

Standard Costing

Material Cost Variance

Material Cost Variance	= SPSQ – APAQ
Material Price Variance	= AQ (SP – AP) or SPAQ-APAQ
Material Usage Variance	= SP (SQ-AQ) or SPSQ-SPAQ
Material Mix Variance	= TAQ (SRSM-SRAM)
	Where, SRSM=SPSQ/TSQ SRAM=SPAQ/TAQ
Material Yield Variance	= SRSM (TSQ-TAQ)

Labour Cost Variance (Without idle time)

Labour Cost Variance	= SRSH-ARAH
Labour Rate Variance	= AH (SR-AR) or SRAH-ARAH
Labour Efficiency Variance	= SR (SH-AH) Or SRSH-SRAH
Labour Gang Variance	= TAH (SRSG-SRAG)
	Where, SRSG = SRSH/TSH SRAG = SRAH/TAH
Labour Sub efficiency Variance	= SRSG (TSH-TAH)

Labour Cost Variance (With idle time)

Labour Cost Variance	= SRSH - ARAHp
Labour Rate Variance	= AHp (SR - AR) or SRAHp - ARAHp
Labour Efficiency Variance	= SR (SH - AHw) Or SRSH - SRAHw
Labour Idle Time Variance	= Idle Time x SR
Note – AHp = Actual Hours Paid	
AHw = Actual Hours Worked	
AHp-Idle time = AHw	

Fixed Overhead Variance

Compute SORPU (Standard Output rate per unit) and SOAH (Standard output at actual Hours)

$$\text{SORPU} = \text{BFO} / \text{BO}$$

SOAH = Standard Output at Actual Hours

Recovered (i.e. absorbed) Fixed Overhead (RFO)	= SORPU x AO
Standard Fixed Overhead (SFO)	= SORPU x SOAH
Possible Fixed Overhead (PFO)	= SORPU x PO
Budgeted Fixed Overhead (BFO)	= SORPU x BO
Actual Fixed Overhead (AFO)	= AORPU x AO

Possible output (i.e., standard output at actual days)

<u>Variance</u>	
Cost	= RFO – AFO
Volume	= RFO – BFO
Expenditure	= BFO – AFO
Efficiency	= RFO – SFO
Capacity	= SFO – BFO
Revised Capacity Variance	= SFO – PFO
Calendar Variance	= PFO – BFO

Variable Overhead Variance

Compute SORPU (Standard Output rate per unit) and SOAH (Standard output at actual Hours)

$$\text{SORPU} = \text{BVO} / \text{BO}$$

SOAH = Standard Output at Actual Hours

Recovered (i.e. absorbed) Variable Overhead (RVO)	= SORPU x AO
Standard Variable Overhead (SVO)	= SORPU x SOAH
Actual Variable Overhead (AVO)	= AORPU x AO

<u>Variance</u>	
Cost	= RVO – AVO
Efficiency	= RVO – SVO
Expenditure	= SVO – AVO

Sales Value Variance

Sales Value Variance = ASPAQs - SSPSQs
Sales Value Price Variance = AQS (ASP - SSP) or ASPAQs - SSPAQs
Sales Value Volume Variance = SSP (AQS - SQS) or SSPAQs - SSPSQs
Sales Value Mix Variance = TAQS (SRAM - SRSM)
Where, SRSM = SSPSQs/TSQS
SRAM = SSPAQs/TAQS

Sales Value Quantity Variance (i.e., sub volume variance) = SRSM (TAQS - TSQS)

Sales Margin Variance

Sales Margin Price Variance = ASMAQS - SSMSQS
Sales Margin Price Variance = AQS (ASM - SSM) or ASMAQS - SSMAQS
Sales Margin Volume Variance = SSM (AQS - SQS) or SSMAQS - SSMSQS
Sales Margin Mix Variance = TAQS (SRAM - SRSM)
Where, SRSM = SSMSQS/TSQS
SRAM = SSMAQS/TAQS

Sales Margin Quantity Variance (i.e., sub volume variance) = SRSM (TAQS - TSQS)

Sales Margin Volume variance (Under Marginal Costing) = Budgeted Contribution/Unit x (AQ - BQ)
Or = SMVV (in absorption costing) + FOVV
Or = Sales Volume Variance x Budgeted PV Ratio

Market Variance

Market Size Variance = Budgeted Market Share (in %) x (Actual Industry Sales in units - Budgeted Sales in units) x Budgeted Average contribution margin per unit.

