FINANCIAL STATEMENTS AND ANALYSIS

Introduction

- Fundamental to finance is understanding financial statements and financial reports
- Basically we need to understand the meaning of financial statements
- It basically has Annual Reports

Annual Reports

It has two section

1. Verbal
2. Financial Statements or Final Accounts

Final Accounts

- To know the progress of business, profit or loss and financial soundness of the firm at right time and right way.
- It consists of,
  1. Trading Account
  2. Profit & Loss Statement
  3. Balance Sheets

TRADING ACCOUNT

- Trading account is prepared to find out the profit between the selling price and cost price
- Cost price- Direct expenditure or factory level expenditure
- All direct expenses or expenditure are debited into the debit side of trading account and all direct incomes are credited on credit side.
- While balancing
  - Balance on debit side- Gross profit
  - Balance on credit side- Gross loss

Specimen for Trading Account

Dr					Cr
Particular	Amt	Amt	Particular	Amt	Amt
To opening stock			By sales		
To purchase			Less sales return		
Less purchase returns			By closing stock		
To wages					
To freight			By gross loss (to be transferred to P/L st.)		
To carriage inwards					
To cleaning charges					
To packaging charges					
To dock dues					
To power					
To gross profit (to be transferred to P/L st.)					

Profit and Loss Statement

- All the indirect expenses are debited in the profit and loss account (like selling, office, maintenance, financial expenses)
- All the indirect incomes are credited (like discount received, commission received)
- Balancing,
  - Balance on debit side- Net profit
  - Balance on credit side- Net loss

- The expenses which are recorded in the debit side of Profit and Loss Account may be classified under the following heads.

Office and administration expenses:

Selling expenses:

Distribution expenses:

Financing expenses:

Miscellaneous expenses:

Specimen for P/L Account

Dr			Cr
Particular	Amt	Particular	Amt
1. To trading a/c (gross loss) 2. To salaries 3. To rent and taxes 4. To stationaries 5. To postage expenses 6. To insurance 7. To repairs 8. To trading (sundry) expense 9. To office expense 10. To interest 11. To bank charges 12. To establishment expenses 13. To commission 14. To discount 15. To advertisement 16. To carriage outwards 17. To travelling expense 18. To distribution expense 19. To bad debts 20. To depreciation 21. To bad debts provisions To net profit (transferred to Capital a/c)		By trading a/c (gross profit) By commission earned By rent received By interest received By discount received By net loss (transferred to capital a/c)	

