

TOPIC

The concept of Normal and Abnormal Loss

Normal loss = Absorb by good units \Rightarrow

It will increase cost per unit

e.g.: Cost of Production £ 100000
No. of units 10000 units
Normal loss @ 21% \Rightarrow

\Rightarrow if No Normal loss (cost per unit)
 $\Rightarrow \frac{100000}{10000} = £10$

\Rightarrow Now Normal loss @ 21% (cost per unit)
 $\Rightarrow \frac{100000}{10000 - 21\%} = £10.21$

* Impact: Cost per unit increases by £ 0.21
 $(10.21 - 10) = £0.21$

Abnormal loss
Transfer to costing pic DR

e.g.: what if in same e.g.
Actual Production is 9500 units
find Abnormal loss?

$$\text{Abnormal loss (units)} = 10000 - 21 - 9500 = 300$$

$$\text{Abnormal loss value} = 300 \times 10.21 = 3063$$

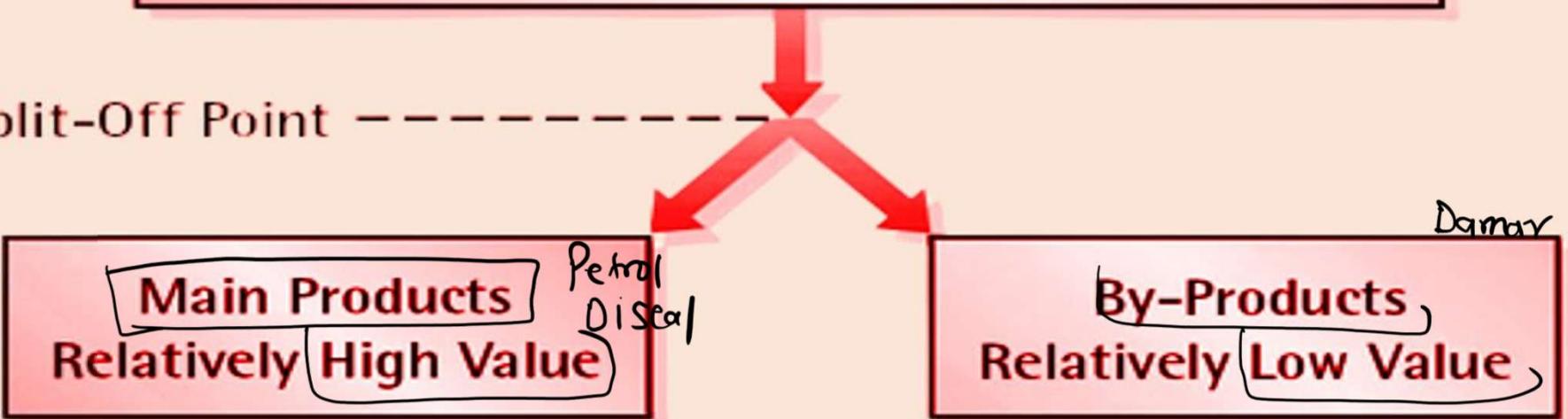
Transfer to costing pic DR

Joint Product By-Product

CRUDE OIL

Joint Production and Joint Costs

Split-Off Point



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BATCH COSTING

"Production lot size"
↓
lot size to minimise cost per batch

सूत्र (Formula):- $EQB = \sqrt{\frac{2DS}{C}}$

$$\Rightarrow \sqrt{\frac{2 \times 20000 \times 100}{4}} \\ \Rightarrow 1000 \text{ units}$$

Where

D = Annual Demand $\Rightarrow 20000$ ✓

S = Setting-up Cost per Batch $\Rightarrow ₹ 100$ ✓

C = Carrying Cost per unit per annum $\Rightarrow ₹ 4$ ✓

EBQ = Economic Batch Qty

↳ min. cost of batch production

↖ SERVICE COSTING \Rightarrow operating costing \Rightarrow eg:- Hotel, Transport, Bank, Insurance

$$\hookrightarrow \frac{\text{Total cost of Service}}{\text{No. of Services}} = \frac{50,00,000}{10000} = ₹ 50 \text{ Per Service Per Person}$$

↖ multiple costing \Rightarrow Assembling business \Rightarrow Bicycles, Electronics