Market Share Variance = [Actual Market Share (in %) - Budgeted Market Share (in %)] x [Actual industry Sales Volume in units] x [Budgeted Average contribution margin per unit]

Reconciliation Statement

Reconciliation Statement (Absorption Costing)				
Budgeted Profit		Actual Profit		
Budgeted Profit				☐
(Budgeted Quantity x Budgeted Margin)				
Effect of Variances				
Material Cost Variance				
Material Price Variance			☐	
Material Usage Variance				
Material Mix Variance	☐			
Material Yield Variance	☐	☐	☐	
Labour Cost Variance				
Labour Rate Variance			☐	
Labour Efficiency Variance				
Labour Mix Variance	☐			
Labour Sub-Efficiency Variance	☐	☐	☐	
Variable Overhead Cost Variances				
Variable Overhead Expenditure Variance			☐	
Variable Overhead Efficiency Variance			☐	☐
Fixed Overhead Cost Variances				
Fixed Overhead Expenditure Variance			☐	
Fixed Overhead Volume Variance				
Fixed Overhead Capacity Variance	☐			
Fixed Overhead Efficiency Variance	☐	☐	☐	
Sales Margin Variance				
Sales Margin Price Variance			☐	
Sales Margin Volume Variance				
Sales Margin Mix Variance	☐			
Sales Margin Quantity Variance	☐	☐	☐	☐
Actual Profit				☐

Reconciliation Statement (Marginal Costing)				
Budgeted Profit		Actual Profit		
Budgeted Profit				☐
(Budgeted Quantity × Budgeted Margin)				
Effect of Variances				
Material Cost Variance				
Material Price Variance			☐	
Material Usage Variance				
Material Mix Variance	☐			
Material Yield Variance	☐	☐	☐	
Labour Cost Variance				
Labour Rate Variance			☐	
Labour Efficiency Variance				
Labour Mix Variance	☐			
Labour Sub-Efficiency Variance	☐	☐	☐	
Variable Overhead Cost Variances				
Variable Overhead Expenditure Variance			☐	
Variable Overhead Efficiency Variance			☐	☐
Fixed Overhead Cost Variances				
Fixed Overhead Expenditure Variance			☐	
Fixed Overhead Volume Variance@				
Fixed Overhead Capacity Variance	NA			
Fixed Overhead Efficiency Variance	NA	NA	☐	
Sales Margin Variance				
Sales Margin Price Variance#			☐	
Sales Margin Volume Variance*				
Sales Margin Mix Variance**	☐			
Sales Margin Quantity Variance***	☐	☐	☐	☐
Actual Profit				☐
@ Relation between Sales Margin Volume Variance (Absorption Costing) & Sales Margin Volume Variance (Marginal Costing):				
Sales Margin Volume Variance (Absorption Costing)	=	Budgeted Margin Per Unit x (Actual Quantity-Budgeted Quantity)		
	Or			
Sales Margin Volume Variance (Absorption Costing)	=	[Standard (or Budgeted) Contribution Per Unit- Standard Fixed Overheads Per Unit] x (Actual Quantity-Budgeted Quantity)		
	Or			
Sales Margin Volume Variance (Absorption Costing)	=	[Standard Contribution Per Unit x (Actual Quantity- Budgeted Quantity)]- [Standard Fixed Overheads Per Unit x (Actual Quantity-Budgeted Quantity)]		
	Or			
Sales Margin Volume Variance (Absorption Costing)	=	Sales Margin Volume Variance (Marginal Costing) - Fixed Overhead Volume Variance		
	Or			
Sales Margin Volume Variance (Marginal Costing)	=	Sales Margin Volume Variance (Absorption Costing) + Fixed Overhead Volume Variance		
* Sales Margin Volume Variance (Marginal Costing)	=	[Standard Contribution Per Unit x (Actual Quantity-Budgeted Quantity)]		
** Sales Margin Mix Variance (Marginal Costing)	=	[Standard Contribution Per Unit x (Actual Quantity-Revised Actual Quantity)]		
*** Sales Margin Quantity Variance (Marginal Costing)	=	[Standard Contribution Per Unit x (Revised Actual Quantity-Budgeted Quantity)]		
# Sales Price Variance is equal to Sales Margin Price Variance This is because, for the actual quantity sold, standard cost remaining constant, change in selling price will have equal impact on turnover and profit.				
Sales Margin Volume Variance (Absorption Costing)	=	Sales Volume Variance x Budgeted Net Profit Ratio		
Sales Margin Volume Variance (Marginal Costing)	=	Sales Volume Variance x Budgeted PV Ratio		

Reconciliation Statement (Absorption Costing)					
Standard Profit			Actual Profit		
Standard Profit					
(Actual Quantity × Budgeted Margin)					
Effect of Variances					
Material Cost Variance					
Material Price Variance					
Material Usage Variance					
Material Mix Variance					
Material Yield Variance					
Labour Cost Variance					
Labour Rate Variance					
Labour Efficiency Variance					
Labour Mix Variance					
Labour Sub-Efficiency Variance					
Variable Overhead Cost Variances					
Variable Overhead Expenditure Variance					
Variable Overhead Efficiency Variance					
Fixed Overhead Cost Variances					
Fixed Overhead Expenditure Variance					
Fixed Overhead Volume Variance					
Fixed Overhead Capacity Variance					
Fixed Overhead Efficiency Variance					
Sales Margin Variance					
Sales Margin Price Variance					
Sales Margin Volume Variance					
Sales Margin Mix Variance	NA				
Sales Margin Quantity Variance	NA	NA			
Actual Profit					