MIDTERM PREPARATION

Management Accounting VS. Financial Accounting

Difference is based on the user groups to which each is addressed. Management Accounting seeks to meet the needs of managers, whereas Financial accounting seeks to meet the accounting needs of the e.g. customers, suppliers, government, competitors, investors (stakeholders).

Financial reports are standardised and happen regularly, they are general-purpose and provide a broad overview of performance of a business, and obviously concentrates on monetary terms.

Cost

Bought a car for 5,000, auction offers 6,000 for it now, what costs are involved and what can you identify?

- Opportunity Cost of 6,000 (relevant cost, selling the car)
- Historic Cost of 5,000 (irrelevant cost, not useful for future decision making)
- Value of keeping the car (relevant factor)

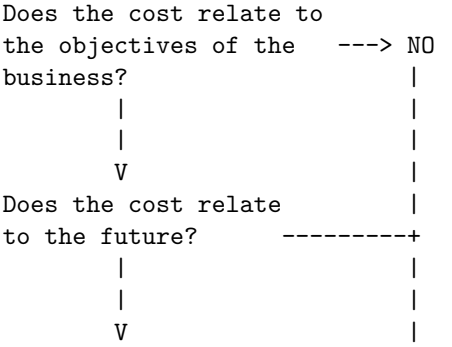
Relevant Costs

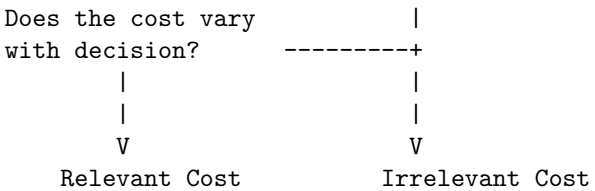
- Opportunity Cost
- *Future* outlay Cost

  Outlay cost is an amount of money that will have to be spent to achieve an objective. E.g. the cost of new tyres needed when keeping the car, as the old ones are worn out.

Criteria: - Future Cost - Vary with decision

Evaluate a relevant cost





Irrelevant Costs

- Sunk Cost
- Committed Cost

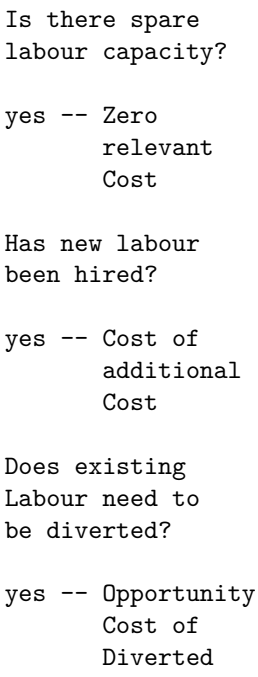
  Sunk Cost are past cost, historic costs.

  Committed Costs are e.g. fixed costs like rent.

Sunk cost fallacy describes how one may continue on a particular past because of past investments of time, money or effort. These are all historic and should thus be ignored.

Relevant Cost of Labour and Material

Labour



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      Labour
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Materials

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Are the materials
held in inventories?

no -- Current purchase
      cost

Do they need to be
replaced?

yes -- Current purchase cost

no -- Sales value or alternative use
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Cost Behaviour

- Fixed Costs
- Variable Costs

  Remain constant (fixed) when changes to the volume of output are made

  Varies according to the volume of output.

Break Even Point (BEP)

$$\text{BEP is where,Total sales revenue } = \text{ Total Cost}$$

$$\text{Total sales revenue} = \text{Fixed Costs} + \text{Variable Costs}$$

$$\text{BEP } = \frac{\text{Fixed Costs}}{\text{Sales revenue per unit } - \text{ Variable Cost per unit}}$$

Example:
- Fixed Costs = 500 - Material Cost = 2 per unit - Labour = 10 per hour - Retail Sales Price = 14 per unit

$$\text{BEP} = \frac{500}{14 - (2 + 10)}$$

Contribution

Bottom part of the Break-even formula equals contribution per unit

$$\text{Contribution per unit} = \text{Sales Revenue - Variable cost per unit}$$

Contribution margin ratio

The contribution from an activity expressed as a percentage of the sales revenue.

