Analysis of Financial Statements

Financial statement analysis is the procedure of recognizing the strength and the weakness of the firm by correctly establishing relationships between the items of financial statements. It helps analysts make an understanding of past performance of the firm based on which they make forecast about future performance and risk of the firm. Financial statement analysis ascertains the implication of the data contained in the financial statements with a view to understanding liquidity, solvency, and profitability of the firm. The process of financial statement analysis can be compared with the diagnostic process followed by a doctor. A doctor checks his patient by carrying out various tests like measuring body temperature, blood pressure, blood sugar etc. and comes to the conclusion about the state of his/her health for deciding medicines to be prescribed. Similarly, a financial analyst analyses financial statements with various tools of analysis. Based on the analysis he comes to the conclusion about the financial health and weakness of the firm, makes prediction about its future and prescribes the courses of action to be followed for its overall improvement.

Financial statement analysis involves the following steps:

1. Study of the close environment in which firm operates.

2. Selection of pertinent information from financial statements.

3. Classification of information selected from financial statements in such a way as to construct significant relationship.

4. Drawing of conclusions after applying various tools and techniques of analysis.

Need for Financial Statement Analysis (FSA)

The need of financial statement analysis can be discussed as follows:

1. Investment Decision: There are usually two kinds of financiers in a firm, namely, equity shareholders and loan providers. Though, they make investment with different intentions. The former make investment with the aspiration of its steady growth and getting reasonable return more or less frequently. The debt capital providers make investment for getting interest and repayment of loan when it becomes due. Here lies the requirement of financial statement analysis. It facilitates to assess the risk and return on equity investment, its growth potentiality and risk involved with the loan to firm i.e., the solvency of the firm. Therefore, they can take suitable investment decisions.

2. Profitability Estimation: The continued existence and expansion of the firm eventually depend upon its profitability. The firm is required to keep an eye on its profitability constantly so that it can satisfy its shareholders. The unqualified profit figure in the income statement cannot directly point out profitability of the firm. The financial statement analysis helps by means of various techniques, e.g. ratio analysis, EVA analysis etc. it makes appraisal of the profitability to determine whether profit earned by the firm is adequate as compared with the yardstick figure, for instance, industry's average profitability and competitor's profitability.

3. Liquidity Measurement: Liquidity Measurement is one of the important aspects of Financial Statement Analysis. Liquidity indicates the short term debt disbursement capacity of the firm and its capability to meet day to day operating expenses. So, the liquidity of the firm gets special attention both from the standpoint of creditors and management. By conducting appropriate analysis of financial statements, it has to be assessed whether liquidity of the firm is being maintained at optimal level. In fact, liquidity is the life blood of business. If the firm suffers from liquidity crunch, it will get rot. So, by conducting continuous liquidity analysis, the management can take credit decision most rationally and judiciously.

4. Predicting about future: Financial statements become significant only when they can be used for forecast of the future prospect and growth potential of the business. It analyses historical data by various techniques such as trend analysis, regression analysis etc. for predicting the future. At present, in order to improve the predictive value of financial statements, the analysts have begun to consider non-financial measures along with financial measures, such as brand equity, customer and supplier relation, market position, opportunity and risk, etc.

5. Performance Evaluation The globalisation, liberalisation and deregulation of the economy have carried a new challenge before the business. To stay alive in the changing scenario it must be able to produce quality goods or render quality service at competitive price. Financial statement analysis determines the competitiveness of the firm by rearranging and analysing the figures included in financial statements. It pinpoints the strength and weakness of the business as compared with its competitors and advocates measures for its sustainable development.

6. Allocation of Resources: The scarce resources of the county ought to be used in different segments and industries in the best possible way for upliftment of the society and swift economic development. For this purpose the firm is required to allocate its limited resources best possible ways among various competing investment opportunities. The -financial statement analysis can be used as an effective means of generating data for developing corporate investment model, economic development model of the country etc.

7. Prevention against Industrial Sickness: In India, some industrial units are born sick, sickness is thrust upon some while others become sick due to a number of causes. Lack of planning and imperfect project formulation, give birth to a sick unit Choice of product without analysing the market, improper site selection, tardy implementation of the project, etc., are other causes. Sickness is trust upon some industrial units due to change in Government policy, overspending on essentials; absence of control on borrowings, dishonest practices on the part of management, etc. But the various common causes may be grouped under two categories: a) External, and b) Internal. Financial statement analysis indicates the sickness in two parts i.e., unavoidable and avoidable, and suggest necessary steps for prevention of sickness.

