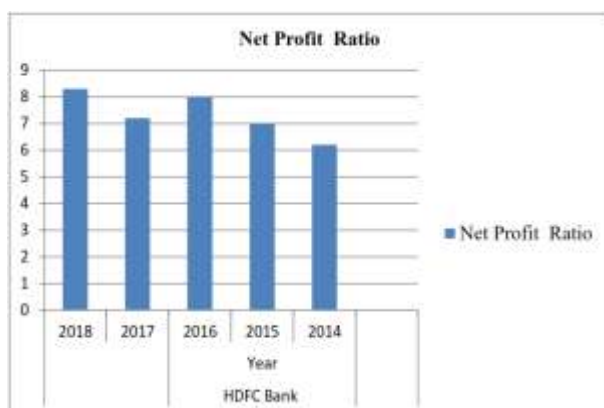


Figure 4.1

INTERPRETATIONS: From the above table and graph it has been found that the net profit ratio of the HDFC Company was highest in the year 2015 which was 18.2. It states that the company was in most profitable state in year 2015, when the company was sure about the satisfactory money back on its investment. The company was in position to defend itself from the economic crisis in 2015 in comparison with other four years.

(ii) Operating Ratio: operating expense/net income *100

Table 4.2

| Year | Operating Expense | Net income | Ratio |
|------|-------------------|------------|-------|
| 2018 | 15703.94 | 72385.52 | 9.2 |
| 2017 | 14755.06 | 73660.76 | 9.3 |
| 2016 | 12683.53 | 68062.48 | 8.63 |
| 2015 | 11495.83 | 61267.27 | 8.76 |
| 2014 | 10308.86 | 54606.02 | 8.87 |

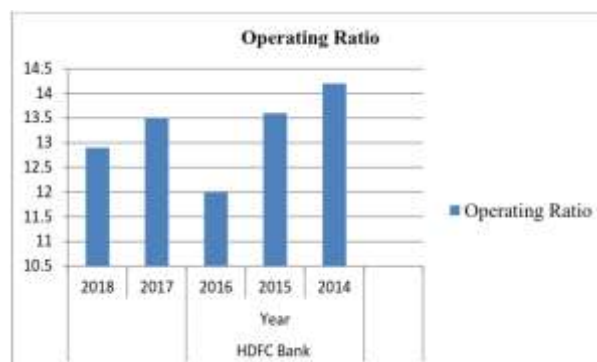


Figure 4.2

INTERPRETATIONS: The greatest operating ratio is in the year 2014. There is slight distinction between the ratios of 2018 and 2017. It reveals that the bank was in good running position in 2014 and 2015 as compared to the years 2014, 2015 and 2016.

(iii) Return on capital employed Ratio: Income before interest and tax / capital employed

Table 4.3

| Year | Income | Capital Employed | Ratio |
|------|----------|------------------|-------|
| 2018 | 95461.66 | 21519.02 | 16.5 |
| 2017 | 81602.46 | 12512.51 | 14.2 |
| 2016 | 70973.17 | 3505.64 | 12.21 |
| 2015 | 57466.25 | 4501.30 | 12.1 |
| 2014 | 49055.17 | 5479.81 | 10.2 |

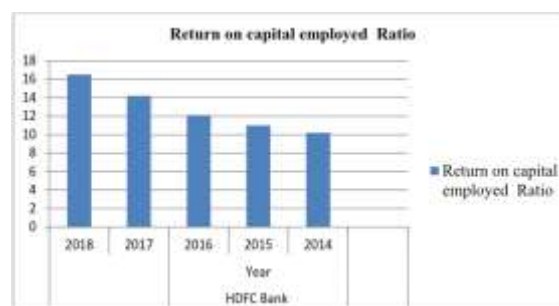


Figure 4.3

INTERPRETATIONS: The bank has gained maximum benefit from its invested money in the year 2018 which is 16.2. The performance in the matter of benefit from the invested money is lowest in the year 2014. The profit generation from invested capital is increasing with every successive year.

(iv) **Return on Assets: Net income/total Assets * 100**

Table 4.4

| Year | Net Income | Total Assets | Ratio |
|------|------------|--------------|-------|
| 2018 | 95461.66 | 106934.311 | 8.96 |
| 2017 | 81602.46 | 863840.20 | 9.44 |
| 2016 | 70973.17 | 708845.57 | 10.0 |
| 2015 | 57466.25 | 590503.07 | 9.73 |
| 2014 | 49055.17 | 491599.50 | 9.97 |

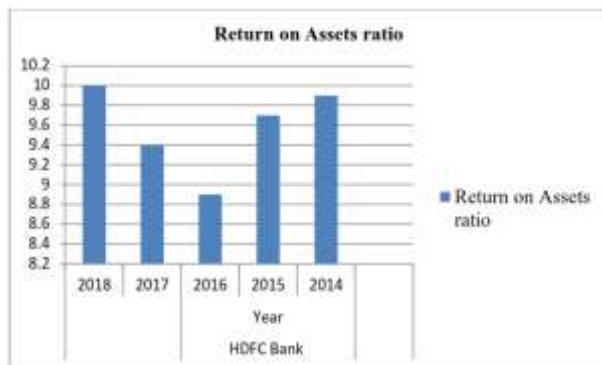


Figure 4.4

INTERPRETATIONS The table and graph depicts that in the year 2016, the company was highly proficient in transforming its fixed assets into liquid or cash in the net income. Company used its assets in well-organized way to generate maximum profit from them in the year 2016 i.e. 10.0. The bank's capability to quickly convert its assets into cash was same.

(v) **Return on equity ratio: Net income /shareholder's equity *100**

Table 4.5

| Year | Ratio | Net income | Shareholder's Equity |
|------|-------|--------------------|----------------------|
| 2018 | 18.7 | 95461.66-40146.49 | 29422.81 |
| 2017 | 10.7 | 81602.46-361669.93 | 2821.06 |
| 2015 | 9.8 | 70973.17-32629.93 | 2401.78 |
| 2016 | 10.3 | 57466.25-26074.24 | 2005.20 |
| 2014 | 1.0 | 49055.17-22652.90 | 1643.35 |



Figure 4.5

INTERPRETATIONS: The bank receives highest return on equity in the year 2018 which is 18.7. So the bank will utilize the shareholder's money in better way in the year 2018 as compared to other four years.

CONCLUSION AND SUGGESTIONS

In this study we checked the profitability of HDFC bank. According to the current ratio HDFC had the higher liquidity in the 2018 which was 1.3. HDFC had highest profitability in 2018 as per the net profit ratio. The topmost return of capital employed of HDFC bank was in the year 2018. The assets turnover ratio of HDFC was 18.7 in 2018 which was highest among all the years.

The bank has to improve the efficiency of utilization of their assets. The bank should pay attention to the long term investments more as per record of the previous years. The bank has needed to improve the liquidity position. HDFC bank should focus on the operating expense. They should do more funding from equity as compared to the funding from the debt.

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