

P1: Management Accounting

Traditional costing

Absorption costing

Overhead absorption rate = Total overhead cost ÷ Budgeted activity level

Over-absorption

- Overhead absorbed is **more than** the overhead expenditure incurred
- Amount of over-absorbed overhead is **added to** profit in the statement of profit or loss

Under-absorption

- Overhead absorbed is **less than** the overhead expenditure incurred
- Amount of under absorbed overhead is **subtracted** from profit in the statement of profit or loss

Advantages

- Improved long-term pricing
- Ensure prices cover all costs
- Better cost control
- Consistent with financial reporting

Disadvantages

- More difficult
- Encourages over-production
- Requires arbitrary cost apportionments

Marginal costing

Inventory is valued at **variable** production cost

Which profit is higher?

Inventory increases

- Absorption costing

Inventory decreases

- Marginal costing

Advantages

- Better for short-term decision making
- Simpler

Disadvantages

- Shouldn't be used for long-term pricing
- Can't be used for external reporting

Activity Based Costing

Definitions

Cost pool: An activity that consumes resources and for which overhead costs are identified and allocated e.g Machine set-ups, quality checks, reviews e.t.c. **For each cost pool, there should be a cost driver**

Cost driver: A unit activity that consumes resources. 'Any factor which causes a change in the cost of an activity.' e.g number of setups, number of batches, number of reviews, number of sales orders e.t.c

Steps:

1. Identify activities that consume resources and incur overhead costs
2. Allocate overhead costs to activities that consume them
3. Determine the cost driver for each activity or cost pool
4. Collect data about the actual activity for the cost driver in each cost pool
5. Calculate the overhead cost of each product or service

Example

*Standard cost card (Direct materials, Direct labour and production overhead) provided for P,R,S

The company wishes to introduce ABC, and has identified two major cost pools for production overhead and their associated cost drivers.

Information on these activity cost pools and their drivers is given below:

Inspection costs \$1,400,000 - driven by purchase requisitions.

Setup costs \$1,200,000 - driven by number of batches.

	P	R	S
Number of purchase requisitions	1,200	1,800	2,000
Number of set ups	240	260	300

Calculate the total cost per unit of product P.

Advantages

- Better information
- Better cost control
- Better pricing
- Fairer overheads in units

Disadvantages

- Expensive
- Still some arbitrary allocations
- Need best cost driver

Other costing techniques

Throughput accounting

Throughput = selling price - raw material costs

- All costs other than materials are seen as fixed in the short term
 - Inventory levels are ideally zero
 - Idle time is accepted
 - Value is added when a product is sold
- Optimal production: allocating scarce resources
Calculate throughput contribution per unit of bottleneck resource for each product, **rank** products in order of contribution and **allocate** resources using the ranking

Joint product costing

- Used when more than one product is produced in the same process at the same time
- Cost of each joint product is a share of the common processing costs up to the split-off point
- Methods of apportioning common process costs:
 - ❑ **Market value** of each joint product at split-off point
 - ❑ **Net realisable value** (final market value less costs incurred after split-off point)
 - ❑ **Physical measurement** (number of units of each product produced e.g litres, kilos)

Accounting for by-products

- Proceeds from sale of by-products may be treated as pure profit
- Proceeds from sale (less handling, selling costs) may be used to reduce cost of joint products

Digital costing

A digital product typically refers to a product that is stored, delivered and consumed in an electronic format.

Where they differ	Physical products	Digital products
Marginal cost	Key element of total cost	Virtually zero
Standard costing	Key to determining total cost	Few applicable standards
Overheads	Absorbed based on activity drivers	Drivers difficult to determine
Pricing	Cost drivers prices	Target price might drive target cost
Timing of costs	Upfront and predictable	Spread over product life and harder to estimate

Variance analysis

Sales variances

Sales price variance (variance in revenue due to difference between standard and actual selling price)

Causes:

- The effect of **low-price offers** during a marketing campaign
- Unexpected **price increases** or cuts
- **Discounts** offered to customers

Sales volume variance (variance in revenue due to difference between actual and budgeted units sold using standard margin per unit)

Causes:

- Successful or unsuccessful **marketing efforts**
- Unexpected **changes in customer needs**
- **Failure to satisfy demand** due to production difficulties
- Higher demand due to a cut in selling prices, or lower demand due to an increase in **sales prices**

Material variances

Usage variance (difference between standard and actual materials quantity used multiplied by standard price: $SQSP \times AQSP$)

Price variance (difference between standard and actual materials price multiplied by actual quantity used: $AQSP \times AQAP$)

* Change in materials stock in the year, price variance is based on the quantity of **materials purchased** whilst usage variance is based on the **actual quantity used**.

Causes:

Usage variance

- Change in rate of **wastage**
- Using a **different quality** of material
- Better quality control or **more efficient work procedures**

Price variance

- Using a **different supplier**
- Bulk purchase discounts
- **Unexpected increases in the prices** charged by a supplier
- A change in **material quality**