UNIT-5

(5)

Ratio Analysis

Ratio analysis is the process of determining and interpreting numerical relationships based on final statement. by computing ratios. it is easy to understand the financial position of the firm. Ratio analysis is used to focus on financial issues such as liquidity profitability and solvency of a given firm.

What is the ratio ?

Ratio is a simply a number expressed in terms of another. it refers to the numerical or quantitative relationship b/n two variables which are comparable. It is an expression derived by dividing one variable by the other. it is statistical measure that provides an insight into the relationship b/n two variables. Ratios used rightly may even develop understanding and stimulate thinking. Ratios can be expressed in terms of propotions and quoties also.

Types of Ratios

Based on their nature, the ratios can broadly be clasified into four categories. The number of Ratios are their. mainly five ratios in bellow.

① Liquidity ratio ② Profitabulity ratio

③ Activity ratio ④ solvency ratio (or) Leverage ratio (or) Market stractur ratio)

⑤ Profirator ratio.

(1) ⇒ Liquidity ratio :=

Liquidity ratio measure the ability of a company to repay its short- term debts and meet unexpected cash needs. Their are 3 types.

① current ratio (2:1)

② Quik / Liquidity ratio. (1:1)

③ Absulut Liquidity (1:2)
(or)
super quik ratios.

⇒ Current ratio :=

The current ratio is also called as the working capital ratio. as working capital is the different b/n current Assets & current liabilities.

This ratio measures the ability of a company to pay its current obligations using current assets. The current ratio is calculated by dividing current assets by current liabilities.

$$\text{current Ratio} = \frac{\text{curent Asset}}{\text{current Liabilities}}$$

This ratio indicates the company has more current assets than current liabilities.

⇒ calculate Liquidity Ratios from Balens sheet

Liabilities	Amount	Assets	Amount
share capital	1,00,000	fixed Assets	2,50,000
Preference capital	1,00,000	stock of Raw meterial	1,50,000
reserved	1,00,000	" " finished goods	1,00,000
debentures	2,00,000	debtors	1,00,000
sundry coreditors	1,00,000	Bank balance	50,000
Bills paybles	50,000		
	6,50,000		6,50,000

Sol:-

⇒ Current Ratio = $\frac{\text{Current Asset}}{\text{Current Liability}}$.

Current Asset

stock of Raw metirial	=	1,50,000
finished goods	=	1,00,000
debtors	=	1,00,000
Bank balance	=	50,000
Total	=	4,00,000

Current Liability

sundry debtors	=	1,00,000
Bills paybule	=	50,000
Total	=	1,50,000

Current Ratio = $\frac{\text{Current Asset}}{\text{Current Liability}}$ =

= $\frac{4,00,000}{1,50,000}$

= 2.67 : 1

⇒ **Quick Ratio :=**

Quick Ratio = $\frac{\text{Q. Assets}}{\text{Q. Liabilities}}$

Q.L = 1,50,000

Quick Assets = current Assets − stock

= 4,00,000 − 2,50,000

= 1,50,000

QR = $\frac{1,50,000}{1,50,000}$ = 1:1

$$\text{Absolute Liquid Ratio} = \frac{\text{Abs. Liquid Assets}}{\text{Abs. Liabilities.}}$$

* Liquid Assets meance exactly pay to cash/bank

Bills payble = 50,000

sundry creditors = 1,00,000

Total = 1,50,000

bank ballence = 50,000 from Assets side.

$$= \frac{50,000}{1,50,000}$$

$$= 0.33 : 1$$

(2) ⇒ Profitability ratios

* Profitability ratios throw light on how well the firm is organising it's activities in a Profitable maner.
* The owners expect reasonable rate of return their investment. The firm should generate enough profit not only to meet the expectations of the owners but also to finance the expansion activities.

The following are the eight ratios most commonly used to explan Profitability. Profital ratios used propeorly profits over a particulear period in overal time of the Profitabulity

* Gross profit ratio
* Net profit ratio
* operating ratio

(4) Return on investment (ROI)

(i) Return on capital employed.

(ii) Return on equity.

(5) Earnings per share (EPS)

(6) Dividend yield.

(7) Price/ earnings ratio (P/E ratio)

(8) Earning power.

⇒ * Gross Profit Ratio := [Trading A/c (Gross Profit)]

Gross profit ratio is the ratio b/n gross profit to sales during a given period. It is expressed in terms of percentage. Gross profit is the different b/n the net sales and the cost of goods sold.

$$\text{Gross Profit Ratio} = \frac{\text{Gross profit}}{\text{N. Sales}} \times 100$$

Note := Gross profit = Sale - cost of goods.

Problem ① suppose the Net Sales is 50,000 for a firm and Cost of goods sold is Rs 20,000. The gross profit ratio is calculated as bellow.

Sol:-

Net sales = 50,000

goods sold = 20,000

Gross profit = sales - cost of the goods sold

= 50,000 - 20,000

= 30,000

$$GPR = \frac{GP}{N\ sales} \times 100$$

$$GPR = \frac{30,000}{50,000} \times 100$$

$$= 60 \text{ percent}$$

In other words. 60% of its sales is the gross profit.

