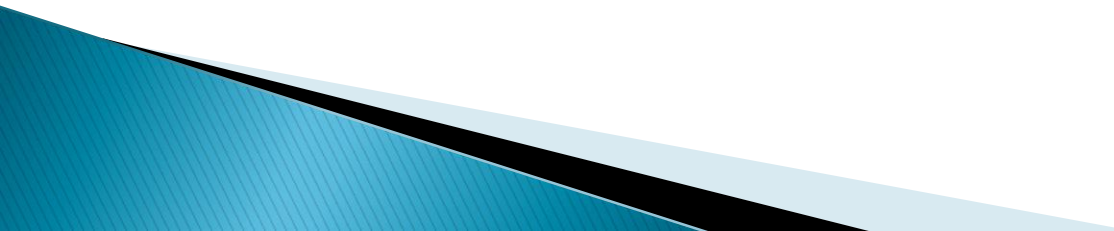


# Standard Costing



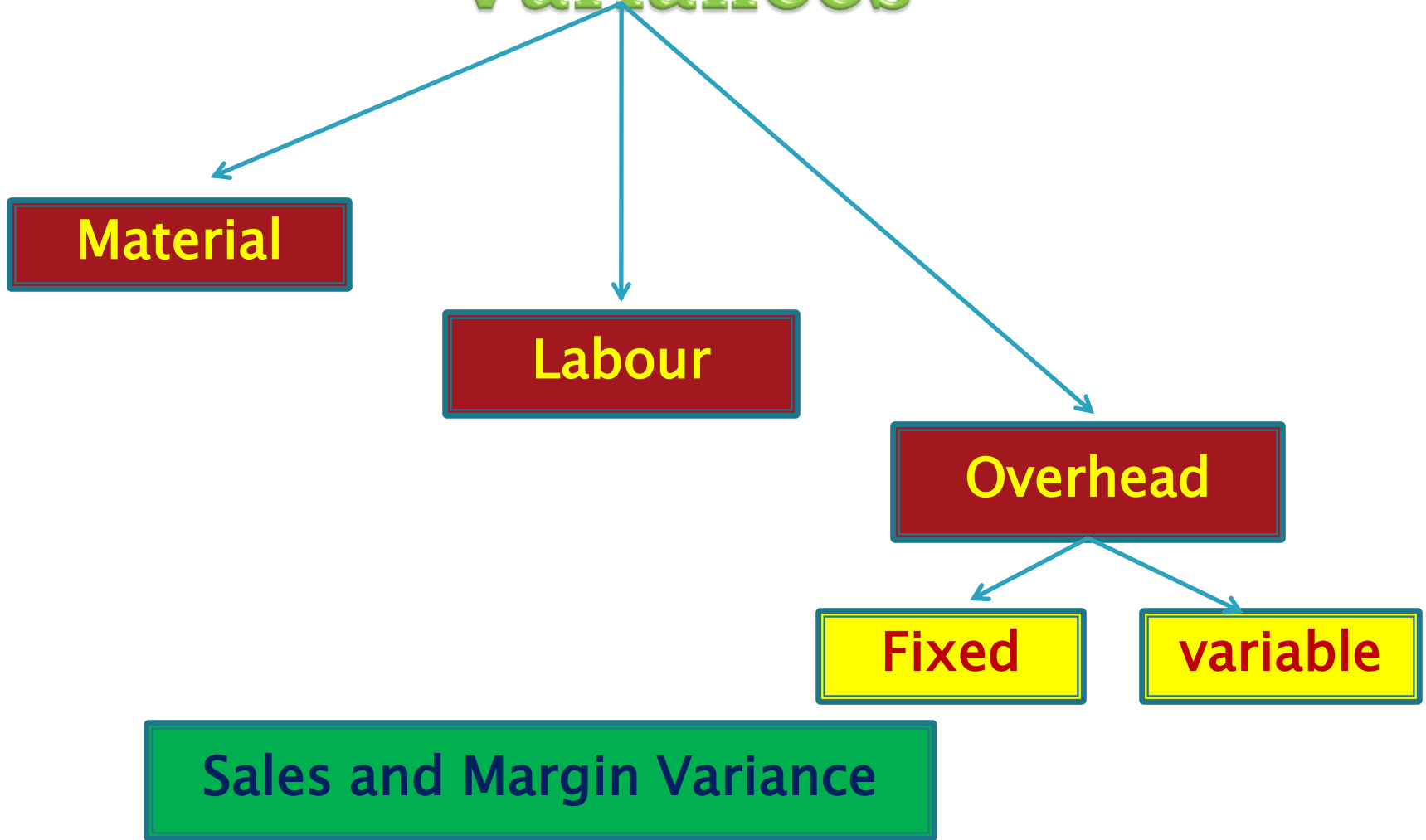
# Meaning and Significance

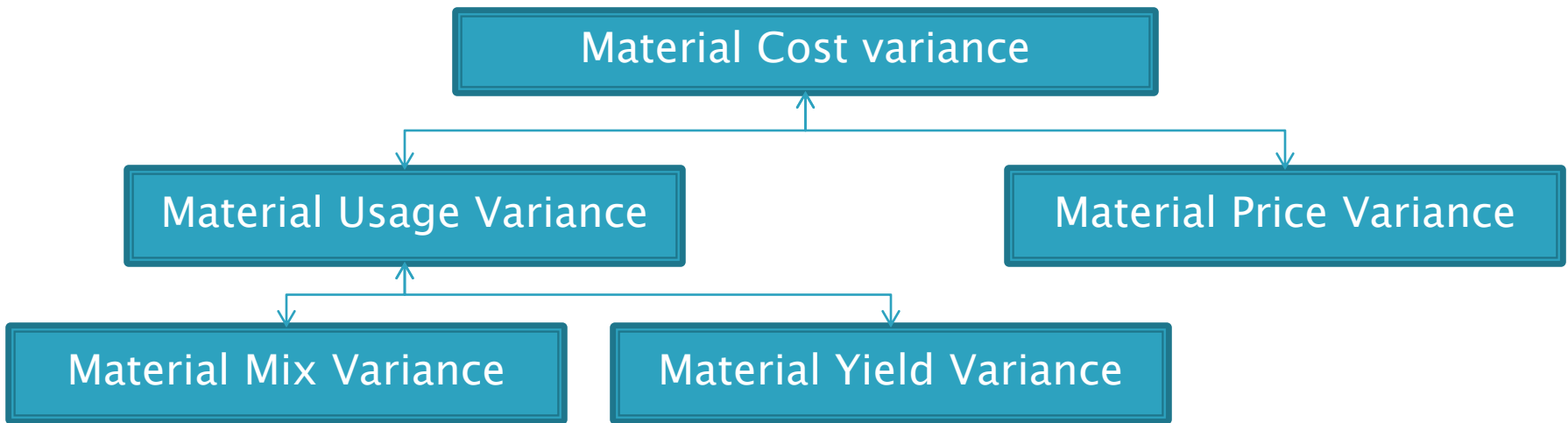
- Predetermined operating cost calculated from managements standards of efficient operation and the relevant necessary expenditure
  - Price fixing, cost control through variance analysis
  - Planning and control,
- 

# Variance Analysis

- ▶ Analysis of cost variance into its component parts and the explanation of variances
- ▶ Variance = expectations LESS Actuals
- ▶ Types of Variance
  - **Based on Cost** : Material, Labour or Overheads
  - **Based on Casual factor** : Efficiency, Price and volume
  - **Based on Impact on profit** : Favourable and adverse

