

BC

Cost Accounting's scope & objectives in sync with financial accounting

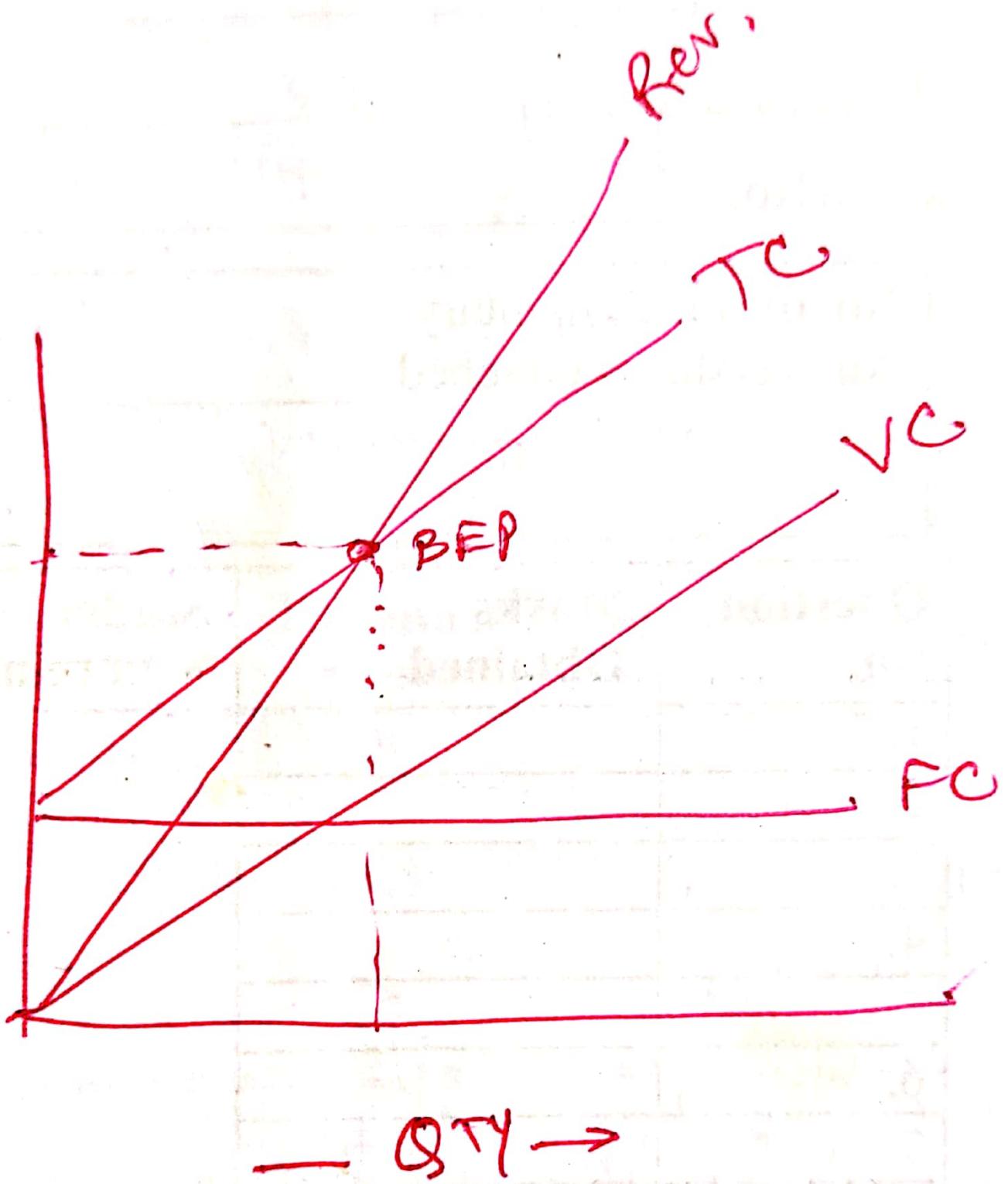
	Financial Accounting	Cost Accounting
(i) OBJECTIVE	<p>(i) To find Profits / Losses over a period of time (generally Annually). At the end of financial year.</p> <p>(ii) To find Financial Statement of Business Balance Sheet.</p> <p>(iii) To satisfy needs of stakeholders & Also provide cash flow statement. This is transparent and open.</p> <p>Financial A/cg. is done at the end of the year</p>	<p>(i) In the beginning of operation. To compute cost of product & selling price of product.</p> <p>(ii) Profit (Rev. - Cost) so if Revn sales is ↑ & cost is ↓, profit is also ↑. Reducing cost is Cost A/c job without compromising the q'ty.</p> <p>(iii) Cost A/cg. is done at the beginning of the year / op.</p>
FOR NFTION	Management, Stakeholders, Govt, NSE, BSE	Management only. Also govt, if it is sought but it is not obliged by govt.
WHEN	At the end of the year	In the beginning & during the year

