

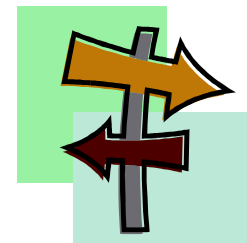


# Topic 7

## Accounting for Overheads

# Session Objectives

- Explain the different treatment of direct and indirect expenses.
- Describe the procedures involved in determining production overhead absorption rates.
- Allocate and apportion production overheads to cost centres using an appropriate basis.
- Reapportion service cost centre costs to production cost centres using the reciprocal method



# Session Objectives

- Select, apply and discuss appropriate bases for absorption rates
- Prepare journal and ledger entries for manufacturing overheads incurred and absorbed
- Calculate and explain the under and over absorption of overheads
- Apply methods of relating non-production overheads to cost units

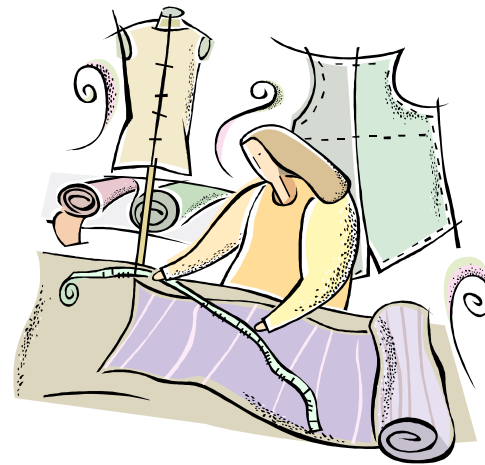


# What Are Overhead Costs?

- Costs that cannot be allocated directly to cost units
- Overheads are another term for indirect costs
- Overhead costs are charged to cost centres

# Classification of Overhead Costs

- By Function
  - Production
  - Selling
  - administration



# Example: Manufacturing

	£
Direct Material	12
Direct Labour	8
Direct Expenses	2
Direct Cost	<b>22</b>
Production Overhead	16
Full Production Cost	<b>38</b>
Administration Overhead	6
Selling and Distribution Overhead	10
Full cost of Product	<b>54</b>

## Example: Service

	£
Direct Material	2
Direct Labour	10
Direct Expenses	4
<b>Direct Cost</b>	<b>16</b>
Operating Overhead	28
<b>Full Operating Cost</b>	<b>44</b>
Administration Overhead	10
Selling and Distribution Overhead	16
<b>Full cost of Product</b>	<b>70</b>

# Production Overhead

- Also called manufacturing overhead
- Includes costs of:
  - Indirect materials
  - Indirect wages
  - Indirect expenses attributable to production



# Production Overhead

- Production overheads are treated differently in cost accounting than other overheads
- A share of production overheads is added to the product costs



# Other categories of Overheads

- Include
  - Administration overhead
  - Selling and Distribution overhead
  - Research and development overhead
- These are treated as period costs and written off against profit in the period they arise

# Absorption Costing

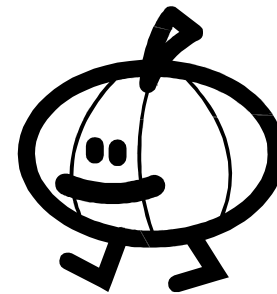
- Method of costing in which the costs of an item (product or service) are built up as the sum of direct costs and a fair share of overhead costs, to obtain a full cost or a fully-absorbed cost
- Involves:
  - Allocation and appropriation of overheads
  - Reapportionment of service cost centre overheads
  - Absorption of overheads

# Allocation and Apportionment of Overheads

- Overheads that can be charged directly to specific departments are **ALLOCATED**
- Overheads that relate to more than one department are shared or **APPORTIONED** on a fair basis