8. Managerial Decisions : In order to run the business effectively, the management very often has to take a range of tactical decisions such as make or buy; pricing of the product, balancing of the capital structure to reduce financial risk, closing down or suspending of an unviable unit, credit decision, most profitable product mix etc. Financial statement analysis has played a significant role in this regard. By analysing and interpreting various financial and non-financial data and information suitably, the financial analysts help the management to take those decisions most rationally and judiciously.

Different types of Financial Analysis:

Financial statements are analysed by different parties for different purposes. The analysis is done from different angles. Accordingly, we can classify financial statement analysis into different categories as follows: a) On the basis of concerned Parties: 1) External Analysis 2) Internal Analysis b) On the basis of time period of study: 1) Horizontal Analysis 2) Vertical Analysis.

External Analysis: People outside the firm do external analysis. Prospective investors, suppliers, lenders, Government agencies. customers, credit agencies, are outsiders/external parties to the firm. These external parties do not have any access to the internal records of the company; nor do they have any scope to know the hidden accounting policy, if any**.** So, they have to rely on entirely on the published financial statements and other additional information supplied by the management. Their position has been improved in recent times due to introduction of governmental regulations requiring business concerns to provide detailed information to public through audited accounts.

Internal Analysis: This analysis is undertaken by the management of the company to monitor its financial and operating performance. It is done by the company's finance and accounting departments. Executives and employees of the organization also take part in this process. As the analysis is done by the party who has access to the internal records and policies, it is expected to be more effective and reliable.

Horizontal Analysis: This analysis deals with the study of past consecutive balance sheets, income statements or statement of cash flow. The analysis can be done between two periods or over a series of periods. The relevant accounting numbers of all years of the study are presented horizontally in a statement over a number of columns each representing a year. Those figures can also be graphically presented. The figures of each year are compared with those of the base year i.e., the beginning year of the study. This analysis is also called 'Dynamic Analysis' as it covers several years for study. This analysis is very much effective for understanding the direction and trend of the organisation particularly when it is undertaken for several years. Comparative statements and trend analysis are two important tools that can be employed for horizontal analysis.

Vertical Analysis: As it concentrates solely on one year's financial statement it is also called as Static Analysis. In vertical analysis the figures relating to a financial statement are presented vertically, i.e., a figure from a year's statement is compared with a base selected from the same statement. Common-size statements and accounting ratios are the two important tools used for vertical analysis. This analysis is very much useful for understanding the structural relationship of various items in a financial statement. It is useful to understand the performance of several companies in the same group, or many divisions or departments in the same company. However this type of analysis is not very conducive to a proper analysis of a company's financial position, for it depends on the data for one time period. In order it more effective, it could be conducted both vertically as well as horizontally.

Cross-sectional Analysis: Cross-sectional analysis helps to compare the performance among the similar kind of firms where industry performance is taken as standard. A financial measure by itself is not of much importance. For example, the firm may be having a net profit-margin say 10%. This information by itself does not express much meaning. If a competing firm earns a net profit margin, say, 20%, then it is clear that the firm is not doing well as its competitor. On the other hand, if the competing firm has a net profit margin say, 5%, it will imply that the firm under consideration is doing better than its competitor. Cross-sectional analysis is very much helpful for evaluating financial performance and financial health of the company with reference to its competitors. However, this analysis is difficult in the case of diversified firms as they do not come under single industry group.

Major Tools and Techniques of Financial Statement Analysis:

There are a number of tools and techniques that are used for financial statement analysis. But a single technique is not sufficient for decision-making. The financial analyst usually applies a combination of techniques for more effective analysis and interpretation. However, all techniques are not applicable everywhere. The main objective of using tools is the simplification and presentation of data.

The various tools of financial analysis are as follows:

a. Comparative Financial Statements,

b. Common Size Statements,

c. Trend Ratios or percentages,

d. Ratio Analysis,

e. Funds Flow Analysis,

f. Cash Flow Analysis.

Example:

From the following information prepare a comparative balance sheet of Z Ltd. and interpret the financial position.

