

AGRILOBU NAGIDOMCHUKWU 18/04/2024

features of Contract Costing

1. Work is undertaken to customer's specified requirement
2. The work are usually for long durations, often more than one accounting period.
3. The method of costing is similar to job costing
4. The contractor work is based on size
5. Payment on account are usually made against work certified

Terminologies

1. Work certified - This is the work done upon which certificate of work done is issued by architect
2. Estimated profit - The contract price minus the estimated cost of the contract.
3. Cost of work certified - This is total cost incurred on the portion certified.
4. ~~Contract price~~ Contract price - amount or price agreed contract and contractee.
5. Architect certificate - Certificate issued to contract for work done.

Objectives of Service Costing

1. Planned cost should be compared with actual cost and difference be investigated for corrective action as necessary
2. A cost ~~per unit~~ per-unit of service should be computed
3. The cost per unit of service should be used as part of control function
4. Prices should be computed for service been sold the third parties i.e. Departmental services.
5. In order to help management plan, control and make decisions, cost should be analysed into fixed, variable and mixed costs

High low method

This is object method of segregation mixed cost into fixed and variable cost through the following process:

- a. Pick the highest and least activity level among the observed data
- b. Calculate the difference between the two activity levels
- c. Pick the corresponding cost of the highest and lowest activity levels.
- d. Calculate the difference between the costs of highest and lowest activity level
- e. Divide the cost difference by the difference in activity levels i.e. divide d by b

+ Use "c" which is the variable cost per unit^{to}, determine total cost or fixed cost using cost formula $Tc = fc + vc$

which can also be expressed as $y = a + bx$

$y = Tc$, $a = fc$, $b = \text{variable cost per unit}$ and $x = \text{unit of output}$

Engineering method

This method is used when there is engineering analysis of ~~relationship~~ technological relationship between input and output e.g. work sampling, methods study and time motion studies. Costs are estimated based on observations of the underlying physical quantities needed for an activity. This method is commonly used for estimating of repetitive processes with clearly defined ~~input~~ input-output relationship, costs that often associate with direct materials, labour and machine time which can be observed and measured directly.

Graphical or Scattergraph

As a result of over reliance on high and low values of the high low method of segregation mixed cost into fixed and variable cost it was observed that all the observations are not considered in deriving the cost estimate and this led to the discovery of graphical method.

Least square or linear Regression method 18/5/2023/004

The application of linear equation formula: $y = a + bx$ is used to derive the regression equations

T stands for total or mixed cost, a stands for constant factor or total fixed cost, b stands for variable cost and x stands for activity level or independent variables using least square's method. a and b can be derived from the following:

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SALAMANDER PLC.

Contract Account as at February 28, 2021

Direct materials Issued	75,000	material d/t	25,000
materials bought on site	195,000	Cost to date	486,650
Direct Expenses	55,000	d/t	
Wages paid	150,000		
Plant office Expenses	10,500		
Plant depreciation (20% x 100,000)	20,000		
Accrual Expenses			
wages	5,000		
Direct Expenses	1,150		
	<u>6,150</u>		
	<u>511,650</u>		
Cost of date 1/4		value of work certified	<u>511,650</u>
National profit			545,000
Profit taken	35,010		
Profit not taken	23,340		
	<u>58,350</u>		
	545,000		
material	25,000	profit b/t	<u>545,000</u>
			23,340

18/3/004

b Calculation of work in progress

Cost to date	486,650 ⁰⁰⁰
Profit taken	35,010
Cash received	<u>521,660</u>
work-in progress	<u>(490,500)</u>
	<u>31,160</u>

workings

Cash Received 490,000

$$\text{value certified} = \frac{490,000}{0.90} = 545,000$$

National profit = 58,350

$$\text{Profit taken} = \frac{2}{3} \times \text{National profit} \times \frac{\text{Cash received}}{\text{value certified}}$$

$$= \frac{2}{3} \times 58,350 \times \frac{490,000}{545,000}$$

$$= \underline{35,010}$$

$$\text{Profit not taken} = (58,350 - 35,010) = \underline{23,340}$$

Narration		Process I Account					
	Qty	Rate	Amount	Narration	Qty	Rate	Amount
Input material	6000	2	12,000	Normal loss	600	3	1800
Add: material			7000	Output	5000	6.3	31,500
labour			8000	Abnormal loss	400		2,500
Expenses			3000				
Other Expenses			800				
Production overhead			5000				
	6000		<u>35,800</u>		6000		<u>35,800</u>

$$\begin{aligned}
 \text{Cost per unit (cpu)} &= \frac{\text{Cost} - \text{Scrap}}{\text{Input material unit} - \text{normal loss unit}} \\
 &= \frac{35,800 - 1800}{6000 - 600} = \frac{34000}{5400} \\
 &= \text{R } 6.3
 \end{aligned}$$

Narration		Process II Account					
	Qty	Rate	Amount	Narration	Qty	Rate	Amount
Process I Transfer	5000	6.3	31,500	Normal loss	500	3	1500
Add: material			8000	Output	6000	13.9	83,400
Labour			10,000				
Expenses			4,500				
Other Expenses			1,200				
Production overhead			4000				
			29,700				
normal profit	1500						
	6,500		<u>84,900</u>		6500		<u>84,900</u>

Abnormal loss Account

Narration	Qty	Rate	Amount
Process I	400		2,500
Process II	1,600		29,000
	2000		32,100

Abnormal gain Account

Narration	Qty	Rate	Amount
Scrap	2000	3	6000
P/L			26,100
	3000		32,100

Abnormal Gain Account

Narration	Qty	Rate	Amount
Scrap	1500	3	4500
P/L			16,200
	1500		20,700

Narration	Qty	Rate	Amount
Process II	1500		20,700
	1500		20,700

Process III Account

Narration	Qty	Rate	Amount	Narration	Qty	Rate	Amount
Process I transfer	6000						
Add: material							
Labour							
Expenses							
Other exp							
Production							