INTRODUCTION

Information technology in India is an industry consisting of two major components: IT services and business process outsourcing (BPO). The sector has increased its contribution to India’s GDP from 1.2% in 1998 to 7.5% in 2012. According to NASSCOM, the sector aggregated revenues of US$147 billion in 2015, where export revenue stood at US$99 billion and domestic at US$48 billion, growing by over 13%. India’s prime minister Narendra Modi has started 'Digital India' project to give IT a secured position inside & outside India.

Bangalore is considered to be the Silicon Valley of India because it is the leading IT exporter. Exports dominate the industry and constitute about 77% of the total industry revenue. However, the domestic market is also significant with a robust revenue growth. The industry’s share of total Indian exports (merchandise plus services) increased from less than 4% in FY1998 to about 25% in FY2012. According to Gartner, the "Top Five Indian IT Services Providers" are Tata Consultancy Services, Infosys, Cognizant, Wipro and HCL Technologies.

Regulated VSAT links became visible in 1994. Desai (2006) describes the steps taken to relax regulations on linking in 1991:

In 1991 the Department of Electronics broke this impasse, creating a corporation called Software Technology Parks of India (STPI) that, being owned by the government, could provide VSAT communications without breaching its monopoly. STPI set up software technology parks in different cities, each of which provided satellite links to be used by firms; the local link was a wireless radio link. In 1993 the government began to allow individual companies their own dedicated links, which allowed work done in India to be transmitted abroad directly. Indian firms soon convinced their American customers that a satellite link was as reliable as a team of programmers working in the clients’ office.
Videsh Sanchar Nigam Limited (VSNL) introduced Gateway Electronic Mail Service in 1991, the 64 kbit/s leased line service in 1992, and commercial Internet access on a visible scale in 1992. Election results were displayed via National Informatics Centre’s NICNET.

The Indian economy underwent economic reforms in 1991, leading to a new era of globalization and international economic integration. Economic growth of over 6% annually was seen during 1993-2002. The economic reforms were driven in part by significant the internet usage in the country. The new administration under AtalBihari Vajpayee 1999 govt pm—which placed the development of Information Technology among its top five priorities—formed the Indian National Task Force on Information Technology and Software Development.

Wolcott & Goodman (2003) report on the role of the Indian National Task Force on Information Technology and Software Development:

Within 90 days of its establishment, the Task Force produced an extensive background report on the state of technology in India and an IT Action Plan with 108 recommendations. The Task Force could act quickly because it built upon the experience and frustrations of state governments, central government agencies, universities, and the software industry. Much of what it proposed was also consistent with the thinking and recommendations of international bodies like the World Trade Organization (WTO), International Telecommunications Union (ITU), and World Bank. In addition, the Task Force incorporated the experiences of Singapore and other nations, which implemented similar programs. It was less a task of invention than of sparking action on a consensus that had already evolved within the networking community and government1.

Throughout the 1990s, another wave of Indian professionals entered the United States. The number of Indian Americans reached 1.7 million by 2000. This immigration consisted largely of highly educated technologically proficient workers. Within the United States, Indians fared well in science, engineering, and management. Graduates from the Indian Institutes of Technology (IIT) became known for their technical skills. The success of Information Technology in India not only had economic repercussions but also had far-reaching political consequences. India's reputation both as a source and a destination for skilled workforce helped it improve its relations with a number of world economies. The relationship between economy and technology—valued in the western world—facilitated the growth of an entrepreneurial class of immigrant Indians, which further helped aid in promoting technology-driven growth.

Recent development

The economic effect of the technologically inclined services sector in India - accounting for 40% of the country's GDP and 30% of export earnings as of 2006, while employing only 25% of its workforce - is summarized by Sharma (2006): "Today, Bangalore is known as the Silicon Valley of India and contributes 33% of Indian IT Exports. India's second and third largest software companies are headquartered in Bangalore, as are many of the global SEI-CMMI Level 5 Companies." Numerous IT companies are based in Mumbai such as TCS (among India's first and largest), Reliance, Patni, LnTInfotech, Myzornis Corporation and i-Flex.