Balance Sheets

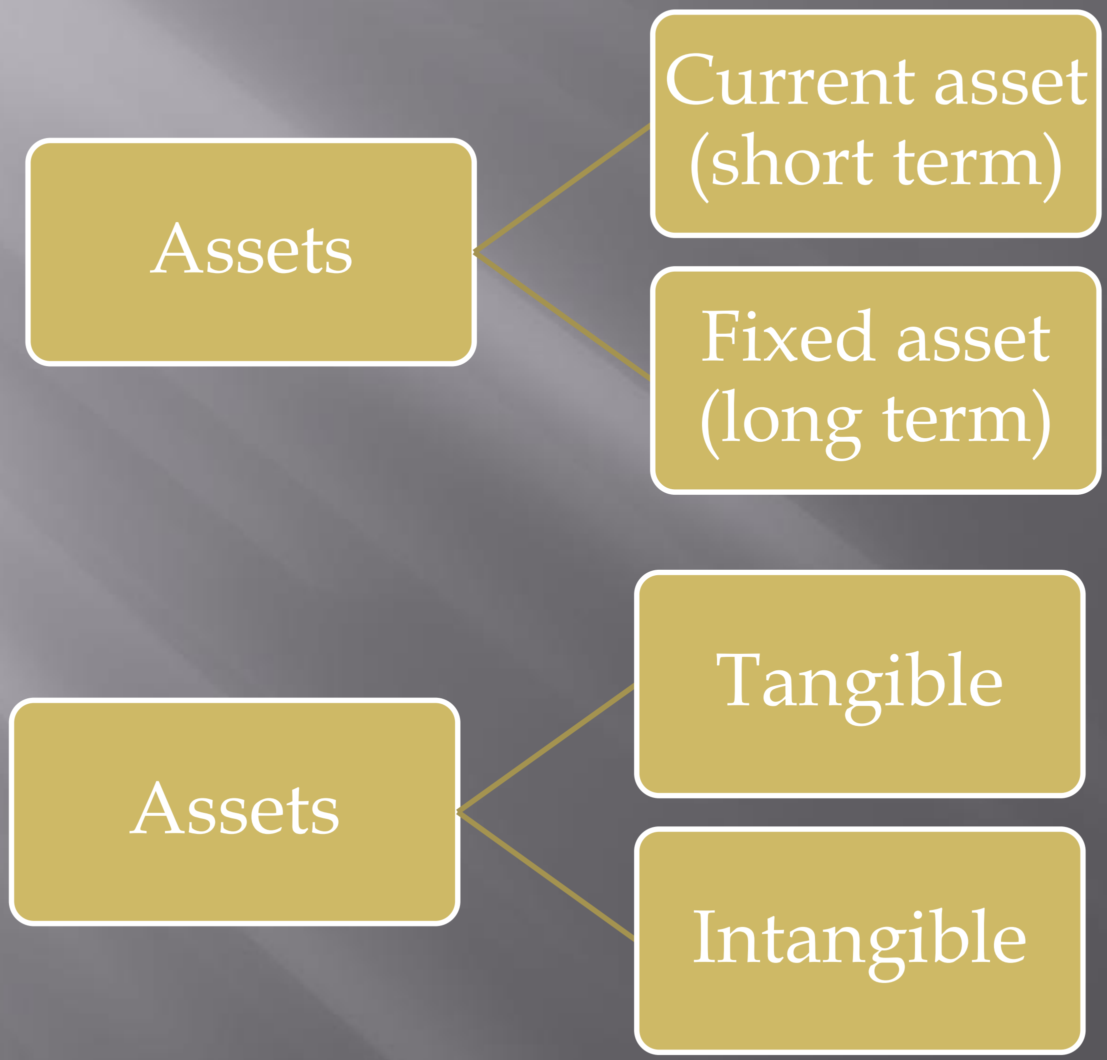
- A statement which sets out the assets and liabilities of a business firm and which serves to ascertain the financial position of the same on any particular date.

- 2 sides-

  Left- Liabilities and Capital

  Right- All Assets

Assets


Assets
Current asset (short term)
Fixed asset (long term)
Assets
Tangible
Intangible

Current assets

- Cash – Vault cash

  Demand deposit

Cash equivalence(highly liquid)- T Bills

CD's

Foreign Currencies

Short term investment

Accounts receivable

Inventory

Fixed assets

- Property
- Land Plant equipment
- Furniture
- Intangible assets- Brand name, patents, copyrights

All these will have depreciation (for tangible) or amortization (for intangible) and appreciation

Liabilities– Current liabilities

- Short term loans
- Trade credit- accounts payable, notes payable
- Declared dividend
- Interest payable
- Consumer deposits
- Salaries payable
- Taxes payable

Long term liabilities

- Long term debts
- Long term accrued liability

- **Owners Equity**

    Paid-in capital- Contributed capital or Working Capital

Liabilities	Amt	Amt	Assets	Amt	Amt
Share Capital • Equity • Preference Reserves & Surplus Secured Loans Unsecured loans Current liabilities and provision • Current liabilit • provision ADD: Net profit LESS: Net loss LESS: Drawings LESS: Income tax			Fixed assets Investments Current assets, loans and advances • Current assets • Loans & advances • Miscellaneous expenditures		

Two types
miscellaneous expenses- certain outlays such preliminary expenses & preoperative expenses which have not been written off.
Losses- losses mean decrease in owners equity But according to company act share capital cannot be reduced.

Share Capital

- Divided into two equity and preference
- It represents the contribution by each type of shareholders

Reserves and Surplus

- These are profits which are retained by the firm.
- There are two types of reserves
  - Revenue reserves- accumulated retained earnings
  - Capital reserves- arise out of gains which are not related to normal business.

Secured loans

- Borrowings of the firm against which specific securities are provided like debentures and loans from financial institutions

Unsecured loans- borrowings without specific security

Current liabilities- Short term- within one year

- Amounts due to the supplier of goods and services bought on credit- Sundry creditors
- Advance payment received
- Accrued expenses- accumulated expenses which is not yet paid
- Provisions for taxes
- Gratuity like bonus
- Pensions

Financial Ratio

- To evaluate a firms condition and performance the analysts needs to perform check ups on various aspects of a firm's financial health.
- In order to do this checkup very frequently used tool is financial ratio or index.
- It is a index that relates two accounting numbers by dividing one number by another.

