# **Analysis of Financial Statement**

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*Abstract*: A financial statement is the lifeblood of any business. People rely on these financial statements to know the condition, performance and ability to efficiently sustain past and future operations of a particular business. The above topic throws light on credentials of financial statement analysis in both theoretical and pragmatic ways. Through this I want to highlight the ways, methods and techniques to analyse the financial statements to determine the position of business, its profitability, future earnings, ability to pay interest, etc. in more detailed manner, which is helpful to extrapolate and forecast the future of a business concern.

Keywords: Financial Statement, position of business, profitability, future earnings, interest.

# 1. INTRODUCTION

Accounting process involves recording, classifying and summarising of various business transactions. In the process of summarising, efforts are made to clarify the profitability and financial position of the enterprise. Financial Statements are the outcome of this process which provides various information related to profitability and financial position of the business. The significance of financial statements lies not in their preparation but in their analysis and interpretation. The fact is that financial statements are not an end in themselves but they are means only. Something more is required to find out real truth and for this purpose these statements are intelligently scrutinised, which is called analysis and interpretation of financial statements.

# 2. MEANING AND DEFINITION

According to Hamptors John, the financial statement is an organized collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of financial aspects of a business firm. It may show a position at a moment of time as in the case of a balance-sheet or may reveal a service of activities over a given period of time, as in the case of an income statement. Financial statements are the summary of the accounting process, which, provides useful information to both internal and external parties. John N. Nyer also defines it "Financial Statements provide a summary of the accounting of a business enterprise, the balance-sheet reflecting the assets, liabilities and capital as on a certain data and the Income

Statements showing the results of operations during a certain period" Financial statements generally consist of two important statements:

(A) The income statement or profit and loss account.

(B) Balance sheet or the position statement.

A part from that, the business concern also prepares some of the other parts of statements, which are very useful to the internal purpose such as:

(C) Statement of changes in owner's equity.

(D) Statement of changes in financial position.

#### A. Income Statement:

Income statement is also called as profit and loss account, which reflects the operational position of the firm during a particular period. Normally it consists of one accounting year. It determines the entire operational performance of the concern like total revenue generated and expenses incurred for earning that revenue.

Income statement helps to ascertain the gross profit and net profit of the concern. Gross profit is determined by preparation of trading or manufacturing a/c and net profit is determined by preparation of profit and loss account.

#### **B.** Position Statement:

Position statement is also called as balance sheet, which reflects the financial position of the firm at the end of the financial year. Position statement helps to ascertain and understand the total assets, liabilities and capital of the firm. One can understand the strength and weakness of the concern with the help of the Position Statement.

#### C. Statement of Changes in Owner's Equity:

It is also called as statement of retained earnings. This statement provides information about the changes or position of owner's equity in the company. How the retained earnings are employed in the business concern. Nowadays, preparation of this statement is not popular and nobody is going to prepare the separate statement of changes in owner's equity.

#### **D. Statement of Changes in Financial Position:**

Income statement and position statement shows only about the position of the finance, hence it can't measure the actual position of the financial statement. Statement of changes in financial position helps to understand the changes in financial position from one period to another period. Statement of changes in financial position involves two important areas such as fund flow statement which involves the changes in working capital position and cash flow statement which involves the changes in cash position.

# 3. TYPES OF FINANCIAL STATEMENT ANALYSIS

Analysis of Financial Statement is also necessary to understand the financial positions during a particular period. According to Myres, "Financial statement analysis is largely a study of the relationship among the various financial factors in a business as disclosed by a single set of statements and a study of the trend of these factors as shown in a series of statements". Analysis of financial statement may be broadly classified into two important types on the basis of material used and methods of operations.

# 1. Based on Material Used

Based on the material used, financial statement analysis may be classified into two major types such as External analysis and internal analysis.

# A. External Analysis:

Outsiders of the business concern do normally external analyses but they are indirectly involved in the business concern such as investors, creditors, government organizations and other credit agencies. External analysis is very much useful to understand the financial and operational position of the business concern. External analysis mainly depends on the published financial statement of the concern. This analysis provides only limited information about the business concern.