There are many other differences. Above is basic difference.

(ii) Classification of cost: Fixed costs are not dependent on the level of goods or services produced by the business. Fixed costs are expenses that have to be paid by a co., independent of any business activity eg. - rent, insurance premium or loan payment. FC can create 'economies of scale' which are reductions in per unit costs through an increase in production volume. This idea is also referred to as diminishing marginal cost.

Variable cost: costs that change in proportion to the goods or services that a business produces. Common example of VC is direct material cost.

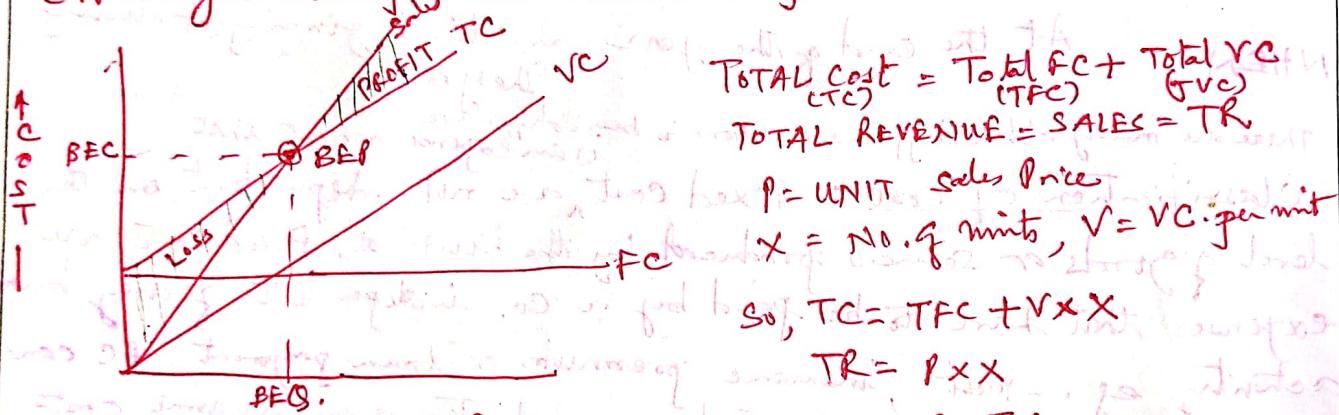
Semi Variable cost: A semi-variable cost, also known as a semi-fixed cost or mixed cost, is a cost composed of a mixture of both fixed and variable components. Costs are fixed for a set level of production & becomes variable after this level is exceeded e.g. most institutions have policies regarding max no. of students that can be accommodated in a class room for face-to-face tutorials when no. of students exceed the max permissible



limit, then a second class group is formed, necessitating the employment of another tutor.

As the level of business activity changes, some costs change while others don't. The response of a cost to a change in business is known as 'COST BEHAVIOUR'. Managers should be able to predict the behaviour of a particular cost in response to a change in particular business activity for this purpose, costs are classified as variable, fixed and mixed costs.