# Variances





S	A		
SR X SQ	AR X AQ	SR X AQ	SR X RAQ

SR = Standard Rate/price

SQ = Std Qty

AR = Actual Rate

AQ = Actual Qty

RAQ = Actual Qty rewritten in std proportion

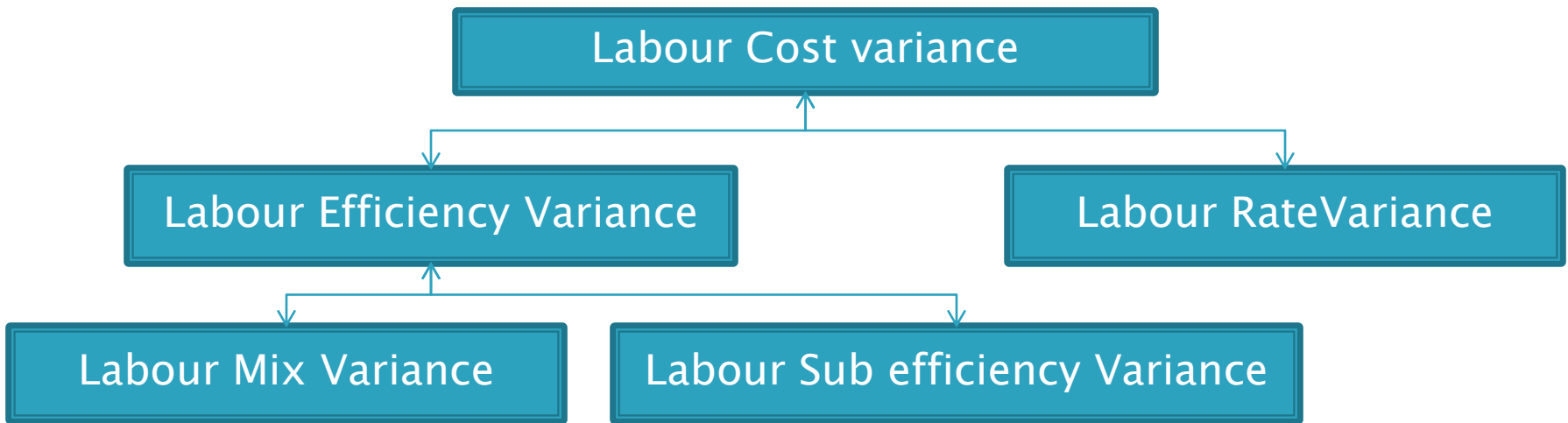
1 - 2 = Material Cost Variance

1 - 3 = Material Usage Variance

3 - 2 = Material Rate/price Variance

1 - 4 = Material Yield Variance

4 - 3 = Material Mix Variance



1	2	3	4
SR X SH	AR X AH	SR X AH	SR X RAH

SR = Standard Rate/price

SH = Std Hours

AR = Actual Rate

AH = Actual Hrs

RAH = Actual Hours rewritten in std proportion

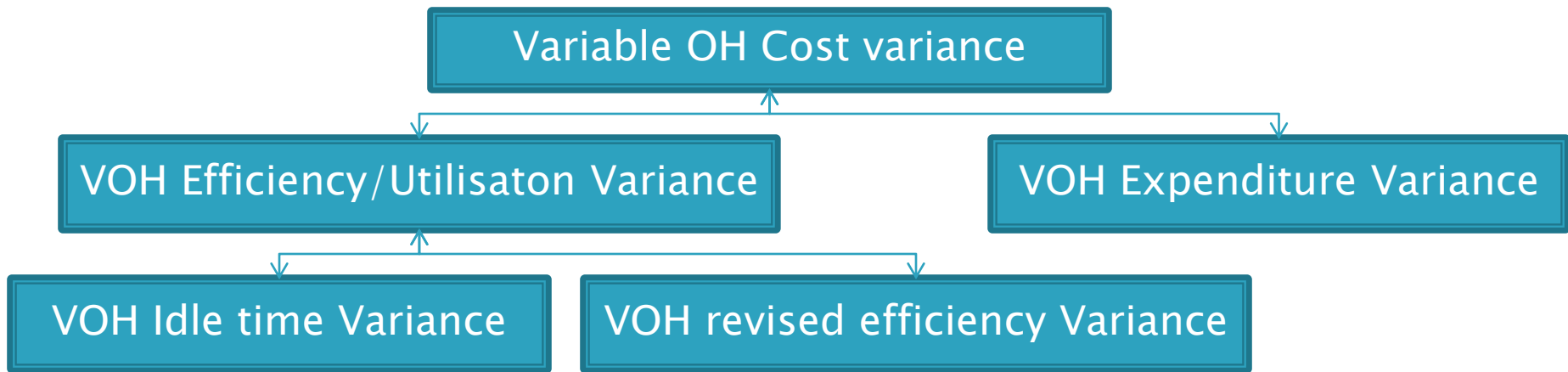
1 - 2 = Labour Cost Variance

1 - 3 = Labour efficiency Variance

3 - 2 = Labour Rate/price Variance

1 - 4 = Labour Sub efficiency Variance

4 - 3 = Labour Mix Variance



Based on Time			Based on Output		
1	2	3	1	2	3
SR X SH (Absorbed OH)	Actual VOH	SR X AH (Std cost of Actual hrs wrked)	SR X AO	AVOH	SO X SR