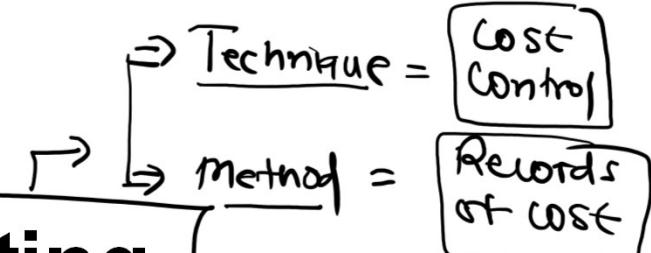
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Oliveboard

Unit -5 Standard Costing



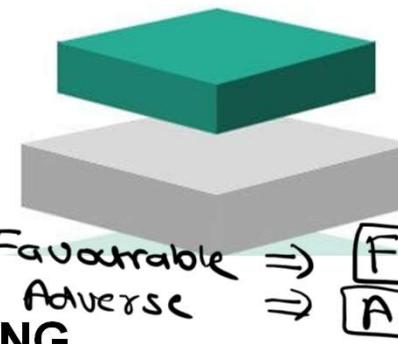
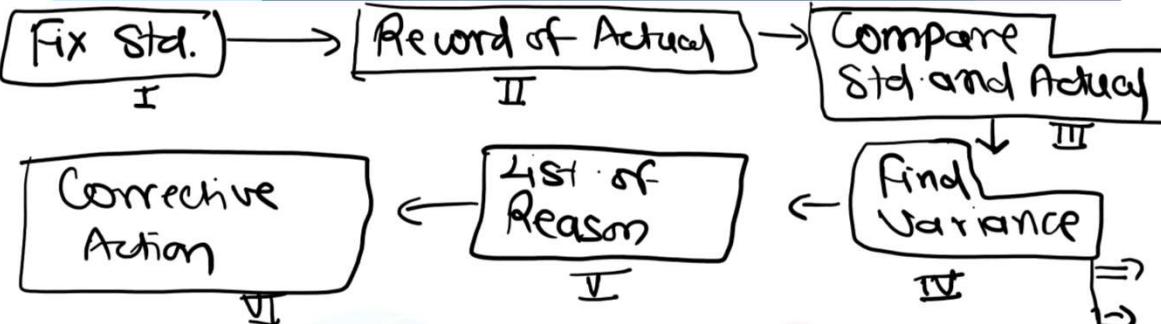
Basic Standard (long-term)
min. level of performance
e.g.: 2000 units

Types
Ideal Standard
Best Possible Performance
if everything is in favour
e.g.: 15000 units

Currently Attainable Standard
" Performance based on
Available resources "
Possible Performance
⇒ e.g.: 10,000 units