Balance Sheet as at 31st December

Liabilities and interpret the financial position.	**2007 (Rs.)**	**2008 (Rs.)**	**Assets**	**2007 (Rs.)**	**2008 (Rs.)**
Equity capital	5,00,000	7,00,000	Land & Building	3,80,000	3,25,000
Reserves and surplus	4,50,000	3,70,000	Plant & Machinery	4,25,000	6,00,000
Debentures	2,50,000	3,00,000	Furniture & Fixtures	35,000	40,000
Lone-term loan	1,75,000	2,00,000	Other Fixed Assets	20,000	25,000
Bills Payable	35,000	30,000	Stock	2,75,000	3,15,000
Sundry creditors	80,000	1,05,000	Sundry Debtors	3,25,000	3,06,000
Other Current liabilities	4,000	6,000	Bills Receivable	20,000	30,000
			Cash and Bank	14,000	11,000
			Prepaid	–	5,000
	14,94,00,00,000	17,11,000		14,94,000	17,11,000

Solution:

Comparative

Balance Sheet
as on 31.12.2007 and 31.12.2008

	2007	2008	Absolute Change	Percentage Change
	RS.	RS.	RS.	RS.
ASSETS				
Current Assets:				
Stock	2,75,000	3,15,000	40,000	14.55
Sundry Debtors	3,25,000	3,60,000	35,000	10.77
Bills Receivable	20,000	30,000	10,000	50
Cash and Bank	14,000	11,000	(-) 3,000	(-)21.42
Prepaid Expenses	-	5,000	5,000	-
Total Current Assets (A)	6,34,000	7,21,000	87,000	13.72
Fixed Assets:				
Land & Building	3,80,000	3,25,000	(-)55,000	(-)14.47
Plant & Machinery	4,25,000	6,00,000	1,75,000	41.18
Furniture & Fixtures	35,000	40,000	5,000	14.29
Other Fixed Assets	20,000	25,000	5,000	25
Total Fixed Assets (B)	8,60,000	9,90,000	1,30,000	15.12
Total Assets (A + B)	14,94,000	17,11000	2,17,000	14.52
LIABILITIES & CAPITAL				
Current Liabilities:				
Bills Payable	35,000	30,000	(-)5,000	(-)14.28
Sundry creditors	80,000	1,05,000	25,000	31.25
Other Current liabilities	4,000	6,000	2,000	50
Total Current Liabilities (C)	1,19,000	1,41,000	22,000	18.49
Debentures	2,50,000	3,00,000	50,000	20
Long-term loan	1,75,000	2,00,000	25,000	14.28
Total Long-term Liabilities (D)	4,25,000	5,00,000	75,000	17.65
Total Liabilities (C + D)	5,44,000	6,41,000	97,000	17.83
Equity capital	5,00,000	7,00,000	2,00,000	
Reserves and surplus	4,50,000	3,70,000	80,000	17.7
Total Capital (E)	9,50,000	10,70,000	1,20,000	12.63
Total Liabilities & Capital (C + D + E)	14,94,000	17,11000	2,17,000	14.52

Interpretation

1. Long-term Solvency Position: It is being noted from the comparative balance sheet that there was a raise in fixed assets by Rs. 1,30,000 i.e., by 15.12% while long-term liabilities enhanced by Rs. 75,000 and equity capital increased by Rs. 2,00,000. So, the company financed its fixed assets from long-term sources, which was a wise policy. The gearing of the company also improved as the increase in total capital was more than the increase long-term liabilities.

2.Liquidity Position: The gross working capital of the firm increased by Rs.87,000 i.e., by 13.72%. While stock and debtors increased by 14.55% and 10.77%, the increase in b receivables was as high as 50%. Again cash position deteriorated by Rs. 3000 i.e., 21.42%. So investigation is further required to review whether increase in the level of inventory and receivables was necessitated by the increase in the volume of operation or resulted simply because of inefficient working capital management. It is to be noted that current liabilities have increased by Rs.22,000. Thus, increase in current assets by Rs.87,000 was largely financed from long term sources.

3.Growth of the Firm: Reserves and surplus depleted by Rs. 80,000 i.e., by 17.78%. So, it has to be seen whether this was caused due to loss of the concern or payment of dividend or issue of bonus shares or combination of them.

The overall financial position of the concern, it appears from the above analysis, improved over two years.

Example:

The income statements of a concern for the year ending on 31st March, 2007 and 2008 are given below. Prepare a Comparative Income Statement and give necessary comments.

