- Current Assets Ratio
- Acid Test Ratio or Quick Assets Ratio
- Super Quick Assets Ratio
- Defensive Interval Ratio

Current Assets Ratio

It is one of the important accounting ratios to find out the ability of the business fleeces to meet out the short financial commitment. This is the ratio establishes the relationship in between the current assets and current liabilities.

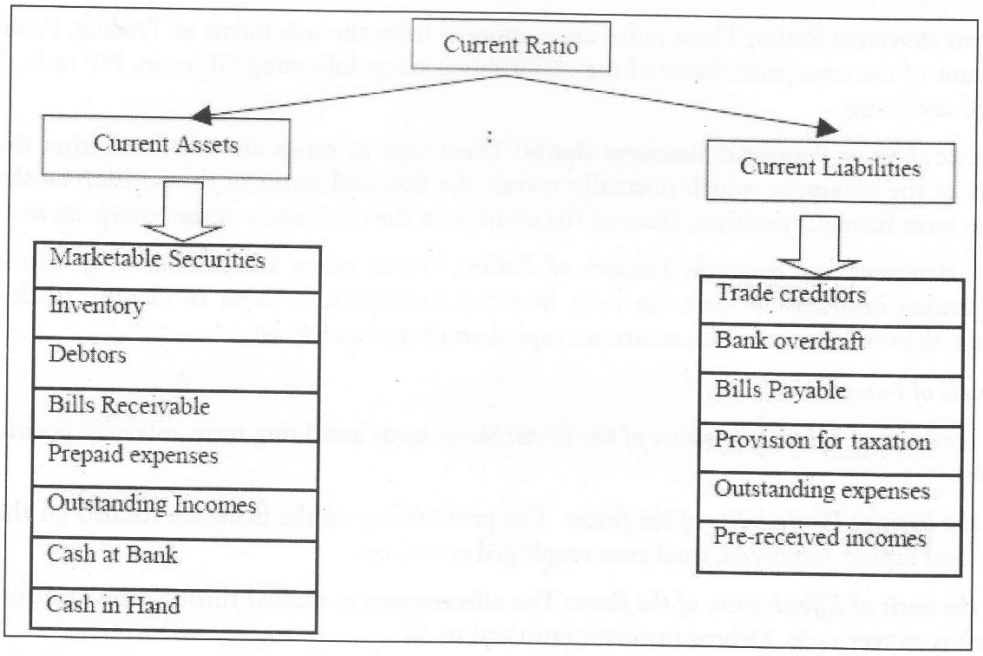
What is meant by current assets?

Current assets are nothing but available in the form of cash, equivalent to cash or easily convertible in to cash.

What is meant by the current liabilities?

Current liabilities are nothing but short-term financial resources or payable in short span of time within a year.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$



Standard Norm of the Current Ratio

The ideal norm is that 2:1; which means that every one rupee of current liability is appropriately covered by Two rupees of current assets.

Implication of High Ratio of Current Assets over the Current Liabilities

High ratio leads to greater the volume of current assets more than the specified norm denotes that the firm possess excessive current assets than the requirement portrays idle funds invested in the current assets.

Limitation of the Current Ratio

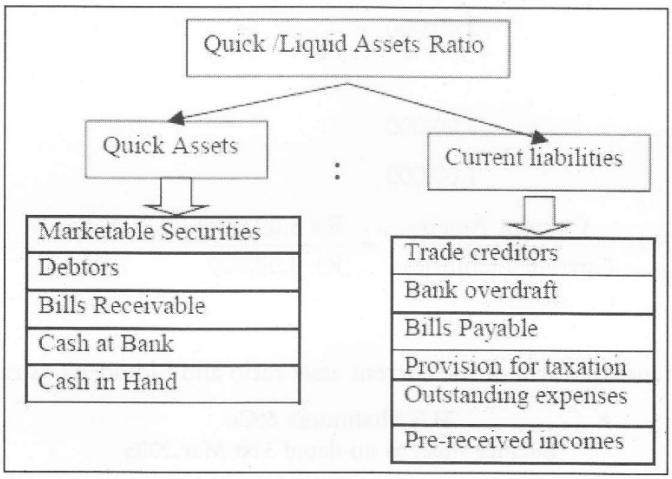
Under this ratio, the current assets are equally weighed each other to match the current liabilities. Under the current ratio, one rupee of cash is equally weighed at par with the one rupee of closing stock, but the closing stock and prepaid expenses cannot be immediately realized like cash and marketable securities.

Acid Test Ratio

It is a ratio expresses the relationship in between the quick assets and current liabilities This ratio is to replace the bottleneck associated with the current ratio. It considers only the liquid assets, which can be easily translated into cash to meet out the financial commitments.

$$\text{Acid Test Ratio (Quick Assets Ratio)} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

$$\text{Liquid Asset} = \text{Current Assets} - (\text{Closing Stock} + \text{Pre paid expenses})$$



Standard Norm of the Ratio

The ideal norm is that 1:1 means: One rupee of current liabilities is matched with one rupee of quick assets.

Super Quick Assets Ratio

It is the ratio, which establishes the relationship in between the super quick assets and quick liabilities of the firm.

The super quick assets are nothing but the current assets, which can be more easily converted into cash to meet out the quick liabilities.

The super quick liabilities are the current liabilities should have to be met out at faster pace within shorter span in duration.

Super Quick Assets = Cash + Marketable Securities

Super Quick Liabilities = Current Liabilities - Bank Over Draft

$$\text{Super Quick Assets Ratio} = \frac{\text{Super Quick Assets}}{\text{Super Quick Liabilities}}$$

Standard Norm of the Ratio

Higher the ratio is the better the position of the firm.

Application of Ratio's -Problems and Solutions

Illustration 1

From the following calculate current ratio

Current Assets:	Rs
Cash in hand	4,00,000
Sundry Debtors	1,60,000
Stock	2,40,000
Current Liabilities:	
Sundry creditors	3,00,000
Bills Payable	1,00,000

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{\text{Rs. 8,00,000}}{\text{Rs. 4,00,000}} = 2$$

Illustration 2

The firm satisfies the standard norm of the current asset ratio and Liquid assets ratio

M/s Shanmuga &Co
Balance sheet as on dated 31st Mar,2005

Particulars	Rs.	Particulars	Rs.
Share capital	42,000	Fixed Assets Net	34,000
Reserve	3,000	Stock	12,400
Annual profit	5,000	Debtors	6,400
Bank overdraft	4,000	Cash	13,200
Sundry creditors	12,000		
Total	66,000	Total	66,000

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$= \frac{\text{Rs.32,000}}{\text{Rs.16,000}}$$

$$= 2$$

It satisfies the standard norm of the current asset ratio.

$$\text{Liquid assets ratio} = \frac{\text{Quick assets}}{\text{Current Liabilities}} = \frac{\text{Current Assets} - \text{Closing stock}}{\text{Current Liabilities}}$$

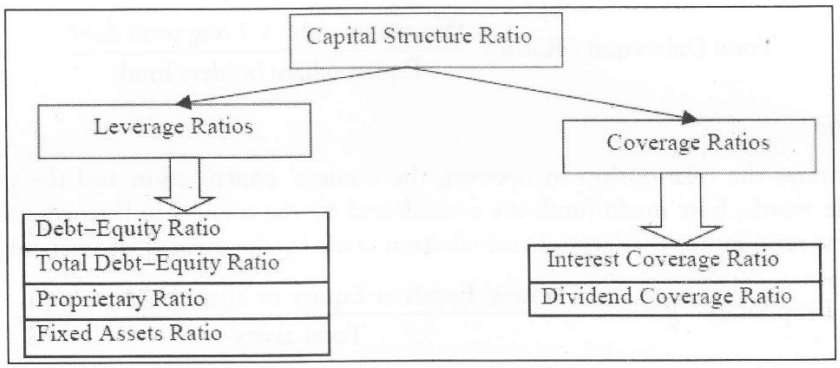
$$= \frac{\text{Rs. 19,600}}{\text{Rs. 16,000}} = 1.225$$

The firm financial position satisfies the standard norm of the Liquid assets ratio.

7.4.2 Leverage Ratios/Capital Structure Ratios

The capital structure ratios are classified into two categories:

- *Leverage Ratios:* Long term solvency position of the firm –Principal repayment.
- *Coverage Ratios:* Fixed commitment charge solvency of the firm – Dividend coverage and Interest coverage.



Under the capital structure ratios, the composition of the capital structure is analysed only in the angle of long-term solvency of the firm.

Debt Equity Ratio

It is the ratio expresses the relationship between the ownership funds and the outsiders' funds. It is more specifically highlighted that an expression of relationship in between the debt and Shareholders' funds. The debt –equity ratio can be obviously understood into two different forms:

- Long term debt –equity ratio
- Total debt –equity ratio

1. *Long term Debt-equity Ratio:* It is a ratio expresses the relationship in between the outsiders' contribution through debt financial resource and Shareholders 'contribution through equity share

capital, preference share capital and past-accumulated profits. It reveals the cover or cushion enjoyed by the firm due to the owners' contribution over the outsiders' contribution.

$$\text{Debt -Equity Ratio} = \frac{\text{Debt (Long term debt = Debentures/Term Loans)}}{\text{Net worth/Equity(Share holders' fund)}}$$

Higher ratio indicates the riskier financial status of the firm, which means that the firm has been financed by the greater outsiders' fund rather than that of the owners' fund contribution and vice versa.

