

A
RESEARCH PROJECT ON
**“FINANCIAL AND RATIO ANALYSIS
OF INFOSYS”**

For the partial fulfillment of the requirement of
Bachelor of Business Administration
(2019- 2022)

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Financial Ratio analysis of INFOSYS

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April,2022

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April,2022

Certificate of Approval

The following Research Project Report titled "**Financial Ratio analysis of Infosys**" is here by approved as a certified study in management carried out and presented in an annersat is factory to warrant its acceptance as a prerequisite for the award of **Bachelor of Business Administration** for which it has been submitted. It is understood that by this approval theundersigned do not necessarily endorse or approve any statement made, opinion expressed orconclusion drawn therein but approve the ResearchProject Report only for thepurpose it is submitted to the Research Project Report Examination Committee forevaluationofResearch ProjectReport.

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This is to certify that **Mr. Tanmay Chirania**, a student of the **Bachelor of Business Administration** has worked under my guidance and supervision. This Research Project Report has the requisite standard and to the best of my knowledge no part of it has been reproduced from any other research project, monograph, report or book.

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Executive Summary

As a manager, you may want to reward employees based on their performance. How do you know how well they have done? How can you determine what departments or divisions have performed well? As a lender, how do you decide the borrower will be able to pay back as promised? As a manager of a corporation how do you know when existing capacity will be exceeded and enlarged capacity will be needed? As an investor, how do you predict how well the securities of one company will perform relative to that of another? How can you tell whether one security is riskier than another? We can address all of these questions through financial analysis.

Financial analysis is the selection, evaluation, and interpretation of financial data, along with other pertinent information, to assist in investment and financial decision-making. Financial analysis may be used internally to evaluate issues such as employee performance, the efficiency of operations, and credit policies, and externally to evaluate potential investments and the credit-worthiness of borrowers, among other things.

The analyst draws the financial data needed in financial analysis from many sources. The primary source is the data provided by the company itself in its annual report and required disclosures. The annual report comprises the income statement, the balance sheet, and the statement of cash flows, as well as footnotes to these statements. Certain businesses are required by securities laws to disclose additional information.

Besides information that companies are required to disclose through financial statements, other information is readily available for financial analysis. For example, information such as the market prices of securities of publicly-traded corporations can be found in the financial press and the electronic media daily. Similarly, information on stock price indices for industries and for the market as a whole is available in the financial press.

Another source of information is economic data, such as the Gross Domestic Product and Consumer Price Index, which may be useful in assessing the recent performance or future prospects of a company or industry. Suppose you are evaluating a company that owns a chain of retail outlets. What information do you need to judge the company's performance and financial condition? You need financial data, but it doesn't tell the whole story. You also need information on consumer spending, producer prices, consumer prices, and the competition. This is economic data that is readily available from government and private sources.

Besides financial statement data, market data, and economic data, in financial analysis you also need to examine events that may help explain the company's present condition and may have a bearing on its future prospects. For example, did the company recently incur some extraordinary losses? Is the company developing a new product? Or acquiring another company? Is the company regulated? Current events can provide information that may be incorporated in financial analysis.

The financial analyst must select the pertinent information, analyze it, and interpret the analysis, enabling judgments on the current and future financial condition and operating performance of the company. In this project, I aim to give a brief

understanding of financial ratios -- the tool of financial analysis. In financial ratio analysis we select the relevant information -- primarily the financial statement data - and evaluate it. We show how to incorporate market data and economic data in the analysis and interpretation of financial ratios. And we show how to interpret financial ratio analysis, warning you of the pitfalls that occur when it's not used properly.

This analysis aims to compute and analyse the financial performance of the Infosys to have a deep understanding of its financial policies.

Acknowledgement

The final outcome of this project required a lot of guidance and assistance from many people and I am extremely fortunate to have got this all along the completion of my project work.

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Introduction

About ratio analysis

The ratio analysis is the most powerful tool of financial analysis. Several ratios calculated from the accounting data can be grouped into various classes according to financial activity or function to be evaluated.

Definition:

Ratio is “The indicate quotient of two mathematical expressions “and as “The relationship between two or more things

Ratio analysis is a quantitative method of gaining insight into a company's liquidity, operational efficiency, and profitability by studying its financial statements such as the balance sheet and income statement. Ratio analysis is a cornerstone of fundamental equity analysis.

“It evaluates the financial position and performance of the firm.

As started in the beginning many diverse groups of people are interested in analysing financial information to indicate the operating and financial efficiency and growth of firm. These people use ratios to determine those financial characteristics of firm in which they interested.

With the help of ratios one can determine-

- The ability of the firm to meet its current obligations.
- The extent to which the firm has used its long-term solvency by borrowing funds.
- The efficiency with which the firm is utilizing its assets in generating the sales revenue.
- The overall operating efficiency and performance of firm.

The information contained in these statements is used by management, creditors, investors and others to form judgment about the operating performance and financial position of firm. Uses of financial statement can get further insight about financial strength and weakness of the firm if they properly analyse information reported in these statements.

Management should be particularly interested in knowing financial strength of the firm to make their best use and to be able to spot out financial weaknesses of the firm to take suitable corrective actions. The further plans firm should be laid down in new of the firm's financial strength and weaknesses. Thus, financial analysis is the starting point for making plans before using any sophisticated forecasting and planning procedures. Understanding the past is a prerequisite for anticipating the future.

NEED OF RATIO ANALYSIS

The study enables us to have access to various facts of the organization. It helps in

understanding the needs for the importance and advantage of materials in the organization, the study also helps to expose our minds to the integrated materials management the various procedures, methods and technique adopted by the organization. The study provides knowledge about how the theoretical aspects are put in the organization in terms of described below-

- To pay wages and salaries.
- For the purchase of raw materials, spares and component parts.
- To incur day-to-day expenses.
- To meet selling costs such as packing, advertising.
- To provide credit facilities to customers.
- To maintain inventories and raw materials, work-in-progress and finished stock.

For ratios to be useful and meaningful, they must be:

- Calculated using reliable, accurate financial information (does your financial information reflect your true cost picture?)
- Calculated consistently from period to period
- Used in comparison to internal benchmarks and goals
- Used in comparison to other companies in your industry
- Viewed both at a single point in time and as an indication of broad trends and issues over time
- Carefully interpreted in the proper context, considering there are many other important factors and indicators involved in assessing performance.

OBJECTIVES OF STUDY

1. To study and analyse the financial position of the Company through ratio analysis.
2. To suggest measures for improving the financial performance of organization.
3. To analyse the profitability position of the company.
4. To assess the return on investment.
5. To analyse the asset turnover ratio.
6. To determine the solvency position of company.
7. To suggest measures for effective and efficient usage of inventory.

This analysis tends to recognize the financial health and performance of Infosys using its financial statement analysis for the years; 2017, 2018, 2019, 2020 and 2021 respectively. After the analysis of different ratios; liquidity, activity, efficiency supported by figures of Infosys.

Company Profile



Background of Infosys

Infosys was established in the year 1981 in the name of “Infosys Consultants Private Limited”. They had become public limited company in the year 1992 and changed their name to “Infosys Technologies Limited” which was again renamed in 2011 as “Infosys Limited”. Due to company’s world-wide development in the IT and ITES sector they have reached certain top position not only in business but also the in the minds of people.

INTRODUCTION TO INFOSYS

ESTABLISHMENT

HISTORYOFINFOSYS

MISSIONANDVISION

Infosys is a reputed global consulting and IT services company established in 1981. This NASDAQ listed company was established in Pune, India by N.R. Narayana Murthy and six engineers with US \$ 250 as initial capital. Today with its strong business strategy and IT strength, it has grown to become a US \$ 4.8 billion company with a market capitalization of approximately US \$ 33 billion.

MISSION

“To be a globally respected corporation that provides best-of-breed business solutions.

Leveraging technology, delivered by best-in-class people.”

Infosys does not just want to be a corporation which just focuses on increasing its business and revenue, rather its vision is to be a corporation which provides best business solution by indulging best talented people and eventually to become a reputed and respected corporation.

VISION

“To achieve our objectives in an environment of fairness, honesty, and court towards our clients, employeesvendors and society at large.”

Infosys focuses on maintaining fairness, honesty and courtesy towards their clients, employees, vendors and society in their path of achieving their objective.

They believe that these three key aspects were the main factors in achieving their vision.

PERFORMANCEWITHPURPOSE

Infosys provides software development, maintenance and independent validation services to companies in finance, insurance, manufacturing and other domains.

One of its known products is Finacle which is a universal banking solution with various modules for retail and corporate banking.

OURMISSION

"To achieve our objectives in an environment of fairness, honesty and courtesy towards our clients, employees, vendors and society at large."

OURVISION

The goal was to see what a real, global attempt at sustainable development – with all the radical policy and lifestyle changes this would entail

Methodology

For this project, an exploratory research design has been adopted.

Exploratory research is one which is largely interprets and 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 suggestions based on research finding.

This report is based on the secondary data, however primary data collection was given more importance since it is an overheard factor in attitude studies. One of the most important uses of research methodology is that it helps in identifying the problem, collecting, analysing the required information data and providing alternative solutions to the problem and also help in collecting the vital information that is required by

the top management to assist them for the better decision making both day to day decisions and critical ones but because of this pandemic we are not able to collect data from primary methods that's why everything is based on secondary data.

Data Source: Research has been done by secondary data collection and it has been collected through various websites, and internet searches basically based on past records. Company balance sheet and profit and loss account. secondary data is second hand information.

The data of Infosys for five consecutive years; 2017 to 2021 are presented. And the data are obtained from the financials of yahoo finance.

The methodology followed here is the horizontal analysis, as the financial data is compared over a consecutive reporting period of 5 years.

Review of literature

Advantages of Ratio Analysis

The ratio analysis if properly done improves the user's understanding of the efficiency with which the business is being conducted. The numerical relationships throw light on many latent aspects of the business. If properly analysed, the ratios make us understand various problem areas as well as the 204 Accountancy : Company Accounts and Analysis of Financial Statements bright spots of the business. The knowledge of problem areas help management take care of them in future. The knowledge of areas which are working better helps you improve the situation further. It must be emphasised that ratios are means to an end rather than the end in themselves. Their role is essentially indicative and that of a whistle blower. There are many advantages derived from ratio analysis.