# Examples of Basis of Apportionment of Overheads

- Floor area for rent
- Number of employees for canteen costs



# Absorption Costing Process for production Overhead: **Method 1**

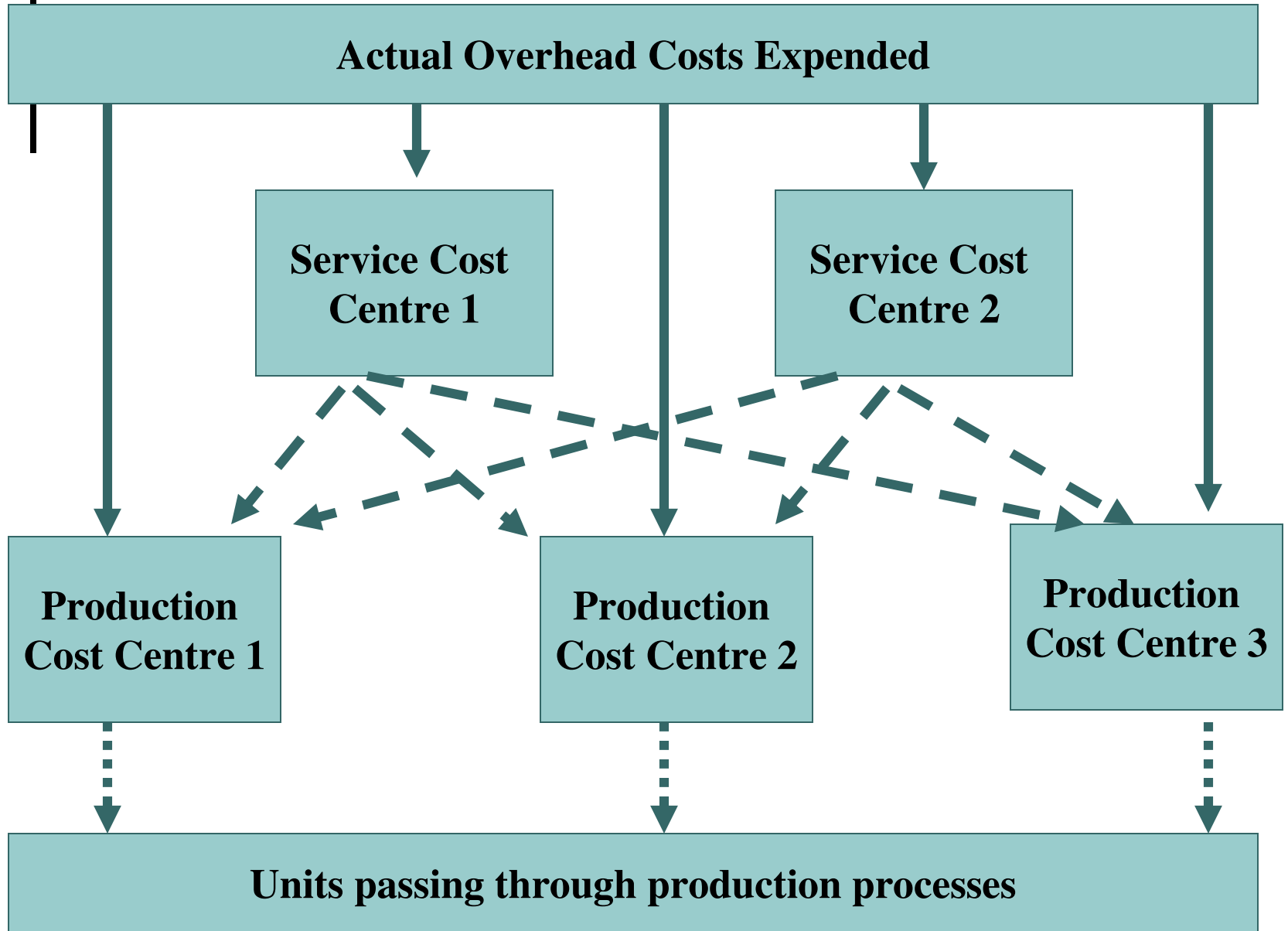
- **If an organisation produces a standard product**
  - divide total production overhead expenditure by total number of units produced
- **Example:**
  - If a factory makes 1000 units of a standard product each week and weekly production overhead costs are £8000, the production overhead cost per unit is £8