Standard norm of the Debt-Equity Ratio

The ideal norm is that 1:2 which means that every one rupee of debt finance is covered by the 2 rupees of shareholders' fund.

The firm should have a minimum of 50% margin of safety in meeting the long-term financial commitments. If the ratio exceeds the specification, the interest of the firm will be ruined by the outsiders' during the moment at when they are unable to make the payment of interest in time as per the terms of agreement reached earlier. During the moment of liquidation, the greater ratio may facilitate the creditors to recover the amount due lesser holding held by the owners.

2. ***Total Debt-equity Ratio:*** The ultimate purpose of the ratio is to express the relationship total volume of debt irrespective of nature and shareholders' funds. If the owners' contribution is lesser in volume in general irrespective of its nature leads to worse situation in recovering the amount of outsiders' contribution during the moment of liquidation.

$$\text{Total Debt-equity Ratio} = \frac{\text{Short term debt + Long term debt}}{\text{Equity (share holders'fund)}}$$

Proprietary Ratio

The ratio illustrates the relationship in between the owners' contribution and the total volume of assets. In simple words, how much funds are contributed by the owners in financing the assets of the firm. Greater the ratio means that greater contribution made by the owners' in financing the assets.

$$\text{Proprietary Ratio} = \frac{\text{Owners' Funds or Equity or Share holders' funds}}{\text{Total assets}}$$

Standard Norm of the ratio

Higher the ratio is better the position.

Higher ratio is better position for the firm as well as safety to the creditors.

Fixed Assets Ratio

The ratio establishes the relationship in between the fixed assets and long term source of funds. Whatever the source of long term funds raised should be used for the acquisition of long term assets; it means that the total volume of fixed assets should be equivalent to the volume of long term funds i-e the ratio should be equal to 1

$$\text{Fixed Assets Ratio} = \frac{\text{share holders' funds + Outsiders' funds}}{\text{Net Fixed Assets}}$$

If the ratio is lesser than one means that the firm made use of the short term fund for the acquisition of long term assets. If the ratio is greater than one means that the acquired fixed assets are lesser in quantum than that of the long term funds raised for the purpose.. In other words , the firm makes use of the excessive funds for the built of current assets.

Standard Norm of the Ratio

The ideal norm of the ratio is 1:1 which means that the long term funds raised only utilised for the acquisition of long term assets of the enterprise.

It facilitates to understand obviously about the over capitalization or under capitalization of the assets of the enterprise.

Coverage Ratios

These ratios are computed to know the solvency of the firm in making the periodical payment of interest and preference dividends. The interest and preference dividends are to be paid irrespective of the earnings available in the hands of the firm. In other words, these are known as fixed commitment charge of the firm

Interest Coverage Ratio

The firms are expected to make the payment of interest on the amount of borrowings without fail. This ratio facilitates the prospective lender to study the strength of the enterprise in making the payment of interest regularly out of the total income. To study the capacity in making the payment of interest is known as interest coverage ratio or debt service coverage ratio.

The ability or capacity is analysed only on the basis of Earnings before interest and taxes (EBIT) available in the hands of the firms.

Greater the ratio means that better the capacity of the firm in making the payment of interest as well as greater the safety and vice versa

$$\text{Interest coverage ratio} = \frac{\text{Earnings before interest and taxes}}{\text{Interest}}$$

Lesser the times the ratio means that meager the cushion of the firm which may lead to affect the solvency position of the firm in making payment of interest regularly.

Dividend Coverage Ratio

It illustrates the firms' ability in making the payment of preference dividend out of the earnings available in the hands of the firm after the payment of taxation. If the size of the Profits after taxation is greater means that greater the cushion for the payment of preference dividend and vice versa.

The preference dividends are to be paid without fail irrespective of the profits available in the hands of the firm after the taxation

$$\text{Dividend coverage ratio} = \frac{\text{Earnings after taxation}}{\text{Preference Dividend}}$$

Standard Norm of the Ratio

Higher the ration means that the firm has greater cushion in meeting the needs of preference dividend payment against Earnings after taxation (EAT) and vice versa.

7.4.3 Profitability Ratios

The ratios are measuring the profitability of the firms in various angles viz

- On sales
- On investments
- On capital employed and so on

While discussing the measure of profitability of the firm, the profits are normally classified into various categories

- Gross Profit
- Net Profit
- Earnings before interest and taxes
- Earnings after taxation and so on

All profitability ratios are normally expressed only in terms of (%). The return is normally expressed only in terms of percentage, which warrant the expression of this ratio to be also in percentage.

GP Ratio

The ratio elucidates the relationship in between the Gross profit and sales volume. It facilitates to study the profit earning capacity of the firm out of the manufacturing or Trading operations.

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

NP Ratio

The ratio expresses the relationship in between the Net profit and sales volume .It facilitates to portray the overall operating efficiency of the firm .The net profit ratio is an indicator of over all earning capacity of the firm in terms of return out of sales volume .

$$\text{Net Profit Ratio} = \frac{\text{Net Profit} \times 100}{\text{Sales}}$$

Standard Norm of the Ratio: Higher the ratio is better the operating efficiency of the firm which means that the firms earns greater volume of both operating as well as non operating profit out of sales and Vice versa. Higher the ratio is better the position of the firm, which means that the firm earns greater profits out of the sales and vice versa.

Operating Profit Ratio

The operating ratio is establishing the relationship in between the cost of goods sold and operating expenses with the total sales volume.

$$\text{Operating ratio} = \frac{\text{Cost of goods sold} + \text{Operating expenses} \times 100}{\text{Net sales}}$$

Standard norm of the ratio: Lower the ratio is better as well as favourable position for the firm, which highlights % of absorption cost of goods sold and operating expenses out of sales and vice versa. The lower ratio leads to have the higher margin of operating profit.

Return on Assets

This ratio portrays the relationship in between the earnings and total assets employed in the business enterprise. It highlights the effective utilization of the assets of the firm through the determination of return on total assets employed.

$$\text{Return on Assets} = \frac{\text{Net Profit After Taxes} \times 100}{\text{Average Total Assets}}$$

Standard norm of the ration: Higher the ratio illustrates that the firm has greater effectiveness in the utilization of assets means greater profits reaped by the total assets and vice versa.

Return on Capital Employed

The ratio illustrates that how much return is earned in the form of Net profit after taxes out of the total capital employed The capital employed is nothing but the combination of both non current liabilities and owners' equity .The ratio expresses the relationship in between the total earnings after taxation and the total volume of capital employed.

$$\text{Return on total capital employed} = \frac{\text{Net profit after taxes} \times 100}{\text{Total capital employed}}$$

Standard norm of the ratio: Higher the ratio is better the utilization of the long term funds raised under the capital structure means that greater profits are earned out of the total capital employed.

7.4.4 Turnover Ratio

Activity turnover ratio: It highlights the relationship in between the sales and various assets. The ratio indicates that the rate of speed which is taken by the firm for converting the assets into sales.

Stock Turnover Ratio

The ratio expresses the speed of converting the stock into sales. In other words, how fast the stock is being converted into sales in a year?. The greater the ratio of conversion leads to lesser the number of days /weeks /months required to convert the stock into sales.

$$\text{Stock turnover ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average stock}} \text{ Or } \frac{\text{Sales}}{\text{Closing stock}}$$

Standard norm of the ratio: Higher the ratio is better the firm in converting the stock into sales and vice versa.

The next step is to find out the number of days or weeks or months taken or consumed by the firm to convert the stock into sales volume.

$$\text{Stock velocity} = \frac{\text{365 days /52 weeks /12 months}}{\text{Stock turnover ratio}}$$

Standard norm of the ratio: Lower the duration is better the position of the firm in converting the stock into sales and vice versa.

Debtors Turnover Ratio

This ratio exhibits the speed of the collection process of the firm in collecting the overdues amount from the debtors and against Bills receivables. The speediness is being computed through debtors velocity from the ratio of Debtors turnover ratio.

$$\text{Debtors turnover ration} = \frac{\text{Net Credit Sales}}{\text{Average Debtors}} \text{ OR } \frac{\text{Net Credit Sales}}{\text{Debtor + Bills Receivable}}$$

Standard norm of the ratio: Higher the ratio is better the position of the firm in collecting the overdue means the effectiveness of the collection department and vice versa.

Debtors velocity: This is an extension of the earlier ratio to denote the effectiveness of the collection department in terms of duration.

$$\text{Debtors velocity} = \frac{\text{365 days /52 weeks /12 months}}{\text{Debtor turnover ratio}}$$

Standard norm of the ratio: Lesser the duration shows greater the effectiveness in collecting the dues which means that the collection department takes only minimum period for collection and vice versa.

Creditors Turnover Ratio

It shows effectiveness of the firm in making use of credit period allowed by the creditors during the moment of credit purchase.

$$\text{Creditors Turnover ratio} = \frac{\text{Credit Purchase}}{\text{Average creditors}} \text{ Or } \frac{\text{Credit Purchase}}{\text{Bills payable + Sundry creditors}}$$

Standard norm of the ratio: Lesser the ratio is better the position of the firm in liquidity management means enjoying the more credit period from the creditors and vice versa.

$$\text{Creditors velocity} = \frac{\text{365 days /52 weeks /12 months}}{\text{Creditors Turnover Ratio}}$$

Standard norm of the ratio: Greater the duration is better the liquidity management of the firm in availing the credit period of the creditors and vice versa.

Illustration 3

Sundaram &co sells goods on cash as well as credit basis. The following particulars are extracted from the books of accounts for the calendar 2005.