These are summarised as follows:

1. Helps to understand efficacy of decisions: The ratio analysis helps you to understand whether the business firm has taken the right kind of operating, investing and financing decisions. It indicates how far they have helped in improving the performance.
2. Simplify complex figures and establish relationships: Ratios help in simplifying the complex accounting figures and bring out their relationships. They help summarise the financial information effectively and assess the managerial efficiency, firm's creditworthiness, earning capacity, etc.
3. Helpful in comparative analysis: The ratios are not be calculated for one year only. When many year figures are kept side by side, they help a great deal in exploring the trends visible in the business. The knowledge of trend helps in making projections about the business which is a very useful feature.
4. Identification of problem areas: Ratios help business in identifying the problem areas as well as the bright areas of the business. Problem areas would need more attention and bright areas will need polishing to have still better results.
5. Enables SWOT analysis: Ratios help a great deal in explaining the changes occurring in the business. The information of change helps the management a great deal in understanding the current threats and opportunities and allows business to do its own SWOT (Strength Weakness-Opportunity-Threat) analysis.
6. Various comparisons: Ratios help comparisons with certain bench marks to assess as to whether firm's performance is better or otherwise. For this purpose, the profitability, liquidity, solvency, etc. of a business, may be compared:
 - (i) over a number of accounting periods with itself (Intra-firm Comparison/Time Series Analysis),
 - (ii) with other business enterprises (Inter-firm Comparison/Cross-sectional Analysis) and
 - (iii) with standards set for that firm/industry (comparison with standard (or industry expectations)).

Limitations of Ratio Analysis

Since the ratios are derived from the financial statements, any weakness in the original financial statements will also creep in the derived analysis in the form of Accounting Ratios 205 ratio analysis. Thus, the limitations of financial statements also form the limitations of the ratio analysis. Hence, to interpret the ratios, the users should be aware of the rules followed in the preparation of financial statements and also their nature and limitations. The limitations of ratio analysis which arise primarily from the nature of financial statements are as under:

1. **Limitations of Accounting Data:** Accounting data give an unwarranted impression of precision and finality. In fact, accounting data “reflect a combination of recorded facts, accounting conventions and personal judgements which affect them materially. For example, profit of the business is not a precise and final figure. It is merely an opinion of the accountant based on application of accounting policies. The soundness of the judgement necessarily depends on the competence and integrity of those who make them and, on their adherence, to Generally Accepted Accounting Principles and Conventions”. Thus, the financial statements may not reveal the true state of affairs of the enterprises and so the ratios will also not give the true picture.
2. **Ignores Price-level Changes:** The financial accounting is based on stable money measurement principle. It implicitly assumes that price level changes are either non-existent or minimal. But the truth is otherwise. We are normally living in inflationary economies where the power of money declines constantly. A change in the price-level makes analysis of financial statement of different accounting years meaningless because accounting records ignore changes in value of money.
3. **Ignore Qualitative or Non-monetary Aspects:** Accounting provides information about quantitative (or monetary) aspects of business. Hence, the ratios also reflect only the monetary aspects, ignoring completely the non-monetary (qualitative) factors.
4. **Variations in Accounting Practices:** There are differing accounting policies for valuation of inventory, calculation of depreciation, treatment of intangibles Assets definition of certain financial variables etc., available for various aspects of business transactions. These variations leave a big question mark on the cross-sectional analysis. As there are variations in accounting practices followed by different business enterprises, a valid comparison of their financial statements is not possible.
5. **Forecasting:** Forecasting of future trends based only on historical analysis is not feasible. Proper forecasting requires consideration of non-financial factors as well.

Now let us talk about the limitations of the ratios. The various limitations are:

1. **Means and not the End:** Ratios are means to an end rather than the end by itself. 206 Accountancy: Company Accounts and Analysis of Financial Statements
2. **Lack of ability to resolve problems:** Their role is essentially indicative and of whistleblowing and not providing a solution to the problem.
3. **Lack of standardised definitions:** There is a lack of standardised definitions of various concepts used in ratio analysis. For example, there is no standard definition of liquid liabilities. Normally, it includes all current liabilities, but sometimes it refers to current liabilities less bank overdraft.

4. Lack of universally accepted standard levels: There is no universal yardstick which specifies the level of ideal ratios. There is no standard list of the levels universally acceptable, and, in India, the industry averages are also not available.

5. Ratios based on unrelated figures: A ratio calculated for unrelated figures would essentially be a meaningless exercise. For example, creditors of Rs. 1,00,000 and furniture of Rs. 1,00,000 represent a ratio of 1:1. But it has no relevance to assess efficiency or solvency. Hence, ratios should be used with due consciousness of their limitations while evaluating the performance of an organisation and planning the future strategies for its improvement.

Financial analysis

Financial analysis is the process of identifying the financial strengths and weakness of the firm. It is done by establishing relationships between the items of financial statements viz., balance sheet and profit and loss account. Financial analysis can be undertaken by management of the firm, viz., owners, creditors, investors and others.

Objectives of the financial analysis-

Analysis of financial statements may be made for a particular purpose in view.

1. To find out the financial stability and soundness of the business enterprise.
2. To assess and evaluate the earning capacity of the business
3. To estimate and evaluate the fixed assets, stock etc., of the concern.
4. To estimate and determine the possibilities of future growth of business.
5. To assess and evaluate the firm's capacity and ability to repay short- and long-term loans

Parties interested in financial analysis

The users of financial analysis can be divided into two broad groups. Internal users-

1. Financial executives
2. Top

management

External users-

1. Investors
2. Creditor.
3. Workers
4. Customers
5. Government
6. Public

7. Researchers

Significance of financial analysis

Financial analysis serves the following purpose:

- **To know the operational efficiency of the business:**
The financial analysis enables the management to find out the overall efficiency of the firm. This will enable the management to locate the weak spots of the business and take necessary remedial action.
- **Helpful in measuring the solvency of the firm:**
The financial analysis helps the decision makers in taking appropriate decisions for strengthening the short-term as well as long-term solvency of the firm.
- **Comparison of past and present results:**
Financial statements of the previous years can be compared and the trend regarding various expenses, purchases, sales, gross profit and net profit can be ascertained.
- **Helps in measuring the profitability:**
Financial statements show the gross profit, & net profit.
- **Inter-firm comparison:**
The financial analysis makes it easy to make inter-firm comparison. This comparison can also be made for various time periods.
- **Bankruptcy and Failure:**
Financial statement analysis is a significant tool in predicting the bankruptcy and the failure of the business enterprise. Financial statement analysis accomplishes this through the evaluation of the solvency position.
- **Helps in forecasting:**
The financial analysis will help in assessing future development by making forecasts and preparing budgets.

Classification of ratios

A ratio is a mathematical relation between one quantity and another. Suppose you have 200 apples and 100 oranges. The ratio of apples to oranges is $200 / 100$, which we can more conveniently express as 2:1 or 2. A financial ratio is a comparison between one bit of financial information and another. Consider the ratio of current assets to current liabilities, which we refer to as the current ratio. This ratio is a comparison between assets that can be readily turned into cash -- current assets -- and the obligations that are due in the near future -- current liabilities. A current ratio of 2:1 or 2 means that we have twice as much in current assets as we need to satisfy obligations due in the near future.

Ratios can be classified according to the way they are constructed and their general characteristics. By construction, ratios can be classified as a coverage ratio, a return ratio, a turnover ratio, or a component percentage:

1. A *coverage ratio* is a measure of a company's ability to satisfy (meet) particular obligations.
2. A *return ratio* is a measure of the net benefit, relative to the resources expended.
3. A *turnover ratio* is a measure of the gross benefit, relative to the resources expended.
4. A *component percentage* is the ratio of a component of an item to the item.
- 5.

When we assess a company's operating performance, we want to know if it is applying its assets in an efficient and profitable manner. When we assess a company's financial condition, we want to know if it is able to meet its financial obligations.

There are six aspects of operating performance and financial condition we can evaluate from financial ratios:

1. A *liquidity ratio* provides information on a company's ability to meet its short-term, immediate obligations.
2. A *profitability ratio* provides information on the amount of income from each dollar of sales.
3. An *activity ratio* relates information on a company's ability to manage its resources (that is, its assets) efficiently.
4. A *financial leverage ratio* provides information on the degree of a company's fixed financing obligations and its ability to satisfy these financing obligations.

Types of ratios

Management is interested in evaluating every aspect of firm's performance. In view of the requirement of the various users of ratios, we may classify them into following four important categories:

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

1) Liquidity Ratio

It is essential for a firm to be able to meet its obligations as they become due.

Liquidity ratios demonstrate a company's ability to pay its current obligations. In other words, they relate to the availability of cash and other assets to cover accounts payable, short-term debt, and other liabilities. All small businesses require a certain degree of liquidity in order to pay their bills on time, though start-up and very young companies are often not very liquid. In mature companies, low levels of liquidity can indicate poor management or a need for additional capital. Any company's liquidity may vary due to seasonality, the timing of sales, and the state of the economy.

Liquidity Ratios help in establishing a relationship between current assets and other current obligations to provide a quick measure of liquidity. A firm should ensure that it does not suffer from lack of liquidity and also that it does not have excess liquidity. A very high degree of liquidity is also bad, idle assets earn nothing. The firm's funds will be unnecessarily tied up in current assets. Therefore, it is necessary to strike a proper balance of liquidity.

Liquidity ratios can be divided into three types:

Current Ratio

Quick Ratio

Cash Ratio

Current Ratio

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

Current ratio is an acceptable measure of firm's short-term solvency.

Current assets include cash within a year, such as marketable securities, debtors and inventors. Prepaid expenses are also included in current assets as they represent the payments that will not be made by the firm in future. All obligations maturing within a

year are included in current liabilities. These include creditors, bills payable, accrued expenses, short-term bank loan, income-tax liability in the current year.

The current ratio is a measure of the firm's short-term solvency. It indicates the availability of current assets in rupees for every one rupee of current liability. A current ratio of 2:1 is considered satisfactory. The higher the current ratio, the greater the margin of safety; the larger the amount of current assets in relation to current liabilities, the more the firm's ability to meet its obligations. It is a quick measure of the firm's liquidity.