(iii) CPV (Cost-Volume-Profit): The Cost Volume Profit analysis, commonly referred to as CPV, is a planning process that managers use to predict the future volume of activity, costs incurred, sales made and profits earned. In other words, it's a mathematical equation that computes how changes in costs and sales will affect income in future periods. CPV analysis classifies all costs as either fixed or variable.



$$\text{TOTAL Cost (TC)} = \text{Total FC} + \text{Total VC}$$

$$\text{TOTAL REVENUE} = \text{SALES} = \text{TR}$$

$$\text{Sales Price} = P = \text{UNIT Sales Price}$$

$$\text{So, } \text{TC} = \text{TFC} + V \times X$$

$$\text{TR} = P \times X$$

$$\rightarrow \text{Volume of Prod} \rightarrow \text{Profit} = \text{TR} - \text{TC}$$

$$\text{At BEP, } \text{TC} = \text{TFC} + \text{TV} = \text{TR}$$

Contribution Margin - Is the revenue from sales over VC. The concept of contribution margin is particularly useful in the planning of business because it gives an insight into the potential profit that a business can generate.

Contribution Margin Ratio: $\frac{(\text{Sales} - \text{VC})}{\text{Sales}}$

Ex: If Sales = Rs. 10,00,000, VC = Rs. 6,00,000, FC = Rs. 3,00,000

Ques: Contribution Margin = Sales - VC = 10,00,000 - 6,00,000 = 4,00,000
Contribution Margin Ratio = $\frac{(\text{Sales} - \text{VC})}{\text{Sales}} = \frac{4,00,000}{10,00,000}$

Income from operation = Contribution - FC = 4,00,000 - 3,00,000 = 1,00,000

Margin of Safety: Represents the strength of the business. It enables a business to know what is the exact amount it has gained or lost and whether they are over or below the BEP. In Break Even Analysis, margin of safety is the extent by which actual or projected sales exceed the BE Sales (Break Even Sales).

$$\text{Margin of Safety} = \text{Current output} - \text{BE output}$$

$$\therefore \% = (\text{M of Safety}) \times 100 / \text{Current output}$$

Ex: Find the Break even sales when fixed cost is Rs. 90,000, sales per unit is Rs. 25 and variable cost is Rs. 15 per unit. What sales should be made to earn a profit of Rs. 20,000?