Particulars	Rs
Total Gross sales	2,00,000
Cash sales (included in above)	40,000
Sales returns	14,000
Total Debtors	18,000
Bills receivable	4,000
Provision for doubtful debts	2,000
Total creditors	20,000

Calculate Average Collection Period

To find out the average collection period, first Debtors turnover ratio has to computed.

$$\text{Debtors turnover ratio} = \frac{\text{Net credit sales}}{\text{Bills receivable} + \text{Debtors}}$$

$$\text{Net credit sales} = \frac{\text{Gross sales} - \text{cash sales} - \text{sales return}}{\text{Rs.2,00,000} - \text{Rs.40,000} - \text{Rs.14,000}} = \text{Rs.1,46,000}$$

$$\text{Debtor turnover ratio} = \frac{\text{Rs.1,46,000}}{\text{Rs.4,000} + \text{Rs.18,000}} = 6.64 \text{ times}$$

$$\text{Debtors velocity} = \frac{365 \text{ days}}{\text{Debtors turnover ratio}} = \frac{365 \text{ days}}{6.64 \text{ times}} = 55 \text{ days}$$

Illustration 4

Find out the value of creditors from the following:

Sales Rs.1,00,000	Opening stock Rs10,000
Gross profit on Sales 10%	Closing stock Rs.20,000
Creditors velocity 73 days	Bills payable Rs.16,000

Note: All purchases are credit purchases.

To find out the volume of purchases, the formula of cost of goods sold should taken into consideration

Cost of goods sold = Opening stock + Purchases - Closing stock = Rs.10,000 + Y - Rs.20,000

Cost of goods sold = Sales - Gross profit = Rs.1,00,000 - 10% on Rs1,00,000 = Rs.90,000

The next step is to apply the found value in the early equation

Purchases = Rs. 90,000 - Rs.10,000 + Rs.20,000 = Rs.1,00,000

To find out the value creditors, the creditor velocity and creditors turnover ratio

$$\text{Creditors velocity} = \frac{365 \text{ days}}{\text{Creditors turnover ratio}}$$

$$\text{Creditors turnover ratio} = \frac{\text{Credit purchases}}{\text{Bills payable} + \text{Sundry creditors}}$$

$$= \frac{\text{Rs.1,00,000}}{\text{Rs.16,000} + \text{Sundry creditors}}$$

The next step is to find out the sundry creditors, the reversal process to be adopted

$$73 \text{ days} = \frac{365 \text{ days}}{\text{Creditors turnover ratio}}$$

$$\text{Creditors turnover ratio} = \frac{365 \text{ days}}{73 \text{ days}} = 5 \text{ times}$$

The next step is to substitute the found value in the equation of creditors turnover ratio Rs.16,000+

$$\text{Sundry creditors} = \frac{\text{Rs.1,00,000}}{5}$$

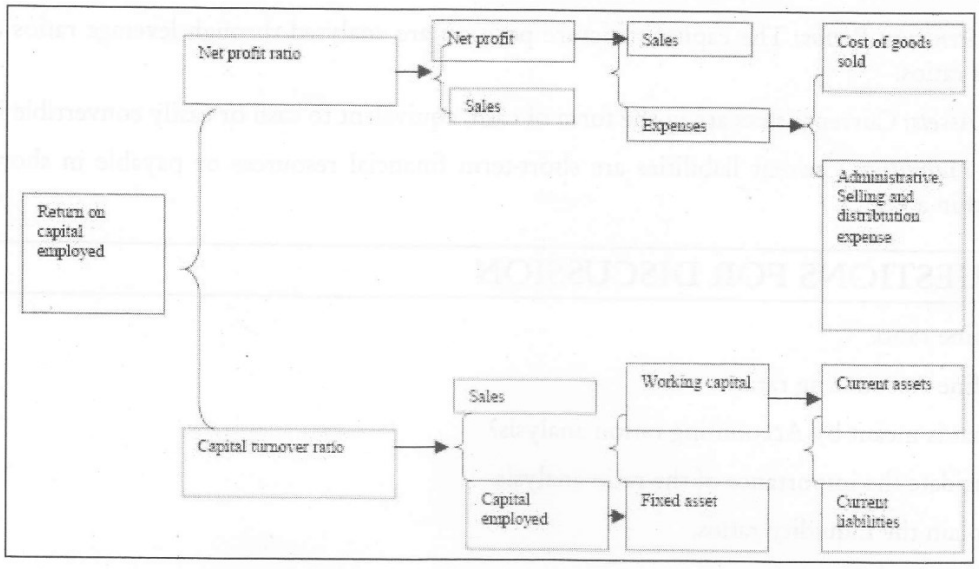
Sundry creditors = Rs.20,000 - Rs.16,000 = Rs.4,000

7.5 LIMITATIONS OF THE RATIO ANALYSIS

- *It is dependant tool of analysis:* The perfection and effectiveness of the analysis mainly depends upon the preparataion of accurate and effectiveness of the financial statements. It is subject to the availability of fair presentation of data in the financial statements.
- *Ambiguity in the handling of terms:* If the tool of analysis taken for the study of inter firm analysis on the profitability of the firms lead to various complications. To study the profitability among the firms, most required financial information are profits of the enterprise. The profit of one enterprise is taken for analysis is Profit after Taxes (PAT) and another is considering Profit before Interest and Taxes (PBIT) and third one is taking Net profit for study consideration. The term profit among the firms for the inter firm analysis is getting complicated due to ambiguity or poor clarity on the terminology.
- *Qualitative factors are not considered:* Under the ratio analysis, the quantitative factors only taken into consideration rather than qualitative factors of the enterprise. The qualitative aspects of the customers and consumers are not considered at the moment of preparing the financial statements but while granting credit on sales is normally considered.
- *Not ideal for the future forecasts:* Ratio analysis is an outcome of analysis of historical transactions known as Postmortem Analysis. The analysis is mainly based on the yester performance which influences directly on the future planning and forecasting; it means that the analysis is mainly constructed on the past information which will also resemble the same during the future analysis.
- *Time value of money is not considered:* It does not give any room for time value of money for future planning or forecasting of financial performance; the main reason is that the fundamental base for forecasting is taken from the yester periods, which never denominate the timing of the benefits.

7.6 DUPONT ANALYSIS

This was an analysis established by the DuPont INC., USA to study the Return on investment .It was the first company developed the chart which depicted the influences of Return on Investment .The company underwent for the consideration two important ratios for the return on investment is Net profit ratio and Capital turnover ratio. A change in the any one of the two ratios that will immediately reflect on the Return on investment. The various associated factors are considered to study the impact of the profitability of the firm. This type of analysis to correct the problems not only to identify the specific cause which drastically affects the profitability but also to find the possible ways and means to improve the profitability. Having developed the chart for analysis was called as DuPont Chart



Check Your Progress

1. What are two categories on the basis of which ratio's are classified?
2. What is meant by the current liabilities?
3. True or False:
   (a) The super quick assets are nothing but the current assets, which can be more easily converted into cash to meet out the quick liabilities
   (b) Current ratio expresses the relationship between the ownership funds and the outsiders' funds.
   (c) The firm should have a minimum of 150% margin of safety in meeting the long-term financial commitments.

7.7 LET US SUM UP

Ratio analysis is one of the important tools of financial statement analysis to study the financial structure of the business fleeces. Ratios are classified as follows: Liquidity, leverage, profitability, activity, integrated and growth ratio. We have dealt all these in detail. We have also studied limitations of the ratio analysis and Dupont analysis.

7.8 KEYWORDS

Income Statement Ratios: These ratios are computed from the statements of Trading, Profit & Loss account of the enterprise.

Balance Sheet or Positional Statement Ratios: These type of ratios are calculated from the balance sheet of the enterprise which normally reveals the financial status of the position i.e. short term, Long term financial position, Share of the owners on the total assets of the enterprise and so on.

Capital Structure Ratios: The capital structure position are analysed through leverage ratios as well as coverage ratios.

Current Assets: Current assets are in the form of cash, equivalent to cash or easily convertible into cash.

Current Liabilities: Current liabilities are short-term financial resources or payable in short span of time within a year.

7.9 QUESTIONS FOR DISCUSSION

1. Define ratio.
2. Define Accounting ratio.
3. What is meant by Accounting ration analysis?
4. Elucidate the importance of the ratio analysis.
5. Explain the Liquidity ratios.
6. Highlight the Leverage ratios.
7. Discuss in detail about the Profitability ratios.
8. Illustrate the various kinds of Turnover ratios.
9. List out the limitations of the ratio analysis.

Check Your Progress: Model Answers

1. (a) On the basis of financial statements (b) On the basis of functions.
2. Current liabilities are nothing but short-term financial resources or payable in short span of time within a year.
3. (a) True
   (b) False
   (c) False

7.10 SUGGESTED READINGS

M.P. Pandikumar, *Accounting & Finance for Managers*, Excel Books, New Delhi.

R.L. Gupta and Radhaswamy, *Advanced Accountancy*.

V.K. Goyal, *Financial Accounting*, Excel Books, New Delhi.

R. Narayanswamy, *Financial Accounting - A Managerial Perspective*, HPI.

Nitin Balwani, *Accounting & Finance for Managers*, Excel Books, New Delhi.

