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Introduction :-

The present day business environment is significantly different from that of the yestar years. The rapid face of change is because of factors. Such as globalisation of market advance information and manufacturing technology deregualation emposision total quality and Quantity management, cost management. adress. these chaning requirement in the Organisations in the change of business managers. have turned to cost management to find ways & means to countinuously reduce cost to improve produce / services with using the base of estimating the financial statement of present data.

Meaning of cost management :-

Cost management is the process of planning and controlling the budget of a business. it is a form of a business. to predict impending expenditure to help reduce the change of going over budget it.

Definitions :-

According to the Honsen Moven :

It identifies collect, measures, classify and report information that is useful to managers in costing, planning controlling decision making.

Componets of Cost Management

Material cost
Labour cost
Overhead cost

Objectives of cost Management

* To reduce the cost expanded by an Orgcanisations while strengthing and stratergy position of the firm

* To identifies future expenditure in a business to reduce budget over charge.

* Tackle, challenge in task in business Organisation management to reduce construction delay

* To improve pricing decision

Importance of Cost Management

* It helps to finish project on time and in given budget.

* It also help to analyse, expected cost du control expenses.

* It helps in cost based stategic planning

* It helps in improving factors productivity and profit margin

* It ensure that planning and control of

directly linked with revenue & profit planning.

* This methods and practice are used to help firm in going success.

Tools and Techniqus of Cost Management

* Activity based costing
* Activity based Management.
Capasity cost management
Cost of quality
Target costing
Economic value added
Life cycle costing
Balance score card
Environment costing
Stategic cost management
Value creation models

Cost Control

Cost control is the process which focusses on controlling the total cost through compi-tative analysis.

In other words it is the process of maintaining and regulating the expendi-ture of fund is known as cost control.

definitions

According to Slavin and Raynald. Prof of accounting conceptually accounting is the desciplane which provide information on internal and external uses of the infor-mation may all base decision that result

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in the allocation of economic resources in the Society.

features of cost Control

* It aims at achiving the standards
* It is a preventive function.
* In cost control, cost are optimised before they are incurred.
* It contains guidelines and directive management such as how to do things what do you, when do you,
* It is genarally aplicable to iteams which have standards.
* It is an atempt to keep the expenses within the control
* It required countinues cost control report to identify the variance to be resolved.

Advantages of cost Control

* It help to achieve expected return on the capital invested in a company by resolving deviation between actual and expected standards.
* It leads to improved standards of productions with the limited resources of company.
* It reduce the prise or try to main tain it by reducing the cost.
* It leeds to economic use of resources.
* It enhance credit worthiness of the Company
* It increase economic stability of the

Disadvantages of Cost Control

- It reduce the flexibility and process improvement in the company.
- It restrict innovation by empasizing to reaching the present standard.
- It requires skilled personal to set the standards
- It involves lack of creativity concerned with following the current standard.
- It does not lead improvement to the standards.

Cost Reduction :-

Cost Reduction is a process aim at lowering the cost unit. or cost of productio n or Services rendered without its quality by using improved method and technique. (such technique are budgetary control. standa rd control material costing labour control and overhead control

Definitions

According to charted institute of manageme nt accounts.

"The achievement of real and permnet reduction in the unit cost or services rendered without improving the its suita bility for use intended.

features of cost Reduction

* It is genuine cost reduction which can be implimented by lowering the cost of production.
* It includes permnet reduction in the cost.
* It doesn't decline the Quality of production it remains the same
* Unit cost reduced by decreasing the expenditure at given level of output.
* It can also be done by increasing the Quantity produced.

Advantages of Cost Reduction

* Cost reduction increase profitability and production level of the Organisation
* Cost reduction enhance the cashflow of the company.
* Cost Reduction programme helps to achieving the goal of the company.
* It is permnet in nature which apex the Organisational performance in the long period of time.
* Cost Reduction does not impact on Quality of product while reducing the cost.

Disadvantages of Cost Reduction

* Workers and employee of an Organisation do not like to impliment cost reduction Programme.
* It's programme are countinues in nature and it is countinues attempt to lower the cost.

