المحاضرة الثانية

6 -Components of Standard cost :- مكونات التكلفة المعيارية

Standards are set in both quantity (units or hours) and in cost (price or rate). It isthus measure in quantities, hours and value of the factors of production.

Standards are set in both physical and monetary terms for each cost components.Details are as follows:

Standard cost = standard Quantity x standard price

1-Quantity or Physical Standards:- معايير كمية أو مادية

Physical standards refer to expression of standards in units or hours. At this stage standard quantity and standard hours are determined for a particular product or service. The purpose of setting standards is to secure economies in scale of production .

In manufacturing organizations, the task of setting physical standards is assigned to the industrial engineering department.

تشير المعايير الكمية إلى التعبير عن المعايير بالوحدات أو الساعات. في هذه المرحلة يتم تحديد الكمية المعيارية والساعات المعيارية لمنتج أو خدمة معينة. الغرض من وضع المعايير هو تأمين وفورات حجم الإنتاج.

في مؤسسات التصنيع ، يتم تعيين مهمة تحديد المعايير المادية إلى قسم الهندسة الصناعية

2- Price or Rate Standards:- معايير السعر أو المعدل

the price or rate standards is a forecast of the average prices of material and rate of labor hour ,and rate of overhead applied to production during the future period .

7. Setting of Standard Costs : وضع أو أعداد التكاليف المعيارية

Though standard cost is to be determined for each element of cost, i.e. material, labor & overhead; an integrated approachis necessary as right type of materials or automated machinery has direct favorable impact on labor cost.

Success of standard costing system is dependent on how precisely the standardcosts for each element are set.

Factors to be considered:

- **Technical and operational aspects ofthe concern.**
- **Industrial engineering criteria formaterials, labor etc.**
- **The types of standard to be used.**
- **Proper classification of the accounts so that variance is determined properly.**
- **Responsibility for setting standards. In case of variance, this responsible person accounts for it.**

8- Direct Material Standards :-

Depend on quantity and price of materials required per unit. Hence two standards needed

(1)- - Material Price Standard :

Efficiency of purchasing along with storekeeping functions are considered for setting this standard. Objective is to minimize direct material costs. The standard provides for discount on purchases, economy of bulk purchases, anticipated changes in market price.

(2)-- Material Quantity (or Usage) Standard :

Objective in setting this standard is to ensure optimum usage of materials. 'Standard Material Specification' is prepared showing details of material size, grade, quantity etc. by

i] reference to the weight of material in the final product,

ii] using data from past performance &

iii] carrying out testruns.

9 - Standard Cost for Direct Labor

Depends on labor time required per unit andwage rates. Hence two standards needed

(1)-Standard Labor Hours or Time:

This indicates the precise time that labor of a particular grade should taketo perform a given operation. Objectiveis to derive maximum labor efficiency. Standard time can be determined on the basis of past performance. Time and motion studies are of great help in determining standard times .

(2)-Labor Rate Standard :

This indicates the wage rates expected tobe paid to labor of a particular grade. Objective is to plan for actual wages tobe paid. Future trend of wages, collective agreement between labor and management, guaranteed minimum wages, overtime wages, and level of activity requiring overtime operations.

10 - Standard Cost for overhead cost :-

Depends on labor time required per unit as applied base. Hence two standards needed

Variable overhead time/ quantity is estimated based on specification made by the engineering departments. Variable overheads may either be based on direct material quantity or labor hour. Generally, it is based on labor time worked.

Fixed overhead time is based on budgeted production volume.

In computing the overhead expense standards, consideration should be given to the level of output and the budgeted expenses. A budgeted output is fixed considering practical manufacturing capacity and anticipated sales demand. Expenditures can be budgeted under different heads for the level of output chosen. These expenditures are classified as fixed and variable. Thus, the overhead expense standards are set by computing the optimum level of outputfor a production departments followed by budgets for fixed and variable overheads. If production is seasonal or it fluctuates during the year, a flexible budget may be prepared to facilitate comparison between the set target and actual expenditure for the period.

11- Standard cost sheet :- بطاقة التكلفة المعيارية

standard cost card is a detailed listing of the standard amounts of materials, labor, and overhead that should go into a unit of product, multiplied by the standard price or rate that has been set for each cost element.

The main and final task of the Standard Setting Committee is to prepare a standard cost sheet or list for each single unit of product manufactured by the company. أن

المهمة الرئيسية والنهائية للجنة وضع المعايير ، هو اعداد بطاقة أو قائمة التكلفة المعيارية لكل وحدة واحدة من المنتوجات التي تصنعها الشركة.

The card includes the quantitative standards and price standards for each component of the unit cost of the product, and therefore the standard cost per unit.

تتضمن البطاقة المعايير الكمية والمعايير السعرية لكل عنصر من عناصر تكاليف وحدة المنتج ، وبالتالي التكلفة المعيارية للوحدة الواحدة.

How to Determine the Standard Cost Per Unit

To find the standard cost, you first compute the cost of direct materials, direct labor, and overhead per unit. Then you add up these amounts.

Example (1) :-

Al – Huda co. manufactures product (AB 1) .the company Uses A Standard Costing System. Information relating to the standard costs for one unit of that product was given below:-

Direct Material 3kg @$4 Per Kg
Direct Labor 2.5 Hour @ $14 Per Hour
Total Overhead 2.5 Hours @ $3.00 Per Hour

Required :-

Prepare standard cost card for product (AB1) ?

A standard cost card for one unit of product AB1

Inputs	Standard Quantity or Hours	Standard Price or Rate	Standard Cost per Unit
Direct materials	3 Kg	$ 4.00 per kg	$ 12.00
Direct labor	2.5 hours	14.00 per hour	35.00
Overhead	2.5 hours	3.00 per hour	7.50
Total standard unit cost			$.54.50

Example (2) :-

Iraq co. manufactures product XY2 .the company Uses A Standard Costing System. Information relating to the standard costs for one unit of that product was given below:-
Direct Material 4kg @$5 Per Kg
Direct Labor 2 Hour @ $8 Per Hour
Variable Overhead 2 Hours @ $3.50 Per Hour
Fixed overhead 2 hours @ $ 6.per hour
Required :-
Prepare standard cost card for product XY2 ?

Answer :-

Standard cost card for one unit of product XY2

Cost elements	Standard price	Standard quantity	Standard cost per unit
Direct materials **DM**	$5 / kg	4 kg/unit	$20 /unit
Direct labor **DL**	$8.00 / hour	2 hour/unit	$16/unit
Variable overhead **VFOH**	$ 3.50 / hour	2 hour /unit	$7 /unit
Fixed overhead **F FOH**	$6.0/hour	2 hour /unit	$12 / unit
Total standard cost per unit			$ 55/ unit

Question:

The standard cost card for one unit of a certain finished product shows the following:

	Standard Quantity	**Standard Price**
Direct Materials	10 pounds	$? per pound
Direct Labor	2.5 hours	$16 per hour
Variable Manufacturing Overhead	1.5 hours	$10 per hour

If the total standard variable cost for one unit of finished product is $85,

then the standard price per pound for direct materials is:

a- $5.90,
b- $3.00,
c- $4.60,
d- or $1.74?