# **B.** Internal Analysis:

The company itself does disclose some of the valuable information to the business concern in this type of analysis. This analysis is used to understand the operational performances of each and every department and unit of the business concern. Internal analysis helps to take decisions regarding achieving the goals of the business concern.

# 2. Based on Method of Operation

Based on the methods of operation, financial statement analysis may be classified into two major types such as horizontal analysis and vertical analysis.

# A. Horizontal Analysis:

Under the horizontal analysis, financial statements are compared with several years and based on that, a firm may take decisions. Normally, the current year's figures are compared with the base year (base year is consider as 100) and how the financial information are changed from one year to another. This analysis is also called as dynamic analysis.

# International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)

Vol. 3, Issue 2, pp: (1-10), Month: April 2016 - June 2016, Available at: www.paperpublications.org

# **B.** Vertical Analysis:

Under the vertical analysis, financial statements measure the quantities relationship of the various items in the financial statement on a particular period. It is also called as static analysis, because, this analysis helps to determine the relationship with various items appeared in the financial statement. For example,

A sale is assumed as 100 and other items are converted into sales figures.

# 4. TECHNIQUES OF FINANCIAL STATEMENT ANALYSIS

Financial statement analysis is interpreted mainly to determine the financial and operational performance of the business concern. A number of methods or techniques are used to analyse the financial statement of the business concern. The following are the common methods or techniques, which are widely used by the business concern.

- 1. Comparative Statement Analysis
- A. For the analysis of Balance Sheet
- B. For the analysis of Profit & Loss Account
- 2. Common-size Statement or Analysis
- 3. Trend Analysis
- 4. Average Analysis
- 5. Fund Flow Statement
- 6. Cash Flow Statement
- 7. Ratio Analysis

# 1. Comparative Statement Analysis:

Comparative statement analysis is an analysis of financial statement at different period of time. This statement helps to understand the comparative position of financial and operational performance at different period of time. Comparative financial statements again classified into two major parts such as comparative balance sheet analysis and comparative profit & loss account analysis.

# A. Comparative Balance Sheet Analysis:

Comparative balance sheet analysis concentrates only the balance sheet of the concern at different period of time. Under this analysis the balance sheets are compared with previous year's figures or one-year balance sheet figures are compared with other years. Comparative balance sheet analysis may be horizontal or vertical basis. This type of analysis helps to understand the real financial position of the concern as well as how the assets, liabilities and capitals are placed during a particular period.

# Illustration 1

The following table gives the Balance Sheets data of XY Ltd. for two periods 2012 and 2013. Comment upon the significant changes which have taken place.

XY LTD.

Balance Sheet

(as at the end of period)

Particulars	2012	2013
EQUITIES & LIABILITIES		
Shareholder's Fund :		
Share Capital	1,50,000	1,80,000
Reserve and Surplus	4,049	22,591
Mortgage Bond	50,000	30,000
Current Liabilities :		
Bills Payable	2,725	1,500
Creditors	15,064	20,156

Accrued Taxes & other Expenses		3,186	12,465
Provision for Doubtful Debts		950	1,825
Provision for Depreciation		9,235	14,870
	Total	2,35,209	2,83,407
ASSETS			
Cash		6,468	11,826
Govt. Securities		21,500	NIL
Bill Receivable		NIL	153
Debtors		48,526	60,193
Stock		69,935	88,517
Prepaid Expenses		1,185	1,625
Land		24,000	30,000
Building		42,965	56,250
Furniture		18,230	27,143
Delivery Equipments		NIL	6,500
Organisation Expenses		2,400	1,200
	Total	2,35,209	2,83,407