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* The cost reduction techique require more research which add on to the cost of the company.
* The cost Reduction technique need to be implimented in planned manner.

Score or area's of Cost control and cost Reduction

* Product design
* Target costing
* Value Analysis
* Value Enginuring
* Value Chain Analysis
* Business process - re-engineuring.

Tools and techique of cost control and cost Reduction

* Budgetory control
* Standard costing
* Inventory control
* Ratio Analysis
* Varience Analysis
* standardiation and Simplification
* Quality control
* Job evaluation
* Production planning and control
* Business process - Re-engineering
* Value Analysis
* Automation
* Operational Research

Difference between cost control and cost Reduction

Base	Cost Control	Cost Reduction
step Involved	Int process involved defi-ning standard measurei-ng actual performance comparing actual with standard and estimatin-g variance	It is critical Ana-lysis of existing standard to improv the standard ra the-r than creating sta-ndards.
Technig-ue	Cost control used techi-nque like budgetary co-ntrol, and standard Costing	It uses tools like Simplification sta-ndattaisation, value Engineering and ABC Analysis
focus	It focus on maintainin-g the standards, and esta-blishing the stand-ards	It is challenging all the 3 defined standards and be-aring cost of pro-duction, reduce the cost of production
Time period	It is not a dinomic femction. it tries to r-each the minimum cost at a given point of time	It is a coentinues process it does not period based concept but it analyse new way to redeice the Cost
Orientation	It is focus on the past and present cost data	It is future Oriented Concept.

nature	It can be regarded as preventive function as it attempts to maintain the cost at the required pre-set standard	It is corrective measure it tries to improve the efficiency of the exiting control manachanism. It assumes that there is always scope of reduction.
Permanency Permnet	It is temporary nature it is just a measure to reduce varience between actual and budgeted	It is permnet reduction in cost of goods and services.
cost concerned	It focus on reducing the over all cost	It is an attempt to reduce for unit cost.
Quality concerned	It does talk of the Quality of the product it focus on reduction Only.	It is reducing the cost. with ~~minimum~~ maintaining the Quality of the product.
frequency	It is more or repeated Creativity it re-quires mainitory.	It is research Oriented it is a form of improvement of demands and creativity.

Marginal cost

Meaning :-

Marginal cost is a amount at any given value of output by which agrigate cost are changed if the volume of output is increased or decreased by unit.

or

Marginal cost in economics it is a incremental cost of production which arise due to one unit increase in the producti -on quantity.

Ex:- xyz limited produce 10000 unit of product by incurring total cost ₹ 3.50.000 by incurring to cost details are as follows

direct labour
direct material ₹ 10 per unit
direct employee cost ₹ 8 per unit
Variable cost ₹ 2 per unit
fixed overhead ₹ 1.50.000

Particular	10,000 unit	10001	Change in cost
direct material 10 p.u	100000	100001	10
direct employee cost	80.000	80008	8
Variable cost 2 per	20.000	20002	2
fixed overhead	1.50000	1.50.000	0
	3.50000	350020	20

Definition of Marginal cost

According to CIMA :- Marginal costing is a asertainment of marginal cost and the effect on profit or change in the value or type of output by differencyating fixed cost and Variable cost.

features of Marginal cost

* It is a techique of costing which is used to ascertain the marginal cost and to know the impact of variable cost on the value of output.
* All cost are classified into fixed and variable cost on the basis of variability.
* Variable cost alone are charged on product on fixed cost are recovered from contributional margin.
* Valuation of stock of work in progress and finished goods is alone on the basis of marginal cost
* Selling price is based on marginal cost plus contribution.
* Profit is calculated by deducting marginal cost and fixed cost from sales.
* The profitabality of product or departments is based on contribution made available by each product or department.