=>** Net Profit Ratio:=

Net profit ratio is the ratio b/n net profits after taxes and net sales. It indicates what portion of sales is left to the owners after operating expenses. Non - operating income such as interest on investments.

$$\text{Net profit ratio} = \frac{\text{Net profit after taxes}}{\text{Net Sales}} \times 100$$

Problem

suppose the net sales is 50,000 for a firm and cost of goods sold is Rs 20,000. The details of expenses are as given bellow.

Administration Expenses Rs 3000

selling and Distribution exp Rs 4000

Loss on sales of fixed asset Rs 3000

Interest on investment Rs 2000

Tax 20%

Computation of Net profits

Sol:- (in Rs)

Sales	50,000	
Less cost of goods sold	20,000	
Gross Profit		30,000
less Administration expenses	40,00	
selling and Distr. expenses	4000	8000
Net Profit		22,000
Add: Interest on investment (Non operating incom)		2000
		24,000
Less: Loss on sales of Assets		(-) 3000
		21,000
Taxes 20%		42,00
Net profit		16,800

$$\text{Net profit} = \frac{16,800}{50,000} \times 100$$

$$= 33.6\%.$$

* The higher the net profit ratio.
* The b/n is the profitability and vice-versa.
* This ratio is widly used as a measer of overall profitability. It should be used along with operating ratio for b/n interpretation.

⇒ * **Operating Ratio** :=

operating ratio is the ratio b/n costs of goods sold plus operating expenses and the net sales. This is expressed as a percentage to net sales.

The higher the operating ratio. the lower is the profitability and vice versa.

$$\text{operating ratio} = \frac{\text{operating expenses}}{\text{Net sales}} \times 100$$

operating expenses = cost of goods sold + Administrative expenses + selling and distribution

Ex:= Administrative expensess cover all office and management expenses such as salaries, office rent, insurance, direct fee. legal expenses, and so on. selling and distribution expenses include salaries to sales staff, advertising, travelling expenses. cost of samples and so on.

Net salls = sales less / sales returns.

→ In interpreting operating ratio, the possibility of variation in expenses from year to year or company to company due to change in policies should be considered.

Profitability (%) = (100 − operating ratio %)

Sol:-

Total Expenses = 3,215,000

depreciations = 75,000

Intrest Expenses = 125,000

Net Sales = 4,215,000

$$OPR = \frac{3,215,000 - 75,000 - 125,000}{4,215,000} = 72\ \%$$

Operating Profit Ratio = Gross profit – office and admini Expenses – selling and distribution Expenses.

Problem

Sales	61,500
Sales Returns	1,500
cost of sals	37,500
office and Admin Expe	2,250
Saling and distribu Expe	3,900
Intrest on Debenture	1,500
Loss by fire	3,100
Income from investme Intrest	750

Sol:-

$$OPR = \frac{22,500 - 2,250 - 3,900}{60,000} \times 100$$

$$= 27.25\%.$$

working notes

Gross profit = Net sales – cost of sales

$= (61,500 - 1,500) = 37,500$

$= 22,500$

⇒ Return on investment (ROI) :=

Return on investment is one of the very important parameters affecting business plans. The profitability of the firm is measured in terms of return on investment.

$$ROI = \frac{\text{Net Profit After Taxes}}{\text{total investment.}}$$

(i) Return on capital employed (ROCE)

This is a widely used ratio. This is the only satisfactory measure which reveals the overall performance of a firm in terms of profitability.

ROCE = (Adjusted net profits / capital employed)

(ii) Return on equity (ROE)

This relates the net profits available to equity shareholders to the amount invested by them. The higher the ROE is the more is the profitability and vice versa.

$$ROE = \frac{\text{(Net profits - dividends to Preference Sharehol}}{\text{Equity share capital}}$$

This ratio is compared with that of other companies The equity shareholder can take a decision to swich over from one company to the other by selling the shares based on this ratio.

ROI % = 0% means → Break even.

If you buy 1 Rs → selle 1 Rs No change

No profit It is the Break even Analysis.

we are adjusted net profits refers to

* any abnormal or non-recuring losses or gains
* depreciation based or replacement cost of the assets.
* income from investment outside the business.
* interest on long-term liabilities [which is to be added back to the net profit for consistency)]
* income tax [always take net profits befor incom tax]

⇒ Net capital employed refers to the total of

① Paid up share capital
② Reserves (both capital and revenue reserve)
③ Debentures, if any.

Ex:- Buy / sell stock.

* you Investment 200000 in stock.
* you bough a used a car 1,0000 Rs.
* you sold the car for 160000

→ so your net profit was 60,000

what was the Return on your investment?

$$ROI = \frac{60000}{100000} \times 100 = 60\%$$

Ex:-(2)

you invested 2,00000 Rs, one year later. sold the stock for 1,00,000, your net profit 60,000

→ Now your numbers in to the formulla, you see that investment Return on investment was a nagative Thirty percent

$$ROI = \frac{-60,000}{2,00,000} \times 100 = -30\%$$

Ex:-(2)

If you buy a ~~Jatski~~ car for Rs 200000 Then you sell it for 140,000, you Net Profit/ Loss · 60,000 · Rs.

$$= \frac{-60000}{140,000} \qquad ROI = \frac{60,000}{200000} \times 100 = -30\%.$$

⇒ 5 Earnings per share (EPS) :=

EPS is the relationship b/n net profits and the number of shares outstanding at the end of the given period. This can be compared with previous years to provide a basis for assessing the company performance.