$$\text{Contribution margin ratio} = \frac{\text{Contribution}}{\text{sales revenue}} * 100$$

Margin of safety

The extent to which the planned volume of output or sales lies above the BEP.

$$\text{Margin of safety} = \text{Expected sales volume} - \text{BEP}$$

Target Profit

$$\text{Total sales revenue} = \text{TFC} + \text{TVC} + \text{Target profit}$$

, where TFC = *Total fixed costs* and TVC = *Total variable costs*

To achieve a desired target profit, calculations for required units sold can be made:

$$n = \frac{\text{TFV} + \text{Target profit}}{\text{Sales revenue per unit - Variable cost per unit}}$$

Operating Gearing

Relationship between *Fixed Costs* and *Variable Costs* is **Operating Gearing**.

Operating Gearing is high, when fixed costs are high, relative to variable costs.

Weaknesses of BEP Analysis

- Non-linear relationships (economies of scale)
- Multi-product Business

Marginal Analysis

- Pricing/assessing opportunities to enter contracts
- Using resource efficiently
- Make-or-buy decisions
- Closing or continuation decisions

Only costs and revenues that vary with the decision are considered. This means, that fixed costs can usually be ignored.

> Marginal Cost is the cost of producing one more unit.
> Also it is the minimum price at which the business can offer a product for sale.

Using resources efficiently

Scarce resources are known as *limiting factors*

The most profitable combination of products will occur where the *contribution per unit of the limiting factor* is maximised.

Labour can very well be a scarce resource and thus limiting factor.

Full Costing

Total amount of resources, usually in monetary terms, sacrificed to achieve a given objective.

The entire cost of running a facility, such as an office or factory, must be regarded as part of the cost of the output that it helps to generate. E.g. The Architect cant work without his office, thus the rent must be included in the full cost of providing architectural work.

Why knowing full cost?

- Pricing and output decisions
- Exercising control
- Assessing relative efficiency
- Assessing performance

E.g. A school, what contributes to the full cost? Does it include time spent by teachers on preparing class material? What would these cost be classified as?

Single Product Businesses

- identical items -> identical tasks
- simplest case
- also called process costing

Full cost would solely be the sum of manufacturing costs

Problems involved in process-costing

Example circumstance: Fruit Drink maker, excludable How is the cost of e.g. depreciation deduced? Should relevant cost (replacement cost) of raw materials or actual price-paid-for (historic cost) be used? What happens to Work-in-progress projects?

Equivalent units of output

What happens if a Gnome manufacturing company has following stats:

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Completed Gnomes  - 120
Partially completed Gnomes - 15
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120, nor 15, nor 135 is the correct level of output for the time period considered. To calculate the appropriate output, use **equivalent units of output**.

What degree of progress has been made on the partially completed units?
-E.g. 15, 80% finished units. That is $15 * 0.8 = 12$ units. Thus, *Total equivalent units of output* $= 120 + 12 = 132$ units

Cost per equivalent unit of output

$$= \frac{\text{Total manufacturing cost}}{n_{equivalentunitsofoutput}}$$

Example:

—	pounds
Materials	1,680
Power for equipment	140
Rent	1,050
Equipment depreciation	230
Labour	1,920
Other	260

$$\text{Cost per equivalent unit} = \frac{1,680 + 140 + 1,050 + 230 + 1,920}{120 + 12}$$
$$= \frac{5,280}{132} = 40$$

Now, *Total manufacturing cost can be assigned to completely and partially completed units separately:*

—	pounds
Cost of Completed units (120 * 40)	4,800
Cost of partially completed units (12 * 40)	480
Total	**5,280**

Multi Product Businesses

When a business offers several products, the **Job Costing** approach is normally used.

Direct Costs

- Attached to specific cost unit (job)
- Direct Labour / Direct Material

  car repair garage includes direct costs of spare parts used in repairs, as well as the time of the engineer used.

Indirect Costs (overheads)

Indirect Costs are interchangeable with overheads!