Contribution = Selling Price - Marginal cost
Profit = Contribution - fixed cost
Contribution - fixed cost = Profit

Advantages of Marginal cost

* It is a Simplified pricing policy
* It helps to proper recovery of overhead
* It Shows Real-estate profit to the Orago sation
* It helps to how much to produce, when to produce, why to produce
* It is more control over all Expenditure
* It helps in decision making activity.
* It is based on Short-term profit plannin

Contribution

It is a difference between its sales value and the marginal cost is know as contribution

or

Contribution is the amount of earning re-maining after all direct cost have been substracted from Total Revenue.

or

when contribution is more than fixed cost it is trated as profit when fixed is more than the contribution it is treated as loss.

Advantages of Contribution

* It helps to the management in a fixation of selling price
* It helps in asertaining the break even point.
* It helps to the management in the selection of proper Product mix per Profit

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* It helps to the management in deciding weither purchase or manufacturing product
* It helps in taking decision as regards to adding new product in the market.

Contribution Equations

Contribution = Selling price - Marginal cost
Contribution = Fixed cost + Profit
Sales - Variable = Fixed cost + Profit
Profit = Contribution - fixed cost

=> when Sales is not given but contribution is given
Sales = Contribution + Variable cost

=> when fixed cost is not given but profit is given
fixed cost = Contribution - Profit

=> when variable cost is not given
Variable cost = Sales - Contribution.

Findout Contribution and profit from the following details.
Variable cost ₹ 50,000
fixed cost ₹ 20,000
Selling price ₹ 80,000

Contribution = Selling price - Variable cost
80,000 - 50000
= 30,000

Profit = Contribution - fixed cost
30,000 - 20,000

Findout Contribution and Profit.

i) when sale price is not given
ii) when fixed cost is not given
iii) when Variable cost is not given

Sales = 26000 ₹
Variable cost = 12.000
fixed cost = 8000

Solution

Calculation of Contribution
Contribution = Selling price - Marginal cost
26.000 - 12.000
14.000

Calculation of Profit
Profit = Contribution - fixed cost
14.000 - 8000
= 6000

i) when sale price is not given
Sale = Contribution + Variable cost
14.000 + 12.000
= 26.000

ii) when fixed cost is not given
fixed cost = Contribution - Profit
14.000 - 6000
8000

iii) when Variable cost is not given
Variable cost = Sales - contribution
26.000 - 14.000
= 12.000

Break Even Analysis

Cost value profit analysis examinds the relationship of cost and profit to the valume of business to maximise the profit of the Organisation. It is also called as profit planning.

Cost value profit Analyse happens due to change in the production level compitation increased demand Change in Selling Price, cost and control tools and techique.

Objectives of Break Even Analyses

* It helps to forecost profit and to know the relationship between profit and cost
* This analyse is useful in setting the flexible budget
* It analyse suggest in invaluation of product performance for the purpose of control
* It helps to formulate price policies by showing the different kind of price structure
* This analyse help to attend the target profit
* This analyse is help in managerial decisions like make or buy suitable sales mix and product.

Assumption of cost Volume Profit analysis or Break even Analysis

* Fixed and variable cost pattern can be established with reasonable accuranay and that fixed cost remain static or constant and marginal cost completely variable at all level of output

* factor price or constant at all level of Sales value
* Efficiency and productivity remain unchanged. Turnover level is only the relevant factor affecting on cost and revenue.
* The volume of production equal to the volume of sales.

Elements of cost volume profit Analysis

* Contribution
* Profit volume ratio
* Break even point
* Margin of safety

Profit Volume Ratio

The ratio or percentage of contribution margin to sales is known as profit volume ratio. This ratio is also known as Marginal income ratio, Contribution to sales ratio and variable profit ratio. P.V ratio usually expressed as percentage it is the rate at which profit increase with increasing volume.

$$\text{Profit volume ratio} = \frac{\text{Contribution}}{\text{Sale}}$$

$$\text{Required sales} = \frac{\text{Fixed cost} + \text{Profit}}{\text{P/v ratio}}$$

$$\text{P/v ratio} = \frac{\text{Change in Profit}}{\text{change in sales}}$$

Calculate P/V ratio from the following data
Sales of ₹ 25,000
Variable cost = ₹ 15,000

Contribution = sales - Variable cost
25000 - 15,000
= 10,000

P/V ratio = $\frac{\text{Contribution}}{\text{Sale}}$

$\frac{10,000}{25,000}$

= 0.40 or 40%

following information related to x com. Lmt
fixed cost for the year = 160,000
Profit value ratio = 40%
Calculate the sales to earn profit of ₹ = 40,000
Fixed cost = 1,60,000
P/V sale = 40%
desire profit = 40,000
Sales Volume = ?