UNIT III

LESSON

8

FUND FLOW STATEMENT ANALYSIS

CONTENTS

8.0 AIMS AND OBJECTIVES

After studying this lesson, you will be able to:

- Describe objectives and importance of fund flow statement analysis
- Point out steps involved in fund flow statement analysis
- Explain various methods of determining fund from operation

8.1 INTRODUCTION

Every business establishment usually prepares the balance sheet at the end of the fiscal year which highlights the financial position of the yester years It is subject to change in the volume of the business not only illustrates the financial structure but also expresses the value of the applications in the liabilities side and assets side respectively. Normally, Balance sheet reveals the status of the firm only at the end of the year, not at the beginning of the year. It never discloses the changes in between the value position of the firm at two different time periods/dates.

The method of portraying the changes on the volume of financial position is the analysis of fund flow statement. To put them in nutshell, fund between two different time periods. It is further illustrated that the changes in the financial position or the movement or flow of fund.

8.2 MEANING OF FUND FLOW STATEMENT

A report on the movement of funds or working capital. In a narrow sense, the term fund means cash and the fund flow statement depicts the cash receipts and cash disbursements/payments. It highlights the changes in the cash receipts and payments as a cash flow statement in addition to the cash balances i.e. opening cash balance and closing cash balance. Contrary to the earlier, the fund means working capital i.e the differences between the current assets and current liabilities.

The term flow denotes the change. Flow of funds means the change in funds or in working capital. The change on the working capital leads to the net changes taken place on the working capital i-e especially due to either increase or decrease in the working capital. The change in the volume of the working capital due to numerous transactions. Some of the transactions may lead to increase or decrease the volume of working capital. Some other transactions neither registers an increase nor decrease in the volume of working capital.

According to Foulke, "A statement of source and application of funds is a technical device designed to analyse the changes to the financial condition of a business enterprise in between two dates"

Various Facets of Fund flow statement are as follows:

- Statement of sources and application of funds
- Statement Changes in financial position
- Analysis of working capital changes and
- Movement of funds statement

Uses of Fund Flow Statement Analysis

1. It pinpoints the mobilization of resources and the further utilization of resources
2. It highlights the financing of the general expansion of the business firms
3. It exemplifies the utilization of debt finance in the structure of financing
4. It portrays the relationship between the financing, investment, liquidity and dividend decision of the firm during the given point of time.

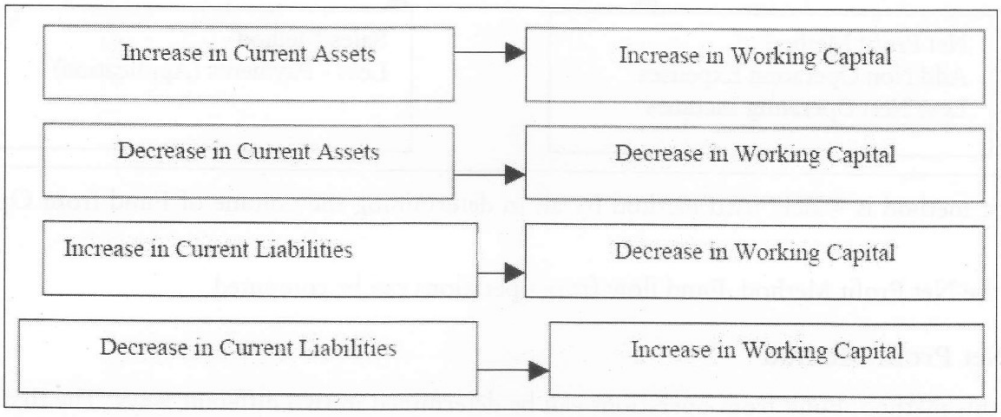
8.3 PREPARATION OF FUND FLOW STATEMENT

1. First and foremost method is to prepare the statement of changes in working capital i.e. to identify the flow of fund / movement of fund through the detection of changes in the volume of working capital
2. Second step is the preparation of Non- Current A/c items-Changes in the volume of Non-current a/cs have to be prepared only in order to quantify the flow fund i-e either sources or application of fund.

3. Third step is the preparation Adjusted Profit& Loss A/c, which already elaborately discussed in the early part of the chapter.
4. Last step is the preparation of fund flow statement

Working Capital Analysis -Forecasting Methods

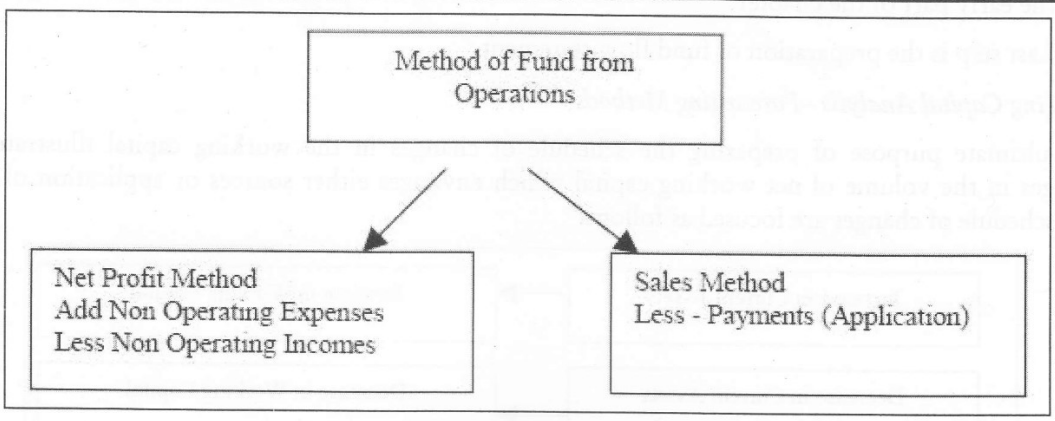
The ultimate purpose of preparing the schedule of changes in the working capital illustrates the changes in the volume of net working capital which envisages either sources or application of fund. The schedule of changes are focused as follows



Particulars	Previous Year	Current Year	Increase in Working Capital (+)	Decrease in in Working Capital (-)
(A) Current Assets: Cash in Hand Cash at Bank Marketable Securities Bills Receivable Sundry Debtors Closing Stock Prepaid Expenses				
(B) Current Liabilities: Creditors Bills Payable Outstanding expenses Pre-received Income Provision for doubtful and bad debts				
Net Working Capital (A-B) Increase/Decrease Working Capital				

The next important step is to prepare that adjusted profit and loss account.

8.4 METHODS OF PREPARING FUND FROM OPERATIONS



The first method is widely used method by all in determining the volume of Fund from Operations (FFS).

Under the Net Profit Method, Fund flow from operations can be computed.

8.4.1 Net Profit Method

Under this method, Fund from operations can be determined in two different ways .The first method is through the statement format.

Net Profit from the Profit & Loss A/c	xxxxx
Add:	
(A)Non Funding Expenses:	
Loss on Sale of Fixed Assets	xxxx
Loss on Sale of Long Term Investments	xxxx
Loss on Redemption Debentures/Preference Shares	xxxx
Discount on Debentures /Share	xxxx
(B) Non Operating Expenses:	
Depreciation of fixed Assets	xxxx
(C) Intangible Assets:	
Amortization of Goodwill	xxxx
Amortization of Patent	xxxx
Amortization of Trade Mark	xxxx
(D) Fictitious Assets:	
Writing off Preliminary expense	xxxx
Writing off Discount on Shares/Debentures	xxxx

(E) Profit Appropriation

Transfer to General Reserve xxxx

Less:

(F) Non funding Profits:

Profit on Sale of Fixed Assets xxxx

Profit on Sale of Long Term Investments xxxx

Profit on Redemption Debentures/Preference Shares xxxx

(G) Non Operating Incomes:

Dividend Received xxxx

Interest Received xxxx

Rent Received xxxx

Fund From operations / Fund Lost in Operations xxxxx

The second method of determining the fund from operations under the first classification is the Accounting Statement Format

Adjusted Profit & Loss A/c

To Depreciation	xxxx	By Opening Balance Profit	xxxx
To Goodwill Written off	xxxx	By Profit on sale of Fixed Assets	xxxx
To Patent Written off	xxxx	By Profit on Sale of Investments	xxxx
To Loss on Sale of Fixed Asset	xxxx	By Profit on redemption of Liability	xxxx
To Loss on Sale of Investment	xxxx	By Transfer from General Reserve	xxxx
To Loss on redemption of Liability	xxxx	By Balancing Figure	xxxx
To Preliminary Expenses off	xxxx	Fund From Operations (FFS)	
To Proposed Dividend	xxxx		
To Transfer to General Reserve	xxxx		
To Current Year Provision for Taxation	xxxx		
To Current Year Provision for Depreciation	xxxx		
To Balancing Figure (Fund Lost in Operations)	xxxx		

8.4.2 Sales Method

Under this method, the following is the statement format is used to arrive fund flow from operations.