SR = Standard Rate/price

SH = Std Hours (Expected time for Act o/p)

AO = Actual Output

SO = Std O/p (Expected O/p for Act hrs worked)

AVOH = Actual VOH Incurred

AH = Actual Hrs worked

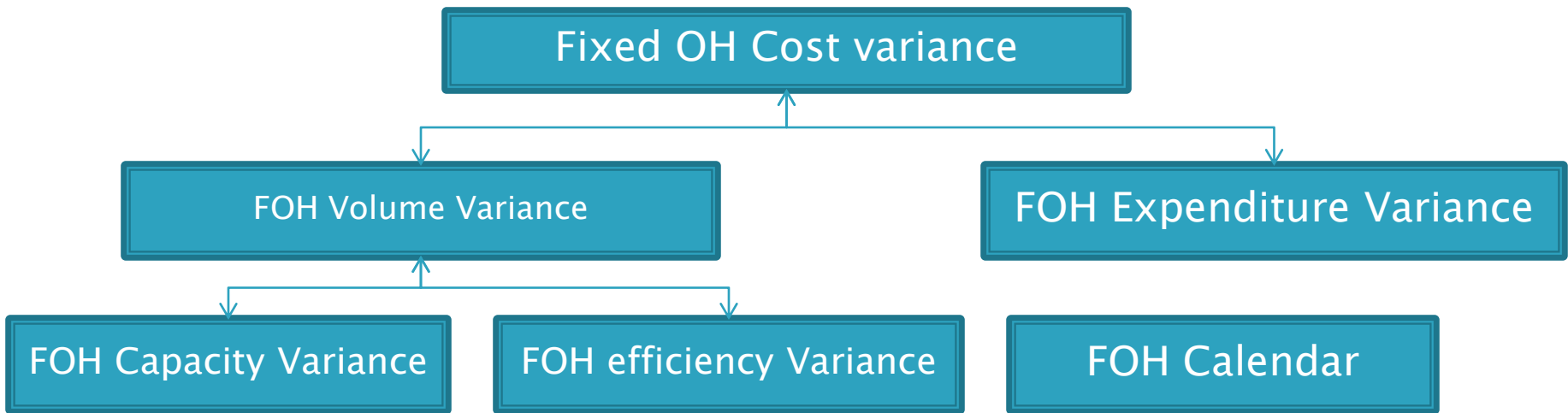
1 - 2 = VOH Cost Variance

1 - 3 = VOH efficiency Variance

3 - 2 = VOH Expenditure Variance

VOH Idle time variance = Actual Idle time X SR(Always Adverse)

VOH Revised eff Va = VEV  $\pm$  VITV



1	2	3	4	5
AO X SR	Actual FOH	Bud FOH	AH X SR	PFOH

SR = Standard Rate/price

AO = Actual Output

BFOH = Budgeted FOH

AH = Actual Hrs worked

AFOH = Actual FOH Incurred

PFOH = Expected FOH for actual days worked

1 - 2 = FOH Cost Variance

1 - 3 = FOH Volume Variance

3 - 2 = FOH Expenditure Variance

4 - 3, 4 - 5 = FOH Capacity variance

1 - 4 = FOH Efficiency variance

5 - 3 = FOH Calendar variance



# Illustrations

The following standard have been set to manufacture a product :

Direct Materials : 2.5 units of X at Rs. 4 p.u	8.00
3 units of Y at Rs. 3 per unit	9.00
15 units of Z at Re. P.u	15.00
	32.00
Direct Labour 3 hrs @ Rs. 8 per hr	24.00
Total Standard Prime cost	56.00

The company manufactured and sold 6000 units of the product during the year 2006.