#### Solution:

# XY LTD.

# Comparative Balance Sheets ( 31st December, 2012 & 2013)

Particulars	2013	2012	Amount	%
			(change)	(change)
EQUITIES AND LIABILITIES :				
Shareholder's Funds :				
Paid up Capital	1,80,000	1,50,000	+ 30,000	+ 20.0
Reserve and Surplus	22,591	4,049	+ 18,542	+ 462.5
Less : Organisation Expenses	(1,200)	(2,400)	(1,200)	- 50.0
Non- Current Liabilities :				
Mortgage Bonds	30,000	50,000	- 20,000	- 40.0
Current Liabilities :				
Bills Payable	1,500	2,725	- 1,225	- 45.0
Creditors	20,156	15,064	+ 5,092	+ 33.8
Accrued Tax and Expenses	12,465	3,186	+ 9,279	+ 291.2
Total Current Liabilities	34,121	20,975	+ 13,146	+ 62.7
Total Liabilities	64,121	70,975	- 6,854	- 9.7
	2,65,512	2,22,624	+42,888	+ 19.26
ASSETS :				-
Non- Current Assets :				
Land	30,000	24,000	+ 6,000	+ 25.0
Building	56,250	42,965	+ 13,285	+ 31.0
Furniture	27,143	18,230	+ 8,913	+ 40.9
Delivery Equipments	6,500	NIL	+ 6,500	NIL
	1,19,893	85,195	+ 34,698	+ 40.7
Less : Provision for Depreciation	14,870	9,235	+ 5,635	+ 61.0
Total Fixed Assets (a)	1,05,023	75,960	+29,063	+ 38.2
Current Assets :				
Cash	11,826	6,468	+ 5,358	+ 82.9
Govt. Securities	NIL	21,500	- 21,500	+100.0
Bills Receivable	153	NIL	+ 153	NIL
Debtors	60,193	48,526	+11,667	+ 24.1
Stock	88,517	69,935	+18,582	+ 26.5
Prepaid Expenses	1,625	1,185	+ 440	+ 37.1
	1,62,314	1,47,614	+14,700	+ 10.0

Less : Provision for Doubtful Debts Total Current Assets (b)	1,825 1,60,489	950 146,664	+ 875 +13,825	- 92.1 + 9.4
Total Assets (a+b)	2,65,512	2,22,624	+42,888	+ 19.26

The following facts are clear from the above comparison of Balance Sheets:

- 1. Current Assets have increased by Rs. 13,825 (i.e., 9.4%). Moreover all items of current assets have increased except Govt. Securities. Cash has increased significantly (83%).
- 2. Current Liabilities have increased by Rs. 13,146. However, it is 62.7% in terms of percentage. Bills Payable of Rs. 1,225 have been paid during this period. The company has procured funds by deferring the payment of accrued tax and expenses.
- 3. Gross fixed assets have increased by Rs. 34,698, which is 40.7%. After Depreciation, the amount of net fixed assets has increased by Rs. 29,063, which is 38.2%.
- 4. The capital funds of the company have increased. The company has increased its paid-up capital by issue of shares of Rs. 30,000. Reserves and Surplus have increased remarkably (462.5%).
- 5. Total assets of the company haver increased by 19.26% only and in this way it has made capital formation of Rs. 42,888.
- 6. Most probably the company has redeemed mortgage bonds by selling govt. securities and thus the amount of mortgage bonds has decreased by Rs. 20,000.

# B. Comparative Profit and Loss Statement or Comparative Income Statement:

The Profit and Loss Statement is a summary of the results of operations of a business transacted during a definite period and indicates the profit and loss during this period. If Profit and loss statements of a firm for two years are available, comparative income statement can be prepared and useful analysis can be made on that basis. The comparative Profit and loss statement shows absolute decrease and increase in each item along with changes in relative form also i.e., change in terms of percentages. On this basis, useful information can be obtained relating to earning capacity, progress and future of the company by studying the changes in sales, cost of sales, profit, etc.