Sources:

Sales xxxxx

Stock at the end xxxxx

Less:

Application:

Stock at Opening	xxxx
Net Purchases (Purchase-Returns)	xxxx
Wages	xxxx
Salaries	xxxx
Telephone expenses	xxxx
Electricity charges	xxxx
Office stationery expenses	xxxx
Other operating cash expenses	xxxx
Fund from operations	

Illustration 1

From the following details calculate funds from operations	Rs
Salaries	10,000
Rent	6,000
Refund of Tax	6,000
Profit on Sale of Building	10,000
Depreciation on Plant	10,000
Provision for Taxation	8,000
Loss on Sale of plant	4,000
Closing Balance of Profit & Loss A/c	1,20,000
Opening balance on Profit & Loss A/c	50,000
Discount on Issue of Debentures	4,000
Provision for bad debts	2,000
Transfer to general reserve	2,000
Preliminary expenses written off	6,000
Good will written off	4,000
Dividend Received	10,000
Proposed Dividend	12,000

Calculation of fund from operation

First Method

Closing balance of Profit & Loss A/c	1,20,000
Less Opening Balance	50,000

Balance Forward	70,000
Add: Non Fund / Non Operating Charges	
Depreciation on Plant	10,000
Provision for Taxation	8,000
Loss on Sale of Plant	4,000
Discount on issue of debentures	4,000
Provision for bad debts	2,000
Transfer to general reserve	2,000
Preliminary expenses off	6,000
Good will written off	4,000
Proposed Dividend	12,000
	1,22,000
Less	
Refund of Tax	6,000
Profit on Sale of Building	10,000
Dividend Received	10,000
Fund from operations	96,000

Second Method:

Adjusted Profit & Loss A/c

Depreciation on Plant	10,000	By Opening Balance B/d	50,000
Provision for Taxation	8,000	By Profit on Sale of Building	10,000
Loss on Sale of Plant	4,000	By Dividend Received	10,000
Discount on issue of debentures	4,000	By Refund of Tax	6,000
Provision for bad debts	2,000	By Balancing Figure	96,000
Transfer to general reserve	2,000	Fund From operations	
Preliminary expenses off	6,000		
Good will written off	4,000		
Proposed Dividend	12,000		
To Closing Profit B/d	1,20,000		
	1,72,000		1,72,000

The next step is to prepare the fund flow statement .The proforma of the fund flow statement.

Sources of funds	Uses of funds
➢ Funds from Business Operation ➢ Non trading Incomes ➢ Sale of Non-Current Assets ➢ Sale of Long Term Investments ➢ Issue of shares ➢ Acceptance of deposits ➢ Long Term Borrowings ➢ Decrease in Working Capital	➢ Funds Lost in Operations ➢ Redemption of Preference Share Capital ➢ Repayment of Loans ➢ Purchase of Long Term Investments ➢ Purchase of Fixed Assets ➢ Payment of Taxes ➢ Payment of Dividends ➢ Drawings ➢ Loss of Cash ➢ Increase in Working Capital

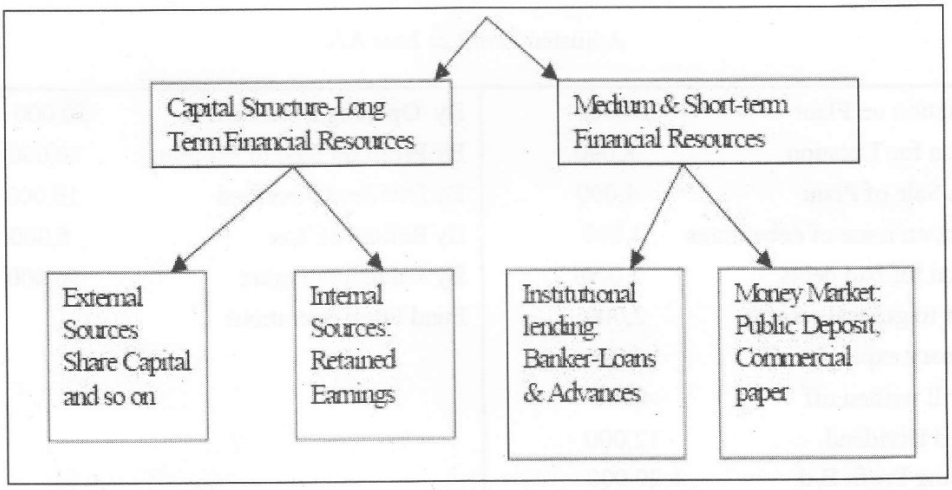
8.4.3 Advantages of Preparing Fund Flow Statement

Structured Analysis on the Working Capital of a Firm

It is the only statement to study the changes in the working capital in between two different periods from the balance sheet of a firm through structured analysis on the basis of working capital position.

Illustrative Statement of Financing

It is a statement, which highlights the role of various kinds of financing not only in the dimension of project development and expansion but also growth rate of the organization.



To Fulfill the Primary Objective of the Financial Management

It not only elucidates the mode of financing but also the application of resources after raising. It answers to the following queries viz

- How the outsider's liabilities are redeemed?

- What is the role of the fund from operation generated?
- How the raised funds applied into business?
- How the decrease in working capital was applied?
- What is the mode of raising the financial resources for an increase in the working capital?

Facilitation through Financial Planning

The projected fund flow statement from the past performance facilitates the firm to anticipate the future requirement of financial resources. It guides the management to prioritize the application in the future to the tune of scarce resources.

Guide to Working Capital Management

It acts as a guide to the management to maintain the working capital at optimum level through either purchase or sale of marketable securities during the periods of adequate and inadequate working capital respectively.

Indicator of Yester Track Path of the Firm

The insight on the financial performance of the firm can be had by the lending institutions through fund flow statement at the time of extending financial assistance to the firm.

8.4.4 Limitations of Fund Flow Statement Analysis

- It is an extension of financial statements but it cannot be leveled with the emphasis of them.
- It is not a resultant of the transaction instead it is an arrangement of among the available information
- Projected fund flow statement ever only to the tune of financial statements which are historic in feature.

Illustration 2

Form the following details prepare a statement showing changes in working capital during 1985.

Balance sheet of Pioneer ltd as on 31st December

Liabilities	1984 Rs	1985 Rs	Assets	1984 Rs	1985 Rs
Share capital	5,00,000	6,00,000	Fixed assets	10,00,000	11,20,000
Reserves	1,50,000	1,80,000	Less: Depreciation	3,70,000	4,60,000
Profit and Loss A/c	40,000	65,000		6,30,000	6,60,000
Debentures	3,00,000	2,50,000	Stock	2,40,000	3,70,000
Creditors for goods	1,70,000	1,60,000	Book Debts	2,50,000	2,30,000
Provision for tax	60,000	80,000	Cash in hand	80,000	60,000
			Preliminary expenses	20,000	15,000
	12,20,000	13,35,000		12,20,000	13,35,000

The first step is to prepare the schedule of changes in working capital

Schedule of Changes in Working Capital

	1984	1985	Increase in working capital	Decrease in working capital
Current asset:				
Stock	2,40,000	3,70,000	1,30,000	----------
Book debts	2,50,000	2,30,000	-------	20,000
Cash in hand	80,000	60,000		20,000
	5,70,000	6,60,000	1,30,000	40,000
Current liability.				
Creditors for goods	1,70,000	1,60,000	10,000	-------
Working capital	4,00,000	5,00,000	1,40,000	40,000
Increase in working capital	1,00,000	----------		1,00,000
	5,00,000	5,00,000	1,40,000	1,40,000

Illustration 3

From the following two balance sheet as at December 31,2004 and 2005. Prepare the statement of sources and uses of funds.

	2004	2005	2004	2005
Liabilities:	Rs	Rs	Rs	Rs
Share capital	80,000	90,000		
Trade creditors	20,000	46,000		
Profit & Loss a/c	4,60,000	5,00,000		
Assets:				
Cash			60,000	94,000
Debtors			2,40,000	2,30,000
Stock in trade			1,60,000	1,80,000
Land			1,00,000	1,32,000
	5,60,000	6,36,000	5,60,000	6,36,000

The first step is to prepare the schedule of changes in working capital.

Schedule of Changes in Working Capital

	2004	2005	Increase in working capital	Decrease in working capital
Current asset:				
Cash	60,000	94,000	34,000	
Debtors	2,40,000	2,30,000		10,000
Stock in trade	1,60,000	1,80,000	20,000	
	4,60,000	5,04,000		
Current liability:				
Trade creditors	20,000	46,000		26,000
Working capital	4,40,000	4,58,000	54,000	36,000
Increase in working capital	18,000	----------	----------	18,000
	4,58,000	4,58,000	54,000	54,000

The next step is to prepare the non current accounts of the firm.

	Rs		Rs
To Balance B/d	1,00,000		
To Cash(Purchase) balancing fig.	32,000	By Balance c/d	1,32,000
	1,32,000		1,32,000

Next non-current account item is the share capital account in the liability side.

The closing balance of the share capital is more than that of the opening balance, which means that the firm has undergone the issue of further more share capital.

During the issue of share capital, the cash resources are raised by the firm through the sale of shares.

Dr **Share capital A/c** **Cr**

	Rs		Rs
To Balance c/d	90,000	By Cash (Issue of shares) Balancing fig	10,000
		By Balance b/d	80,000
	90,000		90,000

Then the next step is to prepare the adjusted profit and loss account to determine the fund from the operations.

Dr **Adjusted Profit & Loss A/c** **Cr**

	Rs		Rs
		By Balance B/d	4,60,000
To Balance c/d	5,00,000	By Fund from operation Balancing fig.	40,000
	5,00,000		5,00,000

The next step is to prepare the fund flow statement of the firm.

Fund Flow Statement

Sources	Rs	Applications	Rs
Issue of Shares	10,000	Purchase of Land	32,000
Funds from operation	40,000	Increase in working capital	18,000
	50,000		50,000

Check Your Progress

1. What are various facets of Fund flow statement?
2. True or False:
   (i) The projected fund flow statement from the past performance facilitates the firm to anticipate the future requirement of financial resources.
   (ii) Projected fund flow statement ever only to the tune of financial statements which are historic in feature.

