**Standard CostinG**

In chapter 8 the cost of a job was determined using **normal costing.**

**Normal costing**

calculates the cost of a job using

**actual** direct materials and **actual** direct labour and

adds overhead using a pre-determined overhead rate.

In this chapter **standard costs** are used for job costing.

A **standard cost** is a predetermined cost that should be incurred under **efficient** conditions of manufacturing a product.

It is a **benchmark** or norm against which actual performance is measured

**How are standards set?**

Engineers, purchasing managers, production supervisors and accountants assist in setting quantity and cost standards.

Standards are based on:

* Past cost data
* Management judgment on what is acceptable or attainable to encourage efficient future operations. Staff attitudes and work ethics would be considered.
* Engineering studies e.g. time and motion study, work simulation, product dissection.

**Standard costs** are worked out for:

**Direct material**

**Direct labour**

**Factory overheard.**

In standard costing factory overhead cost is divided into:

**Fixed** Factory Overhead

Eg. Rent, salary of production manager

**Variable** Factory Overhead

Eg. Electricity, indirect materials

**At Beginning of the Accounting Period**

The **standard**

* direct material cost,
* direct labour cost
* budgeted factory overhead cost

is recorded.

**At End of the Accounting Period**

The **actual**

* direct material cost,
* direct labour cost
* factory overhead costs

are compared to the standards set.

**Variance Analysis**

**Variances**

The **difference** between each **standard** cost and its **actual** cost is recorded as a **variance**.

At the end of an accounting period

**Actual** is compared to **Standard**.

Actual Less Standard = **Variance**

**An overview of a standard costing system**

**Standard cost and actual cost compared**

**Variances are analysed and reported**

**Variances are investigated**

**Corrective is Action taken**

**Standard adjusted to reflect changes**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Direct Material Variances** | | | | | | | | | | |  | |
|  | | | | | |  | | | |  | |  | | |
|  | | | |  | |  | | |  |  | |  | | |
| **DM Price Variance** | | |  | | | **DM Usage Variance** | | | | | | | | |

**DM Price Variance**

|  |  |
| --- | --- |
| Actual Price> Std. Price | Unfavourable (U) |
| Actual Price< Std. Price | Favourable (F) |

**DM Usage Variance**

|  |  |
| --- | --- |
| Actual Qty>Std Qty | Unfavourable (U) |
| Actual Qty<Std Qty | Favourable(F) |

**Direct material variance**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Actual Price x Actual Quantity Issued** | | | |  | **Standard Price by Actual Quantity Issued** | | | | | |  | **Standard Price by Standard Quantity Allowed** | | | |
|  |  | | |  |  | | |  | | |  |  | | |  |
| **AP x AQI** | | | |  | **SP x AQI** | | | | | |  | **SP x SQA** | | | |
|  |  | |  |  |  |  | |  | |  |  |  |  | |  |
|  | | **Materials price variance**  **(AP – SP)**  **x AQI** | | | | |  | | **Materials usage variance**  **(AQI – SQA)**  **x SP** | | | | |  | | |

**Reasons for direct material variance**

|  |  |  |
| --- | --- | --- |
| Variance | Favourable | Unfavourable |
| Material price | * Unforeseen discounts received. * Greater care taken in purchasing. * Change in material standard | * Price increase. * Careless purchasing. * Change in material standard |
| Material usage | * Material used of higher quality than standard. * More effective use made of material. * Errors in allocating material to jobs. | * Defective material. * Excessive waste. * Errors in allocating material to jobs. * Stricter quality control and more rejections. * Theft. |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Direct Labour Variances** | | | | | | | | |  |
|  | | | | |  | |  |  | | | |
|  | | | |  | | | | | |  |
| **Direct Labour**  **Rate Variance** | | |  | | **Direct Labour**  **Efficiency Variance** | | | | | | |

**DL Rate variance**

|  |  |
| --- | --- |
| Actual Rate> Std Rate | Unfavourable (U) |
| Actual Rate< Std Rate | Favourable (F) |

**DL Efficiency variance**

|  |  |
| --- | --- |
| Actual Hrs > Std Hrs | Unfavourable (U) |
| Actual Hrs < Std Hrs | Favourable (F) |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Actual Rate x Actual Labour Hours** | | | |  | **Standard Rate by Actual Labour Hours** | | | | | |  | **Standard Rate by Standard Labour Hours Allowed** | | | | |
|  |  | | |  |  | | |  | | |  |  | | |  | |
| **AR x ADLH** | | | |  | **SR x ADLH** | | | | | |  | **SR x SDLHA** | | | | |
|  |  | |  |  |  |  | |  | |  |  |  |  | |  | |
|  | | **Labour rate variance**  **(AR – SR)**  **x ADLH** | | | | |  | | **Labour efficiency variance**  **(ADLH – SDLHA) x SR** | | | | |  | |

**Direct labour variance**

**Reasons for direct labour variance**

|  |  |  |
| --- | --- | --- |
| Variance | Favourable | Unfavourable |
| Labour rate | * Use of apprentices or other workers at a rate of pay lower than standard. | * Wage rate increase. * Use of higher paid workers than standard |
| Labour efficiency | * Output produced more quickly than expected (i.e. actual output in excess of standard output set for same number of hours due to higher than expected work motivation, better quality of equipment or materials. * Errors in allocating time to jobs. | * Lost time in excess of standard allowed. Output lower than standard set because of deliberate restriction, lack of training, or sub-standard material used. * Errors in allocating time to jobs |

**Advantages of standard costing**

* Performance measurement can provide feedback concerning what works and what does not work.
* It can help motivate people by making them strive to reach or exceed standards, once they know standards expected.
* It can be used to cost and price a job, without the delay of getting actual figures.
* Managers need to focus on unfavourable variances only. The purpose is to find the problem and eliminate it so that it does not recur. This process is called**management by exception**.