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Subject: Advance Cost Account

Topic: Variance Analysis

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Definition

The Institute of Cost & Management Accountants defines variance as the difference between a standard cost and the comparable actual cost incurred during a period

Variance Analysis can be defined as the process of computing the amount of and isolating the cause of variances between actual costs and standard costs. It involves two phases:

1.Computation of individual variances
2.Determination of the cause(s) of each variance

OBJECTIVES:

- Describe the basic concepts underlying variance analysis
- Explain the difference between a favourable and an adverse/unfavourable variance
- Compute materials usage and price variances
- Calculate labour efficiency and price/wage rate variances

Comparison

Care to be taken while comparing actual and standard cost

1.Conditions might have changed, thus rendering the standard costs unrealistic – for instance the quality of available materials may be low.

2.Standards fixed upon on too idealistic a basis will remain unattainable.

3.The service rendered by a service departments may not be upto the mark so that, for example time is lost due to a machine working slow.

4.In certain activities, fixation of standard is either not possible or not desirable. Goods requiring artistic work of high quality cannot be and should not be subject to quantitative standards. In certain cases work cannot be properly measured. Standards in these cases will be useless.

Classification

Variances are broadly classified into the following:

- Material Variances
- Labour Variances
- Variable Overhead Variances
- Fixed Overhead Variances

Material Cost Variance

Material Cost Variance is the difference between the actual cost of direct materials used and standard cost of direct materials specified for the output achieved.

This variance results from differences between quantities consumed and quantities of materials allowed for production and from differences between prices paid and prices predetermined.

Can be computed using the formula:

Material Cost Variance = (SQ x SP) – (AQ x AP)

where, AQ = Actual Quantity
AP = Actual Price
SQ = Standard Quantity for the actual output
SP = Standard Price

Labour Mix Variance

The composition of actual gang of labour may differ from composition of standard gang due to shortage of a particular grade of workers or some other reason.
It is that portion of the wages variance which is due to the difference between the actual labour grades utilized and the standard labour grades specified.

Can be computed using the formula:

Labour Mix variance = (Revised Standard labour hours – AH) x Standard Wage rate

Revised Standard hours = $\dfrac{Total\ hours\ of\ actual\ mix\ or\ gang}{Total\ hours\ of\ standard\ mix\ or\ gang}$ x SH

Variable OH Variances

Variable Overhead Variance represents he difference between standard variable overhead (specified for actual units produced) and the actual variable overhead incurred.

Can be computed using the formula:

Variable OH Cost Variance = Standard Variable OH on actual production – Actual variable OH

OR

Variable OH Cost variance = (Actual time or standard hours for actual production x Standard variable OH Rate) – (Actual Variable OH)

Where, Standard variable OH Rate per unit or per hours = $\dfrac{\text{Budgeted OH}}{\text{Budgeted output or hours}}$

Fixed OH Cost Variance

Fixed Overhead Cost Variance is the difference between standard overhead recovered or absorbed for actual output and the actual fixed overhead.

Can be computed using the formula:

Fixed OH Cost Variance = (Recovered or absorbed Fixed OH) – (Actual Fixed OH)

OR

(Actual output) x (Standard OH Rate) – (Actual OH Rate x Actual Output)

Variances
Standard Costing

- **Standard costing uses the costs that <u>should have been</u> incurred**
- **Standard costing uses** *standards of performance* **and of** *prices derived from studying operations* **and of** *estimating future prices, for materials, labour, and overheads*
- **Each unit produced can have both actual and standard costs for direct materials, direct labour, and manufacturing overheads**

Variances
Standard Costing

- **Standard input**
  - **A carefully determined quantity of input, e.g., square metres of laminated material**
- **Standard price**
  - **A carefully determined price that a company expects to pay for a unit of input, e.g., £1 per square metres of laminated material**
- **Standard cost**
  - **A carefully determined cost of a unit of output**

Variance Analysis

- Variances fall into 2 categories
  - Favourable variances occur when actual amount is less than the standard amount
  - Unfavourable variances arise when actual amount is greater than the standard amount