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Standard Cost



1 Direct Materials

2 Direct Labor

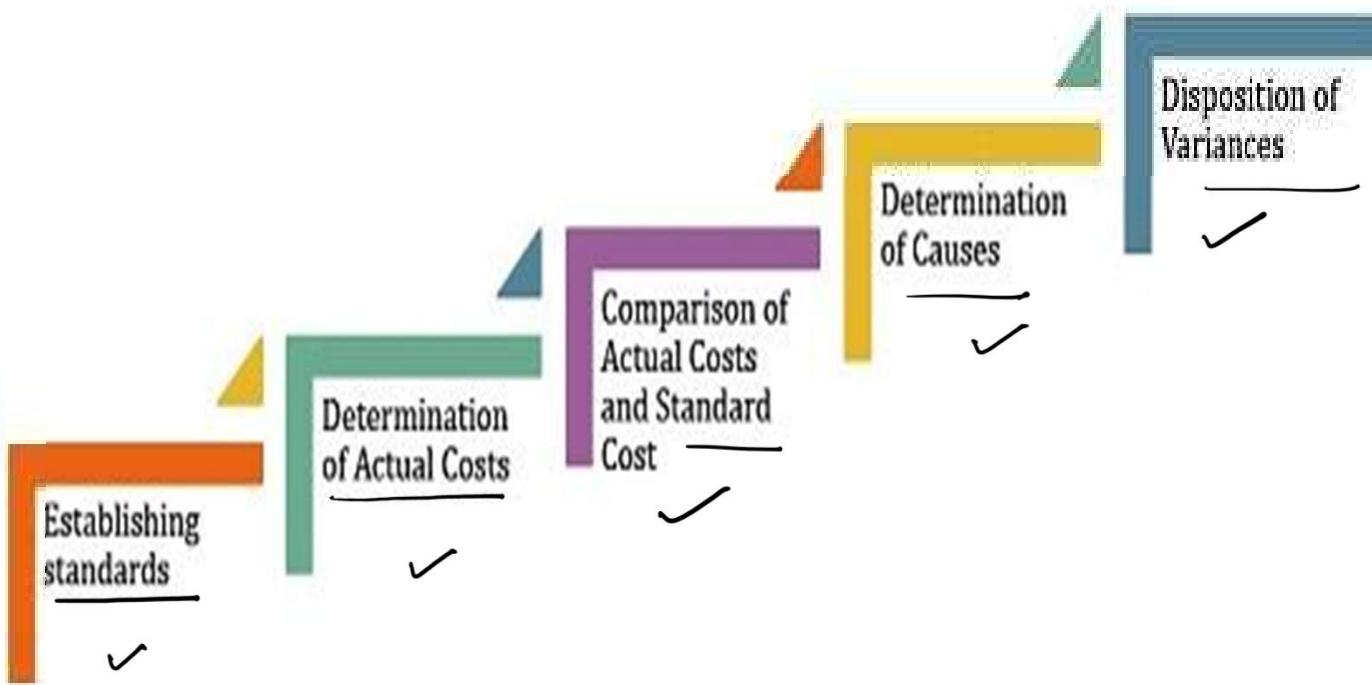
DEFINITION AND MEANING OF STANDARD COSTING

Standard cost of a product or service refers to the costs expected to be incurred to produce a goods or provide a service under anticipated conditions, keeping in view the prevailing market conditions

APPLICATIONS OF STANDARD COSTING

- The management uses it for planning.
- The production, sales and profit budgets are prepared based on the standard costs.

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VARIOUS TYPES OF STANDARDS

Basic Standards ✓

These are the standard which are established for use over a long period of time.

Ideal Standards ✓

These standards take into account the perfect performance.

Currently Attainable Standards ✓

If frequent changes take place in production methods, price levels, labour conditions and other relevant factors of production, it is advisable to make necessary adjustments in the cost standard also to make it more realistic.

COMPONENTS OF A STANDARD COSTING SYSTEM

MATERIAL VARIANCES

$$\Rightarrow \frac{\text{Cost}}{\approx} = \frac{\text{Price}}{\approx} + \frac{\text{Usages}}{\approx}$$

$\xrightarrow{\text{Q+U}}$

Material Cost Variance

$$(SQ \times SP) - (AQ \times AP) \Rightarrow (1000 \times 40) - (1050 \times 38) = 100 \boxed{F}$$

Material Price Variance

$$(SP - AP) \times AQ \Rightarrow (40 - 38) 1050 = 210 \boxed{F}$$

Material Usage Variance

$$(SQ - AQ) \times SP \Rightarrow (1000 - 1050) \times 40 = 2000 \boxed{A}$$

Eg:- Standard Quantity = 1000 SQ ≈

Standard Price = £40 SP ≈

Actual Quantity = 1050 AQ ≈

Actual Price = £38 AP ≈

$$\begin{array}{l} Q = H \\ P = R \end{array}$$

LABOUR VARIANCES

COST = Rate + Efficiency

Labour Cost Variance

$$\frac{(SH \times SR) - (AH \times AR)}{(AH \times AR) + (SH \times SR)} \Rightarrow \frac{(100 \times 500) - (120 \times 430)}{(120 \times 430) + (100 \times 500)} = \frac{1600}{1600} \text{ A}$$

Labour Rate Variance

$$\frac{(SR - AR) AH}{(AH \times SR) + (SH \times AR)} \Rightarrow \frac{(500 - 430) \times 120}{(120 \times 500) + (100 \times 430)} = \frac{8400}{8400} \text{ F}$$

Labour Efficiency Variance

$$\frac{(SH - AH) SR}{(AH \times SR) + (SH \times AR)} \Rightarrow \frac{(100 - 120) \times 500}{(120 \times 500) + (100 \times 430)} = \frac{-10000}{-10000} \text{ A}$$



Standard Hours = 100 SH

Standard Rate = 500 P/hr. SR

Actual Hours < 120 AH

Actual Rate = 430 P/hr. AR

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ACCOUNTING TREATMENT OF VARIANCES

1. Transfer to costing profit and loss account \Rightarrow **Abnormal Variance** = **Costing PIL = DR.**
2. Allocation of variances to finished stock, work-in-progress and cost of sales account

↳ If **Normal Variance** then **Good units will Absorb Normal Variance**
and due to this **(cost per unit will increase)**

Eg.: Std. Product 1000 units
Std. Cost £ 10,000
Normal loss @ 2.1.