Items	2007 Rs.(000)	2008 Rs.(000)
Net Sales	500	1000
Cost of goods sold	300	500
Operating Expenses:		
Office and administration expenses	50	80
Selling and distribution expenses	25	75
Non-operating Expenses:		
Interest paid	20	40
Income-tax	25	50

Solution:

Comparative Income Statement

For the year ended 31st, March 2007 and 2008

	2007 Rs.	2008 Rs.	Absolute Change Rs.	Percentage Change
Net sales	500	1000	500	100
Less Cost of goods sold	300	500	200	66.67
Gross Profit (a)	200	500	300	150
Operating Expenses:				
Office and administration Exp.	50	80	30	60
Selling & Distribution Exp.	25	75	50	200
Total (b)	75	155	80	106.67

Operating Profit (a – b)	125	345	118	94.4
Less Interest Paid	20	40	30	150
Net profit before tax	105	305	200	190.48
Less Income-tax	25	50	25	100
Net profit after tax	80	255	175	218.75

Interpretation

Trend in Gross Profit: The statement showed that the net sales have increased by 100% while cost of goods sold has increased by 66.67%. This means that addition to sales has been attained with moderately minor increase in cost of goods sold. This has resulted in increase in gross profit both in absolute terms (Rs.300Crores) and in relative terms (150%). It really shows a good trend in gross profit earning.

Trend in Operating Profit: The statement discloses that operating expenses have risen by Rs. 80,000 i.e., 106.67%. Though there was a huge hike in operating expenses, still it is not alarming because there was corresponding an enormous hike in gross profit.

Trend in Net Profit: The increase in interest and income-tax has not put any shock on the profitability of the company because the net profit of the company has phenomenally increased by175 lakh. In relative termsit is as high as 218.75%. Hence it can be concluded that the company has extraordinarily progressed as far its profitability is concerned.

Example:

Following are the Income Statements of a company forthe years ending 31st March, 2007 and 2008:

	2007 (Rs. in '000)	**2008 (Rs. in '000)**
Sales	4000	6000
Miscellaneous Income	300	450
	4300	6450
Expenses		
Cost of sales	2900	4600
Office expenses	100	250
Selling expenses	50	100
Interest	25	50
	3525	5000
Net Profit	775	1450
	4300	6450

Prepare a common-size Income Statement and comment on the financial

Solution:

	2007		2008	
	(Rs. in '000)	%	(Rs. in	%
Sales	4000	100	6000	100
Less: Costof sales	2900	72.5	4600	76.67
Gross Profit (A)	1100	27.5	2400	40
Operating Expenses				
Office expenses	100	2.5	250	4.17
Selling expenses	50	1.25	100	1.67
Total operating expenses (B)	250	6.25	350	5.84
Operating profit (A) – (B)	850	21.25	2050	34.17
Miscellaneous Income	300	7.5	450	7.5
Total Income	1150	28.75	2500	41.67
Less : Non-operating expenses:				
Interest	25	0.625	50	0.834
Net Profit	1125	28.125	2450	40.84

Interpretation

1. Both the amount of sales and gross profit have increased in 2008 as compared to 2007 as well as the percentage of gross profit to sales has raised by 12.5% in 2008.

2. The increase in gross profit in 2008 has resulted from decrease in proportionate cost of sales in relation to sales in 2008.

3. Total operating expenses have increased in 2008 but again there is a decrease in proportionate operating expenses in relation to sales in 2008, therefore a slight percentage decrease in operating expenses improved the net profit in 2008.

4. The net profits have increased in absolute figures from Rs.1125 thousand to Rs.2450 thousand and in percentage from 28.125 to 40.84 in 2008 as compared to 2007.

5. It is clear from the above statement that non-operating expenses in both the years were very much within the limits.

Example:

Following are the balance sheets of X Ltd. and Y Ltd. As on 31-3-2008:

	X Ltd. Rs. in lakh	Y Ltd. Rs. in lakh
Assets		
Cash	20	70
Sundry debtors	220	230
Stock	100	150
Prepaid expenses	10	20
Other Current assets	10	20
Fixed assets (net)	600	500
Total Assets	960	990
Liabilities and Capital		
Sundry creditors	40	150
Other current liabilities	70	60
Fixed liabilities	220	310
Capital	610	450
Reserves	20	20
Total Liabilities	960	990

From the above data, prepare a common-size Balance sheet and make comments.