Require sale = $\frac{\text{Fixed cost + Profit}}{\text{P/V ratio}}$

= $\frac{1,60,000 + 40,000}{40\%}$

= $\frac{2,00,000 \times 100}{40}$

= 5,00,000

Margin of Safety

Margin of safety is the difference between actual sales and sales at Break even point. Sales beyond break even volume Brings in profit Such shares re-presents margin of safety.

Margin of safety = Total sales - Break even point

when p/v ratio is available/given

$$\text{Margin of safety} = \frac{\text{Profit}}{\text{P/V ratio}}$$

Steps used to improve the margin of safety

* lowering the fixed cost
* lowering the variable cost so as to improve marginal contributional
* Increasing volume of sales if their is unused capasity.
* Improving the selling price or if market condition is permit
* changing the product mix as to improve contribution of the Company.

Break even point

The sales volume which equals to that revenue with related cost and result in righter profit nor loss is called as Break even point

Methods for determining B.E.P

* Algebraic Method
* Graphic - Re-Presentation.

Contribution Margin Aproach

B.E.P (in unit) = $\frac{\text{Total Fixed cost}}{\text{(selling price - variable cost}}$

or

$\frac{\text{Fixed cost}}{\text{Contribution per unit.}}$

B.E.P (in Rupee) = BEP units × Selling price per unit

from the following particular calculate

* Contribution
* Break even points in units and sales
* Amount of sales to earn profit of = ₹ = 30.000
* Sales 5000 units at 20 per unit, Variable cost ₹ 10 per unit
* fixed cost ₹ = 40.000

Total number of unit = 5000
Selling price = 20 per unit
Variable cost = 10 per unit
Fixed cost = 40.000

Calculation of Contribution

* Contribution = Sales - Variable cost
  = (5000 × 20) - (5000 × 10)
  1.00.000 - 50.000
  = 50.000

BEP (in unit) = $\frac{\text{Total Fixed cost}}{\text{(selling price per unit - Variable cost}}$

= $\frac{40.000}{20 - 10}$

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$$\frac{40.000}{10}$$

$$= 4000 \text{ units}$$

BEP (in sales) = BEP units x Selling Price Per unit

$$4000 \times 20$$

$$= 80000$$

* Amount of Profit = 30.000

$$\text{Sales} = \frac{\text{Fixed cost} + \text{Profit} \times \text{sales}}{\text{Sales} - \text{Variable cost}}$$

$$= \frac{40.000 + 30.000 \times 1.00.000 \ (5000 \times 20)}{1.00.000 - 50.000 \ (5000 \times 10)}$$

$$= \frac{70.000 \times {}^{2}\cancel{1.00.000}}{\cancel{50}.000}$$

Sales = 140.000

Amol limited provided the following information
Sales 20.000 units and 5 per unit
Variable cost 3 per unit
fixed cost 8000 per annum
calculate
i) Profit volume ratio
ii) Break Even Point in Sales
iii) Sales to earn Profit of ₹ 20000
iv) Profit of sale of ₹ 60.000

