Umeschandra College

Semester-VI

Financial Statement Analysis

Dipak Jaiswal

Meaning of Analysis of Financial Statements

The term ‘financial analysis’ includes both ‘analysis and interpretation’. The term analysis means simplification of financial data by methodical classification given in the financial statements. Interpretation means explaining the meaning and significance of the data. These two are complimentary to each other. Analysis is useless without interpretation, and interpretation without analysis is difficult or even impossible.

Significance of Analysis of Financial Statements

(a) *Finance manager:* Financial analysis focusses on the facts and relationships related to managerial performance, corporate efficiency, financial strengths and weaknesses and creditworthiness of the company. A finance manager must be well-equipped with the different tools of analysis to make rational decisions for the firm. The tools for analysis help in studying accounting data so as to determine the continuity of the operating policies, investment value of the business, credit ratings and testing the efficiency of operations

(b) *Top management:* The importance of financial analysis is not limited to the finance manager alone. It has a broad scope which includes top management in general and other functional managers. Management of the firm would be interested in every aspect of the financial analysis. It is their overall responsibility to see that the resources of the firm are used most efficiently and that the firm’s financial condition is sound.

(c) *Trade payables:* Trade payables, through an analysis of financial statements, appraises not only the ability of the company to meet its short-term obligations, but also judges the probability of its continued ability to meet all its financial obligations in future. Trade payables are particularly interested in the firm’s ability to meet their claims over a very short period of time. Their analysis will, therefore, evaluate the firm’s liquidity position.

(d) *Lenders:* Suppliers of long-term debt are concerned with the firm’s longterm solvency and survival. They analyse the firm’s profitability over a period of time, its ability to generate cash, to be able to pay interest and repay the principal and the relationship between various sources of funds (capital structure relationships). Long-term lenders analyse the historical financial statements to assess its future solvency and profitability.

(e) *Investors:* Investors, who have invested their money in the firm’s shares, are interested about the firm’s earnings. As such, they concentrate on the analysis of the firm’s present and future profitability. They are also interested in the firm’s capital structure to ascertain its influences on firm’s earning and risk. They also evaluate the efficiency of the management and determine whether a change is needed or not. However, in some large companies, the shareholders’ interest is limited to decide whether to buy, sell or hold the shares.

(f) *Labour unions:* Labour unions analyse the financial statements to assess whether it can presently afford a wage increase and whether it can absorb a wage increase through increased productivity or by raising the prices.

(g) *Others:* The economists, researchers, etc., analyse the financial statements to study the present business and economic conditions. The government agencies need it for price regulations, taxation and other similar purposes.

Objectives of Analysis of Financial Statements

- to assess the current profitability and operational efficiency of the firm as a whole as well as its different departments so as to judge the financial health of the firm.

- to ascertain the relative importance of different components of the financial position of the firm.
- to identify the reasons for change in the profitability/financial position of the firm.
- to judge the ability of the firm to repay its debt and assessing the short-term as well as the long-term liquidity position of the firm.

Tools of Analysis of Financial Statements

The most commonly used techniques of financial analysis are as follows:

1. *Comparative Statements:* These are the statements showing the profitability and financial position of a firm for different periods of time in a comparative form to give an idea about the position of two or more periods. It usually applies to the two important financial statements, namely, balance sheet and statement of profit and loss prepared in a comparative form. The financial data will be comparative only when same accounting principles are used in preparing these statements. If this is not the case, the deviation in the use of accounting principles should be mentioned as a footnote. Comparative figures indicate the trend and direction of financial position and operating results. This analysis is also known as 'horizontal analysis'.

2. *Common Size Statements:* These are the statements which indicate the relationship of different items of a financial statement with a common item by expressing each item as a percentage of that common item. The percentage thus calculated can be easily compared with the results of corresponding percentages of the previous year or of some other firms, as the numbers are brought to common base. Such statements also allow an analyst to compare the operating and financing characteristics of two companies of different sizes in the same industry. Thus, common size statements are useful, both, in intra-firm comparisons over different years and also in making inter-firm comparisons for the same year or for several years. This analysis is also known as 'Vertical analysis'.