# Absorption Costing Process for production Overhead: **Method 2**

- Charged on the basis of direct labour hour worked
- **Example**
  - If a manufacturer incurs production overheads of £500,000 and 50000 direct labour hours are worked in production, overheads are charged at a rate of £10 for each direct labour hour worked. If a product takes 2 hours to make, it would be charged £20 of production overheads cost

# Absorption Costing Process for Production Overhead: **Method 3**

- Used to obtain a more accurate cost
- Have 3 to 4 stages for charging production overheads to product costs
  - Allocation of overhead cost expenditures
  - Apportionment of general overhead costs to departments
  - Apportionment of service department costs to production departments
  - Absorption of overhead costs by establishing an overhead rate for each production department separately



# Service Departments

- Service department costs should be reapportioned between production departments

# Reapportionment: Method 1

- Take each cost and decide how the cost should be shared by the production departments
- Under this costs are reapportioned only once

## Reapportionment: Method 2

- This is known as Reciprocal Reapportionment
- Service department costs are apportioned in a way that recognises the amount of work done by each service department for other service departments as well as production departments
- Both methods produce the same result perhaps very small differences due to rounding errors in the calculation.

# Overhead Absorption

- This is also known as Overhead Recovery
- This is the process of adding overhead costs to the cost of product or service in order to build up fully absorbed product cost or service cost

# Basis of Absorption

- Basis is selected by the organisation
- The common bases of absorption are:
  - An absorption rate per unit
  - An absorption rate per direct labour hour worked
  - An absorption rate per machine hour worked
  - An absorption rate based on percentage of direct labour cost
  - An absorption rate based on percentage of prime cost
- Most common bases are direct labour hours and machine hours

# Absorption rates

- A rate at which overheads are added to costs
  - If absorption basis is units produced, absorption rate will be £X per unit
  - If absorption basis is direct labour hours, absorption rate will be £Y per direct labour hour
  - If absorption basis is machine hours worked bases , absorption rate will be £Z per machine hour

# Absorption rates

Overhead Absorption rate

= Overhead Costs / Volume of activity ( direct labour hours, machine hours)

# Under-absorbed and Over-absorbed Overhead

## ○ Under-absorbed Overhead:

- If the total amount of overhead costs absorbed into production costs is less than the actual overhead expenditure

## ○ Over-absorbed Overhead:

- If the total amount of overhead costs absorbed into production costs is more than the actual overhead expenditure

# Causes of Under- and Over-Absorption

- Poor control over overhead spending
- Too much control over overhead spending
- Poor budgeting of overhead spending
- Operational reasons known only to production manager
- Poor budgeting of volume of activity

## Sample Exam Question

- Midwest plc applies overhead based on direct labour hours. At the beginning of the year, the company estimated that manufacturing overhead would be £330,000, direct labour hours would be 60,000, and direct labour cost would be £660,000. The company's predetermined overhead rate is \_\_\_\_\_ per direct labour hour.
  - A. £0.18
  - B. £0.50
  - C. £2.00
  - D. £5.50

# Answer

- D
- Midwest overhead rate = Total overheads / Direct labour hours = £330,000 / 60,000 = £5.50

# Sample Exam Question

- Overhead is said to be under-absorbed when:
  - A. Actual overhead exceeds absorbed overhead
  - B. Actual overhead exceeds estimated overhead
  - C. Estimated overhead exceeds actual overhead.
  - D. Absorbed overhead exceeds actual overhead

# Answer

- A
- 
- When the amount of overhead absorbed is greater than the actual overhead charged to the account, overhead is said to be over-absorbed.