Soln: We know Total cost, $Tc = FC + TVC$

Let the no. of units manf be Q , then

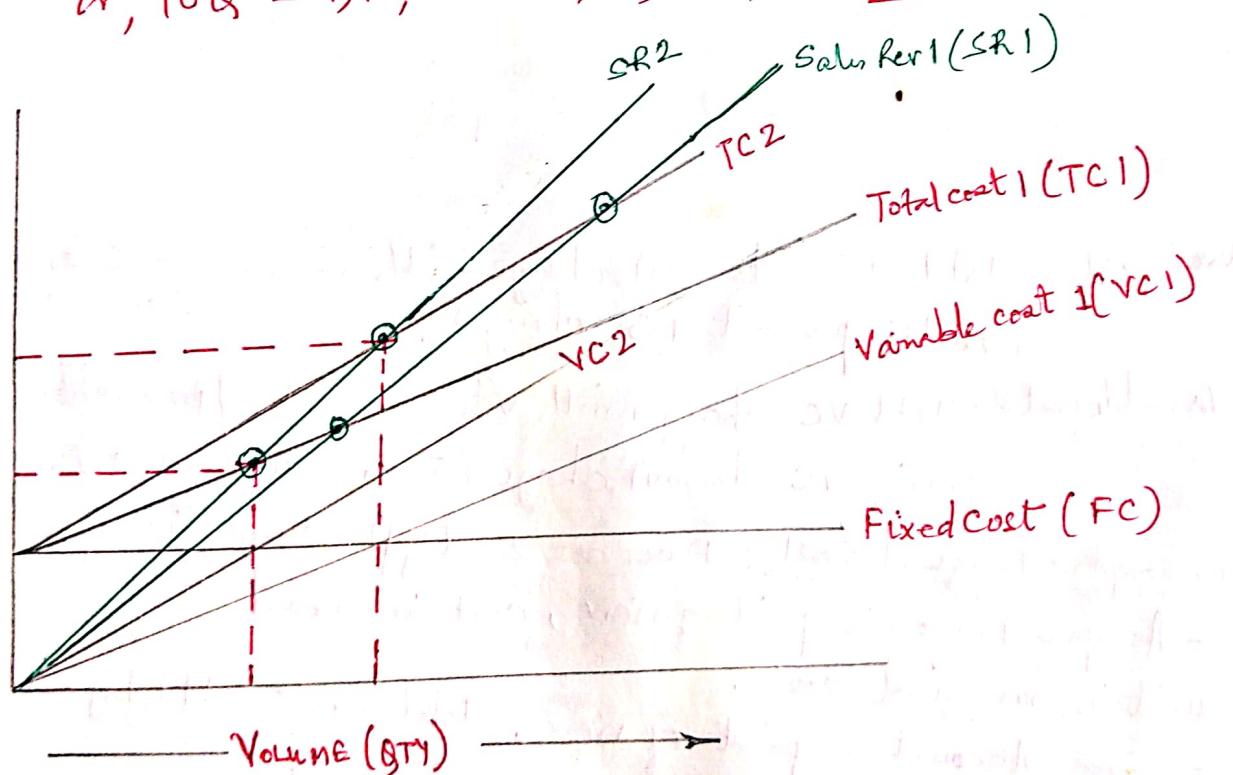
$$Tc = 90,000 + 15Q$$

$$\text{Profit} = \text{Total Revenue} - \text{Total cost} = TR - TC$$

$$TR = 25Q, Tc = 90,000 + 15Q, \text{ Given profit} = \text{Rs. } 20,000$$

$$\text{Hence, } 25Q - (90,000 + 15Q) = 20,000$$

$$\text{or, } 10Q = 1,10,000 \Rightarrow Q = 11,000 \text{ units}$$



Fixed cost - Total FC doesn't change with volume of sales / production but per unit FC changes.

Variable cost - Total VC changes with volume of sales / production but per unit VC doesn't change (i.e., remains same).

concept of Marginal cost: There are 2 diff. concepts.

- As per Economic point of view, cost incurred to produce an additional unit is marginal cost.
- From Accounting point of view, total cost obt'd. by adding Prime Cost and VC (i.e., Total cost w/o FC) is marginal cost.

concept, which is going to form the graph.

3D Cost Sheet — is Product of costing (cost sheet is a statement showing cost that is a statement showing cost of production, throughout up to present date)

(i) Meaning & Purpose: Means a statement where we can record total cost of production. So with the help of cost sheet, we can calculate the total cost and cost per unit. In another words, it is a report on which all costs associated with a product or production job are accumulated. It can form the basis for setting of prices on similar products in future.

According to Chartered Institute of Management Accountancy (CIMA) London cost sheet is "A statement which provides for the assembly of detailed cost of a center or a cost unit".

Elements of — Cost Related to the Product

Material

Labour

Others
Expenditure

Material: All physical inputs used in prodn. directly or indirectly.
e.g. - raw materials, lubricants, packing materials, Computer stationery etc., (Direct & Indirect)

Direct (Also termed as prime cost)

Directly associated with the Product or FG.

Direct cost are variable cost. All costs incurred wrt FG or cost center.

Indirect .. fixed cost

All costs which is not incurred wrt FG/cost center is called

indirect cost e.g. - depreciation, Power (used in making), wages, salary, for production, electricity (used in office), advertisement etc. Director's remuneration, honorarium. Note robot is not considered in labour. It is a machinery.

Indirect / Overhead Expenses

(i) factory

(ii) Office & Administration

(iii) Selling

Distribution

Others = All expenses other than Material & Labour are

covered in this definition e.g. - power (used for production) direct

electricity, rent of office — indirect

Royalty - Pepsi (use brand) - say 5/- per bottle - direct expense under other expense

5

Wages paid to labour directly involved in production is direct labour. Salaries of supervisor, Peons, remuneration of Director is indirect labour.

- (i) Factory O/H - Factory rent, Factory lighting, Power, Supervisor's salary
 - (ii) Office & Admin O/H - Director's salary, office rent, office boys, all employees working in the office. ---.
 - (iii) Selling & Distribution O/H - Advertisement, sample, sales campaigns,

Our objective is to find the cost of the product & determine the selling price of the product.