8.5 LET US SUM UP

We have discussed in this lesson the various objectives of fund flow statement analysis along with methods and steps involved in preparing fund flow statement. The method of portraying the changes on the volume of financial position is the analysis of fund flow statement. In a narrow sense, the term fund means cash and the fund flow statement depicts the cash receipts and cash disbursements/payments. It highlights the changes in the cash receipts and payments as a cash flow statement in addition to the cash balances i.e. opening cash balance and closing cash balance.

8.6 KEYWORDS

Fund: Fund means working capital.

Flow: Flow means changes occurred in between two different time periods.

Increase in Working Capital: Increase in Net working capital i.e. Excess of current assets over the current liabilities- Applications side of the fund flow.

Decrease in Working Capital: Decrease in Net working capital i.e. Excess of current liabilities over the current assets – Resources side of the fund flow.

Fund From Operations: Income generated from only operations.

Fund Lost in Operations: Loss incurred in the operations.

8.7 QUESTIONS FOR DISCUSSION

1. Define fund.
2. Define flow.
3. What is meant by fund flow?
4. List out the various objectives of preparing the fund flow statement.

5. Enumerate the various advantages in the preparation of fund flow statement.
6. Briefly explain the limitations of fund flow statement.
7. What are the steps involved in the process of fund flow statement?
8. Explain the various methods of determining the fund from/lost (in) operations.
9. Explain the process of preparing the statement of changes in working capital.
10. Draft the proforma of the Fund flow statement.
11. Explain any non current account transactions affecting the fund position of the firm.

Check Your Progress: Model Answers

1. Statement of sources and application of funds, Statement Changes in financial position, Analysis of working capital changes and Movement of funds statement
2. (a) True (b) True

8.8 SUGGESTED READINGS

M.P. Pandikumar, *Accounting & Finance for Managers*, Excel Books, New Delhi.

R.L. Gupta and Radhaswamy, *Advanced Accountancy*.

V.K. Goyal, *Financial Accounting*, Excel Books, New Delhi.

R. Narayanswamy, *Financial Accounting - A Managerial Perspective*, HPI.

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LESSON

9

CASH FLOW STATEMENT ANALYSIS

CONTENTS

9.0 AIMS AND OBJECTIVES

After studying this lesson, you will be able to:

- Plan for any financing, investment and dividend proposals, the cash of the two different time horizons should be relatively considered
- Know the influence of cash from operations
- Study the various sources of cash inflows and cash outflows
- Determine the amount of cash in flows and cash outflows of the organisation

9.1 INTRODUCTION

Cash is considered one of the vital sources of the firm to meet day-to-day financial commitments .The cash is considered to be as most important source of lifeblood of the business. The day-to-day financial commitments are met out only out of the available resources. The cash resources are availed through two different type of receipts viz sales, dividends, interests known as regular receipts and sale of assets, investments known as irregular receipts of the business enterprise. To have smooth flow of business enterprise, it should have ample cash resources for its operations. The availability of cash resources is

mainly depending on the cash inflows of the enterprises. The smoothness in operations of the enterprise is obtained through an appropriate matching of cash inflows and cash outflows.

To have smoothness in the operations of the enterprise, the firm should have an appropriate volume of cash resources at speedier rate as well as more than the financial commitments of the firm. This smoothness could be attained by way of an appropriate planning analysis on the cash resources of the firm. The meaningful analysis is only possible through cash flow statement analysis, which facilitates the firm to identify the possible sources of cash as well as the expenses and expenditures of the firm.

9.2 MEANING OF CASH FLOW STATEMENT

The cash flow statement is being prepared on the basis of extracted information of historical records of the enterprise. Cash flow statements can be prepared for a year, for six months, for quarterly and even for monthly. The cash includes not only means that cash in hand but also cash at bank.

9.3 MOTIVES OF PREPARING THE CASH FLOW STATEMENT

- To identify the causes for the cash balance changes in between two different time periods, with the help of corresponding two different balance sheets.
- To enlist the factors of influence on the reduction of cash balance as well as to indicate the reasons though the profit is earned during the year and vice versa

9.4 UTILITY OF CASH FLOW STATEMENTS

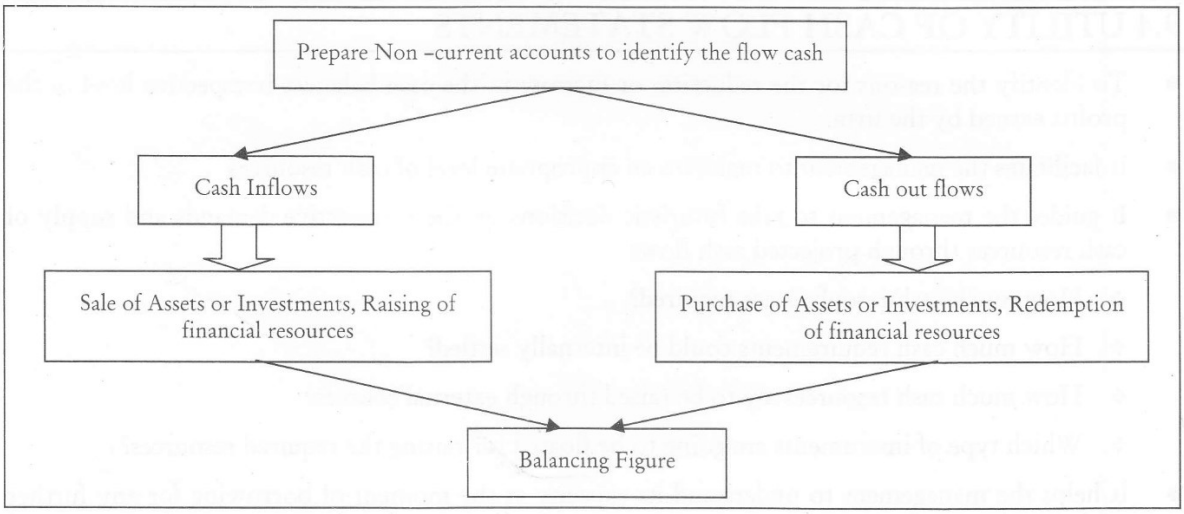
- To identify the reasons for the reduction or increase in the cash balances irrespective level of the profits earned by the firm.
- It facilitates the management to maintain an appropriate level of cash resources
- It guides the management to take futuristic decisions on the prospective demands and supply of cash resources through projected cash flows.
  - ❖ How much cash resources are required?
  - ❖ How much cash requirements could be internally settled?
  - ❖ How much cash resources are to be raised through external sources?
  - ❖ Which type of instruments are going to be floated for raising the required resources?
- It helps the management to understand its capacity at the moment of borrowing for any further capital budgeting decisions.
- It paves way for scientific cash management for the firm through maintenance of an appropriate cash levels i-e optimum level cash of resources.
- It avoids in holding excessive or inadequate cash resources through proper planning of cash resources.

- It moots control through identification of variations occurred in the cash expenses and expenditures.

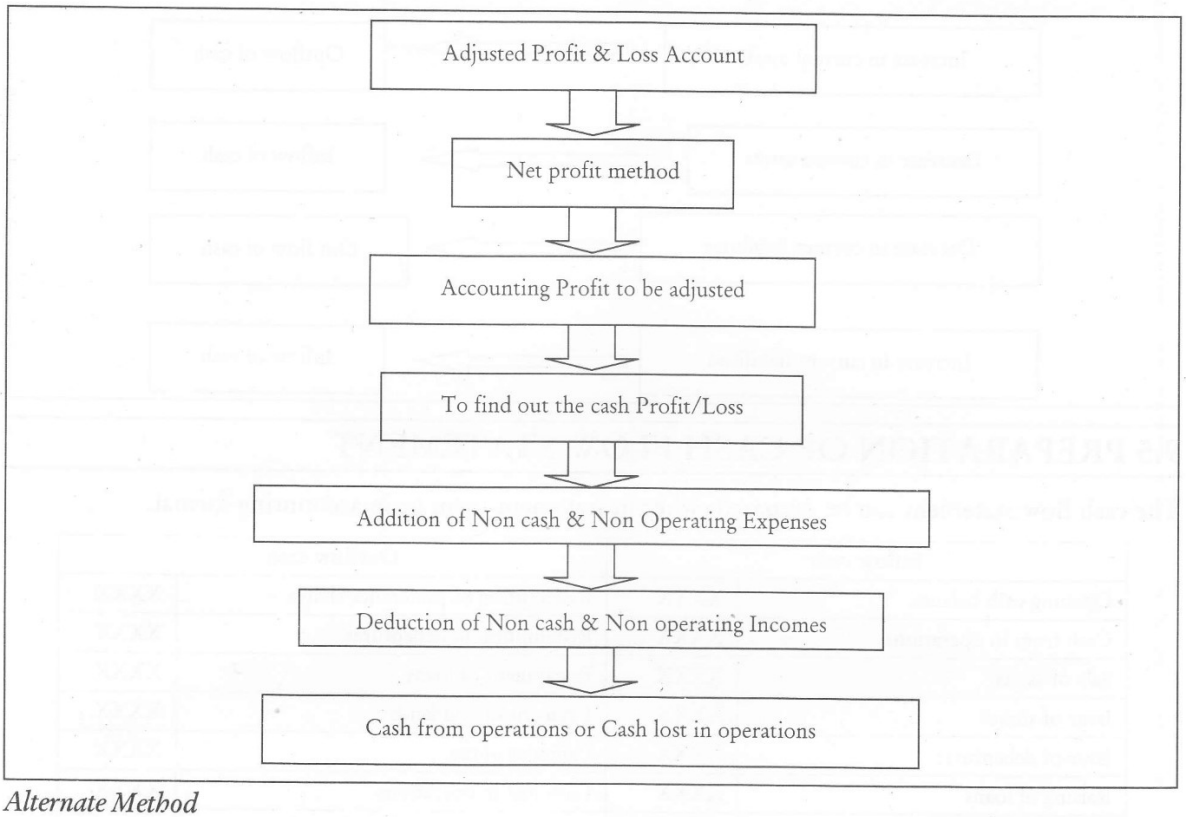
Difference between Cash Flow Statement and Fund Flow Statement