Current ratio is calculated by dividing current assets and current liabilities.

Quick Ratio

$$\text{Quick ratio} = \frac{\text{Current assets} - \text{inventories}}{\text{Current liabilities}}$$

Quick Ratio establishes a relationship between quick or liquid assets and current liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without a loss of value.

Cash is the most liquid asset, other assets that are considered to be relatively liquid asset and included in quick assets are debtors and bills receivables and marketable securities (temporary quoted investments).

Inventories are converted to be liquid. Inventories normally require some time for realizing into cash; their value also has a tendency to fluctuate. The quick ratio is found out by dividing quick assets by current liabilities.

Generally, a quick ratio of 1:1 is considered to represent a satisfactory current financial condition.

Quick ratio is a more penetrating test of liquidity than the current ratio, yet it should be used cautiously. A company with a high value of quick ratio can suffer from the shortage of funds if it has slow-paying, doubtful and long duration outstanding debtors. A low quick ratio may really be prospering and paying its current obligation in time.

Cash Ratio

$$\text{Cash Ratio} = \frac{\text{Cash and bank balance} + \text{Current investment}}{\text{Current liabilities}}$$

Cash is the most liquid asset; a financial analyst may examine Cash Ratio and its equivalent current liabilities. Cash and Bank balances and short-term marketable securities are the most liquid assets of a firm, financial analyst stays look at cash ratio.

Trade investment is marketable securities of equivalent of cash. If the company carries a small amount of cash, there is nothing to be worried about the lack of cash if the company has reserves borrowing power.

The cash ratio is a liquidity measure that shows a company's ability to cover its short-term obligations using only cash and cash equivalents.

The cash ratio is derived by adding a company's total reserves of cash and near-cash securities and dividing that sum by its total current liabilities.

The cash ratio is more conservative than other liquidity ratios because it only considers a company's most liquid resources.

2) LEVERAGERATIOS

A company can finance its assets either with equity or debt. Financing through debt involves risk because debt legally obligates the company to pay interest and to repay the principal as promised. Equity financing does not obligate the company to pay anything -- dividends are paid at the discretion of the board of directors.

There is always some risk, which we refer to as business risk, inherent in any operating segment of a business. But how a company chooses to finance its operations -- the particular mix of debt and equity -- may add financial risk on top of business risk. Financial risk is the extent that debt financing is used relative to equity.

Financial leverage ratios are used to assess how much financial risk the company has taken on. There are two types of financial leverage ratios: component percentages and coverage ratios. Component percentages compare a company's debt with either its total capital (debt plus equity) or its equity capital. Coverage ratios reflect a company's ability to satisfy fixed obligations, such as interest, principal repayment, or lease payments.

Financial leverage refers to the use of debt finance while debt capital is a cheaper source of finance: it is also a riskier source of finance. It helps in assessing the risk arising from the use of debt capital. Two types of ratios are commonly used to analyze financial leverage.

1. Structural Ratios &

2. Coverage ratios.

- Structural Ratios are based on the proportions of debt and equity in the financial structure of firm.
- Coverage Ratios shows the relationship between Debt Servicing, Commitments and the sources for meeting these burdens.

The short-term creditors like bankers and suppliers of raw material are more concerned with the firm's current debt-paying ability. On the other hand, long-term creditors like debenture holders, financial institutions are more concerned with the firm's long-term financial strength. To judge the long-term financial position of firm, financial leverage ratios are calculated.

These ratios indicated mix of funds provided by owners and lenders. There should be an appropriate mix of Debt and owner's equity in financing the firm's assets. The process of magnifying the shareholder's return through the use of Debt is called "financial leverage" or "financial gearing" or "trading on equity". Leverage Ratios are calculated to measure the financial risk and the firm's ability of using Debt to shareholder's advantage.

Leverage Ratios can be divided into five types.

Debt equity ratio.

Debt ratio.

Interest coverage ratio

Proprietary ratio.

Capital gearing ratio

Debt equity ratio

$$\text{Debt Equity ratio} = \frac{\text{Long term debts}}{\text{Share holder funds (Equities)}}$$

It indicates the relationship describing the lender's contribution for each rupee of the owner's contribution is called debt-equity ratio. Debt equity ratio is directly computed by dividing total debt by net worth. Lower the debt-equity ratio, higher the degree of protection.

A debt-equity ratio of 2:1 is considered ideal. The debt consists of all short term as well as long-term and equity consists of net worth plus preference capital plus Deferred Tax Liability.

For example, United Parcel Service's long-term debt for the quarter ending December 2019 was \$21.8 billion. United Parcel Service's total stockholders' equity for the ending December 2019 was \$3.3 billion. The company's D/E for the quarter was 8.62. That is considered high.³

A high debt/equity ratio generally indicates that a company has been aggressive in financing its growth with debt. This can result in volatile earnings as a result of the additional interest expense. If the company's interest expense grows too high, it may increase the company's chances of a default or bankruptcy.

Typically, a D/E ratio greater than 2.0 indicates a risky scenario for an investor; however, this yardstick can vary by industry. Businesses that require large capital expenditures (CapEx), such as utility and manufacturing companies, may need to secure more loans than other companies. It's a good idea to measure a firm's leverage ratios against past performance and with companies operating in the same industry to better understand the data.

Debt ratio

$$\text{Debt ratio} = \frac{\text{Total debt}}{\text{Total assets}}$$

The debt ratio commonly refers to the debt-to-assets ratio.

Several debt ratios may be used to analyse the long-term solvency of a firm. The firm may be interested in knowing the proportion of the interest-bearing debt in the capital structure. It may, therefore, compute debt ratio by dividing total debt by capital employed on net assets.

Total debt will include short and long-term borrowings from financial institutions, debentures/bonds, deferred payment arrangements for buying equipment's, bank borrowings, public deposits and any other interest-bearing loan. Capital employed will include total debt net worth.

The debt ratio is a financial ratio that measures the extent of a company's leverage. The debt ratio is defined as the ratio of total debt to total assets, expressed as a decimal or percentage. It can be interpreted as the proportion of a company's assets that are financed by debt.

A ratio greater than 1 shows that a considerable portion of debt is funded by assets. In other words, the company has more liabilities than assets. A high ratio also indicates that a company may be putting itself at a risk of default on its loans if interest rates were to rise suddenly. A ratio below 1 translates to the fact that a greater portion of a company's assets is funded by equity.

Interest Coverage Ratio

$$\text{Interest coverage ratio} = \frac{\text{EBIT}}{\text{Interest}}$$

The interest coverage ratio or the time interest earned is used to test the firm's debt servicing capacity. The interest coverage ratio is computed by dividing earnings before interest and taxes by interest charges. The interest coverage ratio shows the number of times the interest charges are covered by funds that are ordinarily available for their payment. We can calculate the interest coverage ratio as earnings before depreciation, interest and taxes divided by interest.

This ratio is used by the lenders to check whether the company will be able to pay off interest due on the instalment on time or not. This ratio also indicates the extent to which fall in earnings won't impact the payment of interest.

A high ratio means the company can easily meet its interest obligation. A low ratio indicates inefficient operation.

Proprietary ratio

$$\text{Proprietary Ratio} = \frac{\text{Shareholder's equity}}{\text{Total assets}}$$

The proprietary ratio (also known as the equity ratio) is the proportion of shareholders' equity to total assets, and as such provides a rough estimate of the amount of capitalization currently used to support a business. If the ratio is high, this indicates that a company has a sufficient amount of equity to support the functions of the business, and probably has room in its financial structure to take on additional debt, if necessary. Conversely, a low ratio indicates that a business may be making use of too much debt or trade payables, rather than equity, to support operations (which may place the company at risk of bankruptcy).

The total shareholder's fund is compared with the total tangible assets of the company. This ratio indicates the general financial strength of concern. It is a test of the soundness of financial structure of the concern. The ratio is of great significance to creditors since it enables them to find out the proportion of shareholders' funds in the total investment of business.

Thus, the equity ratio is a general indicator of financial stability. It should be used in conjunction with the net profit ratio and an examination of the statement of cash flows to gain a better overview of the financial circumstances of a business. These additional measures reveal the ability of a business to earn a profit and generate cash flows, respectively.

Capital gearing ratio:

$$\text{Capital gearing ratio} = \frac{\text{Common stockholder's equity}}{\text{Fixed cost bearing funds}}$$

This is an important tool used to check the capital structure of the company. This ratio describes the relationship between the owner's capital and the amount borrowed by the company on which periodic payment is made.

This ratio makes an analysis of capital structure of firm. The ratio shows relationship between equity share capital and the fixed cost bearing i.e., preference share capital and debentures.

Companies with high levels of capital gearing will have a larger amount of debt relative to their equity value. The gearing ratio is a measure of financial risk and

expresses the amount of a company's debt in terms of its equity. A company with a gearing ratio of 2.0 would have twice as much debt as equity.

3) ACTIVITY RATIOS

Turnover ratios also referred to as activity ratios or asset management ratios, measure how efficiently the assets are employed by a firm. These ratios are based on the relationship between the level of activity, represented by sales or cost of goods sold and levels of various assets. The improvement turnover ratios are inventory turnover, average collection period, receivable turn over, fixed assets turnover and total asset turnover.

Activity ratios are employed to evaluate the efficiency with which the firm manages and utilizes its assets. These ratios are also called turnover ratios because they indicate the speed with which assets are being converted or turned over into sales. Activity ratios thus involve a relationship between sales and assets. A proper balance between sales and assets generally reflects that asset utilization.

Activity ratios are measures of how well assets are used. Activity ratios-- which are, for the most part, turnover ratios-- can be used to evaluate the benefits produced by specific assets, such as inventory or accounts receivable. Or they can be used to evaluate the benefits produced by all a company's assets collectively.

These measures help us gauge how effectively the company is putting its investment to work. A company will invest in assets – e.g., inventory or plant and equipment – and then use these assets to generate revenues. The greater the turnover, the more effectively the company is producing a benefit from its investment in assets.

Activity ratios are divided into four types:

Total asset turnover ratio

Working capital turnover ratio

Fixed asset turnover ratio

Inventory turnover ratio

Total asset turnover ratio:

$$\text{Total assets turnover ratio} = \frac{\text{Net sales}}{\text{Total assets}}$$

This ratio expresses the relationship between the amounts invested in this asset and the resulting amount of sales. This is calculated by dividing the net sales by total sales.