Direct Material + x

+ ... Labour + x
+ ... Bourgeoisie x x

PRIME COST

+ Faculty of IT *

(Also called works of H)

Production of H —

factory cost

(Also called works cost)

or
Production cost)

+ Office & Office expense xx

~~100% of the time~~

Cost of Production
of 1 ton = Rs. 25

+ Let's go to the moon off

Total cost of Sales

+10% Margin @

~~the number of people~~

sub trice (sub trice, $\frac{1}{2}$ front) $\frac{1}{2}$ front

$$\text{Permit SI} = \frac{\text{TAOLSP}}{\text{LSP}}$$

~~Tipulidae~~ **Xibigumbro**

1. *Theridion*

Digitized by srujanika@gmail.com

Logical order of Cost Sheet -

Prime cost = Direct Mtl + Direct Labour + Direct Expense
 (P.C.)

Works cost = P.C + Factory O/Hs
 (W.C.)

Cost of Production = W.C + Admin & Adm. O/Hs
 (COP)

Cost of Sales
 (COS) = COP + Selling & Distribution O/Hs.
 Aggregate of all direct & indirect cost connected
 to the goods sold.

Selling Price or Sales = COS + Profit.

Cost Sheet Format

<u>Particulars</u>	<u>Rs.</u>	<u>Rs.</u>
Opening stock of raw material	* * *	
(+) Purchase of raw materials	* + *	
Carriage on purchases	* + *	<u>XXX</u>
(-) Closing stock on raw materials	<u>+++</u>	
Direct Material Scrap sold	* + *	<u>+++</u>
Raw materials consumed		* + *
Direct Wages		* + *
Direct Expenses		<u>+++</u>
<u>Prime cost (P.C.)</u>		
(+) factory O/Hs		* + *
(+) Opening work-in-progress		<u>++</u>
(-) Closing work-in-progress		* + *
<u>Works cost (or) factory Cost</u>		<u>++</u>
(+) Admin. O/Hs		* + *
<u>Cost of Production</u>		

(+) Opening stock of finished goods.

(-) closing stock of "

cost of production of goods sold

(+) Selling & distribution of H, Adm + Sls
Cost of Goods Sold (or) cost of sales.

(+): Profit / (-): Loss

Sale.

+++
+++
+++
X++
+++
+++
+++
+++

Fix: From the following particulars, prepare a statement showing the components of total sales and profit for the year ended 31st Dec, 2015.

PC - Stock of raw materials on 01-01-2015	-	75,000
PC - " " " " " 31-12-2015	-	95,000
PC - Direct Wages	-	40,000
PC - Direct Expenses	-	10,000
FG - Indirect Wages	-	2,500
FO - Work-in-Progress (01-01-2015)	-	25,000
FO - WIP (31-12-2015)	-	32,000
PC - Purchase of raw materials	-	68,000
FO - Factory rent, rates and power	-	12,000
FO - Depreciation of Plant & machinery	-	3,000
PC - Carriage inwards	-	2,000
CG - " " " outwards	-	2,300
SG - Advertising	-	3,200
OA - Office rent & taxes	-	2,500
SG - Traveller's wages & commission	-	6,300
FO - Repairs to Plant & Machinery	-	1,000
OA - Directors fees	-	3,000
OA - General charges	-	4,000
CG - Stock of FG (01-01-2015)	-	50,000

(+) stock of finished goods (31-12-2015) —	30,000
Sales —	2,10,000
<u>Statement showing cost & Profit for the Year ended 31st Dec, 2015</u>	

Particulars	Rs.	Rs.
(Opening stock of RM	75,000	
(+) Purchases	68,000	
carriage inwards	2,000	
(-) Closing stock of RM	1,45,000	
RM consumed	95,000	50,000
(+) Direct labour / Wages		40,000
Direct Expenses		10,000
Prime Cost (PC)		1,00,000
(+) Factory Overheads		
Indirect Wages	2,500	
Factory rent, rates & Power	12,000	
Depr of P & M	3,000	
Repair to P & M	1,000	18,500
(+) Op. stock of WIP		1,18,500
(-) closing ... WIP		25,000
Work Cost / factory Cost		143,500
(+) Office & Admin O/H		
Office rent & taxes	2,500	
Director's fees	3,000	
General charges	4,000	9,500
Cost of Production		1,21,000
(+) Op stock of finished goods		50,000
(-) closing stock of finished goods		1,71,000
Cost of Production of goods sold		30,000
(+) Selling & Distribution O/H		141,000
Carriage outwards	2,300	20