Types of financial ratio

Liquidity Ratios

1. Current ratios
2. Acid test ratio (Quick ratio)

Financial Leverage Ratios

A. Structural ratios
1. Debt to Equity ratios
2. Debt to Capital ratios

B. Coverage Ratios
1. Interest coverage ratios

Turnover Ratios

1. Inventory turnover ratios
2. Debtors turnover ratios
3. Asset turnover
   a. Fixed asset turnover
   b. Total asset turnover

Profitability ratios

A. Related to sales
   - Gross profit margin
   - Net profit margin

B. Related to investment
1. Return on investment
2. Return on equity

Liquidity Ratios

- Liquidity ratios are used to measure a firms ability to meet short term obligations.

- The ratios give an insight into the present cash solvency of the firm and firms ability to remain solvent in the even of adversity.

Current Ratio= Current assets/current liabilities

- It measures the ability to meet short term or current financial liquidity
- It indicates rupees of current assets available for each rupee of current liabilities.
- More ability of a firm to meet current obligations & greater safety of funds

- Acid test ratio (quick ratio)

= (current assets – inventories)/ current liabilities

- The ratio serves as supplement to the current ratio
- It is same as current ratio but excludes inventories

Financial Leverage Ratios

Structural ratios

1. **Debt to equity ratios**

   = total debt or long term debt/share holder's equity

- ✓ This ratio is used to assess the extent to which the firm is using borrowed money
- ✓ It gives the relation between funds and owner's capital.

2. **Debt to total asset** = total debt/ total asset

- ✓ A metric used to measure a company's financial risk by determining how much of the company's assets have been financed by debt.

Coverage ratio

Interest coverage ratio

= Earning before Interest & Taxes/ Interest Expense

- This ratio measures the debt servicing capacity of a firm
- From the point of view of a creditors larger the ratio the greater the ability of the firm to handle fixed charge liabilities.

Turnover Ratios

- It is used to measure the efficiency in asset management
- It reflects the rapidity with which the assets are converted into sales in a concern.
- There are 3 types,

1. Inventory turnover ratio
2. debtors turnover
3. Asset turnover

Inventory Turnover

Inventory turnover

= Cost of goods sold / Average inventory

Costs of goods sold =

Opening stock + Manufacturing cost including purchases – Closing stock

Or cost of goods sold= (100- %gross profit)sales

Avg. Inventory = Avg. of monthly inventory for calendar year considered

= (opening stock + closing stock)/2

In the absence of data inventory turnover

= Sales/ Closing Inventory

Ratios measures how quickly inventory is sold

Higher the ratio is an indication of good inventory management

Debtors turnover ratio

- It is also known as Accounts receivable turnover
- It reflects how quickly receivables or debts are converted into cash.

Debtors turnover =

Net Credit sales/(Avg. accounts receivable **(or avg debtors)**

Average debtors= (opening balance debtors + closing balance debtors)/ 2

Closing balance= Current assets – Inventories - Cash

- In the absence of data,

Debtors turnover =

Total sales/(debtors + bills receivable)

This is another method of measuring liquidity of a firms debtors is average collection period.

Average collection period

- It represents the number of days worth of credit sales that is locked in debtors.
- It is defined as ,

Avg. accounts receivable/avg. daily credit sales

OR (Avg. debtors /credit sales) x 360 days

SIMILARLY THERE IS CREDITORS TURNOVER RATIO

Asset Turnover

Fixed Asset Turnover =

costs of goods sold/ avg. fixed assets

Indicates high degree of asset utilization

Total Asset Turnover =

costs of goods sold/ avg. total assets

This ratios is also known as investment turnover

This ratio measures how efficiently the assets are employed

Profitability Ratios

- It’s a measure of efficiency which indicates public acceptance of the product.
- This can be related to sales or investment.
  - **Related to Sales**
    - Profit margin ratio
    - Gross profit margin
    - Net profit margin
  - **Related to Investment**

  Rate of return ratio

    - Return on investment
    - Return on equity

Related to Sales -- Profit margin ratio

- Indication of relationship between profits and sales.