# Illustration 2

From the following information prepare a Comparative Income statement:

Particulars	2011	2012
Sales	10,00,000	8,00,000
Cost of Goods Sold	6,00,000	4,00,000
Administrative, Selling and Distribution Expenses	2,00,000	1,40,000
Other Income	40,000	20,000
Income tax	1,20,000	1,40,000

#### Solution:

Comparative Income Statement
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Particulars	2011	2012	Absolute	Percentage
			Change	Change
Revenue from Operations	10,00,000	8,00,000	(2,00,000)	-20.0
Other Income	40,000	20,000	(20,000)	-50.0
Total Revenue	10,40,000	8,20,000	(2,20,000)	-21.15
Less : Expenses :				
Cost of Goods Sold	6,00,000	4,00,000	(2,00,000)	-33.33
Administrative ,Selling and Distribution	2,00,000	1,40,000	(60,000)	-30.00

	Total Expenses	8,00,000	5,40,000	(2,60,000)	-32.50
Profit before Tax		2,40,000	2,80,000	40,000	16.67
Less : Tax		1,20,000	1,40,000	20,000	16.67
	Profit after Tax	1,20,000	1,40,000	20,000	16.67

#### Interpretation:-

Revenue: There has been decline of 20% in revenue from operations, 50% in other income and 21.15% in total revenue.

Expenses: Expenses have declined much in comparison to decline in revenue, which is 32.50%.

Profit: Profit before tax as well as after tax both have increased by 16.67%.

On the whole, net profit has increased by 16.67% despite fall of sales by 20% and decline in other income by 50%, which indicates improvement in operating efficiency and control on expenses.

#### 2. Common Measurement Size Statement or Analysis:

Common- size financial statement facilitates both types of analysis, i.e., horizontal as well as vertical. This statement indicates the relationship of various items in terms of percentage with some common or basic item. Generally, in Common-size Income Statement various items are expressed in terms of percentage of net sales. Similarly, in Common-size Balance Sheet the total of assets and liabilities is taken as base and all other figures are expressed as percentage of this total. The percentage so calculated can easily be compared with the corresponding percentages in other years or in other firms and meaningful conclusions can be drawn.

#### Illustration 3

Convert the following Income Statement into Common-size Income Statement and explain the changes in 2012 in the light of the conditions prevailing in 2011:

Particulars	2011	2012
Gross Sales	15,300	18,360
Less: Returns and Discount	300	350
	15,000	18,010
Less: Cost of Sales	9,100	10,125
Gross Profit on Sales (a)	5,900	7,885
Operating Expenses:		
Selling Expenses	3,000	3,300
Administrative Expenses	1,500	1,700
Total Operating Expenses (b)	4,500	5,000
Operating Profit (a-b)	1,400	2,885
Add: Other Income	150	200
Total Income	1,550	3,085
Less: Other expenses	200	300
Net profit	1,350	2,785

#### Solution:

#### Common-size Income Statement

Particulars	2011	2011	2012	2012
	(Amount)	(%)	(Amount)	(%)
Gross Sales	15,300	102.0	18,360	101.9
Less: Returns and Discount	300	2.0	350	1.9
Net Sales	15,000	100.0	18,010	100.0
Less: Cost of Sales	9,100	60.7	10,125	56.2
Gross Profit on Sales (A)	5,900	39.3	7,885	43.8
Operating Expenses:				
Selling Expenses	3,000	20.0	3,300	18.3
Administrative Expenses	1,500	10.0	1,700	9.5
Total(B)	4,500	30.0	5,000	27.8

Operating Profit (A-B) Add: Other income		1,400 150	9.3 1.0	2,885 200	16.0 1.1
Less: Other Expenses	Total Income	1,550 200	10.3	3,085 300	17.1
Less. Other Expenses	Net Profit	1,350	9.0	2,785	15.4

#### **Interpretation of changes:**

- 1. The percentage of cost of sales has gone down from 60.7% in 2011 to 56.2% in 2012. It has resulted in increase of percentage of Gross Profit from 39.3% in 2011 to 43.8% in 2012. This change reflects the efficiency of purchase department and reduction in the cost of material.
- 2. There is decline in operating expenses which have gone down to 27.8% in 2012 from 30% in 2011.
- 3. Due to decline in cost of sales and operating expenses, there has been significant improvement in operating profit which has gone from 9.3% in 2011 to 16% in 2012.
- 4. The overall profitability of the firm has gone up significantly from 9% in 2011 to 15.4% in 2012.