EPS = (Net profit taxes) / Number of shares outstanding

Ex:- Given the number of shares 10,000 and they profit taxes for a given accounting period is 4,50,000 Rs. the EPS be calculated as follows:

Sol:- Given that number of shares = 10,000/—

Profit taxes = 4,50,000 Rs

$$EPS = \frac{\text{Net profit taxes}}{\text{N. share outstandings}}$$

$$= \frac{4,50,000}{10,000}$$

$$= 45$$

The higher the EPS is the more is likely to be the demand for the share of that company however, it is to be noted that EPS is one of the many factors effecting the demand for a given share.

⇒6 Dividend yield :=

Yield refers to the amount of total return the investor will receive for a given period of time for the amount of his investment

Dividend yield refers to the percentage return on the price paid for shares. It is calculated as given bellow:

$$\text{Dividend yield} = \frac{\text{Nominal of face value of the share}}{\text{cost or market price of the share}} \times \%, \text{ dividend per annum}$$

Ex:- Given that current market price of a share Rs 100, face value of the share is Rs 300, Percentage of dividend declared is 20%. then yield is.

sol:- market price of a share Rs 100

face value of the share Rs 300

percentage of divident = 20%

$$\text{Dividend yield} = \frac{300}{100} \times 20$$

$$= 6\%.$$

→ In general, yield and risk are investely proportional. In other words, the higher the yield reflects that the investments are riskier and the lower the yield. Safer are the investments.

⇒ 7. Price/ Earning Ratio :=

Price earnig Ratio divided by the P/E ratio.

$$\text{Price / earning Ratio} = \frac{\text{Market price per share}}{\text{earnings per share.}}$$

Ex:- Given that market price of a share is Rs 340. and EPS is 10. Calculate P/E ratio ?

$$P/E = \frac{\text{market price per share}}{\text{earning per share.}}$$

$$EPS = \frac{340}{10}$$

$$= 34$$

⇒ 8. earning power ratio :=

earning power ratio as a measure of overall profitability A firm can sell small quantities at higher price or large quantities at relatively lower prices to continue to be making profits.

In other words the earning power of the company is based on two factors.

(a) net profit margin and

(b) the investment turnover.

* These factors together present a complete picture of the effectiveness of the firm's operations.

* The percentage of return on investment (ROI) can highlight the firms operating efficiency. ROI reflects the earning power and it is the product of net profit margin and investment turnover.

earning power = Return on investment

= Net profit margin x Investment turnover

$$EP = \frac{\text{Net profit after taxes}}{\text{sales}} \times \frac{\text{sales}}{\text{total capital}}$$

$$\boxed{EP = \frac{\text{Net Profit after taxes}}{\text{Total capital}}}$$

Here the total capital may mean (a) total assets or (b) equity share capital

The following example illustration the concept of earning power.

③

⇒ Activity Ratios :=

Activity ratios express how active the firm is in terms of selling its stocks, collectings its receivables and paying its coreditor's. These are three types.

① Inventory turnover Ratio.

② Debtors Turnover Ratio.

③ coreditor's turnover Ratio.

⇒ Inventory turnover Ratio

It is also called as stock turnover ratio. It is indicates the number of times the avarage stock is being sold during a given accounting period. It is established the relation b/n the cost of the sold during a given period and the average amount of inventory outstanding during the period. The higher the inventory turnover ratio. the better is the performance of the firm in selling its stocks.

It is calculated as given bellow.

Inventory turnover ratio = cost of goods sold / Average inventory

where cost of goods sold = Sales − Gross profit

Average inventory is the average of opening stock at the beginning of the year and the closing stock at the end of the year, that is

$$\text{Average stock} = \frac{\text{opening stock} + \text{closing stock}}{2}$$

A higher inventory turnover ratio implies the efficiency of the firm whereas a low inventory turnover ratio indicates that the firm is not a position to clear its stock.

from inventory turnover ratio, we can also determine the inventory holding period. It is determined as given bellow.

$$\text{Inventory holding period} = 365 \text{ days} / \text{Inventory TR}$$

Ex:- A Firm sold goods worth RS 5,00,000 and its gross profit is 20 percent of sales. The inventory at the begining of the year was RS 16,000 and at end of the year was 14,000 Compute Inventory turnover ratio and also the inventory holding period.

$\Rightarrow$ calculation of Inventory turnover Ratio TO calculated Inventory turnover ratio, we need to cost of goods sold and average stock.

sol:- (a) Cost of goods sold = Sales − Gross Profit.

Gross profit = 20% of sales value.

i.e Rs 1,00,000

cost of goods sold = Rs 5,00,000 − 1,00,000

= 4,00,000

$\Rightarrow$ (b) Average inventory = (16,000 + 14,000)/2

= 15,000

$$\text{Inventory turnover ratio} = \frac{\text{Cost of goods sold}}{\text{average inventory}}$$

$$= \frac{4,00,000}{15,000}$$

= 26.66 unt

This means that during the year, the average stock is being sold 26.66 times.

$\Rightarrow$ (c) Inventory holding period. $= \frac{365}{\text{Inventory turnover ratio}}$

$$= \frac{365}{26.66}$$

= 13.69 days

= 14 days approximately.