Thiruvananthapuram (Trivandrum), the capital of Kerala state, is the foremost among the Tier II cities that is rapidly growing in terms of IT infrastructure. As the software hub of Kerala, more than 80% of the state's software exports are from here. Major campuses and headquarters of companies such as Infosys, Oracle Corporation, IBS Software Services and UST Global are located in the city. India's biggest IT company Tata Consultancy Services is building the country's largest IT training facility in Trivandrum - the project is worth INR10 billion and will have a capacity of 10,000 seats. The completion of the facility is expected in 2014 or 2015.
On 25 June 2002, India and the European Union agreed to bilateral cooperation in the field of science and technology. A joint EU-India group of scholars was formed on 23 November 2001 to further promote joint research and development. India holds observer status at CERN, while a joint India-EU Software Education and Development Center will be located in Bangalore.

Since IT industry play a significant in the economy, there is a need to evaluate, assess the financial performance of IT companies for providing a future direction.

Financial statement analysis

Financial statement analysis is the process of examining relationships among financial statement elements and making comparisons with relevant information. It is a valuable tool used by investors and creditors, financial analysts, and others in their decision-making processes related to stocks, bonds, and other financial instruments. The goal in analyzing financial statements is to assess past performance and current financial position and to make predictions about the future performance of a company. Investors who buy stock are primarily interested in a company's profitability and their prospects for earning a return on their investment by receiving dividends and/or increasing the market value of their stock holdings. Creditors and investors who buy debt securities, such as bonds, are more interested in liquidity and solvency: the company's short-and long-run ability to pay its debts. Financial analysts, who frequently specialize in following certain industries, routinely assess the profitability, liquidity, and solvency of companies in order to make recommendations about the purchase or sale of securities, such as stocks and bonds.

Analysts can obtain useful information by comparing a company's most recent financial statements with its results in previous years and with the results of other companies in the same industry. Three primary types of financial
Financial statement analysis, when used carefully, can produce meaningful insights about a company's financial information and its prospects for the future. However, the analyst must be aware of certain important considerations about financial statements and the use of these analytical tools. For example, the dollar amounts for many types of assets and other financial statement items are usually based on historical costs and thus do not reflect replacement costs or inflationary adjustments. Furthermore, financial statements contain estimates of numerous items, such as warranty expenses and uncollectible customer balances. The meaningfulness of ratios and percentages depends on how well the financial statement amounts depict the company's situation. Comparisons to industry statistics or competitors' results can be complicated because companies may select different, although equally acceptable, methods of accounting for inventories and other items. Making meaningful comparisons is also hampered when a company or its competitors have widely diversified operations.

The tools of financial statement analysis, ratio and percentage calculations, are relatively easy to apply. Understanding the content of the financial statements, on the other hand, is not a simple task. Evaluating a company's financial status, performance, and prospects using analytical tools requires skillful application of the analyst's judgment.

Financial Analysis can be measured in the following ways.

i. Financial Ratios
ii. Horizontal Analysis
iii. Vertical Analysis/Comparative Analysis
iv. Trend Analysis
v. The Du Pont system
i) **Financial Ratios:**

The purpose of the initial two steps in financial management (bookkeeping and accounting) is to prepare financial statements. The next two steps involve the analysis of business performance for the purpose of assessing operating and financial strengths and weaknesses, and making investment, financing, and operating decisions.

When looking at a balance sheet or an income statement, it is relatively easy to gauge how much profit a business has made, how much debt it owes to its creditors, or the amount of funds owners have invested. However, to evaluate business performance in more depth and with more precision, managers and business investors use financial ratios to gauge *liquidity, leverage, activity,* and *profitability.*

Ratios can be regarded as diagnostic tools. Just as a doctor measures various characteristics of the blood, a person evaluating a company measures the various relationships of numbers shown on financial statements. To be sure, a high or low value of some characteristics of the blood is seldom a disease in itself, but more likely the symptom of a disease. Likewise, the study of numbers shown on financial statements reveals symptoms of problems or of management errors that need to be corrected.

A ratio is simply the relationship between two numbers. Among the most commonly used financial ratios formulae are balance sheet ratios, which relate two balance sheet accounts, income statement ratios, which show the relationship between two items on the income statement, and combined ratios, which relate numbers on the balance sheet to the income statement.

Balance sheet, income statement, and combined ratios can be grouped under four categories.