In conclusion it may be said that the company's efficiency and performance had improved significantly.

# Illustration 4

Convert the following Balance Sheet of XYZ LTD. into Common-size Balance Sheet and interpret the results:

Balance Sheets

(as at 31 <sup>st</sup> M	March, 2012	& 2013)
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Particulars	2012	2013
EQUITY AND LIABILITIES:		
Shareholder's Fund:		
Equity Share Capital	1,00,000	1,60,000
Reserve and Surplus	50,000	90,000
Non-Current Liabilities:		
Debentures	30,000	60,000
Current Liabilities:		
Sundry Creditors	45,000	40,000
Bank Overdraft	15,000	10,000
		3,60,000
ASSETS	a	
Non-Current Assets:		
Land and Building	75,000	1,50,000
Furniture	5,000	6,000
Other Assets	20,000	34,000
Investments	50,000	60,000
Current Assets:		
Debtors	40,000	50,000
Cash at Bank	20,000	10,000
Stock	30,000	50,000
		3,60,000

#### Solution:

(	as	at	31	st March)
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Particulars		2012 (%)	2013 (%)
EQUITY AND LIABILITIES:			
Shareholder's Fund:			
Equity Share Capital		41.7	44.4
Reserve and Surplus		20.8	25.0
	Total (A)	62.5	69.4
Non-Current Liabilities:			
Debentures	(B)	12.5	16.7
Current Liabilities:			
Sundry Creditors		18.7	11.1
Bank Overdraft		6.3	2.8
	Total (C)	25.0	13.9
Total (A+B+C)		100	100
ASSETS:			
Non-Current Assets:			
Land and Buildings		31.3	41.7
Furniture		2.1	1.7
Other Assets		8.3	9.4
	Total (A)	41.7	52.8
Investments	(B)	20.8	16.6
Current Assets:			
Debtors		16.7	13.9
Cash at Bank		8.3	2.8
Stock		12.5	13.9
	Total (C)	37.5	30.6
Total (A+B+C)		100	100

Explanation of changes in 2012-13

#### 1. Current Assets and Liabilities:

It is evident that in comparative terms current assets and current liabilities both have decreased during 2012-13. However, decline in current liabilities is greater because a part of it has been paid by the company. From short-term solvency point of view current assets are sufficiently adequate but decline in the percentage of cash from 8.3 to 2.8 is a cause of worry.

# 2. Fixed assets:

All fixed assets have increased in 2012-13 and the share of fixed assets in total assets has gone up from 41.7% to 52.8%. An important point to be noted is that the increase in fixed assets has been financed from permanent sources of capital, i.e., share capital and debentures and it is a good feature.

On the whole, except the balance of cash, the financial position of the company is quite satisfactory and has become more sound during the current year.

# 3. Trend Analysis:

This analysis is an important tool of horizontal financial analysis. Under this method trend ratio (percentages) are calculated for selected items of the financial statements taking the figure of the base year as 100.

The trend ratio can be plotted on a graph paper also. The technique of trend analysis is very useful from the point of view of forecasting or budgeting. It discloses the changes in the financial and operating data between specified period. However, while using this technique, following precautions are required:

- The accounting principles and policies followed during the period covered should be consistent.
- The base year selected should be a normal and representative year.
- Trend percentages should be analysed and studied alongwith absolute figures, otherwise misleading conclusions may be drawn.
- If possible trend percentages of different years should be adjusted in the light of price level changes as compared to base year.

# Illustration 5

The following data relate to some important items of a company disclosing its development during the last five years:

Particulars	2007	2012
Working capital	46,70,602	76,50,191
Plant and Equipment	19,95,684	48,35,367
Long-Term Debt	14,56,000	28,00,000
Net Tangible Assets	56,16,046	99,75,218

Using the trend ratios, evaluate the changes in financial position (soundness/weakness) of the company.