The higher the ratio means better utilization and vice-versa.

The total asset turnover ratio compares the sales of a company to its asset base. The ratio measures the ability of an organization to efficiently produce sales, and is typically used by third parties to evaluate the operations of a business. Ideally,

a company with a high total asset turnover ratio can operate with fewer assets than a less efficient competitor, and so requires less debt and equity to operate. The result should be a comparatively greater return to its shareholders.

Some analysts like to compute the total assets turnover in addition to or instead of net assets turnover. This ratio shows the firm's ability in generating sales from all financial resources committed to total assets.

Working capital turnover ratio:

$$\text{Working capital turnover ratio} = \frac{\text{Sales}}{\text{Working capital}}$$

This ratio measures the relationship between working capital and sales. The ratio shows the number of times the working capital results in sales. Working capital is usually the excess of current assets over current liabilities.

A high turnover ratio shows that management is being very efficient in using a company's short-term assets and liabilities for supporting sales (i.e., it is generating a high dollar amount of sales for every dollar of the working capital used). In contrast, a low ratio may indicate that a business is investing in too many accounts receivable and inventory to support its sales, which could lead to an excessive amount of bad debts or obsolete inventory.

Fixed asset turnover ratio:

$$\text{Fixed asset turnover ratio} = \frac{\text{net sales}}{\text{Fixed assets}}$$

The firm may wish to know its efficiency of utilizing fixed assets and current assets separately. The use of depreciated value of fixed assets in computing the fixed asset turnover may render comparison of firm's performance over period or with other firms.

The ratio is supposed to measure the efficiency with which fixed assets employed. A high ratio indicates a high degree of efficiency in asset utilization and a low ratio reflects inefficient use of assets.

However, in interpreting this ratio, one caution should be borne in mind, when the fixed assets of firm are old and substantially depreciated, the fixed asset turnover ratio tends to be high because the denominator of ratio is very low.

The fixed asset turnover ratio is an efficiency ratio calculated by dividing a company's net sales by its net property, plant, and equipment (property, plant, and equipment - depreciation). It measures how well a company generates sales from its property, plant, and equipment. From an investment standpoint, this ratio helps investors approximate their return on investment (ROI), especially in the equipment-laden manufacturing industry. For creditors, this ratio helps to assess how well new machinery can generate revenue to repay loans.

A high fixed asset turnover ratio often indicates that a firm effectively and efficiently uses its assets to generate revenues. A low fixed asset turnover ratio generally indicates the opposite: a firm does not use its assets effectively or to its full potential to generate revenue. The ratio alone does not confirm how effective a company uses its

fixed assets. Combined with other analysis, it can give a clear picture of operations, performance, and management of assets.

Inventory turnover ratio

$$\text{Inventory turnover ratio} = \frac{\text{Cost of goods sold}}{\text{Average stock}}$$

Stock turnover ratio indicates the efficiency of firm in producing and selling its product. It is calculated by dividing the cost of goods sold by the average stock. It measures how fast the inventory is moving through the firm and generating sales.

The stock turnover ratio reflects the efficiency of inventory management. The higher the ratio, the more efficient the management of inventories and vice versa. However, this may not always be true.

Inventory turnover is the rate at which a company replaces inventory in a given period due to sales. Calculating inventory turnover helps businesses make better pricing, manufacturing, marketing, and purchasing decisions. Well-managed inventory levels show that a company's sales are at the desired level, and costs are controlled. The inventory turnover ratio is a measure of how well a company generates sales from its inventory.

A high inventory turnover may be caused by a low level of inventory which may result in frequent stockouts and loss of sales and customer goodwill.

4) PROFITABILITY RATIOS

A company should earn profits to survive and grow over a long period of time. Profits are essential but it would be wrong to assume that every action initiated by management of a company should be aimed at maximizing profits. Profit is the difference between revenues and expenses over a period of time.

Profit is the ultimate 'output' of a company and it will have no future if it fails to make sufficient profits. The financial manager should continuously evaluate the efficiency of company in terms of profits. The profitability ratios are calculated to measure the operating efficiency of company. Creditors want to get interest and repayment of principal regularly. Owners want to get a required rate of return on their investment.

Profitability ratios are financial metrics used by analysts and investors to measure and evaluate the ability of a company to generate income (profit) relative to revenue, balance sheet assets, operating costs, and shareholders' equity during a specific period of time. They show how well a company utilizes its assets to produce profit and value to shareholders.

A higher ratio or value is commonly sought-after by most companies, as this usually means the business is performing well by generating revenues, profits, and cash flow. The ratios are most useful when they are analyzed in comparison to similar companies or compared to previous periods.

Generally, two major types of profitability ratios are calculated:

- Profitability in relation to sales
- Profitability in relation to investment

Profitability Ratios can be divided

into six types:

Gross profit ratio

Operating profit ratio

Net profit ratio

Return on investment

Earnings per share

Operating expenses ratio

4.1 Gross profit ratio

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Net sales}}$$

First profitability ratio in relation to sales is the gross profit margin. The gross profit margin reflects.

The efficiency with which management produces each unit of product. This ratio indicates the average spread between the cost of goods sold and the sales revenue.

A high gross profit margin is a sign of good management. A gross margin ratio may increase due to any of the following factors: higher sales prices, cost of goods sold remaining constant, lower cost of goods sold, sales prices remaining constant. A low gross profit margin may reflect higher cost of goods sold due to the firm's inability to purchase raw materials at favourable terms, inefficient utilization of plant and machinery resulting in higher cost of production or due to a fall in prices in the market.

This ratio shows the margin left after meeting manufacturing costs. It measures the efficiency of production as well as pricing. To analyse the factors underlying the variation in gross profit margin, the proportion of various elements of cost (Labour, materials and manufacturing overheads) to sales may be studied in detail.

3.4.2 Operating profit ratio

$$\text{Operating profit ratio} = \frac{\text{Operating profit}}{\text{Net sales}}$$

This ratio expresses the relationship between operating profit and sales. It is worked out by dividing operating profit by net sales. With the help of this ratio, one can judge the managerial efficiency which may not be reflected in the net profit ratio.

This ratio helps to analyze a firm's operational efficiency, a trend analysis is usually done between two different accounting periods to assess improvement or deterioration of operational capability.

High – A high ratio may indicate better management of resources i.e. a higher operational efficiency leading to higher operating profits in the company.

Low – A low ratio may indicate operational flaws and improper management of resources; it is an indicator that the profit generated from operations are not enough as compared to the total revenue generated from sales.

Net profit ratio

$$\text{Net profit ratio} = \frac{\text{Net profit}}{\text{Net sales}}$$

Net profit is obtained when operating expenses, interest and taxes are subtracted from the gross profit. Net profit margin ratio established a relationship between net profit and sales and indicates management's efficiency in manufacturing, administering and selling products.

This ratio also indicates the firm's capacity to withstand adverse economic conditions. A firm with a high net margin ratio would be in an advantageous position to survive in the face of falling selling prices, rising costs of production or declining demand for product.

This ratio shows the earning left for shareholders as a percentage of net sales. It measures overall efficiency of production, administration, selling, financing, pricing and tax management. Jointly considered, the gross and net profit margin ratios provide a valuable understanding of the cost and profit structure of the firm and enable the analyst to identify the sources of business efficiency / inefficiency.

The net profit percentage is the ratio of after-tax profit to net sales. It reveals the remaining profit after all costs of production, administration, and financing have been deducted from sales, and income taxes recognized. As such, it is one of the best measures of the overall results of a firm, especially when combined with an evaluation of how well it is using its working capital. The measure is commonly reported on a trend line, to judge performance over time. It is also used to compare the results of a business with its competitors.

Net profit is not an indicator of cash flows, since net profit incorporates a number of non-cash expenses, such as accrued expenses, amortization, and depreciation.

Return on investment:

$$\text{Return on investment} = \frac{\text{EBIT}}{\text{Capital employed}}$$

This is one of the most important profitability ratios. It indicates the relation of net profit with capital employed in business. Net profit for calculating return on investment will mean the net profit before interest, tax, and dividend. Capital employed means long term funds.

Return on investment (ROI) is an approximate measure of an investment's profitability. ROI has a wide range of applications; it can be used to measure the profitability of a stock investment, when deciding whether or not to invest in the purchase of a business, or evaluate the results of a real estate transaction.

When ROI calculations yield a positive figure, it means that net returns are in the black (because total returns exceed total costs). Alternatively, when ROI calculations yield a negative figure, it means that net returns are in the red because total costs exceed total returns. (In other words, this investment produces a loss.)

Earnings per share

$$\text{Earnings per share} = \frac{\text{Net profit}}{\text{Number of equity shares}} * 100$$

This ratio is computed by earning available to equity shareholders by the total amount of equity share outstanding. It reveals the amount of period earnings after taxes which occur to each equity share. This ratio is an important index because it indicates whether the wealth of each shareholder on a per share basis as changed over the period.

Earnings per share (EPS) is a company's net profit divided by the number of common shares it has outstanding.

EPS indicates how much money a company makes for each share of its stock and is a widely used metric for corporate profits.

A higher EPS indicates more value because investors will pay more for a company with higher profits.

Operating expenses ratio

$$\text{Operating expenses ratio} = \frac{\text{Operating expenses}}{\text{Sales}} * 100$$

It explains the changes in the profit margin ratio. A higher operating expenses ratio is unfavourable since it will leave a small amount of operating income to meet interest, dividends. Operating expenses ratio is a yardstick of operating efficiency, but it should be used cautiously. It is affected by a number of factors such as external uncontrollable factors, internal factors. This ratio is computed by dividing operating expenses by sales. Operating expenses equal cost of goods sold plus selling expenses and general administrative expenses by sales.

Operating expenses are costs associated with running a business's core operations on a daily basis. Thus, the lower a company's operating expenses are, the more profitable it generally is. Over time, changes in the OER indicate whether the company can increase sales without increasing operating expenses proportionately (i.e., if the business is scalable). In real estate, companies can compare properties by using the ratio.

