Variance Analysis for Managerial Control

Total Costs are broken down for Analysis

- Direct Materials
- Direct Labor
- Variable Overhead
- Fixed Overhead

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**Direct Materials**

- **Actual Costs Incurred**
  - $\text{AQ} \times \text{AP}$
  - $\text{Mat. Purch. Price Variance: } (\text{SP} - \text{AP}) \times \text{AQ}$
  - $\text{b-a}$
  - $\text{Mat. Usage Price Variance: } (\text{SP} - \text{AP}) \times \text{AQ}$
  - $\text{b-a}$
  - $\text{Material Budget Variance: } (\text{SQA} \times \text{SP}) - (\text{AQU} \times \text{AP})$
  - $\text{c-a}$

- **Flexible Budget based on Actual Output**
  - $\text{AQ} \times \text{SP}$

- **Expected Costs based on Actual Output**
  - $\text{SQA} \times \text{SP}$
  - $\text{Material Efficiency Variance: } (\text{SQA} - \text{AQU}) \times \text{SP}$
  - $\text{c-b}$

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Direct Labor

a. Actual Costs Incurred
   
   AQ * AR

b. Flexible Budget based on Actual Output
   
   AQ * SR

   Labor Rate Variance
   
   (SR-AR)AQ
   
   Labor Efficiency Variance
   
   (SQA-AQ)SR

   Labor Budget Variance
   
   (SQA*SR) - (AQ*AR)

   Labor Efficiency Variance
   
   (SQA-AQ)SR

   Labor Budget Variance
   
   (SQA*SR) - (AQ*AR)

   b-a

   c-b

   c-a

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Variable Overhead

a. Actual Costs Incurred
   \[ AQ \times AR \]
   
   V.O. Spending Variance
   \[ (SR-AR)AQ \]
   
   b. Flexible Budget based on Actual Output
   \[ AQ \times SR \]
   
   V.O. Efficiency Variance
   \[ (SQA-AQ)SR \]
   
   c. Expected Costs based on Actual Output
   \[ SQA \times SR \]
   
   V.O. Budget Variance
   \[ (SQA*SR) - (AQ*AR) \]

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Fixed Overhead

a. AQ * AR

Flexible Budget based on Actual Output

b. AQ * SR

Expected Costs based on Actual Output
c. SQA * SR

F.O. Spending Variance

(SR-AR)AQ

b-a

F.O. Volume Variance

(SQA-AQ)SR
c-b

F.O. Budget Variance

(SQA*SR) - (AQ*AR)
c-a

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