1. **Liquidity ratios** measure the ability of a firm to meet its future cash obligations - that is, to meet its short-term obligations.
2. **Leverage ratios** are used to evaluate the capital structure — that is, the proportion of funds a business borrows from creditors and owners to finance the purchase of assets.

3. **Activity ratios** evaluate how efficiently managers use the assets of a business.

4. **Profitability ratios** measure the overall operating effectiveness of a business by comparing profit level to sales, assets, and equity.

Commonly used financial ratios:

- **Liquidity Ratios**
  1. Current ratio (times)
  2. Quick ratio (times)

- **Leverage Ratios**
  1. Debt-to-total assets (%)
  2. Times interest-earned (times)
  3. Fixed-charges coverage (times)

- **Activity Ratios**
  1. Average collection period (days)
  2. Inventory turnover (times)
  3. Fixed assets turnover (times)
  4. Total assets turnover (times)

- **Profitability Ratios**
  1. Profit margin on sales (%)
  2. Return on total assets (%)
  3. Return on equity (%)

ii) **Horizontal Analysis**

   Horizontal analysis is performed by listing two consecutive financial statements, side by side, and then comparing the difference between the two periods. The comparison shows the growth or decline in each component of a financial statement, both in absolute Rupees and as a percentage. Alternatively, it looks at amounts on the financial statements over the past years.
In this, an analyst compares financial information for two or more years for a single company. Since the analyst is reading across the page to compare any single line item, such as sales revenues. In addition to comparing dollar amounts, the analyst computes percentage changes from year to year for all financial statement balances, such as cash and inventory. Alternatively, in comparing financial statements for a number of years, the analyst may prefer to use a variation of horizontal analysis called *trend analysis*. Trend analysis involves calculating each year's financial statement balances as percentages of the first year, also known as the base year. When expressed as percentages, the base year figures are always 100 percent, and percentage changes from the base year can be determined.

iii) **Vertical Analysis**

One of the most frequently used approaches in probing a balance sheet and an income statement is to list the individual items between two successive years by reducing the numbers on the financial statements to comparable percentages. This is called "vertical analysis" or "common-size statement analysis".

Vertical analysis is interesting to use for comparing the performance of one business to another or one division to another, because it ignores the difference in the size of the individual accounts. All elements are converted on comparable terms—that is, a percentage.

Vertical analysis reveals the change in mix between several elements of a balance sheet and between two consecutive balance sheets. It reports each amount on a financial statement as a percentage of another item.

Comparative analysis gives a snapshot view of the financial statements at a given point in time; it is like still photography. For a more complete picture, ratios of one company should be compared to those of industry over a period of several years, like a motion picture; this would show whether the financial statements are improving or deteriorating.
Vertical analysis not only enables management to compare financial statements from one year to the next, between companies or operating divisions, but it can also reveal sufficient information for management to answer the following questions:

- Is our company's capital structure in line with that of the industry?
- Is the ratio of the company's current assets to total assets favourable?
- Is the investment in fixed assets in the right proportion?
- Are the manufacturing costs too high?
- Are the operating expenses too high?
- Is the ratio of profit to sales adequate?

iv) Trend Analysis:
Comparing one set of figures for a given year to those of the industry gives a good picture of the financial structure and profitability level of a particular business. However, this analysis does not give a full picture of the situation, since it does not take into account the element of time.

v) The Du Pont System
The Du Pont system is a financial analysis system that has achieved international recognition. Du Pont brought together the key financial ratios in a logical presentation to assist management in measuring their return on investment (ROI). The system shows the various components affecting ROI, such as net income, fixed and current assets, and the most important figures appearing on the income statement and the balance sheet.

Financial Statements are used by the following agencies to make meaningful conclusions.

- Supervisory Agencies
- Central Banks
- Financial Institutions
- Commercial Banks
- Investment Banks
- Housing Societies/Thriffs
Definition of 'Vertical Analysis'

A method of financial statement analysis in which each entry for each of the three major categories of accounts (assets, liabilities and equities) in a balance sheet is represented as a proportion of the total account. The main advantages of vertical analysis is that the balance sheets of businesses of all sizes can easily be compared. It also makes it easy to see relative annual changes within one business.