As such, the OER is also a measure of managerial flexibility and competency that makes companies easier to compare. However, it is important to note that some industries have higher OERs than others. This is why comparing OERs is generally most meaningful among companies within the same industry, and the definition of "high" or "low" expenses should be made within this context.

Analysis

Financial Ratio Analysis of Infosys

Financial statement analysis

Financial analysis denotes the selection and interpretation of a firm's financial data to evaluate the operational performance and thus measuring the financial condition of a company. And financial reporting by the financial analyst is a major part of it, as it reveals the historical and current financial information of the company. And the analysis is done with the help of different tools; quantitative analysis and ratio analysis.

The ratio analysis is essential as it can aid the business owners and managers in measuring their progress against predetermined goals, a specific competitor as well as the overall industry. Besides, ratios are powerful mediums of recognizing trends in the firm's early stages and allow the business owners to examine the relationships between products and measure the extent of that relationship (Almansoori and Nobanee, 2019). However, financial ratios are time-sensitive which means, they only depict the situation of the business at the time when the fundamental figures were prepared. (Inc., n.d.)

In general, the ratios are categorized into four; profitability or return on investment, leverage, liquidity, and operating or efficiency ratios.

The income statement presents information on the financial results of a company's business activities over a period of time. The income statement communicates how much revenue the company generated during a period and what cost it incurred in connection.

US\$ in millions

Balance Sheet as at	Note	March 31, 2017	March 31, 2016	<i>(In ₹ crore)</i> April 1, 2015
ASSETS				
Non-current assets				
Property, plant and equipment	2.3	8,605	8,248	7,347
Capital work-in-progress		1,247	934	769
Intangible assets	2.4	-	-	-
Financial assets				
Investments	2.5	15,334	11,076	6,108
Loans	2.6	5	5	4
Other financial assets	2.7	216	192	110
Deferred tax assets (net)	2.17	346	405	433
Income tax assets (net)	2.17	5,454	5,020	3,941
Other non-current assets	2.10	996	755	349
Total non-current Assets		32,203	26,635	19,061
Current assets				
Financial assets				
Investments	2.5	9,643	2	749
Trade receivables	2.8	10,960	9,798	8,627
Cash and cash equivalents	2.9	19,153	29,176	27,722
Loans	2.6	310	355	225
Other financial assets	2.7	5,403	4,801	4,045
Other current assets	2.10	2,213	1,965	1,384
Total current assets		47,682	46,097	42,752
Total Assets		79,885	72,732	61,813
EQUITY AND LIABILITIES				
Equity				
Equity share capital	2.12	1,148	1,148	574
Other equity		66,869	59,934	51,617
Total equity		68,017	61,082	52,191
LIABILITIES				
Non-current liabilities				
Financial liabilities				
Other financial liabilities	2.13	40	62	27
Other non-current liabilities	2.15	42	-	-
Deferred tax liabilities (net)	2.17	-	-	-
Total non-current liabilities		82	62	27
Current liabilities				
Financial liabilities				
Trade payables	2.14	269	623	124
Other financial liabilities	2.13	5,056	5,132	4,847
Other current liabilities	2.15	2,349	2,093	1,564
Provisions	2.16	350	436	382
Income tax liabilities (net)	2.17	3,762	3,304	2,678
Total current liabilities		11,786	11,588	9,595
Total equity and liabilities		79,885	72,732	61,813

The accompanying notes form an integral part of the standalone interim financial statements.

INFOSYS LIMITED		(In ₹ crore)	
Balance Sheet as at		March 31, 2019	March 31, 2018
	Note No.		
ASSETS			
Non-current assets			
Property, plant and equipment	2.1	10,394	9,027
Capital work-in-progress		1,212	1,442
Goodwill	2.2	29	29
Other intangible assets	2.2	74	101
Financial assets			
Investments	2.3	12,062	11,993
Loans	2.4	16	19
Other financial assets	2.5	196	177
Deferred tax assets (net)	2.15	1,114	1,128
Income tax assets (net)		5,870	5,710
Other non-current assets	2.8	1,740	2,161
Total non-current Assets		32,707	31,787
Current assets			
Financial assets			
Investments	2.3	6,077	5,906
Trade receivables	2.6	13,370	12,151
Cash and cash equivalents	2.7	15,551	16,770
Loans	2.4	1,048	393
Other financial assets	2.5	4,834	5,906
Income tax assets (net)		423	-
Other current assets	2.8	4,920	1,439
		46,223	42,565
Assets held for sale	2.3.8	-	1,525
Total current assets		46,223	44,090
Total Assets		78,930	75,877
EQUITY AND LIABILITIES			
Equity			
Equity share capital	2.10	2,178	1,092
Other equity		60,533	62,410
Total equity		62,711	63,502
LIABILITIES			
Non-current liabilities			
Financial liabilities			
Other financial liabilities	2.11	79	55
Deferred tax liabilities (net)	2.15	541	505
Other non-current liabilities	2.13	169	153
Total non-current liabilities		789	713
Current liabilities			
Financial liabilities			
Trade payables	2.12	-	-
Total outstanding dues of micro enterprises and small enterprises		-	-
Total outstanding dues of creditors other than micro enterprises and small enterprises		1,604	738
Other financial liabilities	2.11	8,528	5,540
Other current liabilities	2.13	3,335	2,972
Provisions	2.14	505	436
Income tax liabilities (net)		1,458	1,976
Total current liabilities		15,430	11,662
Total equity and liabilities		78,930	75,877

The accompanying notes form an integral part of the standalone financial statements.

Table1:InfosysInc.,consolidatedincomestatement

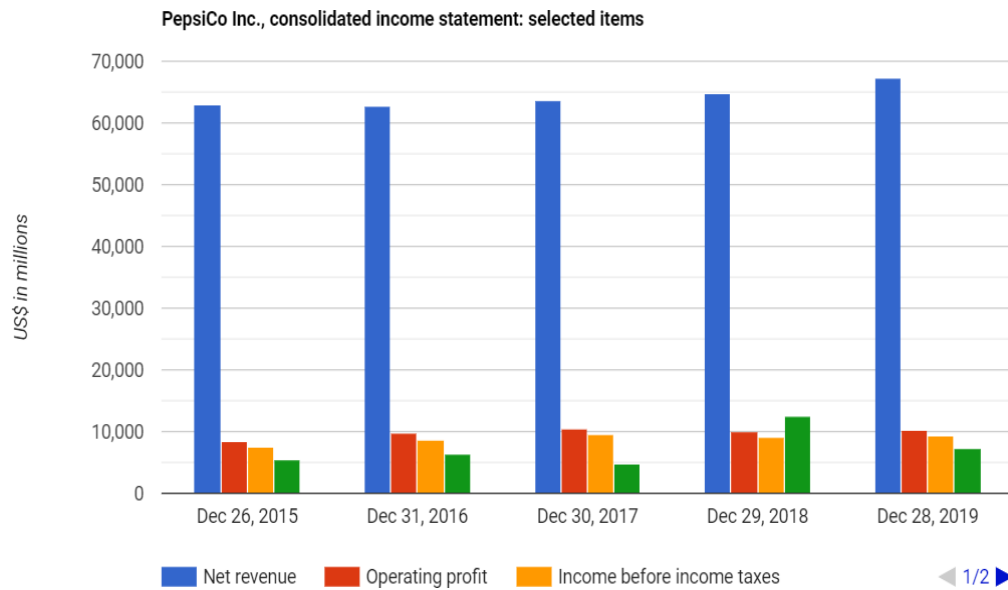


Figure1:consolidatedincomestatement

Table2:FinancialData(Infosys)

Item/year	2019	2018	2017	2016
CurrentAssets	17,645,000	21,893,000	31,027,000	27,089,000

CurrentLiabilities	20,461,000	22,138,000	20,502,000	21,135,000
Inventories	3,338,000	3,128,000	2,947,000	2,723,000
Cash	5,738,000	8,993,000	19,510,000	16,125,000
Receivables	6,447,000	6,079,000	5,956,000	5,709,000
TotalAssets	78,547,000	77,648,000	79,804,000	74,129,000
Total Liabilities	63,679,000	63,046,000	68,823,000	62,930,000
Total Equity	14,786,000	14,518,000	10,889,000	11,095,000
Sales	67,161,000	64,661,000	63,525,000	62,799,000
CostofGoodsSold	30,132,000	29,381,000	28,785,000	28,209,000
EBIT	10,291,000	10,110,000	10,509,000	9,785,000
Interest	1,135,000	1,525,000	1,151,000	1,342,000
NetIncome	7,314,000	12,515,000	4,857,000	6,329,000

All numbers in thousands, Source: Yahoo Finance

Ratios for the analysis

The Liquidity ratios are the ratios that measure a company's capability to repay short- and long-term obligations. The liquidity ratios covered for the analysis are;

- $\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$
- $\text{Acid-test ratio} = \frac{\text{Current assets} - \text{Inventories}}{\text{Current liabilities}}$
- $\text{Cash ratio} = \frac{\text{Cash and Cash equivalents}}{\text{Current Liabilities}}$

The debt ratio measures the comparative amount of a company's assets which are given through debt and the ratios used for the analysis are;

- $\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}$
- $\text{Interest coverage ratio} = \frac{\text{net income}}{\text{Interest expense}}$

Activity ratios are used to measure how far a company is making use of its assets and the efficiency ratios used are:

- $\text{Asset turnover ratio} = \frac{\text{Net sales}}{\text{Total assets}}$
- $\text{Inventory turnover ratio} = \frac{\text{Cost of goods sold}}{\text{inventory}}$
- $\text{Receivable turnover ratio} = \frac{\text{Net credit sales}}{\text{accounts receivable}}$

Lastly, the profitability ratios measure the extent a company can generate income relative to revenue, equity, and balance sheet assets. The ratios for analysis are;

- $\text{Return on assets ratio} = \frac{\text{Net income}}{\text{Total assets}}$
- $\text{Return on equity ratio} = \frac{\text{Net income}}{\text{Shareholder's equity}}$

- Profitmargin=Netincome/netsales

Table3 :Liquidity Ratiosof Infosys

Ratio/Year	2019	2018	2017	2016
CurrentRatio	0.86	0.99	1.51	1.28
QuickRatio	0.70	0.85	1.37	1.15
CashRatio	0.28	0.41	0.95	0.76