3. *Trend Analysis:* It is a technique of studying the operational results and financial position over a series of years. Using the previous years' data of a business enterprise, trend analysis can be done to observe the percentage changes over time in the selected data. The trend percentage is the percentage relationship, in which each item of different years bear to the same item in the base year. Trend analysis is important because, with its long run view, it may point to basic changes in the nature of the business. By looking at a trend in a particular ratio, one may find whether the ratio is falling, rising or remaining relatively constant. From this observation, a problem is detected or the sign of good or poor management is detected.

4. *Ratio Analysis:* It describes the significant relationship which exists between various items of a balance sheet and a statement of profit and loss of a firm. As a technique of financial analysis, accounting ratios measure the comparative significance of the individual items of the income and position statements. It is possible to assess the profitability, solvency and efficiency of an enterprise through the technique of ratio analysis.

5. *Cash Flow Analysis:* It refers to the analysis of actual movement of cash into and out of an organisation. The flow of cash into the business is called as cash inflow or positive cash flow and the flow of cash out of the firm is called as cash outflow or a negative cash flow. The difference between the inflow and outflow of cash is the net cash flow. Cash flow statement is prepared to project the manner in which the cash has been received and has been utilised during an accounting year as it shows the sources of cash receipts and also the purposes for which payments are made. Thus, it summarises the causes for the changes in cash position of a business enterprise between dates of two balance sheets.

Comparative Statements

As stated earlier, these statements refer to the statement of profit and loss and the balance sheet prepared by providing columns for the figures for both the current year as well as for the previous year and for the changes during the year, both in absolute and relative terms. As a result, it is possible to find out not only the balances of accounts as on different dates and summaries of different operational activities of different periods, but also the extent of their increase or decrease between these dates. The figures in the comparative statements can be used for identifying the direction of changes and also the trends in different indicators of performance of an organisation.

The following steps may be followed to prepare the comparative statements: *Step 1 :* List out absolute figures in rupees relating to two points of time (as shown in columns 2 and 3 of Exhibit 4.1).
Step 2 : Find out change in absolute figures by subtracting the first year (Col.2) from the second year (Col.3) and indicate the change as increase (+) or decrease (–) and put it in column 4.
Step 3 : Preferably, also calculate the percentage change as follows and put it in column 5.

$$\frac{\text{Absolute Increase or Decrease (Col.4)}}{\text{First year absolute figure (Col.2)}} \times 100$$

Particulars	First Year	Second Year	Absolute Increase (+) or Decrease (–)	Percentage Increase (+) or Decrease (–)	
1	2	3	4	5	
	Rs.	**Rs.**	**Rs.**	**%.**	

Illustration 1 Convert the following statement of profit and loss into the comparative statement of profit and loss of BCR Co. Ltd.:

Particulars	*Note No.*	*2013-14 Rs.*	*2014-15 Rs.*
(i) Revenue from operations		60,00,000	75,00,000
(ii) Other incomes		1,50,000	1,20,000
(iii) Expenses		44,00,000	50,60,000
(iv) Income tax		35%	40%

Solution:

Comparative statement of profit and loss for the year ended March 31, 2014 and 2015:

Particulars	*2013-14*	*2014-15*	*Absolute Increase (+) or Decrease (–)*	*Percentage Increase (+) or Decrease (–)*
	Rs.	**Rs.**	**Rs.**	**%**
I. Revenue from operations	60,00,000	75,00,000	15,00,000	25.00
II. Add: Other incomes	1,50,000	1,20,000	(30,000)	(20.00)
III.Total Revenue I+II	**61,50,000**	**76,20,000**	**14,70,000**	**23.90**
IV Less: Expenses	44,00,000	50,60,000	6,60,000	15.00
Profit before tax	**17,50,000**	**25,60,000**	**8,10,000**	**46.29**
V Less: Tax	6,12,500	10,24,000	4,11,500	67.18