Advertising		5,200	1,600
Traveller's wage & Commission		6,300	11,800
cost of sales -	-	-	1,52,800
(+) Profit (B.f)	-	-	57,200
Balancing Figure -	-	-	2,10,000

Sales

(ii) Budget: A budget is a financial plan for a defined period of time, usually a year. It may also include planned sales volumes & revenues, resource quantities, costs & expenses, assets, liabilities & cash flows. Companies, govt., families & other orgns use it to express strategic plans of activities on events in measurable terms.

A budget is the sum of money allocated for a particular purpose and the summary intended expenditures along with proposal for how to meet them. It may include a budget surplus, providing money for use at a future time, or a deficit in which expenses exceed income (Overdraft will be required).

Following types of budgets are commonly used by Business —

- (i) Operating Budget - Is a forecast & analysis of projected income & expenses over the course of a specified time period. To create an accurate picture, operating budgets must account for factors such as Sales, Production, Labour costs, Materials costs, O/H, Mfg. costs & Admin. expenses. Operating budgets are generally created on weekly, monthly, or yearly basis. A Mgr might compare these reports month after month to see if the Co. is over spending on supplies. It helps to ensure/verify Co.'s operational health.....
- (ii) Capital Budget - Is the planning process used to determine whether an orgn's L.T. investments such as new machinery, replacement of machinery, new plants, new products and research & development projects are worth the funding of cash through the firm's capitalisation structure (debt, equity or retained earnings). It is the process of allocating resources for major capital or investment expenditures. One of the primary goals of capital budgeting investments is to increase the value of the firm to the shareholders. (A/c income, Earnings, Cap. Maintenance, Many formal methods are used in Capital budgeting, including the techniques such as - Adj. rate of Return; Avg. rate of return; Payback period; Net Present Value; Profitability).

Internal Rate of Return; Modified IRR; Equivalent Annual Cost; Real option valuation

- (iii) Cash Budget - Estimates amount of cash received & the amount of cash payment and balance of cash during a specific budgeted period. It is based on forecast of cash or estimate of cash showing what funds will be available at what time and whether that fund will be sufficient to meet the reqmt. Cash can be prepared with the help of past information / experience i.e. orgn can forecast the future with the info. / experience of past. Cash is very important for the business operation.
It can help the Co. to determine whether it is maintaining the cash nicely. Cash flow budgets consider factors such as accounts payable & accounts receivable to assess whether a Co. has ample cash on hand to continue operating the extent to which it is using its cash productively, and its likelihood of generating cash in near future e.g., -----.
- Master Budget - It is an aggregate of co.'s individual budgets designed to present a complete picture of its financial activity & health. It combines factors like sales, operating expenses, assets & incoming streams to allow cos. to establish goals & evaluate their overall performance, as well as that of individual cost centers within the orgn. Master budgets are often used in larger cos. to keep all individual mngs aligned.
- Static budget - Is a fixed budget that remains unaltered regardless of changes in the volume of activity (as such sales volume or revenue).
- Flexible budget - Budget that adjusts or flexes for changes in the volume of activity. It is more sophisticated & useful than static budget.

Numericals

CASH BUDGET : Ex: From the following data forecast the cash position at the end of April, May and June 2015.

Month, 2015	SALES (Rs.)	Purchase (Rs.)	WAGES (Rs.)	SALES EXPENSES (Rs.)
February	1,00,000	90,000	10,500	2,500
March	1,10,000	1,00,000	11,000	2,600
April	60,000	1,10,000	11,700	2,000
May	1,20,000	1,15,000	10,500	3,000
June	80,000	90,000	8,500	2,200

Further information -

- 1) Sales at 15% realised in the month of sales. Balance equally realised in two subsequent months.
- 2) Purchases: creditors are paid in the month following the month of supply.
- 3) Wages: 20% paid in arrears in the following months.
- 4) Sales Expenses paid in the month itself.
- 5) Income Tax Rs. 30,000 payable in June, '15.
- 6) Dividend payable in June, '15. Amount of dividend- Rs. 12,000.
- 7) Income from investments Rs. 5000 received half yearly during March & Sept.
- 8) Cash balance on hand as on 01-04-'15 Rs. 50,000.