(2) ⇒ Debtor's turnover Ratio :=

Debtors turnover ratio reveals the number of times the average debtors are collected during a given accounting period. In other words, it shows how quikly the firm is in a position to callect its debts. It is neccesary to keep closing monitoring of realisation of debts because it directly effect the working capital position.

Debtor's Turnover Ratio is calculated as given bellow.

$$\text{Debtors turnover ratio} = \frac{\text{Credit sales}}{\text{Average debtors}}$$

* Where coredit sales refer to goods sold on credit.

Average debtors is the average of opening and closing balances of debtors for the given accounting period.

* A higher debtors turnover ratio explain that the firm is efficient in callecting its debts whereas lower ratio signifies its inefficiency.

Debt callection period :-

Debt callection period refers to the time taken to callection the debts from debtor's. turnover ratio. we can find out the debt callection period follows

$$\text{debt callection period} = \frac{365 \text{ [days]}}{\text{debtors turnover ratio}}$$

The lesser the time, more is the efficiency of the firm and vice versa.

Example

A firm's sales during the year was RS 40,00,000/- of which 60 percentage were on credit basis. The balance of debtor's as the beginning and end of the year were 25,000 and 15,000 respectively, calculate debtor's turnover ratio of the firm AISO find out debt collection period.

Soli:- Given that sales during year = 40,000 and 60%.

beginning debtors = 25,000

ending of Amount = 15,000

Creditsales = 60% of 40,000

= 2,40,000

* Average debtor's = (opening balance of debtors + eb0)

= (25,000 + 15,000) / 2

= 20,000

Calculation of debtor's turnover ratio = 240,000 / 20,000

= 12 times.

In this example, the firm is collecting its average debtor's 12 times during the given accounting period debt collection period.

$$= \frac{365}{\text{debtors turnover ratio}}$$

$$= \frac{365}{12}$$

= 30.41 day.

on an average, the firm is taking around 31 days to collect its debts.

Creditors turnover Ratio

Creditors turnover ratio reveals the number of times the average creditors are paid during a given accounting period. In other words, it shows how promply the firm is in a position to pay its creditors. It is necessory to keep close monitoring of payment schedules because it directly affets the working capital position. In case, the firm is not in a position to pay its creditors it will affect the goodwill or further supplies may be cut off. To be on safe side, most of the firms maintain the aged list of the creditors which provides the details of when to pay, how much to pay and to whom to pay.

Credit turnover ratio is calculated as given bellow

Credit Turnover Ratio = Credit Purcheses / Average Creditors

From this, we can also determine the creditors's payment period by using the given formula

$$\text{Credit payment period} = \frac{365 \text{ days}}{\text{Credit turnover ratio}}$$

(4) ⇒ Capital structure Ratios (Leverage Ratios / Solvency R)

Capital structure or leverage ratio is difined as the financial ratio, which focusses on the long-term solvency of the firm. The long-term solvency of the firm is always reflected in it's ability to meet it's long term commitments such as payment of interest periodically without fail, repayment of principal as and when due.

All the financial institutions offering long-term finance are interested in these ratios.

The following are the most commonly used capital structure ratios.

(a) debt-equity ratio.

(b) Interest coverage ratio.

(c) Ratio of proprietors funds to total assets.

(i) Ratio of fixed Assets funds

(ii) Ratio of current Assets proprietors funds

(a) debt- equity (D/E) Ratio :=

Debt - equity ratio is the ratio b/n outsiders funds (debt) and insiders funds (equity). This is used to measur the firm's obligations to creditors in relation to the owners funds. It is the measure of solvency. The yardstick for this ratio. is 1:1 In other words. for every rupees of debt, there should be one rupee worth internal funds.

for example:=

This is also industry / sector specific ratio. depending upon the industry, the standard for the debt- equity ratio. differs. for instance, in case of capital intensive industry such as shipping companies or steel manufacturing companies. the D/E ratio can be high 20:1, so this ratio has to be interpreted considering the nature of industry and competitors D/E ratio.

Debt - equity ratio is calculated as follow:

$$\text{Debt- equity Ratio} = \frac{\text{Debt}}{\text{equity}}$$

Note:- outsiders funds / Insides or shareholder's funds

Debt or outsideer's funds include debentures, bonds, long-term loans, and so, on. shareholder's fund or equity here includes share capital (both preference and equity) reserve (both general and specific) retained earnings and such otheer's. equity does not only mean equity share capital. equity here is interpreted a 'insideer' funds. 'debt' here meance only long-term debt.

Example Problem :=

Calculated debt-equity ratio from the data given

In exam ①.

The following are the outsideer's funds.

Debentures 400000, Long term loan 2,00,000

out sideer's = debentures + long term loan

= 400000 + 2,00,000

Inside funds. = 6,00,000 = equity

Preference share capital 1,00,000, equity share capital 1,50,000, General Reserve 2,50,000, Profit and loss Account 100000 Rs.

Long term debt = psc + esc + GR + P&l

= 1,00,000 + 1,50,000 + 2,50,000 + 1,00,000

= 600000 = debt

$$\text{Debt equity ratio} = \frac{\text{debt}}{\text{equity}}$$

$$= \frac{6,00,000}{6,00,000}$$

$$= 1:1$$

Debt equity ratio of 1:1 means that for every 1,00 of debt, there is an equity fund of Rs 1, which meets the standard yardstick of 1:1. This is quite satisfactory.