Direct material costs are as follows :

12,500 units of X @ 4.40 p.u

18,000 units of Y @ 2.80 p.u

88,500 units of Z @ 1.20 p.u

The company worked 17,500 direct labour hours during the year 2006. For 2500 of these hrs the company paid @ 12 per hr while for the remaining hrs the wages were paid at the standard rate.

Calculate Material and Labour variances.

# MATERIAL VARIANCE

	1	2	3	4
	SR X SQ	AR X AQ	SR X AQ	SR X RAQ
X	4 X (6000u*2.5u) = 60,000	4.40 X 12,500u = 55,000	4 X 12,500u = 50,000	4 X ( 1,19,000 * 2.5/20.5) = 58,048
Y	3 X (6000u*3u)			
Z				
Total				

1 - 2 = MCV

1 - 3 = MUV

3 - 2 = MPV

4 - 3 = MMV

1 - 4 = MYV

## Labour Variance

1	2	3
SR X SH	AR X AH	SR X AH
8ph X (6000u*3) = 1,44,000	(12ph * 2500hrs) + (8ph * 15,000hrs) = 1,50,000	8ph X 17,500 = 1,40,000

$$1 - 2 = \text{LCV}$$

$$1 - 3 = \text{LEV}$$

$$3 - 2 = \text{LRV}$$

$$4 - 3 = \text{LMV}$$

$$1 - 4 = \text{LSEV}$$

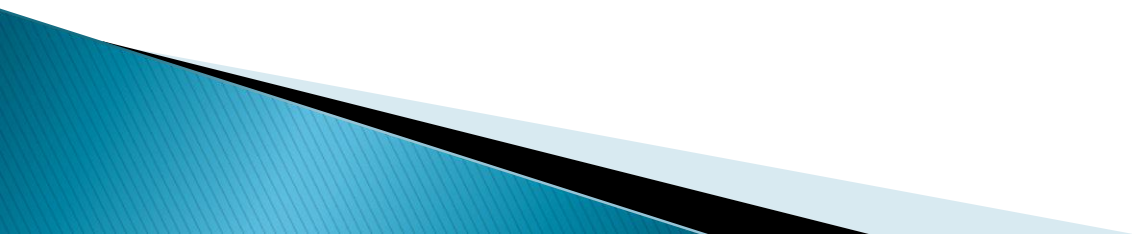
# Problem 2

AXE Ltd. has furnished the following information for the month of august :

Particulars	Budgeted	Actuals
Output(Units)	30,000	32,500
Hours	30,000	33,000
Fixed Overheads	Rs. 45,000	Rs. 50,000
Variable OH	Rs. 60,000	Rs. 68,000
Working Days	25	26

## VOH Variance

1	2	3
Absorbed VOH	AVOH	SO X SR
$32500u \times (60,000/30,000u)$	Rs. 50,000	$30000u * (60,000/30,000u)$



1	2	3	4	5
AO X SR	AFOH	Bud FOH	AH X SR	PFOH
32500 * (45,000/30,000)	50,000	45,000	33,000 hrs X (45,000/30000u)	25 d - 45,000 26 d - ?

G Ltd. Is currently operation at 75% of its capacity. In the past two years, the level of operations were 55% and 65% respectively. Presently the production is 75,000 units. The company is planning for 85% capacity level during the next year. The cost details are as follows :

Particluars	55%	65%	75%
Direct Materials	11,00,0000	13,00,000	15,00,000
Direct Labour	5,50,000	6,50,000	7,50,000
FOH	3,10,000	3,30,000	3,50,000
Selling OH	3,20,000	3,60,000	4,00,000
Administrative	1,60,000	1,60,000	1,60,000

Profit is estimated at 20% on Sales. The following increases in costs are expected duirng the year :- Direct Materials - 8%, Direct Labour - 5%, Variable FOH - 5%, Variable SOH - 8%, Fixed FOH - 10%, Fixed Selling OH - 15%, Adm OH - 10%, Prepare flexible budget for the next year at 85% level of capacity. Also ascertain profit and contribution.