It is a technique of financial statement analysis wherein every entry under all three major accounting categories - equities, assets and liabilities, in a balance sheet are presented as a part of the total account. Using vertical analysis, it is easier to compare balance sheets of small as well as large business organizations. Another benefit of doing a vertical analysis of financial statements is that it helps to bring to notice any changes in a business within a year.

In vertical analysis, every amount in the financial or income statement is expressed as a percentage of another amount. Thus, in the assets column, after it is done, each value is shown as a percentage of the total value of all assets combined. These proportional values, when represented, are known as a common-size balance sheet. Similarly, for income statement, values derived are a
percentage of total sales. The restated values form the common-size income statement. Companies find this useful for comparing their financial and income statements with other companies or the industry average.

Vertical analysis shows each account on financial statement in rupees and as a percentage of another item. The vertical analysis of a balance sheet shows the amount of each item as a percentage of the total assets. Each item on an income statement is shown as a percentage of sales.

A financial statement in the vertical analysis format is known as a common size statement. Common size statements are useful for showing annual changes in a company and when comparing the data from two companies or to industry averages. Two companies in the same industry can be dramatically different in size but the percentages of their common size statements allows them to be compared to each other and also to the industry average.

Performing a Vertical Analysis

For a fledgling business, vertical analysis of the statement of profit and loss can be particularly enlightening. Looking at every item on the statement as a percentage of sales tells us exactly where each rupee of the revenues is going. Once we know that, it’s easy to see which items are eating up too much of the profits. Those are the areas where one can try to cut back. In the two-year version of this analysis, one can see how components have changed, which may not be apparent until one sees them expressed in this manner.

As one can see in the statement of profit and loss, Joan’s gross profit is sizable, at 61 percent. The selling expenses, though, are eating up a huge chunk of the revenues, even more than product costs; that could be an area in which to cut back. General operating expenses take up a reasonable percentage of sales, leaving Joan with about a 5 percent bottom-line profit.

As for the company’s balance sheet, inventory makes up the lion’s share of her current assets, which could translate into cash-flow problems down the line.
Also, her company is financed with more debt than equity. That’s not uncommon for new businesses, but all of this debt is current, which could suck up all the current assets of the company.

**Common-Size Analysis**

Common-size analysis (also called vertical analysis) expresses each line item on a single year’s financial statement as a percent of one line item, which is referred to as a base amount. The base amount for the balance sheet is usually total assets (which is the same number as total liabilities plus stockholders' equity), and for the income statement it is usually net sales or revenues. By comparing two or more years of common-size statements, changes in the mixture of assets, liabilities, and equity become evident. On the income statement, changes in the mix of revenues and in the spending for different types of expenses can be identified.

**Common Size Income Statement Analysis**

**Financial Statement Analysis Using the Technique of Vertical Analysis**

Common size financial statement analysis, also called vertical analysis, is just one technique that financial managers use to analyze their financial statements. It is not another type of income statement. It is just a tool that is used to analyze the income statement. Common size income statement analysis is stating every line item on the income statement as a percentage of sales. If anyone had more than one year of financial data, one can compare income statements to see one's financial progress. This type of analysis will let one see how the revenues and the spending on different types of expenses change from one year to the next.

When anyone show the items of the income statement as a percentage of sales figure, it is easy to compare the income and expenses and understand the financial position of the company. Common size analysis is an excellent tool to compare companies of different sizes or to compare different years of data for the same company, which is what we are doing in this example. Common size analysis is not as detailed as trend analysis using ratios. It does not provide
enough data for sophisticated investing decisions. For managers of small businesses who do not have formal education in financial management, vertical analysis provides a simple way for them to analyze their financial statements. The formula to calculate growth rate is the following:

\[
\text{Growth Rate} = \frac{\text{Value at End of Period} - \text{Value at Beginning of Period}}{\text{Value at Beginning of Period}} \times 100
\]

**Vertical Analysis of the Financial Statements**

Vertical analysis compares different categories of the financial statements. The comparison is usually within the same accounting period. Vertical analysis doesn't normally integrate different financial statements. In other words, comparison is made between different accounts of the same financial report. Thus the analysis is done vertically, or up and down on the same financial statement. The comparisons that are made generally have a financial affect on each other\(^8\).