i) Contribution = sales - Variable cost

$$(20.000 \times 5) - 20000 \times 3$$

$$1.00000 - 60.000$$

$$= 40.000$$

ii) Profit volume ratio

$$P/V \text{ ratio} = \frac{\text{Contribution}}{\text{Sale}}$$

unit

$$\frac{40.000}{100.000 \; (20000 \times 5)}$$

$$= 40\%$$

iii) Break Even point

Break even point $= \frac{\text{Fixed cost}}{P/V \text{ ratio}}$

$$= \frac{8000}{40\%} \quad \left(8000 \times \frac{100}{40}\right)$$

$$= 20000$$

iii) Sales to earn profit of ₹ = 20000

ation Sales $= \frac{\text{Fixed cost} + \text{Profit}}{P/V \text{ ratio}}$

$$= \frac{8000 + 20000}{40\%}$$

$$= \frac{28000 \times 40}{100}$$

$$= 70000$$

iv) Profit of Sales of ₹ 60000

Sales x P/v ratio - Fixed cost

60.000 x 40% - 8000

24.000 - 8000

= 16.000

Somu machine Lmt. furnish the following details

Year	Sale	Profit
2020	200.000	10.000
2021	180.000	2000

You are require to calculate

i) Profit volume ratio

ii) Break even point in sales

iii) Profit or loss at sales of ₹ 150.000

iv) Sales to Earn a profit of ₹ = 15.000

i) Calculation of P/v ratio

Profit volume ratio = $\frac{\text{Change in Profit}}{\text{Change in sales}}$

$= \frac{10.000 - 2000}{200.000 - 180.000}$

$= \frac{8000}{20.000}$

= 0.40 / 40%

ii) Break Even point in sales

Fixed cost = (Sales x P/v ratio) - Profit

(200000 x 40%) - 10.000

80.000 - 10000

= 70.000

B.E.P = $\frac{\text{Fixed cost}}{\text{P/v ratio}}$

$= \frac{70.000}{40\%}$

$= 1,75.000$

iii) Profit of at sales of = 150.000

Sales × P/v ratio − fixed cost

(150.000 × 40%) − 70.000

60.000 − 70.000

10.000 (loss)

iv) Sales to Earn a Profit of 15.000

Sales = $\frac{\text{Fixed cost + Profit}}{\text{P/v ratio}}$

$= \frac{70.000 + 15.000}{40\%}$

$= \frac{85.000 \times 100}{40}$

$= 2.12\,500$ //

You are given the following deta of ma limited for the year 2020-21

Sales = 50.000 units at 10 each
Variable cost = 6 per unit
fixed cost = 1.50.000 per annum

Calculate
i) Profit Volume ratio
ii) Break even point in sales
iii) Margin of safety
iv) Sales to earn of a Profit of ₹ 30.000
v) Profit at sales of ₹ 40.000

Solution

i) Profit Volume ratio
Contribution = Sales - Variable cost
$50.000 \times 10 - 50.000 \times 6$
$5.00.000 - 3.00.000$
$= 200.000$

$$\text{PIV ratio} = \frac{\text{Contribution}}{\text{Sales}}$$
$$= \frac{2.00.000}{5.00.000}$$
$$= 0.40\% = 40\%$$

ii) Break even points in sales
$$\text{B.E.P (in sales)} = \frac{\text{Fixed cost}}{\text{PIV ratio}}$$
$$= \frac{1.50.000 \times 100}{40}$$
$$= 3.75.000$$

iii) Margin of safety

Margin of safety = Actual sale - B.E.P

$50.000 \times 10 - 375.000$

$500.000 - 375.000$

$= 1.25.000$

iv) Sales to earn a Profit of = 30000

$$\text{Sales} = \frac{\text{Fixed cost} + \text{Profit}}{\text{P/V ratio}}$$

$$= \frac{150.000 + 30.000}{40\%}$$

$$= \frac{180.000 \times 100}{40}$$

$$= 450.000$$

v) Profit at sales of ₹ 40000

Profit = Sales x p/v ratio - Fixed cost

$450000 \times 40\% - 150.000$

$1.80.000 - 150.000$

30.000

Profit at sales = Sales x p/v ratio - Fixed cost

$= 4.00.000 \times 40\% - 150.000$

$160.000 - 150.000$

$= 10.000$

Swadi company Lmt. Provides the following de
selling price = ₹ 40 per unit
direct material = ₹ 10 per unit
direct labour = ₹ 4 per unit
Variable manufacturing overhead ₹ 7p
sales commission 10% of sale price
fixed factory overhead ₹ 1.60.000 per annum
fixed selling overhead ₹ 20.000 per annum

i) Calculate Break even point in sales and Quantity
ii) find Margin of safety at 20.000 unit sales at 40 each
iii) how many units must be sold to earn ₹ 1.30.000 profit
iv) determined revised break even point if fixed overhead increased by 20.000

