

Understanding Overhead Costs

1 Introduction

1.1 Definition of Overhead

- **Overhead** refers to the ongoing costs required to run a business but are not directly tied to a specific product or service. These are essential expenses that keep the business operating smoothly.

1.2 Classification of Overhead

1.2.1 Functional Classification

1. **Manufacturing Overheads:** Costs like factory rent, equipment maintenance, and factory utilities. These are necessary to produce goods but can't be directly linked to a specific product.
2. **Administration Overheads:** Costs for running the office and managing the business, such as office rent, salaries of administrative staff, and office supplies.
3. **Selling and Distribution Overheads:** Costs related to marketing, selling, and delivering products to customers, like advertising expenses, sales commissions, and shipping costs.

1.2.2 Behavioural Classification

- **Fixed Overheads:** Costs that don't change with the level of production, like rent and salaries.
- **Variable Overheads:** Costs that vary directly with production levels, such as raw material handling.
- **Semi-variable Overheads:** Costs with both fixed and variable components, like electricity bills with a base charge plus usage costs.

2 Manufacturing Overheads

2.1 Allocation and Apportionment of Overhead

- **Allocation:** Assigning entire overhead costs to a specific cost center or product. For example, if a factory rents a special machine for a product line, the rent is allocated to that product line.

- **Apportionment:** Dividing overhead costs among various departments or cost centers based on rational criteria. For instance, factory rent might be apportioned based on the square footage each department occupies.

2.2 Absorption of Overhead

- **Absorption:** Distributing overhead costs to products or departments to determine the total cost of production.

2.2.1 Blanket Rate

A single overhead rate used across the entire factory. For example, if the total overhead is Rs.100,000 and total machine hours are 10,000, the blanket rate is Rs.10 per machine hour.

2.2.2 Departmental Rate

Different rates for different departments. For instance, if the assembly department has Rs.60,000 overhead and 6,000 machine hours, its rate is Rs.10 per machine hour. If the painting department has Rs.40,000 overhead and 4,000 machine hours, its rate is Rs.10 per machine hour.

2.3 Methods of Absorption and Their Applications

1. Direct Labor Hour Rate:

- Absorbs overhead based on labor hours. If overhead is Rs.100,000 and labor hours are 20,000, the rate is Rs.5 per labor hour.
- Example: If a product takes 2 labor hours, overhead cost is $2 \times \text{Rs.5} = \text{Rs.10}$.

2. Machine Hour Rate:

- Absorbs overhead based on machine hours. If overhead is Rs.100,000 and machine hours are 10,000, the rate is Rs.10 per machine hour.
- Example: If a product takes 3 machine hours, overhead cost is $3 \times \text{Rs.10} = \text{Rs.30}$.

3. Percentage of Direct Material Cost:

- Absorbs overhead based on material cost. If overhead is Rs.100,000 and direct material cost is Rs.200,000, the rate is 50%.
- Example: If a product's material cost is Rs.50, overhead cost is $\text{Rs.50} \times 0.50 = \text{Rs.25}$.

4. Percentage of Direct Labor Cost:

- Absorbs overhead based on labor cost. If overhead is Rs.100,000 and labor cost is Rs.250,000, the rate is 40%.
- Example: If a product's labor cost is Rs.30, overhead cost is $\text{Rs.30} \times 0.40 = \text{Rs.12}$.

2.4 Under Absorption/Over Absorption of Overheads

- **Under Absorption:** When less overhead is absorbed than incurred. For example, if Rs.90,000 overhead is absorbed but actual overhead is Rs.100,000, there is Rs.10,000 under absorption.
- **Over Absorption:** When more overhead is absorbed than incurred. For example, if Rs.110,000 overhead is absorbed but actual overhead is Rs.100,000, there is Rs.10,000 over absorption.

2.4.1 Treatment

- **Adjustments in Costing Profit and Loss Account:** Adjust cost of goods sold to correct the discrepancy.
- **Carry Forward to Next Period:** Adjust future overhead rates.
- **Supplementary Rate:** Apply a supplementary rate to correct the costs.

3 Administration and Selling & Distribution Overheads

3.1 Administration Overheads

Costs like office salaries, utilities, and depreciation of office equipment.

3.2 Selling and Distribution Overheads

Costs like advertising, sales commissions, and shipping.

3.3 Charging of Administration and Selling & Distribution Overheads

- **Absorption Method:** Allocate overheads to products using a predetermined rate, like a percentage of sales or direct labor cost.
- **Direct Charging:** Directly assign costs to benefiting departments.
- **Activity-Based Costing (ABC):** Allocate costs based on activities that drive overheads, providing more accurate product costing.

3.4 Example for Clarity

1. **Office Rent:** Fixed overhead, part of administration overhead.
2. **Sales Commissions:** Variable overhead, part of selling overhead.
3. **Electricity:** Semi-variable overhead, could be part of manufacturing or administration overhead depending on usage.

By understanding and applying these concepts, you can effectively manage and allocate overhead costs, ensuring accurate product costing and financial planning.