**Vertical Analysis of the Income Statement**

When it comes to the income statement, vertical analysis can be used to compare revenue account categories, expense categories or expense accounts against revenue categories. Expenses are also compared to either total revenue or to gross profits. There are usually two basic expense categories, fixed and operating expense. Since operating expenses tend to fluctuate more with sales activities, vertically analyzing operating expenses against revenue is more important to profitability.

**Vertical Analysis of the Balance Sheet**

Examining the balance sheet, vertical analysis is used to compare asset account categories, liability account categories or liability accounts against asset accounts. Owner's Equity can also be compared to assets and liabilities.

For better examination of the financial statements, vertical analysis should be used in conjunction with horizontal analysis. By comparing the results
of current conditions to historical data, the entrepreneur gets a better understating of the financial direction of the company. It also allows the entrepreneur to look for negative trends in profitability, find the root cause and take appropriate action.

**Income Statement**

i) Contrast each individual revenue item contained in the present year's income statement with the total amount of sales.

ii) Contrast each individual expenditure item contained in the present year's income statement with the total amount of sales to assess the percentage of money used to pay for the expense.

iii) Repeat the same procedures with previous year's income statements to ascertain whether costs went up, profits declined or the rates of taxes increased.

**Balance Sheet**

i) Compare each asset in the balance sheet with the amount of total assets. Compare cash in hand, machinery, buildings and land with the value of total assets of the company. Express these in the form of percentages.

ii) Compare each liability with the value of the total liabilities of the company. The mortgages, debentures, bonds and equity capital are compared to the total liabilities of the company.

iii) Repeat the same procedures for the previous year to determine whether the assets have declined and liabilities have gone up.

**Definition and Explanation of Vertical Analysis and Common Size Statements:**

**Vertical analysis** is the procedure of preparing and presenting *common size statements*. **Common size statement** is one that shows the items appearing on it in percentage form as well as in rupee form.

Each item is stated as a percentage of some total of which that item is a part. Key financial changes and trends can be highlighted by the use of common size statements.
Common size statements are particularly useful when comparing data from different companies.

Balance Sheet:
One application of the vertical analysis idea is to state the separate assets of a company as percentages of total sales. Each asset in common size statement is expressed in terms of total assets, and each liability and equity account is expressed in terms of total liabilities and stockholders' equity.

The main advantage of analyzing a balance sheet in this manner is that the balance sheets of businesses of all sizes can easily be compared. It also makes easy to see relative annual changes in one business.

Income Statement:
Another application of the vertical analysis idea is to place all items on the income statement in percentage form in terms of sales. The percentage figures for each year are expressed in terms of total sales for the year.

By placing all items on the income statement in common size in terms of sales, it is possible to see at a glance how each rupee of sales is distributed among the various costs, expenses, and profits. And by placing successive years' statements side by side, it is easy to spot interesting trends. Managers and investment analysts often pay close attention to the gross margin percentage since it is considered a broad gauge of profitability. The gross margin percentage is computed by the following formula:

\[ \text{Gross margin percentage} = \frac{\text{Gross margin}}{\text{Sales}} \]

The gross margin percentage tends to be more stable for retailing companies than for other service companies and for manufacturers. Since the cost of goods sold in retailing exclude fixed costs. When fixed costs are included in the cost of goods sold figure, the gross margin percentage tends to increase or decrease with sales volume. The fixed costs are spread across more units and the gross margin percentage improves.
While a higher gross margin percentage is considered to be better than a lower gross margin percentage, there are exceptions. Some companies purposely choose a strategy emphasizing low prices and (hence low gross margin). An increasing gross margin in such a company might be a sign that the company’s strategy is not being effectively implemented.

Common size statements are also very helpful in pointing out efficiencies and inefficiencies that might otherwise go unnoticed. A glance at the common-size income statement shows, however, that on a relative basis, selling expenses were no higher in 2002 than in 2001. In each year they represented 13.5% of sales.

The main point of performing a horizontal analysis on the financial statements is to see how things have changed from one period to the next. These changes are called trends in accounting lingo, and we can tell a lot about a company by the trends in its financial statements. In addition to that, it will help shine a light on numbers that should have changed by a certain amount but didn’t. For example, if the sales increased by 20 percent one would expect the gross profit to change by a similar amount.