Solution calculation of variable cost

direct material =	10
Labour	4
overhead	7
Commission on	4
	25

Calculation of fixed cost

Fixed factory overhead =	160000
selling overhead	20.000
fixed cost →	1.80.000

(ii) Calculation of P/V ratio

$$P/V\ ratio = \frac{Contribution}{Sale}$$

$$= \frac{40-25}{40}$$

$$= 0.375 \text{ or } 37.5\%$$

(iii) Break Even point (in sales)

$$B.E.P = \frac{Fixed\ cost}{P/V\ ratio}$$

$$= \frac{180000}{37.5\%}$$

$$= 4.80000$$

Break even Point (in units)

$$B.E.P = \frac{Total\ fixed\ cost}{Selling\ price\ per\ unit - Variable\ cost\ P.U}$$

$$= \frac{1.80000}{(40-25)}$$

$$= \frac{1.80000}{15}$$

$$= 12000 \text{ Units}$$

(iii) Margin of Safety = Total sale - B.E.P

$$(20000 \times 40) - 4.80000$$

$$8.00000 - 480000$$

$$= 3.20000$$

d) Sales to earn ₹ 130000

$$\text{Sales} = \frac{\text{Fixed cost} + \text{Profit}}{\text{P/V ratio}}$$

$$= \frac{180000 + 130000}{37.5\%}$$

$$= \frac{310000}{37.5}$$

$$= 826.667$$

$$\text{in (unit)} = \frac{\text{Sales}}{\text{Selling Price}}$$

$$= \frac{826667}{40}$$

$$= 20.667$$

Calculation of Revised B.E.P increase 20.000

$$\text{B.EP(sales)} = \frac{\text{Fixed cost}}{\text{P/V ratio}}$$

$$= \frac{180000 + 20000}{37.5\%}$$

$$= \frac{200000}{37.5}$$

$$= 5.33.333$$

$$\text{in (units)} \quad \frac{\text{Fixed cost}}{\text{Selling Price} - \text{Variable cost}}$$

$$\frac{200000}{15}$$

$$= 13\,333 \text{ units}$$

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from the following particulars calculate
i) Profit volume ratio
ii) Break even point
iii) Sales to earn a profit of a ₹ 1.20.000
iv) Profit when sales or ₹ 1200.000

direct material per unit ₹ 4.50
direct labour per unit ₹ 3
variable overhead 100% of direct labour
fixed cost 240.000
Selling price 15 per unit
Trade discount 5% on sales

i) Calculation of variable cost

direct material	4.50
direct labour	3
variable overhead	3
	10.50

ii) Calculation of Selling Price

Selling price	15
less discount 5%	0.75
	14.25

=> Calculation of p/v ratio

$$P/V \text{ ratio} = \frac{\text{Contribution}}{\text{Sale}}$$

contribution = Sale - variable cost
14.25 - 10.50
= 3.75

$$= \frac{3.75}{14.25}$$

$$= 0.2631\%$$

iii) Calculation of Break Even Point

$$B.E.P = \frac{\text{fixed cost}}{\text{P/v ratio}}$$

$$= \frac{2.40.000}{26.31\%}$$

$$= 912.200$$

iii) Sales to earn a Profit of 1.20.000

$$\text{Sales} = \frac{\text{Fixed cost} + \text{Profit}}{\text{P/v ratio}}$$

$$= \frac{240.000 + 120.000}{26.31\%}$$

$$= \frac{3.60.000}{26.31}$$

$$= 1368301$$

iv) Profit when Sales 1200.000

Profit = Sales x p/v ratio - Fixed cost

= 12.00.000 x 26.31% - 240.000

= 315720 - 240.000

= 75,720 //

The Sales and Profit for 2 year are as follows

year	Sales	Profit
2020	150000	20000
2021	180000	25000

Calculate (i) Profit-Volume Ratio
(ii) BEP
iii) Sales required to Per Euro Profit ₹400
iv) Margin of Safety at Profit ₹250000
v) Profit made when Sales ₹ 100000
vi) Calculate 2 years variable cost