Cash flow statement	Fund flow statement
Cash inflow and outflow are only considered	Increase or decrease in the working capital is registered
Causes & changes of cash position	Causes & changes of working capital position
Considers only most liquid assets pertaining to cash resource; which fosters only for very short span of planning	Considers in general i.e current assets; the duration of the liquidity of the current assets are longer in gestation than the liquid assets; which paves way for long span of planning
Opening and closing balances of cash resources are considered for the preparation	Increase or decrease of working capital is considered but not the opening and closing balance for preparation
The flow in the statement means real cash flow	The flow in the statement need not be real cash flow

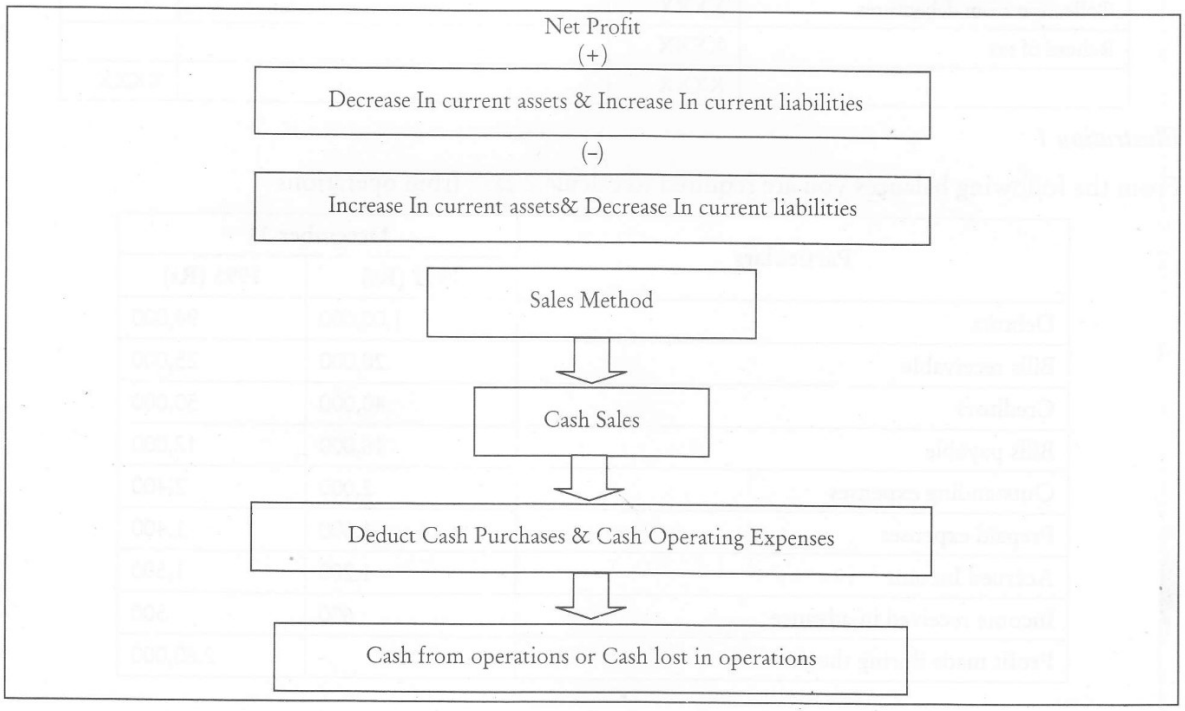
Preparation of Cash Flow Statements - Problems and Solutions



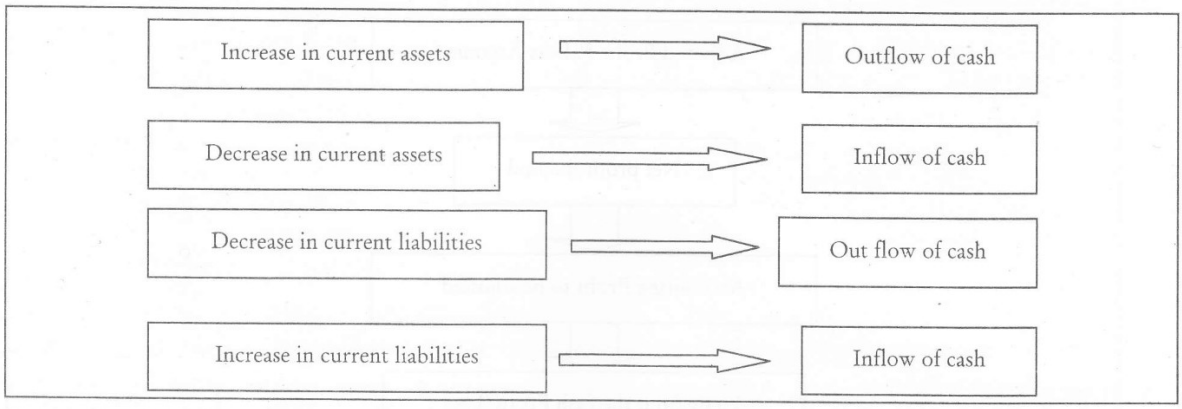
Preparation of Adjusted Profit and Loss Account



Alternate Method



Comparison of Current items to Determine the Inflow of Cash or Outflow of Cash



9.5 PREPARATION OF CASH FLOW STATEMENT

The cash flow statement can be prepared either in statement form or in accounting format.

Inflow cash		Outflow cash	
Opening cash balance	XXXX	Redemption of preference shares	XXXX
Cash from in operations	XXXX	Redemption fo debentures	XXXX
Sale of assets	XXXX	Repayment of loans	XXXX
Issue of shares	XXXX	Payment of dividends	XXXX
Issue of debentures	XXXX	Payment of tax	XXXX
Raising of loans	XXXX	Cash lost in operations	XXXX
Collection from debentures	XXXX		
Refund of tax	XXXX		
	XXXX		XXXX

Illustration 1

From the following balances you are required to calculate cash from operations

Particulars	December 31	
	1992 (Rs)	1993 (Rs)
Debtors	1,00,000	94,000
Bills receivable	20,000	25,000
Creditors	40,000	50,000
Bills payable	16,000	12,000
Outstanding expenses	2,000	2,400
Prepaid expenses	1,600	1,400
Accrued Income	1,200	1,500
Income received in advance	600	500
Profit made during the year	-	2,60,000

According to net profit method, the cash from operation has to be found out.

Cash from operations

= Net profit (+)	Decrease in current assets & Increase in current liabilities	(-)	Increase in current assets & Decrease in current liabilities

The next step is to quantify the decrease in current assets and increase in current liabilities, in order to add with the closing net profit of the given statements and then the added volume should be deducted from the increase in current assets and decrease in current liabilities.

Cash from operations	Rs	Rs
Profit made during the year		2,60,000
Add		
Decrease in debtors	6,000	
Increase in creditors	10,000	
Outstanding expenses	400	
Prepaid expenses	200	
		16,600
Less		
Increase in Bills receivable	5,000	
Decrease in Bills payable	4,000	
Increase in accrued income	300	
Income received in advance	100	
		9,4000
Cash from operations		**2,67,200**

Illustration 2

From the following profit and loss account you are required to compute cash from operations.

Profit and Loss Account for the year ending 31st Dec, 1983

	Rs		Rs
To salaries	10,000	By Gross profit	50,000
To Rent	2,000	By profit on sale of land	10,000
To Depreciation	4,000	By income tax refund	6,000
To loss on sale of plant	2,000		
To Good will written off	8,000		
To proposed dividend	10,000		
To provision for taxation	10,000		
To Net profit	20,000		
	66,000		66,000

Cash from operations

	Rs	Rs
Net profit made during the year		20,000
Add:		
Non cash expenses		
Depreciation	4,000	
Loss on sale of plant	2,000	
Good will return off	8,000	
Non operating expenses		
Proposed dividend	10,000	
Provision for taxation	10,000	34,000
Less		
Non cash income		
Profit on sale of land	10,000	
Non operating income		
Income tax refund	6,000	16,000
		38,000

Check Your Progress

1. What are the three components in terms of which cash flow statement indicates inflow and outflow.
2. True or False:
   (i) The cash flow statement is being prepared on the basis of an extracted information of historical records of the enterprise.
   (ii) Cash outflows include purchase lo assets or investments and redemption of financial resources.

9.6 LET US SUM UP

Cash flow statement indicates sources of cash inflows and transactions of cash outflows prepared for a period. It is an important tool of financial analysis and is mandatory for all the listed companies. The cash flow statement indicates inflow and outflow in terms of three components: 1. Operating, 2. Financing, and 3 investment activities. Cash inflows include sale of assets or investments, and raising of financial resources. Cash outflows include purchase lo assets or investments and redemption of financial resources.

9.7 KEYWORDS

Adjusted Profit & Loss A/c: Statement devised to determine the Cash from operations.

Cash from Operations: Cash resources accrued in the business operations.