Solution:

Comparative Common-size Balance Sheet for the year ended 31.3.2008

	X Ltd.		Y Ltd.	
	Amount	**Percentage of total**	**Amount**	**Percentage**
SOURCES OF FUNDS				
Shareholders Fund				
Equity Share Capital	610	63.54	450	45.45
Reserves	20	2.09	20	2.03
Total (A)	630	65.63	470	47.48
Loan Funds				
Fixed liabilities **(B)**	220	22.92	310	31.31
Current liabilities & Provisions:				
Sundry creditors	40	4.16	150	15.15
Other current liabilities	70	7.29	60	6.06
Total **(C)**	110	11.45	210	21.21
TOTAL (A + B+C)	960	100	990	100

APPLICATION OF FUNDS				
Fixed Assets				

Net Block (D)	600	62.5	500	50.50
Long-term Investment (E)	-	-	-	-
Current Assets, Loans &Advances				
Debtors	220	22.91	230	23.23
Stock	100	10.42	150	15.15
Cash	20	2.09	70	7.08
Prepaid expenses	10	1.04	20	2.02
Other current assets	10	1.04	20	2.02
Total (F)	360	37.5	490	49.50
Total Assets(D+E+F)	960	100	990	100

Comments:

1.Leverage Position: The above comparative common-size balance sheet discloses that the shareholders or proprietors fund of X Ltd. is as high as 65.63%, while that of Y Ltd. is only 47.48%. A larger proportion of shareholders fund in the total financing is safe as it reduces the financial risk i.e., risk of repayment of interest and principal after a certain period. So, financial structure of Y Ltd. is comparatively riskier. However, Y Ltd. is expected to enjoy the benefit of trading on equity (i.e. higher return on equity under favourable condition) more as compared to X Ltd. as the proportion of long term liabilities of Y Ltd. is 31.31% while that of A Ltd. is 22.92%.

2. Financing of Assets: Both the business houses are following the policy of financing fixed assets from long term sources. Theoretically this is a good policy. In X Ltd., the investment in fixed assets accounts for 62.5% of total investments while total long term financing is 88.55%. These figures in B Ltd. are 50.50% and 78.79%. In view of the fact that long term fund of both the companies surpasses their respective investments in fixed assets, a part of their long term fund has been utilized for financing working capital also.

3. Liquidity Position: So far working capital is concerned; both the companies stand in a comfortable position. In X Ltd. investments in current assets is Rs.360 in lakh while current liabilities is Rs.110 in lakh. In B Ltd., investment in current assets is Rs.490 in lakh and current liabilities is Rs.210 in lakh. So the current ratio of these companies are (360/110) = 3.272 and (490/210) = 2.34 respectively, which is even better than ideal standard ratio.

Example:

From the following information prepare a Trend Analysis.

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Accounting year	Sales	Cost of goods sold	Gross margin	Capital Employed
2000-01	1000	600	320	800
2001-02	1400	900	450	900
2002-03	1700	1100	500	1250
2003-04	2300	1500	700	1500
2004-05	3900	2600	1200	1700
2005-06	4400	3800	575	1900
2006-07	4600	3900	625	1950
2007-08	6000	5000	800	2100

Solution:

Statement of trend
(Base Year = 2000-01)

Sales			Cost of goods sold		Gross margin		Capital employed	
Year	**Amount**	**Trend Percentage**	**Amount**	**Trend Percentage**	**Amount**	**Trend Percentages**	**Amount**	**Trend Percentages**
2000-01	1000	100.00	600	100.00	320	100.00	800	100.00
2001-02	1400	140.00	900	150.00	450	140.62	900	112.50
2002-03	1700	170.00	1100	183.33	500	156.25	1250	156.25
2003-04	2300	230.00	1500	250.00	700	218.75	1500	187.50
2004-05	3900	390.00	2600	433.33	1200	375.00	1700	212.50
2005-06	4400	440.00	3800	633.33	575	179.69	1900	237.50
2006-07	4600	460.00	3900	650.00	625	195.32	1950	243.75
2007-08	6000	600.00	5000	833.33	800	250.00	2100	262.50

Comments:

1. The growth of sales was very remarkable throughout the period of study. Taking the sales of 2000-01 as base, there was a continuous increase in sales throughout the period of 8 years. So, over the period of 8 years, sales increased to 600%.

2. The cost of goods sold increased to 833.33% over the period of study taking 2000-01 as base. Though sales have increased, yet it was not a good sign of the company because cost of

goods sold stepped up at a faster rate than sales. So, further investigation is required to find out reasons the disproportionate rise in cost of goods sold.

3. The gross profit margin had risen in all the years of the period of study excepting 2005-06 2006-07 and 2007-08. In other words the trend of gross profit margin was not so sharp as it was for sales. This slow trend of gross profit margin due to the faster trend of cost of goods sold.

4. There was also increasing trend of capital employed. So, sales increment was partly due to growth apart from inflationary price rise.