i) Calculation of profit volume ratio

$$\text{p/v ratio} = \frac{\text{Change in Profit}}{\text{Change in Sales}}$$

$$= \frac{20000 - 25000}{200000 - 180000}$$

$$= \frac{5000}{20000}$$

$$= 0.25 \text{ or } 25\%$$

ii) Break even point

=> Calculation of fixed cost

fixed cost = (Sales x p/v ratio) - Profit

$(150000 \times 25\%) - 20000$

$37500 - 20000$

17500

Break even point = $\frac{\text{Fixed cost}}{\text{P/v ratio}}$

$= \frac{17.500}{25\%}$

$= 70.000$

iii) Calculation of sales required to earn a profit of ₹ 40.000

Sales = $\frac{\text{Fixed cost + Profit}}{\text{P/v ratio}}$

$= \frac{17.500 + 40.000}{25\%}$

$= \frac{57.500}{25\%}$

$= 2.30,000$

iv) Margin of safety.

Margin of safety = $\frac{\text{Profit}}{\text{P/V ratio}}$

$= \frac{2.50.000}{25\%}$

$= 10.00.000$

v) Profit made when sale are ₹ 1.00.000

Sales x P/v ratio - Fixed cost

1.00000 x 25% - 17.500

25.000 - 17.500

= 7500

vi] Calculation of 2 years Variable Cost

V = Sales (1- PV Ratio)

2020 = 150000 (1-25%)

= 150000 x 0.75

= 112500

2021 = 170000 (1-25%)

= 170000 x 0.75

= 127500

Good luck Ltd sold 14000 buket, and 18000 bukets at @ 50 per bucket into Consicdive year the Company incurd loss of ₹10000 in the first yecar end and earned Profit of ₹ 10000 in the 2nd year.

Find out amount of fixed Cost Break even Point in Quantity

Sales Required to earn a Profit of ₹35000

i] Calculation of fixed Cost

FC: Sales x PVR - Profit

ii] PVR : Change in Profit / Change in Sales

= 10000 (-10000) / (14000 x 50) (18000 x 50)

= 20000 / 700000 - 900000

= 20000 / 200000

PVR = 0.10 or 10%

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FC = Sales x PVR - Profit

= (14000 x 50 x 10%) - (10000)

= 70000 + 10000

FC = 80000

iii] Break Even Point (in Sales)

$$BEP = \frac{\text{Fixed Cost}}{\text{PV Ratio}}$$

$$= \frac{80000}{10\%}$$

BEP = 800000 (in sales)

Break Even Point (in units)

$$BEP \text{ (in) units} = \frac{BEP}{\text{Selling Price}}$$

$$= \frac{800000}{50}$$

BEP = 16000 (units)

iv] Sales required to Earn Profit of ₹ 35000

$$\text{Sales} = \frac{\text{Fixed cost} + \text{Profit}}{\text{PV Ratio}}$$

$$= \frac{80000 + 35000}{10\%}$$

Sales = 1150000

Margin of safety = Sales - BEP

= 1150000 - 800000

= 350000

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Sumbram Ltd has supplied following information in respect of one of fixed Product

Total fixed cost = 18000
Total variable cost : 30000
Total Sales = 60000
Units Sold = 20000 Units

Findout

i) Contribution Per Unit
ii) Break even Point
iii) Margin of Safety
iv) Profit
v) Volume of Sales to earn Profit of ₹ 24000

From the following information Calculate

i) Break even Point in Sales
ii) PV Ratio
iii) Contribution
iv) Profit
v) Margin of Safety

Sales of ₹ 500000
Fixed cost 60000
variable cost 380000