CASH BUDGET AT THE END OF APRIL, MAY AND JUNE, 2015

PARTICULARS

	APRIL, '15	MAY, '15	JUNE, '15
Opening balance of cash	50,000	40,700	6,400
(+) Receipt of cash			
- cash sales 10%	6,000	12,000	8,000
- cash recd from debtors (Working Note)	94,500	76,500	81,000
TOTAL RECEIVED (a):	150,500	1,29,200	95,400
(-) Payments			
Creditors for purchases	1,00,000	1,10,000	1,15,000
Wages: current 80%	5,600	8,400	6,800
earliers 20%	2,200	1,400	2,100
Sales Expenses	2,000	3,000	2,200
Income Tax	—	—	30,000
Dividend	—	—	12,000
TOTAL PAYMENTS (b)	1,09,800	1,22,800	1,68,100
Closing cash balance (a - b)	40,700	6,400	(-72,700)
			Withdrew overdraft from Bank

Working Notes:

Collection for Sales

Particulars	Feb, '15	March '15	April '15	May '15	June '15	July '15
Total sales	1,00,000	1,10,000	60,000	1,20,000	80,000	
(-) Cash sales (10%)	10,000	11,000	6,000	12,000	8,000	
credit sales	90,000	99,000	54,000	1,08,000	72,000	
1 st Instalment	50,7.7 ^{90,000}	45,000	49,500	27,000	54,000	50,7.8 ^{10,000}
2 nd Instalment	50,7.7 ^{99,000}	45,000	49,500	27,000	54,000	50,7.9 ^{9,000}
	50,7.2 ^{90,000}	45,000	49,500	27,000	54,000	
		94,500	76,500	81,000		

Numerical of Flexible budget-

Ex: draw up a flexible budget for Production at 75% and 100% capacity on the basis of following data for 50% activity. (Note: cost should be segregated into - FC, VC & SVC)

VC	Materials	Rs. 100 per unit	Admin Expense (50% fixed) - Rs. 80,000
	Labor	Rs. 60 per unit	Selling & Distribution Exp. (60% fixed) - Rs. 1,00,000
	(Direct Expense Rs. 20 per unit)		Fixed Expense: Depreciation - Rs 10,000 Insurance - Rs 5,000

Present production (50% activity) 1000 units

Fixed cost remain constant in Total
- Per unit vary
Variable cost per unit remain Constant
- Total vary.

FLEXIBLE BUDGET - CAPACITY LEVELS —

PARTICULARS	50% capacity, i.e. 1000 units		75% capacity 1500 units		100% capacity - 2000 units	
	Per unit	Total (Rs.)	Per unit	Total (Rs.)	Per unit	Total (Rs.)
<u>Variable cost</u>						
Material	100	1,00,000	100	1,50,000	100	2,00,000
Labour	60	60,000	60	90,000	60	1,20,000
Direct Expense	20	20,000	20	30,000	20	40,000
Total Variable cost (a)	180	1,90,000	180	2,70,000	180	3,60,000
<u>Semi Variable cost</u>						
Adm. Expense (50% fixed) (50% variable)	40	40,000	26.67	40,000	20	40,000
Selling & Distrib'tion exp (60% fixed) (40% variable)	60	60,000	40	60,000	40	80,000
TOTAL SVC (b)	180	1,80,000	146.67	2,20,000	180	2,60,000
<u>fixed cost</u>						
Depreciation	10	10,000	6.67	10,000	5	10,000
Insurance	5	5,000	3.33	5,000	2.5	5,000
Total Fixed cost (c)	15	15,000	10	15,000	7.5	15,000
TOTAL COST (a+b+c)	375	3,75,000	336.67	5,05,000	317.5	6,35,000

Ant concept: Fixed cost remain constant in TOTAL, but vary per unit
Variable cost " .. per unit but vary in total