Profit after tax	**11,37,500**	**15,36,000**	**3,98,500**	**35.03**

Illustration 2

From the following statement of profit and loss of Madhu Co. Ltd., prepare comparative statement of profit and loss for the year ended March 31, 2014 and 2015:

Particulars	*Note No.*	*2013-14* Rs.	*2014-15* Rs.
Revenue from operations		16,00,000	20,00,000
Employee benefit expenses		8,00,000	10,00,000
Other expenses		2,00,000	1,00,000
Tax rate 40 %			

Solution: **Comparative statement of profit and loss of Madhu Co. Limited for the year ended March 31, 2014 and 2015:**

Particulars	*2013-14*	*2014-15*	*Absolute Increase (+) or Decrease (–)*	*Percentage Increase (+) or Decrease (–)*
	Rs.	**Rs.**	**Rs.**	**%**
I. Revenue from operations	**16,00,000**	**20,00,000**	**4,00,000**	**25**
II. Less: Expenses				
a) Employee benefit expenses	8,00,000	10,00,000	2,00,000	25
b) Other expenses	2,00,000	1,00,000	(1,00,000)	(50)
Profit before tax	**6,00,000**	**9,00,000**	**3,00,000**	**50**
III. Less tax @ 40%	2,40,000	3,60,000	1,20,000	50
Profit after tax	**3,60,000**	**5,40,000**	**1,80,000**	**50**

Illustration 3

The following are the Balance Sheets of J. Ltd. as at March 31, 2014 and 2015. Prepare a Comparative balance sheet.

Particulars	*Note No.*	*March 31, 2015 (Rs.)*	*March 31, 2014 (Rs.)*
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital		20,00,000	15,00,000
b) Reserve and surplus		3,00,000	4,00,000
2. Non-current Liabilities			
Long-term borrowings		9,00,000	6,00,000
3. Current liabilities Trade		3,00,000	2,00,000

payables		35,00,000	27,00,000
Total			
II. Assets			
1. Non-current assets			
a) Fixed assets			
- Tangible assets		20,00,000	15,00,000
- Intangible assets		9,00,000	6,00,000
2. Current assets -			
Inventories		3,00,000	4,00,000
- Cash and cash equivalents		3,00,000	2,00,000
Total		**35,00,000**	**27,00,000**

Solution: Comparative Balance Sheet of J. Limited as at March 31, 2014 and March 2015:

(Rs. in Lakhs)

Particulars	*March 31, 2014*	*March 31, 2015*	*Absolute Change*	*Percentage Change*
I. Equity and Liabilities				
1. Shareholders' Funds				
a) Share capital	15	20	05	33.33
b) Reserve and surplus	04	03	(01)	(25)
2. Non-current Liabilities				
a) Long-term borrowings	06	09	03	50
3. Current liabilities				
a) Trade payables **Total**	02	03	01	50
	27	**35**	**08**	**29.63**
II. Assets				
1. Non-current assets				
a) Fixed assets				
- Tangible assets	15	20	05	33.33
- Intangible assets	06	09	03	50
b) Current assets -				
Inventories	04	03	(01)	(25)
- Cash and cash equivalents **Total**	02	03	01	50
	27	**35**	**08**	**29.63**

Illustration 4

From the following Balance Sheets of Amrit Limited as at March 31, 2014 and 2015, prepare a comparative balance sheet:

Particulars	*Note No.*	*March 31, 2015 (Rs.)*	*March 31, 2014 (Rs.)*
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital		20,00,000	15,00,000
b) Reserve and surplus		13,00,000	14,00,000
2. Non-current Liabilities			
Long-term borrowings		19,00,000	16,00,000
3. Current liabilities Trade		3,00,000	2,00,000

payables		55,00,000	47,00,000
Total			
II. Assets			
1. Non-current assets			
a) Fixed assets			
- Tangible assets		20,00,000	15,00,000
- Intangible assets		19,00,000	16,00,000
2. Current assets - Inventories		13,00,000	14,00,000
- Cash and Cash Equivalents		3,00,000	2,00,000
Total		**55,00,000**	**47,00,000**

Solution Do it yourself

Common Size Statement

Common size analysis is of immense use for comparing enterprises which differ substantially in size as it provides an insight into the structure of financial statements. Inter-firm comparison or comparison of the company's position with the related industry as a whole is possible with the help of common size statement analysis.