⇒ b) Interest coverage Ratio :=

Interest coverage ratio is calculated to judge the firm's capacity to pay the interest on debt it borrow It gives an idea of the extent the firm's earnings may contract before it is unable to pay interest payment out of current earnings. It is very important ratio for the financial institution to judge the ability of the borrower to service the loan from the current year's profits. The higher the ratio, better it is other wods, a higher ratio implies that the company has no problem in paying interest.

Interest coverage ratio is calculated as follows:

$$\text{Intrest coverage Ratio} = \frac{\text{Net profit befor interest \& tems}}{\text{fixed interest charges}}$$

The more the number of times of coverage, the better is the solvency position of the borrower,

Ex:- The earnings befor interest and taxes (EBIT) of a company is RS 5,60,000. It's fixed commitments include payment of 10% on 7000 debentures of Rs 100 each. It is subject to tax of 30% per annum.

Sol:- calculate interest coverage ratio.

Net profit before interest and taxes = 5,60,000

fixed interest charges on the debentures

$= (7000 \times 100) \times 10\%$.

$= 70,000$.

Interest coverage ratio $= (5,60,000 / 70,000)$

$= 8$ times

Interest coverage ratio of 8 times means that the net profit earning are 8 times to the fixed interest charges payble during the year.

The more the number of times the coverage the safer is the investment. Extending finances to such a company getting a net profit covering 8 times of its fixed charges. is a safe bet for a the lender.

⇒ Ratio of proprietors funds to total Assets

This establishes the relationship b/n proprietor's funds and the total assets. Here, the total assets include the tangible fixed assets plus current assets.

As a guidelines a ratio of around 0.5:1 or 50% is considered as the minimum desirable. In other words, half of the tangible assets are owned by the ordinary shareholders or owners and half by contributors of other types of shar and loan capital and by creditors. Intangible assets such as goodwill are not consider here because, if the business has to be sold off forcibly, goodwill may not be of any worth This shows that the proprie-ors have solid stake in the organisation.

Ratio of Proprietors funds to total Assets = $\frac{\text{total Assets funds}}{\text{total Assets}} \times 100$

Ex:- Compute ratio of proprietors funds to total Assets from the data given in example.

Sol:- The ratio of proprietors funds to total assets can be computed as follows;

Proprietor's funds = 7,00,000 RS. Total Assets = 15,00,000

Preference share capital = 1,00,000

equity share capital = 1,50,000

general reserve = 2,50,000

employee provident fund = 1,00,000

P&L accounts = 1,00,000

7,00,000

Ratio of proprietors funds to total Assets = $\frac{\text{Proprietors fund}}{\text{total Assets}} \times 100$

= 7,00,000 / 15,00,000 × 100

= 46,66 %.

∴ This reveals that 46.66 % of the total assets are financed by proprietor's funds. In other words the balance (53.34%) Rs financed by outsider's funds.

→ This ratio is further Explained in a finer way by considering the volume of fixed assets and current asset's to the proprietor's funds separately.

(i) Ratio of fixed Assets to proprietor funds :=

This ratio explains whether the fixed Assets have been bought from the proprietors funds or not, by matching the long term investment with the long term finance. it is possible to determine whether the borrowing has been made to finance fixed Assets. It is not safe to use short-term finance to buy long-term assets because when the borrowing is to be rapaid there may be a problem. as the fixed Assets cannot be readily converted into cash. The long-term sources of finance can be used for buying current assets but no short-term sources of finance can be utilised to acquire fixed assets.

This ratio shows the percentage of proprietors funds locked up in fixed Assets. Normally for industrial establishements this can be 65% of the proprietors funds.

Ratio of fixed Assets to proprietor's funds

$$= \frac{\text{fixed Assets}}{\text{Proprietor's fund}} \times 100$$

Ex:- Compute ratio of fixed assets to proprietor's funds from the data given in Example.

fixed Asset are = 5,75,000 and proprietor's funds are 7,00,000 Ratio of fixed Assets proprietors ?

Sol:- Given that.

fixed Assets = 5,75,000, proprietor's funds = 7,00,000

Ratio of fixed Assets to proprietor's funds = $\frac{\text{fixed Assets}}{\text{P. f}}$

$= \frac{5,75,000}{7,00,000} \times 100$

$= 82.14\%$

Considering that this is industrial establishment 82%. is on very high side. A large portion of proprietors funds is blocked in fixed Assets. This not a desirable.

⇒ Ratio of current Assets to proprietor's funds :=

A higher ratio of current assets to proprietors funds is considered as financial strenght to the business. It is necessary to hold adequate funds in working capital to generate profits.

This calculated as follows:-

Ratio of current Assets to P. F = $\frac{\text{Current assets}}{\text{proprietors funds}} \times 100$

Example

Compute ratio of current assets to proprietors funds from the data given in example. Current Assets 9,25,000 Rs proprietor's funds - 7,00,000

Sol:-

$$\text{Ratio of curren assets to P.F} = \frac{\text{Current Assets}}{\text{Proprietor's funds}} \times 100$$

$$= \frac{9,25,000}{7,00,000} \times 100$$

$$= 132\%.$$

Problem

Earning Power of firms P and Q :=

There are two firms P and Q each having total assets worth RS 4,00,000 and average net profits of 20%. that is 80,000 each. firm P has sales of RS 100,000 and firm Q has sales of RS 10,00,000. Determine the earing the power of both firms.