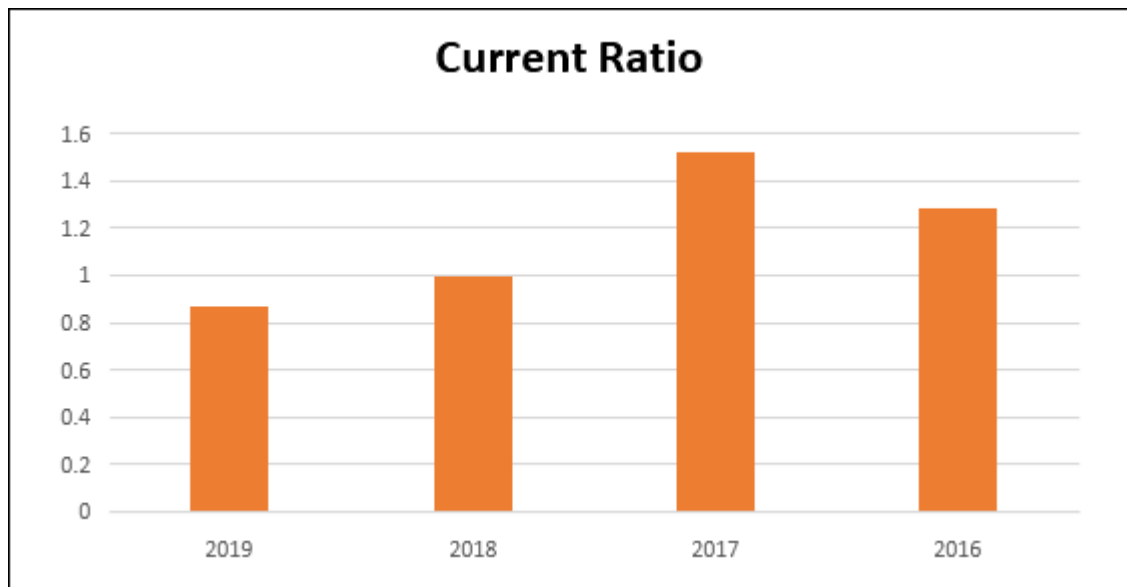


Figure2:CurrentRatioofInfosys

The current ratio measures a firm's capability to meet its short-term obligations with the current assets. The higher the rate of the ratio is, the higher is the liquidity of the firm.

Here from 2016 to 2017 the ratio increased from 1.3 to 1.5, therefore in 2017 the liquidity of the Infosys was higher, and the firm could easily settle its liabilities. However, the liquidity declined in the next two consecutive years to 1 by 2018 and 0.8 by 2019, which depicts that Infosys having difficulty in meeting the firm's obligations since the ratio dropped majorly lesser than 1.

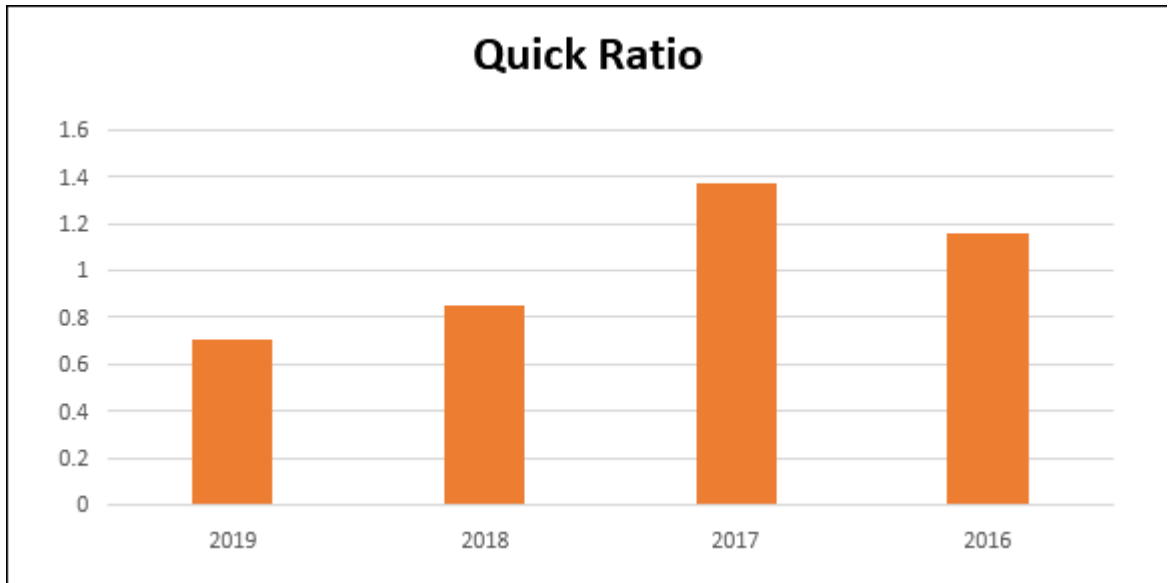


Figure3:QuickRatioofInfosys

The quick ratio denotes a firm's capacity to pay for current liabilities without the aid of selling any inventory or additional financing. It is in the forms of cash or cash equivalents or such assets which is capable of a convertible to cash.

Here, from 2016 to 2017, a quick ratio slightly increased from 1.1 to 1.3, therefore Infosys was not facing any issues related to meeting the current obligation. Contrarily, from 2017 to 2019, the ratio dropped till 0.7 from 1.3, and this situation indicates Infosys started to rely on its inventories to meet its current obligations, and that's not welcoming for the investors and partners of Infosys.

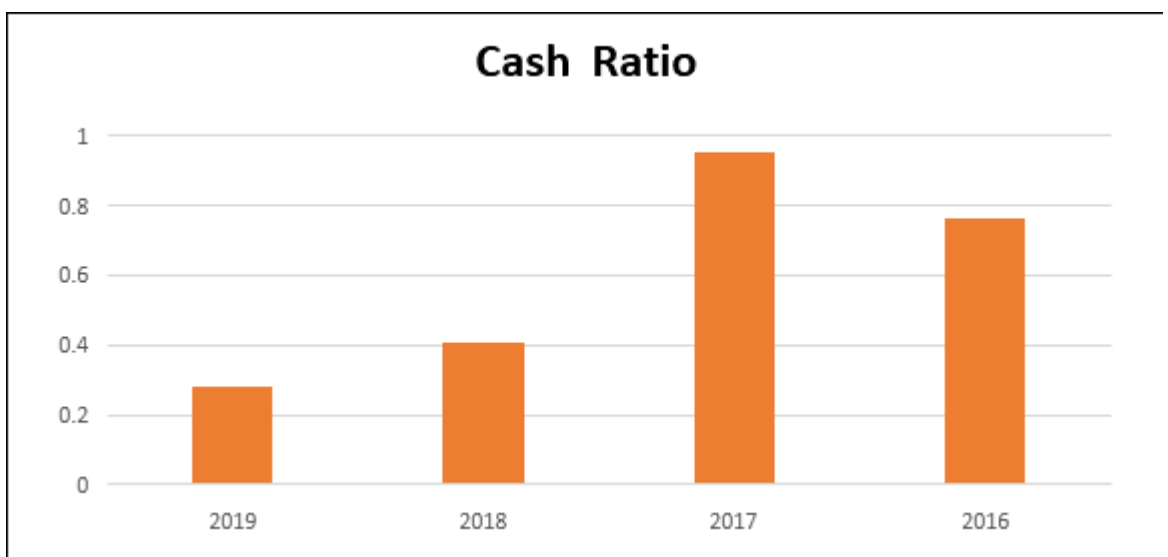


Figure4:CashRatioofInfosys

The cash ratio measures the ability to finance its current liability through cash and cash equivalents. In short, it measures the liquidity of the company.

Here, for Infosys the cash ratio rose to 0.95 from 0.76, therefore the firm was liquid enough to finance its debt, but the scenario is quite opposite for the next two years. The ratio dropped majorly from 0.95 to 0.258 by 2019, which means the firm changed its strategy of holding cash to hold less amount.

Summary of Current Ratios

The current, quick, and cash ratios for Infosys highlights that in the year 2017, the liquidity of the firm was higher enough to meet all short-term obligations. But comparatively, following years of 2017, in all three ratios, Infosys has reached a low level (lesser than 1, for all 3 ratios) of meeting short term obligations. Overall, the liquidity ratios were not good for the latest years; 2018 and 2019.

Table 4: Activity Ratios of Infosys

Ratio/Year	2019	2018	2017	2016
Inventory Turnover	9.03	9.39	9.77	10.36
Receivable Turnover	10.42	10.64	10.67	11.00
Total Asset Turnover	0.86	0.83	0.80	0.85



Figure5:Inventory Turnoverof Infosys

This ratio analyses how quickly the inventory is affecting the firm and how fast the company making sales. The higher the rate of the inventory turnover ratio, the further efficient will be the management of the firm's stocks.

Here, in 2016, Infosys had the highest inventory turnover rate comparative to 4 years; 10.36, which decreased slightly to 9.77 in the following year. And the decline continued further in 2018 and 2019, depicting the weaker sales and low demand for Infosys products and other product lines, hence the cash flow of the firm is getting lower.