The following procedure may be adopted for preparing the common size statements.

1. List out absolute figures in rupees at two points of time, say year 1, and year 2 (Column 2 & 4 of Exhibit 4.2).
2. Choose a common base (as 100). For example, revenue from operations may be taken as base (100) in case of statement of profit and loss and total assets or total liabilities (100) in case of balance sheet.
3. For all items of Col. 2 and 3 work out the percentage of that total. Column 4 and 5 shows these percentages in Exhibit 4.2.

Common Size Statement

Particulars	Year one	Year two	Percentage of year 1	Percentage of year 2
1	2	3	4	5

Exhibit 4.2

Illustration 5

From the following information, prepare a Common size Income Statement for the year ended March 31, 2014 and 2015:

Particulars	*2014-15* Rs.	*2013-14* Rs.
Net sales	18,00,000	25,00,000
Cost of good sold	10,00,000	12,00,000
Operating expenses	80,000	1,20,000

Non-operating expenses	12,000	15,000
Depreciation	20,000	40,000
Wages	10,000	20,000

Solution:

Common Size Income Statement for the year ended March 31, 2013 and March 31, 2014

Particulars	*Absolute Amounts*		*Percentage of Net Sales*	
	2013-14 *Rs.*	*2014-15* *Rs.*	*2013-14* *(%)*	*2014-15* *(%)*
Net Sales	25,00,000	18,00,000	100	100
(Less) Cost of goods Sold*	12,00,000	10,00,000	48	55.56
Gross Profit	**13,00,000**	**8,00,000**	**52**	**44.44**
(Less) Operating Expenses**	1,20,000	80,000	4.80	4.44
Operating Income	**11,80,000**	**7,20,000**	**47.20**	**40**
(Less) Non-Operating expenses	15,000	12,000	0.60	0.67
Profit	**11,65,000**	**7,08,000**	**46.60**	**39.33**

* Wages is the part of cost of goods sold; ** Depreciation is the part of operating expenses.

Illustration 6

From the following information, prepare Common size statement of profit and loss for the year ended March 31, 2014 and March 31, 2015:

Particulars	*2013-14* Rs.	*2014-15* Rs.
Revenue from operations	25,00,000	20,00,000
Other income	3,25,000	2,50,000
Employee benefit expenses	8,25,000	4,50,000
Other expenses	2,00,000	1,00,000
Income tax (% of the profit before tax)	30%	20%

Solution:

Common size statement of Profit and Loss for the year ended March 31, 2014 and March 31, 2015:

Particulars	*Absolute Amounts*		*Percentage of Net Revenue from operations*	
	2013-14	*2014-15*	*2013-14*	*2014-15*
	Rs.	*Rs.*	*(%)*	*(%)*
Revenue from Operations	25,00,000	20,00,000	100	100
(Add) Other income	3,25,000	2,50,000	13	12.5
Total revenue	28,25,000	22,50,000	113	112.5
(Less) expenses:				
a) Employee benefit expenses	8,25,000	4,50,000	33	22.5
b) Other expenses	2,00,000	1,00,000	8	5

Profit before tax	18,00,000	17,00,000	72	85
(Less) taxes	5,40,000	3,40,000	21.6	17
Profit after tax	12,60,000	13,60,000	50.4	68

Illustration 7

Prepare common size Balance Sheet of XRI Ltd. from the following information:

Particulars	*Note No.*	*March 31, 2014*	*March 31, 2015*
I.Equity and Liabilities			
1. Shareholders' Fund			
a) Share capital		15,00,000	12,00,000
b) Reserves and surplus		5,00,000	5,00,000
2. Non-current liabilities			
Long-term borrowings		6,00,000	5,00,000
3. Current liabilities Trade Payable		15,50,000	10,50,000
Total		**41,50,000**	**32,50,000**
II. Assets			
1. Non-current assets			
a) Fixed assets			
- Tangible asset			
Plant & machinery		14,00,000	8,00,000
- Intangible assets Goodwill		16,00,000	12,00,000
b) Non-current investments		10,00,000	10,00,000
2. Current assets			
Inventories **Total**		1,50,000	2,50,000
		41,50,000	**32,50,000**

Solution:

Common size Balace Sheet

as at March 31, 2014 and March 31 , 2015:

Particulars	*Absolute Amounts*		*Percentage of Total Assets*	
	31.03.2014	*31.03.2015*	*31.03.2014*	*31.03.2015*
	Rs.	*Rs.*	*(%)*	*(%)*
I. Equity and Liabilities				
1. Shareholders fund				
a) Share capital	15,00,000	12,00,000	36.14	36.93
b) Reserve and surplus	5,00,000	5,00,000	12.05	15.38
2. Non-current liabilities				
Long-term borrowings	6,00,000	5,00,000	14.46	15.38
3. Current liabilities Trade payables	15,50,000	10,50,000	37.35	32.31
Total	**41,50,000**	**32,50,000**	**100**	**100**

II. Assets				
1. Non-current assets				
a) Fixed assets				
- Tangible asset				
Plant & machinery	14,00,000	8,00,000	33.73	24.62
- Intangible assets				
Goodwill	16,00,000	12,00,000	38.55	36.92
Non-current investments	10,00,000	10,00,000	24.10	30.77
2. Current assets				
Inventories	1,50,000	2,50,000	3.62	7.69
Total	**41,50,000**	**32,50,000**	**100**	**100**

Trend Analysis

The financial statements may be analysed by computing trends of series of information. Trend analysis determines the direction upwards or downwards and involves the computation of the percentage relationship that each item bears to the same item in the base year.

Procedure for Calculating Trend Percentage

One year is taken as the base year. Generally, the first year is taken as the base year. The figure of base year is taken as 100. The trend percentages are calculated in relation to this base year. If a figure in other year is less than the figure in base year, the trend percentage will be less than 100 and it will be more than 100 if figure is more than the base year figure. Each year's figure is divided by the base year figure.

$$\text{Trend Percentage} = \frac{\text{Present year value}}{\text{Base year value}} \quad 100$$

The accounting procedures and conventions used for collecting data and preparation of financial statements should be similar; otherwise the figures will not be comparable.

Illustration 8

Calculate the trend percentages from the following figures of sales, stock and profit of X Ltd., taking 2010 as the base year and interpret them.

(Rs. in lakhs)

Year	*Sales (Rs.)*	*Stock (Rs.)*	*Profit before tax (Rs.)*
2010	1,881	709	321
2011	2,340	781	435
2012	2,655	816	458
2013	3,021	944	527
2014	3,768	1,154	627

Solution Trend Percentages (base year 2010 = 100) *(Rs. in lakhs)*

Year	*Sales Rs.*	*Trend %*	*Stock Rs.*	*Trend %*	*Profit Rs.*	*Trend %*
2010	1881	100	709	100	321	100
2011	2340	124	781	110	435	136
2012	2655	141	816	115	458	143
2013	3021	161	944	133	527	164
2014	3768	200	1154	163	627	195

Interpretation :

1. The sales have continuously increased in all the years up to 2014, though in different proportions. The percentage in 2014 is 200 as compared to 100 in 2010. The increase in sales is quite satisfactory.
2. The figures of stock have also increased over a period of five years. The increase in stock is more in 2013 and 2014 as compared to earlier years.
3. Profit has substantially increased. The profits have increased in greater proportion than sales which implies that the company has been able to reduce their cost of goods sold and control the operating expenses.