Two types,

1. Gross profit margin = (gross profit / sales) x100
2. Net profit margin
   a. Net profit margin (before tax) = (EBIT / Sales)
   b. Net profit margin (after tax) = EAT/ Sales

Indication of managements ability to operate business with giving more margin for the owners

High ratio – Adequate return to owners

Related to Investment

1. Return on Investment

   - Profits of firm to its investment

Return on Assets

= Net profit after tax/Avg. total assets

= (EAT + Interest - Tax Advantage on Interest)/ Assets

Measures profitability of total funds/investment but does not tell anything about sources of fund.

2. Return on equity

= Net profit after tax/ avg. total shareholders equity

Measures how profitable the owners funds have been utilized.

Can be used to compare with other industries

Ratio Analysis: Examples

The Balance Sheet and Income Statement of a Horizon Ltd. are given below.
Balance Sheet as on 31-3-2010

Liabilities	Amount	Assets	Amount
Capital	$20000	Plant and equipment	$12800
Retained earnings	$7360		
Sundry creditors	$2080	Land and building	$1600
Bills payable	$4000	Cash	$3200
Other current liabilities	$400	Sundry debtors	$6400
		Stock	$9600
		Prepaid expense	$240
Total	$33840		$33840

Income statement year ended 31-3-2010

Particulars	Amount in Rupees
Sales	$80,000
Costs of goods sold	$61600
Gross profit	$18400
Operating expenses	$13600
Profit before tax	48000
Tax	50%

Sundry debtors and stock at the beginning of the year was $6,000 and $8,000 respectively. Determine the following ratios,

- Current ratio
- Acid test ratio
- Inventory turnover ratio
- Debtor turnover ratio
- Gross profit ratio
- Net profit ratio

- Tax @50% = $24000
- Profit after Tax= $48000-$24000 = $24000
- Current Ratio
- = Current Assets/Current Liabilities

$$\frac{(\text{Cash+ S. Debtors+Inv+ Prepaid exp })}{(\text{S. Creditors + Bills payable + other current liabilities})}$$

- Acid Test Ratio
- = (Current asset- Inventories)/ Current liabilities

- Stock Turnover ratio
- = Net sales/ Avg. Inventory
- Avg. Inventory
- = (Opening stock+ Closing stock)/2

- Debtors turnover
- =Net credit sales/Avg. sundry debtors
- (Sales)/Avg. sundry debtors

- Profit margin ratio
- Gross Profit Margin= (Gross profit/Net sales) X 100

- Net profit margin
- (Net profit after tax/Net sales) X 100

Numerical 2

- The credit sales of a firm in a year is Rs 24lakhs. The outstanding amount of debtors at the beginning and end of the year were Rs 2.8 lakhs and Rs 3.2 lakhs respectively. Determine the debtor turnover ratio and avg collection period.

Debtor turnover =

credit sales/ (avg. debtors + avg bills receivable)

24/ (2.8 + 3.2)/2 = 8 time

Avg. debt collection period,

= month in an year/ debtor turnover

12/8= 1.5 months

Or 45 days

Numerical 3

- The total sales call credit of a firm is Rs, 3,00,000. It has a gross profit margin of 25% and current ratio is 2. The firm's current liability is Rs. 65,000. Inventories are Rs. 34,000 and cash at Rs. 13,000.
- Determine the average inventory to be carried by the firm, if an inventory turnover of 5 times is expected.
- Determine the average collection period if the opening balance of debtors is intended to be Rs. 50,000. (Assume a 365 day year)

Solution

- Average inventory to be carried

Inv turnover = cost of goods sold/ Avg inv

Cost of goods sold= (100-25%)sales

= 0.75 * 300000 = 225000

Avg inv. = cost of goods sold/ inv turnover

= 225000/5 = 45000

- Average Collection period

Avg collection period = Avg. debtors/credit sales * 365

But, avg debtors =

opening balance debtors + closing balance debtors)/2

- Closing balance debtors
  - Current liabilities= Rs 65000
  - Current assets= 2.5 * current liabilities
  - 2.5* 65000 = 162500

Closing balance debtor= Current asset- inv- cash

162500-34000-13000

= Rs. 115500

Avg debtors= (50000+115500) / 2 = 82750

Thus= avg coll period= (82750/300000) * 365

= 101 days