# Solution:

Particulars	2007	2012	Absolute Change	Trend Percentage	
				2007	2012
Working Capital	46,70,602	76,50,191	29Lakh	100	163
Plant and Equipment	19,95,684	48,35,367	28Lakh	100	243
Long-term Debt	14,56,000	28,00,000	13Lakh	100	192
Net Tangible Assets	56,16,046	99,75,218	44Lakh	100	178

Trend Percentage Analysis

# **Review of Changes:**

The changes in absolute amounts indicate that working capital has increased by Rs. 29 Lakh, whereas fixed assets have increased only by Rs. 28 Lakh. However, the position being presented by trend percentage is reverse to it and the increase in working capital has increased by 63%, whereas fixed assets have increased by 143%. It seems that fixed assets have increased rapidly and it has resulted in adverse effect on liquidity of the firm.

Long-term Debt and net tangible assets have increased 92% and 78% respectively. The higher growth in long-term Debt in comparison to growth in net tangible assets is considered undesirable, because it indicates increased burden of debt. However, comparison of absolute figures reveals that increase in long term debt (Rs.13Lakh) is less than 1/3 of the increase in net tangible assets (Rs.44Lakh) and may not be considered undesirable.

# 4. Average Analysis:

The concept of average analysis is used in two meanings:

- 1. To compare the trend of financial data of an enterprise with the average data of the relevant industry,
- 2. To present data of different years of a concern in the form of average and for this purpose any type of average, i.e., simple or weighted can be used.

The purpose of first meaning of average analysis is to present data of any firm in comparison with average data of relevant industry and to evaluate the position of the firm on that basis, while the purpose of second meaning is to present data of a single firm in simple and concise form. It should be remembered that average analysis, no doubt, makes data simple and brief but sometimes conclusions drawn on average basis may be misleading and may present almost different picture as compared to original data.

#### 5. Fund Flow Statement or Analysis:

Financial statements can also be analysed by preparing Funds Flow Statement and in that case it is known as Fund Flow Analysis. This statement is prepared in order to reveal the sources from which funds are obtained and the uses to which they are being put. Here the term 'fund' stands for working capital. It may be mentioned that funds flow statement is always accompanied by a schedule of working capital changes. No doubt this analysis helps in financial planning and budget preparation and use of working capital but cannot provide complete picture of financial position of the concern.

#### 6. Cash Flow Statement or Analysis:

The technique is very useful in the management of cash and analysis of short-term liquidity. Under this method a statement is prepared to show the inflow and outflow of cash related to various activities in the concern during a specific period.

#### 7. Ratio Analysis:

Ratio Analysis is also an important method of analysis of financial statements. It is adopted to establish meaningful mathematical relationship between two items or two group of items shown in financial statements. This relationship is expressed in simple ratios such as 3:1 or percentage such as 25% or rate such as 4 times, etc. Ratio analysis is useful in both types of analysis, i.e., horizontal and vertical and ratios are divided into various groups, such as profitability ratios, liquidity ratios, activity ratios.

# 5. CONCLUSION

In conclusion, an investigation of the comparative financial statements helps to highlight the significant facts and points, the items which need further analysis. The published balance sheets and profit and loss account of companies are presented in two-year comparative form. Some of the companies also report to shareholders condescend comparative statements covering an extended period of years. From analytical point of view, such statements are quite useful to investors.

Funds flow and cash flow statement are important managerial tools for financial analysis. They help the firm to know its liquidity position, capital expenditures incurred, dividend paid and extent of external financing. A projected funds and cash flow statement guides the firm to plan the matching of inflow and outflow of funds or cash. Ratio analysis is a very useful tool to raise relevant questions on a number of managerial issues. It provides clues to investigate those issues in detail. However, caution needs to be applied while interpreting ratios as they are calculated from the accounting numbers. Accounting numbers suffer from accounting policy changes, arbitrary allocation procedures and inflation. Hence, in determining the position of the firm, analysis of financial statements plays a very pivotal role.

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