Comparative balance sheet is a financial statement that lists two or more years of a company's balance sheet information. A balance sheet is a document that shows a company’s assets, liabilities and equities at the end of a period. When a person does a vertical analysis of a comparative balance sheet, she/he must change all of the rupee amounts into percentages. The comparative balance sheet then shows percentage values for each account for the periods of time the balance sheet covers, such as two or three years.

**Difference between Vertical Analysis and Horizontal Analysis:**

**Vertical analysis** reports each amount on a financial statement as a percentage of another item. The restated amounts from the vertical analysis of the balance sheet will be presented as a *common-size balance sheet*. A common-
size balance sheet allows you to compare your company’s balance sheet to another company’s balance sheet or to the average for its industry.

*Vertical analysis of an income statement* results in every income statement amount being presented as a percentage of sales. The restated amounts are known as a common-size income statement. A common-size income statement allows you to compare the company’s income statement to another company’s or to the industry average.

**Horizontal analysis** looks at amounts on the financial statements over the past years. The same analysis will be done for each item on the balance sheet and for each item on the income statement. This allows us to see how each item has changed in relationship to the changes in other items. Horizontal analysis is also referred to as *trend analysis*.

Vertical analysis, horizontal analysis and financial ratios are part of financial statement analysis.

A vertical analysis shows us the relationships among components of one financial statement, measured as percentages. On the balance sheet, each asset is shown as a percentage of total assets; each liability or equity item is shown as a percentage of total liabilities and equity. On the statement of profit and loss, each line item is shown as a percentage of net sales.

The horizontal and vertical analyses fit into financial statement analysis to help a reader to understand a company’s past, present, and possible future performance.

When it comes to comparing horizontal analysis versus vertical analysis, one must keep in mind that they are contrasting approaches in financial statement analysis but together they help bring clarity and more impact to some items and relationships that might have been overlooked.
Summary

Horizontal analysis and vertical analysis are important parts of financial statement analysis. It’s important for investors, managers, and others to have an idea of how a company can be expected to perform in the future. These analyses arrange data on the current and past statements in a way that show important relationships regarding this.

- Vertical analysis shows financial data on the current year’s financial statements that is more company specific and in the current timeframe. Each item is expressed as a percentage of the total for the accounts in its category and can be easily compared to other company’s statements.
- Horizontal analysis compares current year financial statement items to the previous year’s items and increases or decreases are expressed as percentages. This makes comparisons to other companies or industry averages easier.
- Trend analysis takes horizontal analysis further using several time periods and trend percentages in a way that can show developing trends.

As far as horizontal analysis versus vertical analysis can be thought of, the contrast is distinct but together these forms of analysis help analysts and investors make intelligent projections concerning a company’s future performance.

Analysis of Business Trend

The analysis used for this purpose was the horizontal method of comparing year-to-year trend results. Study aims to determine how the company fared during the height of the recession; Understand the correlation between Sales, the Cost of Goods Sold, the Merchandise Inventory and the Gross Profit; examine the increase or decrease of these components.

- Take note if the increase in Revenue from Sales (cash-in) met with a similar increase in Gross Profit.
- Study the increase or decrease in the Cost of Goods Sold and the Merchandise Inventory End. An increase in sales denotes a corresponding increase in costs,
but we should also establish whether such costs entailed the procurement of new purchases or if the goods sold came from old stocks.

- Examine the Merchandise Inventory
- The business strategy adopted was to sell the products at lowered prices in order to recover, even in part, the procurement costs. This then allowed the entity to convert its inventory stocks into cash, to improve its liquidity during the period of recession.
- In addition, its operating expenses were greatly reduced, including manpower costs, which could denote salary cut-backs and layoffs.

**Analysis of Earnings Growth**

This is to gauge an organization's ability to improve the results of its operations, from a specific base year period. We can therefore surmise that the company is quite effective in devising strategies for coping with business setbacks.

**Analysis of Business Growth**

Since growth pertains to comparisons using a base year, horizontal analysis will be used in evaluating growth.

**Analysis of the Assets**

The vertical method of financial analysis can likewise be used in determining how the sales performance affected the company's assets or resources.
REFERENCES

Books


JOURNALS