Sol:-

		firm P	firm Q
a	Net Sales	1,00,000%.	10,00,000%.
b	Net profit	20,000%.	20,000%.
c	Total Assets	400,000%.	400,000%.
d	Profit margin (b/a)	20%.	2%.
e	Investment turnover (a/c)	0.25%.	2.5 times
f	ROI ratio (d'e)	5%.	5%.

A bove table valued is no advantage of higher volume of sales when profit margin is so low. firm P could make similar ROI to that of firm Q despite lower volume of sales because the profit margin is high.

=> Dupont chart :=

The elements that go into computation of earnings power have been built into the following chart by Du-Pont company for the time and hence it is called Dupont chart.

It is can be seen that the earning power is dependent on many variables. Any change in these factors will affect the earnings power. If the selling price increases, it will increase the profit and vice versa. If the cost of goods sold increase, the profit margin declines. The earning power will improve only if turnover or net profit or both increase.

earning power is an important ratio that can be used to evaluate and compare the performances of departments as well as the firm as a whole. It is a valuable tool for inter-firm comparison also.

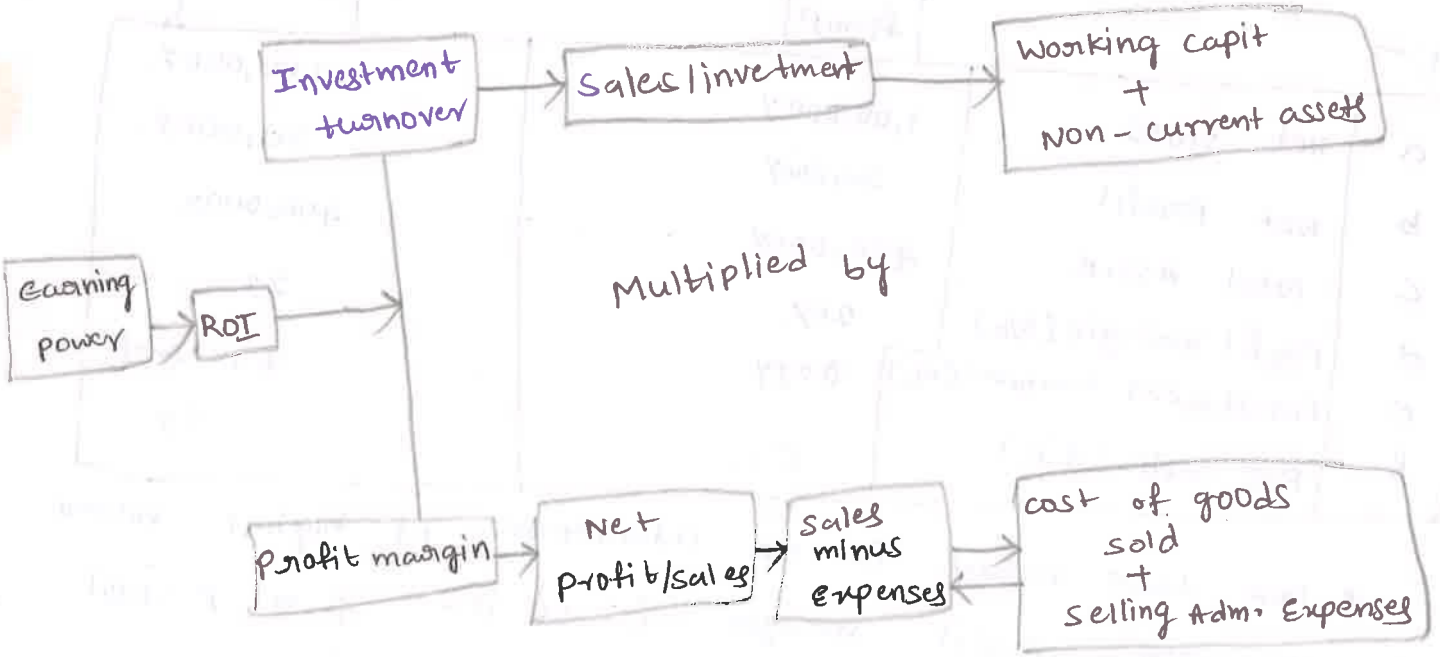

fig:- Dupant chat showing the elements of earning power

⇒ Limitations of Ratio Analysis :=

Ratio analysis, despite its wide applications, is not free limitations.

(1) Accounting ratios are retrospective :=

The ratios are computed based on the past data or previous performance. They may not necessarily hold good in the future and may not be helpful in making projections into future.

(2) Accounting methods, policies and procedures are not common :=

Where accounting data is generated following different accounting methods (such as different methods of depreciation or methods of valuing closing stock following fifo or Lifo) the ratio are not strictly comparable. The difference in the accounting methods or policies may lead to distored conclusions.

(3) Inflationary tendencies cannot be highlighted :=

In times of inflation, the accounting data of several year cannot be compared. Any analysis of such data based on ratios cannot be meaningful.