Illustration 9

From the following data relating to the assets of Balance Sheet of ABC Ltd., for the period ended March 31, 2011 to March 31, 2014, calculate trend percentages. *(Rs. in Lakhs)*

Particulars	2010-11	2011-12	2012-13	2013-14
Cash	100	120	80	140
Debtors	200	250	325	400
Stock	300	400	350	500
Other current assets	50	75	125	150
Land	400	500	500	500
Buildings	800	1000	1200	1500
Plant	1000	1000	1200	1500

Solution:

Trend Percentages

(Rs. in lakhs)

Assets	*2010-11*	*Trend %*	*2011-12*	*Trend %*	*2012-13*	*Trend %*	*2013-14*	*Trend %*
Current Assets								
Cash	100	100	120	120	80	80	140	140
Debtors	200	100	250	125	325	162.5	400	200
Stock	300	100	400	133.33	350	116.67	500	166.67
Other Current Assets	50	100	75	150	125	250	150	300
	650	**100**	**845**	**130**	**880**	**135.38**	**1,190**	**183.08**
Non-current Assets								
Land	400	100	500	125	500	125	500	125
Buildings	800	100	1,000	125	1,200	150	1,500	187.5
Plant	1000	100	1,000	100	1,200	120	1,500	150
	2,200	**100**	**2,500**	**113.64**	**2,900**	**131.82**	**3,500**	**159.00**
Total Assets	**2,850**	**100**	**3,345**	**117.36**	**3,780**	**132.63**	**4,690**	**164.56**

Interpretation:

1. The assets have exhibited a continuous increasing trend over the period.
2. The current assets increased much faster than the Non-current assets.
3. Sundry debtors and other current assets and buildings have shown higher growth.

Illustration 10

From the following data relating to the Equity and liabilities of balance sheet of X Ltd., for the period March 31, 2010 to 2013, calculate the trend percentages taking 2010-11 as the base year.

(Rs. in lakhs)

Particulars	*2010-11*	*2011-12*	*2012-13*	*2013-14*
Equity Share Capital	1,000	1,000	1,200	1,500
General Reserve	800	1,000	1,200	1,500
12% Debentures	400	500	500	500
Bank Overdraft	300	400	550	500
Trade Payable	100	120	80	140
Sundry Creditors	300	400	500	600
Outstanding Liabilities	50	75	125	150

Solution:

Trend Percentages

(Rs. in Lakhs)

Equity and Liabilities	*2010-11*	*Trend %*	*2011-12*	*Trend %*	*2012-13*	*Trend %*	*2013-14*	*Trend %*
Shareholder Funds								
Equity Share Capital	1,000	100	1,000	100	1200	120	1,500	150
General Reserve	800	100	1,000	125	1200	150	1,500	187.5
	1,800	**100**	**2,000**	**111.11**	**2400**	**133.33**	**3,000**	**166.67**
Long-term Debts								
Debentures	400	100	500	125	500	125	500	125
	400	**100**	**500**	**125**	**500**	**125**	**500**	**125**
Current Liabilities								
Bank Overdraft	300	100	400	133.33	550	183.33	500	166.67
Trade Payable	100	100	120	120	80	80	140	140
Sundry Creditors	300	100	400	133.33	500	166.67	600	200
Outstanding Expenses	50	100	75	150	125	250	150	300
	750	**100**	**995**	**132.67**	**1,255**	**167.33**	**1,390**	**185.33**
Total	**2,950**	**100**	**3,495**	**118.47**	**4,155**	**140.85**	**4,890**	**165.76**

Interpretation:

1. Shareholders' funds have increased over the period because of retention of profits in the business in the form of reserves, and the share capital has also increased, may be due to issue of fresh shares or bonus shares.
2. The increase in current liabilities is more than that of long-term debt. This may be due to expansion of business and/or availability of greater credit activities.