9.8 QUESTIONS FOR DISCUSSION

1. Define cash flow.
2. Highlight the steps involved in the process of Cash flow statement analysis.
3. Draw the proforma of the Adjusted profit and loss account.
4. Illustrate the impact of the changes taken place on the current assets and current liabilities to the tune of cash flows determination of the firm.
5. Briefly explain the objectives of preparing the cash flow statement.
6. Explain the various utilities of the cash flow statement analysis.
7. Illustrate the various differences in between the cash flow and fund flow statements analysis.

Check Your Progress: Model Answers

1. (a) Operating, (b) Financing, and (c) investment activities.
2. (a) True (b) True

9.9 SUGGESTED READINGS

M.P. Pandikumar, *Accounting & Finance for Managers*, Excel Books, New Delhi.

R.L. Gupta and Radhaswamy, *Advanced Accountancy*.

V.K. Goyal, *Financial Accounting*, Excel Books, New Delhi.

R. Narayanswamy, *Financial Accounting - A Managerial Perspective*, HPI.

Nitin Balwani, *Accounting & Finance for Managers*, Excel Books, New Delhi.

LESSON

10

MARGINAL COSTING

CONTENTS

10.0 AIMS AND OBJECTIVES

After studying this lesson, you will be able to:

- Understand the breakeven level in volume and units to avoid in incurring the losses
- Take managerial decisions competently on cost, volume and profit
- Facilitate to earn desired level of profit at the given volume of sales

10.1 INTRODUCTION

It is one of the premier tools of management not only to take decisions but also to fix an appropriate price and to assess the level of profitability of the products/services. This is a only costing tool demarcates the fixed cost from the variable cost of the product/service in order to guide the firm to know the minimal point of sales to equate the cost of production. It is a tool of analysis highlighting the relationship in between the cost, volume of sales and profitability of the firm.

10.2 DEFINITION OF MARGINAL COSTING

According to ICMA, London "Marginal cost is the amount at any given volume of output, by which aggregate costs are charged, if the volume of output is increased or decreased by one unit."

Marginal cost is the cost nothing but a change occurred in the total cost due to changes taken place on the level of production i-e either an increase / decrease by one unit of product.

The firm XYZ ltd incurs Rs 1000/- for the production of 100 units at one level of operation. By increasing only one unit of product i-e 101 units, the firm's total cost of production amounted Rs1010/.

Total cost of production at first instance (C') = Rs.1000/

Total cost of production at second instance (C") = Rs.1010/-

Total number of units during the first instance (U') = 100

Total number of units during the second instance (U") = 101

Increase in the level of production and Cost of production:

Change in the level of production in units= U" - U'= ΔU

Change in the total cost of production = C" - C'=ΔC

$$\text{Marginal Cost} = \frac{\text{Change (Increase) in the total cost of production}}{\text{Change (Increase) in the level of production}} = \frac{\Delta C}{\Delta U} = \frac{\text{Rs.10}}{1}$$

If the same firm reduces the total volume from 100 units to 99 units, the total cost of production Rs. 990/-

Decrease in the level of production and Cost of production:

$$\text{Marginal Cost} = \frac{\text{Change (Decrease) in the total cost of production}}{\text{Change (Increase) in the level of production}} = \frac{\Delta C}{\Delta U} = \frac{\text{Rs.10}}{1}$$

Why Marginal cost is called as incremental cost?

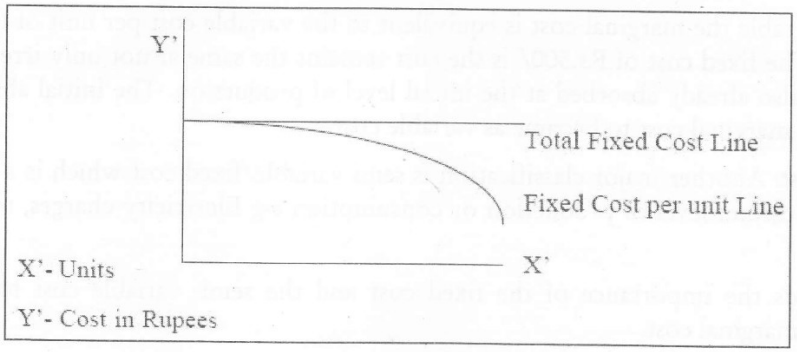
From the above example, it is obviously understood that marginal cost is nothing but a cost which incorporates the incremental changes in the cost of production due to either an increase or decrease in the level of production by one unit, meant as incremental cost.

Why Marginal cost is called in other words as variable cost?

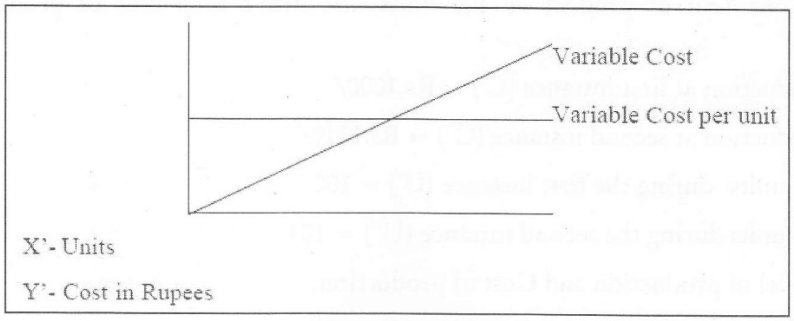
From the following classifications of cost, the inter twined relationship in between the variable cost and marginal cost is explained as below

Fixed Cost: It is a cost remains constant or fixed irrespective level of production.

E-g: Rent Rs 5,00/- is to be paid irrespective level of production. It remains constant/fixed irrespective of changes taken place on the level of production.



Variable cost: It is a cost, which varies with level of production.



The following are the various components of variable cost

- *Direct Materials:* Materials cost consumed for the production of goods.
- *Direct Labour:* Wages paid to the labourers who directly involved in the production of goods.
- *Direct Expenses:* Other expenses directly involved in the production stream.
- *Variable portion of Overheads:* Generally the overheads can be classified into two categories. Viz- Variable overheads and fixed overheads.

The variable overheads is the cost involved in the procurement of Indirect materials, Indirect labour and Indirect Expenses.

Indirect Material: Cost of fuel, oil and soon.

Indirect Labour: Wages paid to workers for maintenance of the firm.

Statement of Fixed Variable and Total Costs and Per Unit

Sl.No	Units	Fixed Cost Rs	Fixed cost per unit Rs	Variable Cost Rs	Variable Cost per unit Rs	Marginal Cost Rs ΔC/ΔU	Total Cost Rs
1.	1	500	500	10	10	10	510
2.	50	500	100	500	10	10	1000
3.	100	500	5	1000	10	10	1500
4.	150	500	3.333	1500	10	10	2000

From the above table the marginal cost is equivalent to the variable cost per unit of the various levels of production. The fixed cost of Rs.500/ is the cost remains the same at not only irrespective levels of production but also already absorbed at the initial level of production. The initial absorption of fixed overhead led the marginal cost to become as variable cost.

Semi-Variable cost: Another major classification is semi variable/fixed cost which is a cost partly fixed /variable to the certain level of production or consumption e-g Electricity charges, telephone charges and so on.

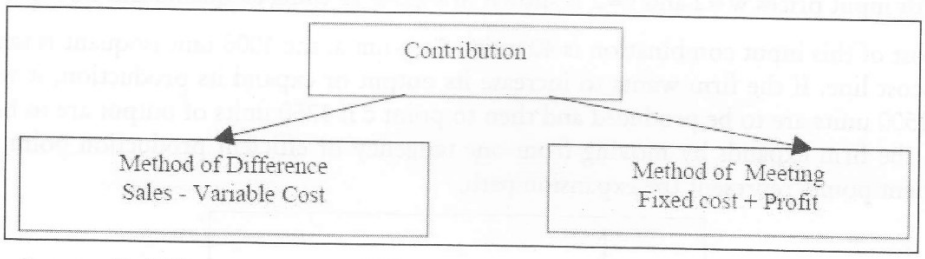
It jointly discards the importance of the fixed cost and the semi- variable cost for analysis while ascertaining the marginal cost.

Marginal Costing is defined as "the ascertainment of marginal cost and of the effect on profit of changes in volume or type of output by differentiating between fixed and variable costs."

In marginal costing, the change in the level of cost of operation is equivalent to variable cost due to fixed cost component which is fixed irrespective level of outputs.

10.3 IMPORTANCE OF MARGINAL COSTING

- The costs are classified into two categories viz fixed and variable cost
- Variable cost per unit is considered as marginal cost of the product
- Fixed costs are charged against contribution of the transaction
- Selling price of the product = marginal cost + contribution



Marginal costing profitability statement as follows:

Sales	xxxx
Variable Cost	xxxx
Contribution	xxxx
Fixed Cost	xxxx
Profit	xxxx

Sales Rs.100,000/-, variable cost Rs.25,000/- and fixed cost Rs.20,000/ find out the contribution and profit.

	Rs.
Sales	1,00,000
Variable Cost	50,000
Contribution	50,000
Fixed Cost	20,000
Profit	30,000

Method of Difference: Under this method, the contribution can be computed through finding the differences in between Sales and Variable Cost

i.e. Contribution = Sales – Variable Cost = Rs.1,00,000 – 50,000 = Rs.50,000

Method of Coverage: In this method, the contribution is equated with the summation of fixed cost and Profit.

i.e. Contribution = Fixed Cost + Profit = Rs.20000 + 30000 = Rs.50,00.