(4) Concepts of Ratio are not the same :=

Based on the needs of the firm, the ratios are built upon. The formula may been different. Interten Comparison cannot be realistic in such a case.

(5) Qualitative factors cannot be considered :=

factors such as character or managerial abilities cannot be considered, here. It is because Ratio analysis is purely quantitative analytical tools.

(6) Ratio by itself has no utility :=

Ratios to be meaniyful have to be read along with the other ratios. Any single ratio is meaningless by itself.

(7) Ratios can be manipulated :=

During festival season, there will be good turnover of stocks when compared to the earlier periods. If this inventory turnover ratio is considered for decision making the results get distored.

(8) factors weakening ratio analysis :=

Sudden changes in the economy such as economics corisis, lack of uniform data identifying the righ type of ratio for analysis and interpretation and so forth are some of the factors that threaten the utility of ratio analysis.

Ratio analysis continues to be a powerful tool for analysis and comparision of financial statments.

⇒ Funds flow Analysis :=

Meaning of funds :=

By the term funds. we generally mean cash, but from the point of view of accountants and finance managers, 'funds' mean working capital or net working capital. In the content of funds flow statement. when we use term funds. it means working capital only.

Current Assets – current liabilities

current Assets	current – liabilities
① cash in hand	① Bank in overdraft
② cash at bank	② sundry coreditors
③ Bills recievable	③ Bills payble
④ sundry debtors	④ outstanding expenses
⑤ marketable / temporary investments	⑤ Dividends payable
⑥ Advances (short term)	⑥ Taxes payable
⑦ closing inventory of finished goods / work in progress raw meterial)	⑦ Provision for taxation
⑧ prepaid Expenses	⑧ Protision for dividends
⑨ Accured income	⑨ Unearned income.

Impartens of fundflow statement :=

Main Impartents are 6 types are their.

① Financial consequence ② financial Palcies & divident

③ Financial budgts ④ points out weak financial positions

⑤ Bankers & creditors ⑥ sourses of funds.

⇒ Prepaaration of fundflow statement :=

Prepared the ffs 3 types.

① statement (or schedule) of chenges in working capital

② funds from operation (P&L types)

③ funds flow statement
(or)
statment of sources and aplication of funds.

statement of chenges in working capital

Particulers	year1 (Rs)	year2 (Rs)	Increase in working capital (Rs)	Decrease in working capital (Rs)
Current Assets				
Cash	xxx	xxx	—	—
Debtors	xxx	xxx	—	—
Stock	xxx	xxx	—	—
current Liabilities				
sundry creditors	xxx	xxx	—	—
Bills payable	xxx	xxx	—	—
working capital	xxx	xxx	—	—
Net increas / decrese in working capital	xxx	xxx	—	—

Problem

Assets	1/1/2017	1/1/2018
cash	3,5000	7,5000
Bills Recivable	98,000	90000
Stock	870000	1,20,000
Lang term investment	15,000	10,000
Land	20,000	30,000
	2,55,000	3,25,000
Liabilities		
Bills payble	70,000	1,00,000
Capital	1,25,000	1,50,000
Retained earnigs	60000	75,000
	2,55,000	3,25,000

step-I

soli

schedule of changes in working capital

particulars	1/1/2017	1/1/2018	Increase	Decrease
Current Assets				
Cash	35,000	75,000	40,000	—
Bills Receivable	98,000	9,0000	—	8000
Total Stock	87,000	1,20,000	33,000	—
Total Current Asset (A)	2,20,000	2,85000		
Current Liabilitiy				
Bills payble (B)	70,000	100000	—	30000
Working capita (A-B)	150,000	185000		
Net Increase in working capital	35,000	—	—	35,000
	185000	185000	73,000	73,000

step-II

Adjustment of operations (P&L) Account

Dr			Cr
particulars	Amount	particulars	Amount
To Balance c/d	75000	By balance b/d	60000
		By funds from operations (balancing figure)	15,000
	75000		75000

step-III

statement of sources and application of funds

Sources	Amount	Application or uses	Amount
Funds from operation	xxxx	purchase of fixed asse	xxxx
Issue of equity share (including share premium) If any	xxxx	purchase of investmen (long term)	xxxx
Issue of preference share if any	xxxx	Redemption of prefere share	xxxx
Issue of debenture	xxxx	Redemption of debentu	xxxx
sales of fixed Assets Sale of investme (long-term)	xxxx	Interim dividend paid	xxxx
		Taxes paid	xxxx
		Dividend paid	xxxx
		Increase in working capital	xxxx
Total	xxxx	Total	xxxx

Sol:-

Fundflow statement of sources and Applications.

sources of funds	Amount	Application of funds.	Amount
sale of long Term Investme	5,000	purches of Land	10,000
Issue of capital	25000	Net Increese in working capital	35,000
Funds from operations	15,000		
	45,000		45,000

NOTE:— Sources of funds meance Inflows of cash.

Application of funds meance outflow of the cash

→ Net increase an working capital Always Applications sides. (35,000)

→ funds from operation value entering the sources side (15,000)

⇒ (2) Prepaard from the following Balen's sheet. shedule "Incoming capital, Adjustd P/L Account, fund flow Statement.