Actual Production is 980 units

Treat Normal loss and Abnormal loss

\Rightarrow Computation of Abnormal loss unit \Rightarrow 1000 - 2.1. = 980 - 980 = 30 units \Rightarrow Abnor. loss

$$\Rightarrow 30 \text{ units} \times 10.20 = \underline{\underline{\text{£ 306}}} \Rightarrow \text{Costing PIL A/c} \approx \text{DR.}$$

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Cost of Producing
π 1 Additional Unit

$$MC = \frac{\underline{TC_n} - \underline{TC_{n-1}}}{\underline{Q_n} - \underline{Q_{n-1}}} \Rightarrow 20000(100) - 19850(99) \Rightarrow \boxed{\text{Cost 100th Units} = ₹ 150}$$
$$MC = \frac{\Delta TC}{\Delta Q_p} \Rightarrow \frac{88}{10000} = \frac{88}{10000} = ₹ 2.5$$

TC	2023	2024
Qp	10000	14000
△	10000	4000

1, Marginal Cost

Unit -6 Marginal Costing

Features:

1. Technique of cost used for cost control and record keeping
2. Provides information to top management for decision making
3. It considers only Variable cost as part of Product cost
4. It considers Fixed cost as Period cost
5. Used for comparison

Part of
Management
Accounting

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Factors of Marginal Costing

⇒ Cost - Volume Profit Analysis

① Profit-Volume Ratio
PIV Ratio

Formula

$$\frac{\text{Contribution}}{\text{Sales}} \times 100$$

Use
⇒ Profitability ✓

⇒ Comparison

② Break-even Point
"No Profit-No loss"
↓ Formula

③ Units
Fixed cost
Cont. P.V.

Amount
Fixed cost
PIV Ratio

- ⇒ Use ↗
⇒ Loan Approval ↗
⇒ min. level of Performance ↗
⇒ Possibility of Profits
⇒ Incentive Plan for team
⇒ Comparison
⇒ Outsourced

Margin of Safety

"Sales Above BEP"

↓ Formula

%
Sales - BEP
Sales

Amount
Profit
PIV Ratio

Use
⇒ Additional Profit

⇒ Comparison

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e.g.: DAS Ltd looking into Cost Component of a Product and found following info:
Sales £ 50,00,000 VC @ 60%. Fixed Cost £ 10,00,000. No. of units sold 100000.

Find: ① PIU Ratio

② BEP (Units, £), ③ MOS (% Value)

Sol.

Income Statement

Sales	£ 50,00,000
- VC @ 60%	(£ 30,00,000)
Contribution	£ 20,00,000
- Fixed cost	(£ 10,00,000)
Profit	£ 10,00,000

* Cont. Per unit:

$$\frac{C}{\text{No. Unit}} = \frac{20,00,000}{100,000} = £ 20$$

$$① \text{ PIU Ratio} = \frac{\text{Cont. Sales}}{\text{Sales}} \times 100 = \frac{20L}{50L} \times 100 = 40\%$$

$$② \text{ BEP: } \begin{aligned} \Rightarrow \text{Units} &= \frac{FC}{\text{Cont. PU.}} = \frac{10,00,000}{20} = 50,000 \text{ units} \\ \Rightarrow £ &= \frac{FC}{\text{PIU Ratio}} = \frac{10,00,000}{40\%} = £ 25,00,000 \end{aligned}$$

$$③ \text{ MOS } \begin{aligned} \Rightarrow \% &= \frac{S - BEP}{S} \times 100 = \frac{50L - 25L}{50L} \times 100 = 50\% \\ \Rightarrow \text{Value} &= \frac{\text{Profit}}{\text{PIU Ratio}} = \frac{10,00,000}{40\%} = £ 25,00,000 \end{aligned}$$

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BEP Chart