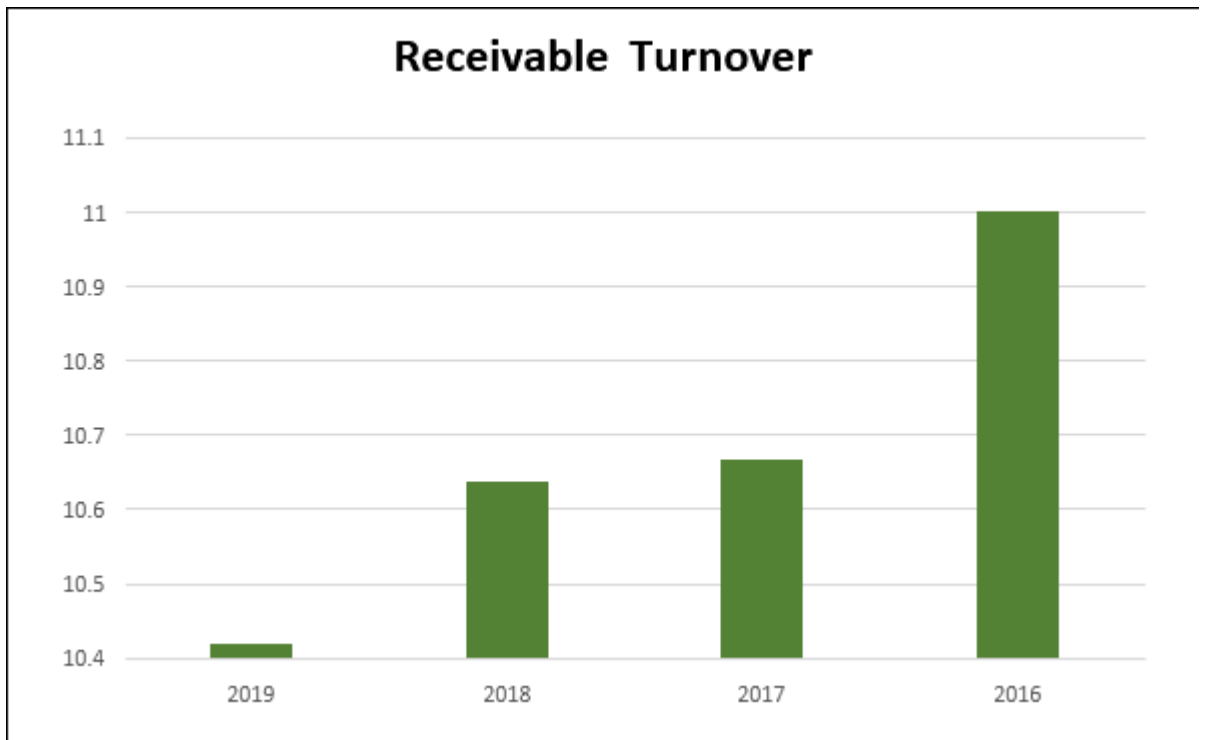


Figure5: Receivables Turnover of Infosys

This ratio measures a company's capability in collecting the receivables from its clients or debtors. Here, in 2016, Infosys had higher receivables turnover comparative to 4 years; 11, which continued to decline in the next three years slightly, reaching to 10.42 from 11. And it means Infosys had debtors who are slower to pay the debts of the firm and hence receivables are not been able to get collected quickly by Infosys.

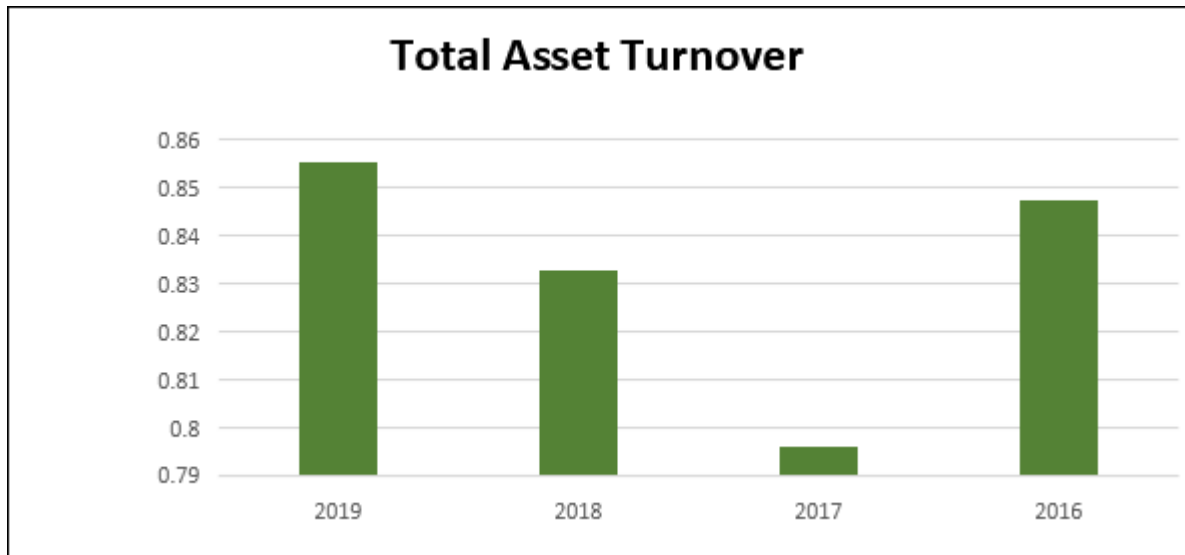


Figure6:Total AssetTurnoverofInfosys

This ratio measures the efficiency of a company's use of the assets for having sales revenue or sales income for the firm. Here, for Infosys the total asset turnover for 2016 and 2019 is almost the same; 0.86 and 0.85, where the turnover rate dropped to 0.80 in 2017 but recovered in next year to 0.83. And this means, Infosys is using its assets more effectively in recent years and is successful in generating more sales for the company.

Summary of activity ratios

Activity or Efficiency ratios; receivable turnover and inventory turnover for 2019 were very less compared to the other three years, but the total turnover asset of Infosys for 2019 was higher than the previous 3 years. And this means the Infosys has less liquidity and efficacy in managing the inventory in recent years.

Table5:Debt Ratios of Infosys

Ratio/Year	2019	2018	2017	2016
Debt Ratio	0.81	0.81	0.86	0.85
Times Interest Earned Ratio	9.07	6.63	9.13	7.29

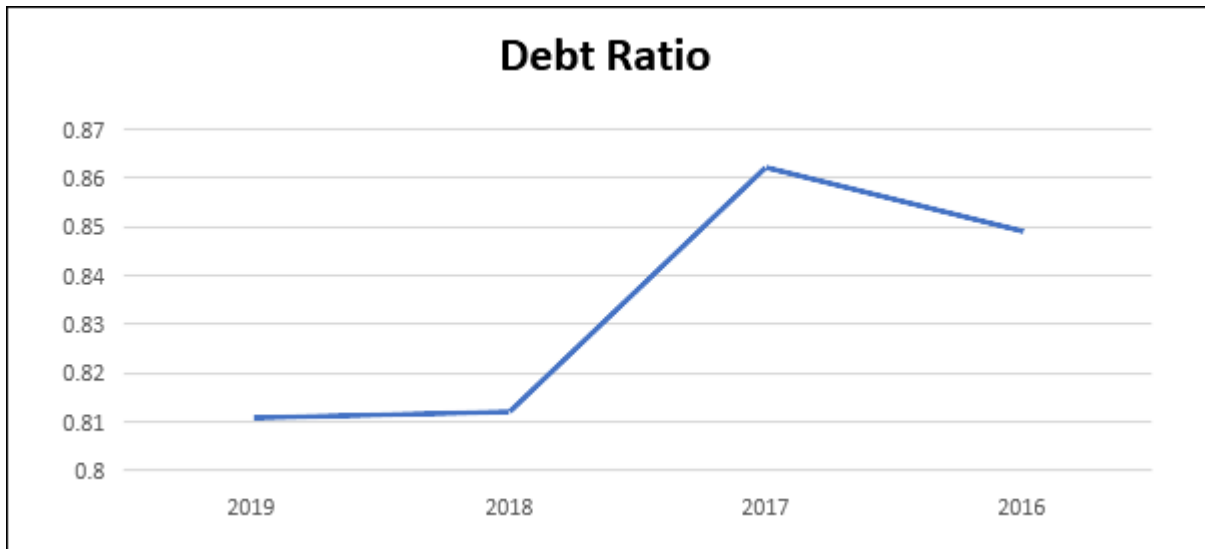


Figure7:Debt RatioofInfosys

The ratio measures the extent of a company's leverage, which means in what amount the assets are required to sell to pay off all its existing liabilities. Here, the debt ratio increased slightly in 2017 from 0.85 to 0.86, which is not good for the firm, since there's a risk of not generating enough cash flow to pay off the debt. But in the next two years of Infosys; 2018 and 2019, the ratio declined to 0.81 and maintained that consistency till the recent year, which is a little improvement for the firm as it is extending the capacity of the firm's leverage.

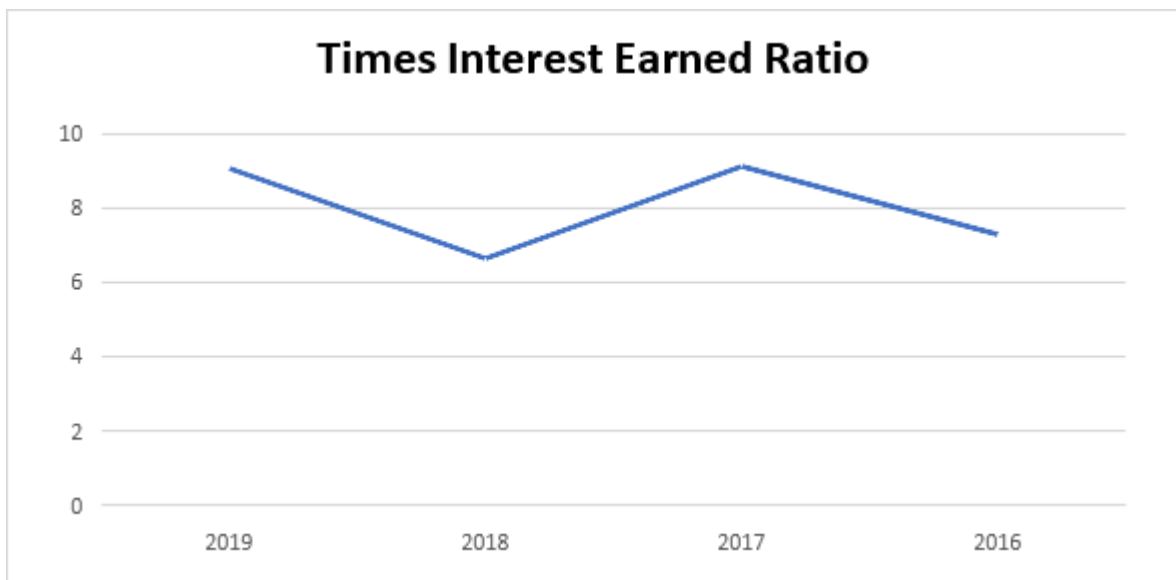


Figure8:TimesInterestEarnedRatioof Infosys

The ratio measures how quickly the company can disburse its liabilities generated on current revenue. It is also known as an Interest coverage ratio. Here for Infosys, the ratio fluctuated over last 4 years; 2016 -2019 and rose to higher ratio 9.07 by 2019 from 6.63 in 2018, which means in recent times the financial condition of Infosys is strong as it's more capable of meeting its interest obligations, similar to the period of 2016 -2017.