Liabulities	2016	2017	Assets	2016	2017
Shaore capital	60,000	65,000	Good will	30,000	25,000
Retained earnigs	34,000	26,000	platanaori	60,000	50,000
current Liabilities	12,000	3,000			
			current Assets	16,000	19,000
	10,6000	94,000		10,6000	94,000

Adjustments

① Depriciation on plants & machinary Rs:- 20,000

② dividends Rs 12000 to be paid during the year.

Sol:-

Schedule of changing working capital

Particuleors	2016	2017	Increase	decrease
current Assets	16,000	19,000	3000	—
current Liability	12,000	3,000	9000	—
working capital (A-B)	4000	16000	—	12,000
			12000	12,000

Net changesing in working capital = 12,000

Dr Adjusted profit and Loss Account. Cr

Particulars	Amount	Particulars	Amount
To Good wills	5000	By balance B/d	34,000
To Depriciations	20,000		
To dividend	12,000		
To balance c/d	26,000	By funds from operation	29,000
	63,000		63,000

Dr plant & machinary A/c Cr

Particulars	Amount	Particulars	Amount
To opening balence plant & machinary	60,000	by depriciation	20,000
		by balence c/d	50,000
To balence (cash purches)	10,000		
	70,000		70,000

Fundflow statement

source of funds	Amount	Application of funds	Amount
Issue balansing capital	5000	purchese of plant & machinary	10,000
		divident	12,000
Found from operations	29,000	Net increasing working capital	12,000
	34,000		34,000

cash flow statement

cash flow means :- It is statement of recording systemetica all inflows & out flows of cash.

cash uses of cashflow statment

Their are 5 types.

① To evaluated the current cash positions.

② To know the future cash posistion.

③ To take financial laons.

④ Short teome financial position

⑤ Explain the poor cash position.

Cashflows explain two types.

① Adjusted P & L A/C

② cash flow statements.

Cash flow statement (from the year ended 31st dec)

Inflow of cash	Rs	Outflow of cash	Rs
opening balence cash & bank		**Cash outflows**	
Cash inflows		Redeption of pore - share	xxxx
→ Issues of shares	xxxx	Repayment of bebentures	xxxx
→ Issues of debentures	xxxx	purchese of fixed Assets	xxx
→ Raisly Long turm loans	xxxx	Repayment Long turm Loans	xxx
→ Sale of fixed Assets	xxxx	payment of the divident	xxx
→ divident Received	xxxx	cash flow in operations	xxxx
→ cash from operations	xxxx	Increase in current Assets (↑)	xxxx
→ Decrease in current Assets (inflow) ↓	xxxx	Dewese in current Liability (↓)	xxxx
→ Increase in current Liability (outflow) ↑	xxxx		

Problem

①

Liabilities	2017	2018	Assets	2017	2018
share capital	2,00000	2,50,000	cash	3,00,000	4,7000
creditors	7,0000	4,5000	Debtors	120000	1,15,000
profit & Loss a/c	10,000	23,000	stock	8,0000	90000
Total	20,0000	3,18,000	Land	5,0000	66000
			Total	200000	3,18,000

Sol:-

step-① Adjusted P&L a/c

DR CR

Particulars	Amount Rs	Particulars	Amount Rs
To finance c/d	23,000	By balance b/d	10000
		By cash from operations (Balancing figure)	13000
	23,000		23,000

step:- ② CA↓ CL↑ Imp

Cash flow statement

CA↑ CL↓ Imp

Cash Inflows	Amount	Cash outflows	Amount
opening balance: cash	30,000	purchase of Land	16,000
Issue of share capital	50,000	Increase in stock	10,000
Decrease in debtors	5,000	Decrease in creditors	25,000
cash from operations (taken from P&L)	13,000	closing balance: cash	47000
	98,000		98,000

Note:- Issue of share capital means cash is coming inside

(2)

share capital	60000	65000	Good will	30,000	25000
profit & Loss a/c	34000	26000	plant & Machinary	60000	50000
current Liabilities	12000	3000			
	10,6000	94,000	cash	16000	19000
				10,6000	94000

Adjusted :- ① depreciation on plant & machinary

20000 — Adj P/L - Dr — Asset a/c Cr — Adjust P/L Dr

② dividends payble :- 12,000 — Adjust P/L Dr → C.L.S

sol :-

Adjusted P&L a/c

Dr Particulers	Amount Rs	Particulers	Cr Amount Rs
To written off Goodwill	5,000	By balanced b/d	34,000
To depreciation plant & machin	20,000	By cash from operation (Balancing fig)	29,000
To dividends	12,000		
To Bal c/d	26,000		63,000
	63,000		

plant and machinary

Dr Particulers	Amount	Particulers	Cr Amount
To balance b/d	60,000	by Depriciation	20000
To cash (purche)	10,000	by balance c/d	50000
(balance fig)	70,000		70000

Note :- cash from operation = 29000

purches Plant & machinary = 10,000 (from above tables)

CA↓ CL↑

Cash flow statement

CA↑ CL↓

Cash Inflows	Amount	Cash outflows	Amount
opening balence: cash	16,000	purches plant & machinary	10,000
Issue of share capital	5000	Decrease in C Laibilities	9,000
		divident payble	12,000
cash from operations	29,000		
		closing balance	19,000
	50,000		50,000