Summary of Debts Ratios

Infosys is having a strong financial position as both debt ratio and time interest earned ratio rates are contrary for the year 2019, hence it has a good amount of assets to set off its debts against liabilities. Overall, the years; 2017 and 2019 depict a better interest coverage ratio than the other two years of Infosys.

Table 6: Profitability Ratios of Infosys

Ratio/Year	2019	2018	2017	2016
Return on Equity	0.49	0.86	0.45	0.57
Return on Assets	0.09	0.16	0.06	0.09
Profit Margin	0.11	0.19	0.08	0.10

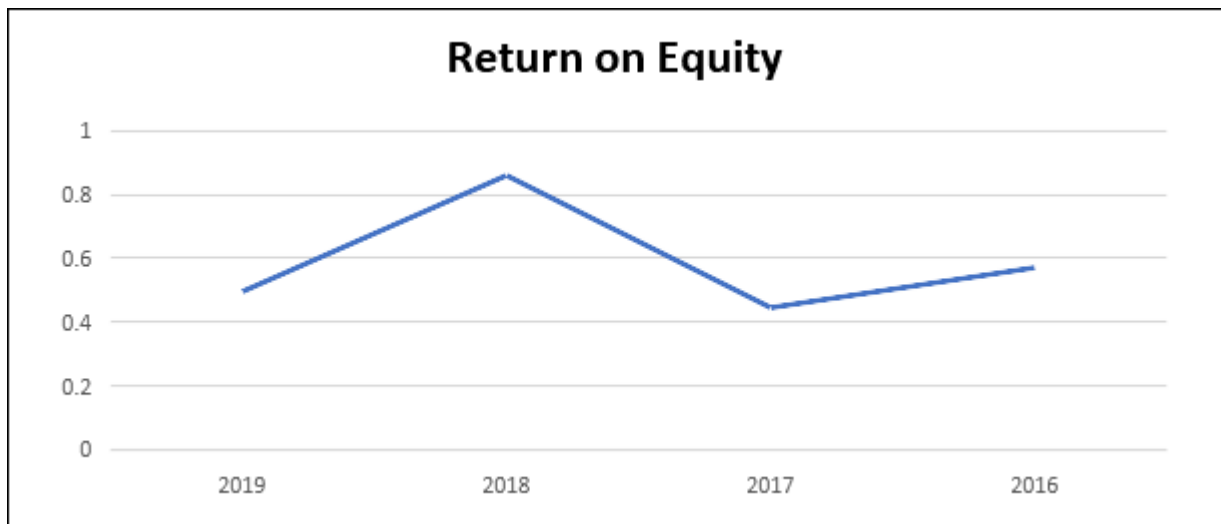


Figure 9: Return on Equity of Infosys

The ratio measures the profitability of a company in relation to stockholders' equity, which means determining whether to invest in the company or not. Therefore, it is one of the most important financial ratios for the investors. Here, for Infosys, the ratio fluctuated over 4 years; 2016 -2019, where the ratio decreased first and then increased from 0.57 to 0.86 over the period of 2016-2018. And it was efficient for the firm's management is at generating income as well as for the growth from its equity financing. On the contrary, in 2019 the ratio dropped to a very low rate of 0.49 from 0.86, which highlights that it's not worthy enough to invest in Infosys at present.

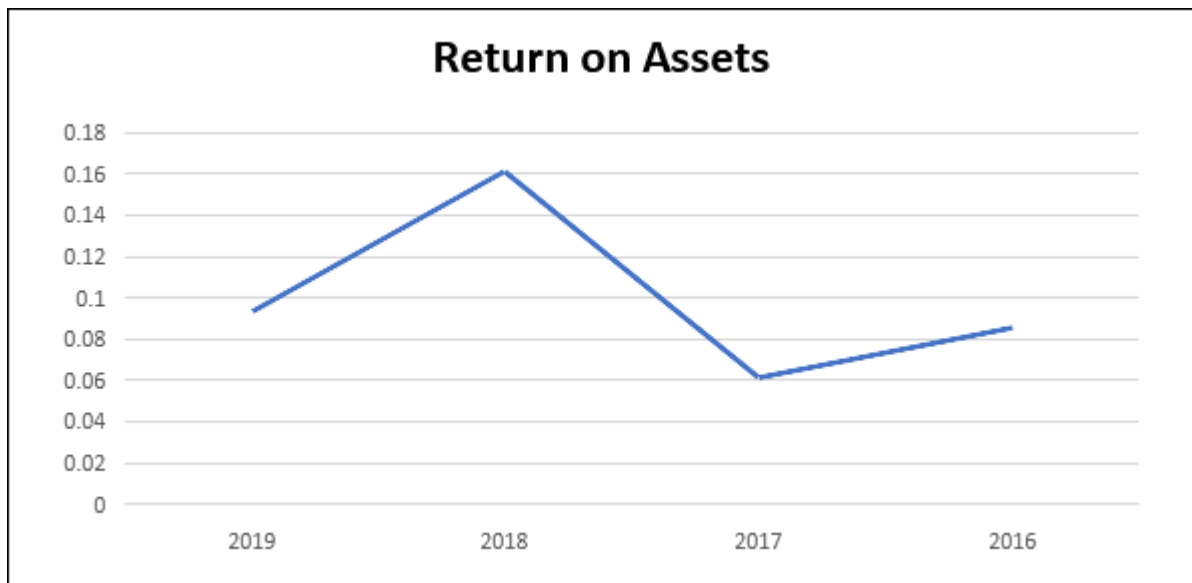


Figure10:Returnon TotalAssetsofInfosys

The ratio depicts the efficiency of the company is utilizing its assets to raise profit,through the earning before interests and taxes of the company. The higher the rate ofreturn on asset is, the better it is for the company, as it is managing its assets properlytomakesales. Here,for Infosysfortwo years;2016 and2017,the ratiodropped to 0.06 from0.09, but gainan incrementin nextyear; 2018to 0.16.And forInfosysthe year 2018 was profitable as the profit margin was rising by utilizing its assetsproperly and generating more sales than the previous two years. But in 2019, the ratioagain declined to 0.09, similar to the financial situation faced in 2016, hence Infosysisrecently unable to make enough incomefromitsassets.

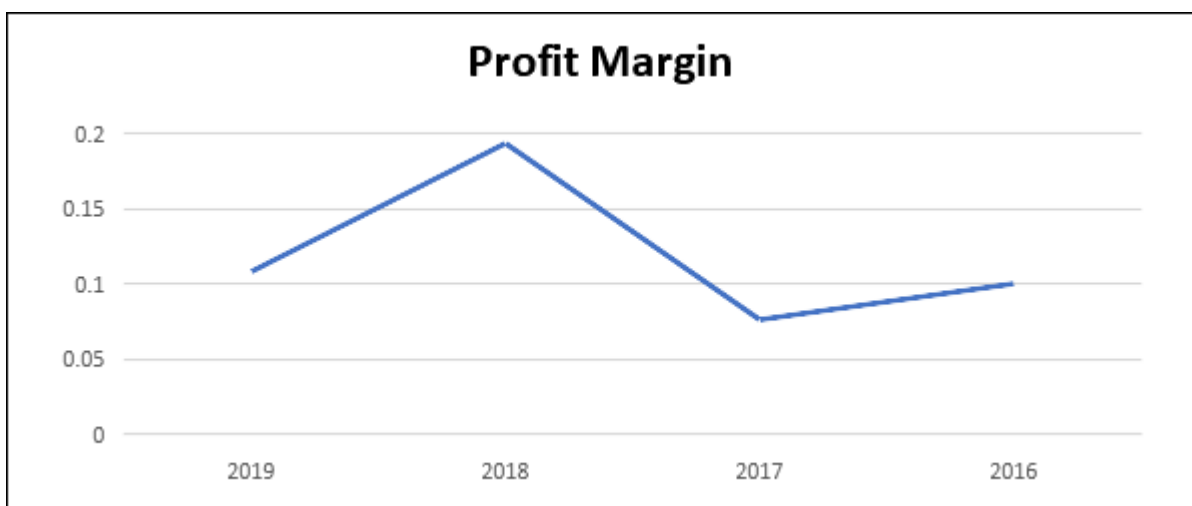


Figure11:Profit MarginofInfosys

The profit margin or the gross profit ratio measures how much of the firm's sales aregeneratedfromitsnetincome. Here, in2016 and 2017the ratio declined slightlyto 0.08from0.10 but increased inthe following year to 0.19.And, it dropped further to

0.11 by 2019, which denotes the lower margin, indicating the Infosys is currently underpricing and unable to make a reasonable profit on the sale. And this condition won't attract more Investors to pay more for Infosys

Summary

Infosys currently having less profitability compared to past years and shows instability in maintaining the higher profit margin for 4 years; 2016-2019. And it depicts that Infosys is not utilizing its assets well to generate its sales. However, comprehensively, the profitability ratios are impressive for the year 2018, since the ratios were higher enough, compared to 2019 and other years.

Conclusion

- 1- Company needs to reduce its cost of sales i.e. Software Development related expenses, to increase its Gross Profit ratio and Operating net ratio.
- 2- Company needs to have stringent credit policy, to reduce the funds required for working capital.
- 3- Do efficient utilization of shareholders funds to improve its ROI & ROE to maintain its goodwill in investors mind.
- 4- May go for some Debt borrowing to increase E.P.S. for shareholders.

Recommandations

Limitations

This study is subject to following limitations-

The study was limited to only past five years Financial Data.

- The study is purely based on secondary data which were taken primarily from Published annual reports of Infosys
- There is no set industry standard for comparison and hence the inference is made on general standards.
- The ratio is calculated from past financial statements and these are not indicators of future.
- The study is based on only on the past records.
- Non availability of required data to analyse the performance.

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