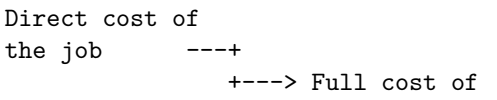
- Items not attached to specific cost unit (job)

  The amount paid in rent for the garage is an indirect cost of any particular car repair job.

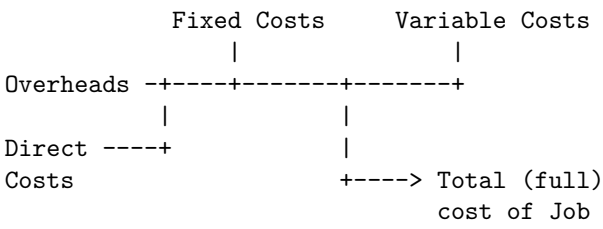
Job Costing

Deducing the full cost of a particular cost unit, identify direct costs and its fair share of overheads.

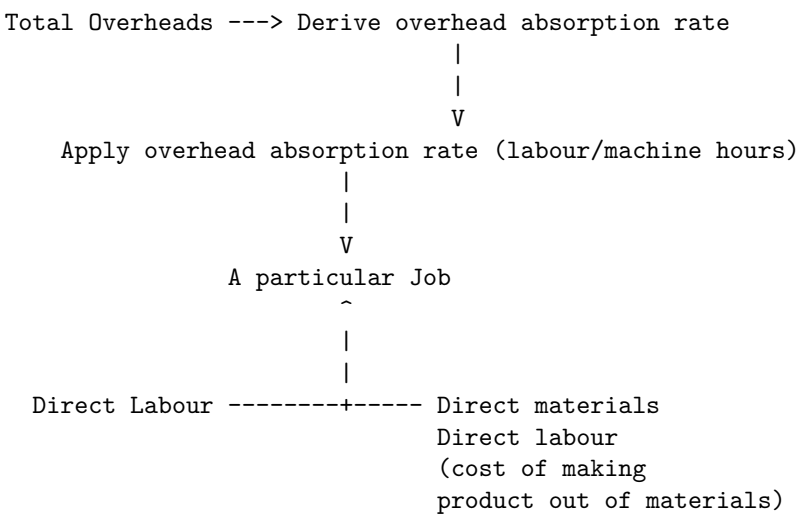
Cost units *absorb* overheads. Making Job costing be aliased *absorption costing.*



Full Costing and Cost Behaviour



Example Given:



Segmenting Overheads

- Machine Hour basis
- Labour Hour basis

Total overheads will always stay the same, but the portion assigned to jobs may vary on machine hour basis or labour hour basis.

Use machine hour basis on capital intensive jobs and labour hour basis with high direct cost.

Segmenting into Cost Centres

- Product cost centre
- Service cost centre

  Service cost centres could include *Cleaning, Training, Maintenance, HR, Catering*, where as Product cost centres would include *Where direct labour / direct material are added.*

Different departments within a business, such as HR or IT or Design, may use the same building and thus should have fair shares of the overhead rent.

Cost Allocation

Allocate indirect cost elements that are specific to particular cost centres. These overheads can be isolated to specific cost centres. E.g. Where Electricity is separately metered per cost centre.

Cost Apportionment

Apportion the general overheads to cost centres. These overheads relate to more than one cost centre.

Batch Costing

Producing Identical products in batch, though batches vary distinctively. E.g. Theatres, in which the show changes, but the seating is identical.

$$\text{Cost per Unit} = \frac{\text{full batch cost (job costing basis)}}{n_{\text{units}}}$$

Ticket costing can be done using batch costing, where a job-costing approach taken to find the cost of mounting the production, then dividing the cost of mounting the production by the expected number of ticket sales to find the cost per ticket.

Non-manufacturing overheads

Do not form part of the full cost calculation! They normally relate to general administration, selling, marketing and distribution and must be charged to the period in which they are incurred.

Full (absorption) costing and estimation errors

Advance estimates differ from actual numbers, thus the outcome are either **Over-recovered** or **Under-recovered** overheads. E.g. Predicted overheads incursion of 4m, actual overheads of 4.5m -> 0.5m being *over-recovered*indirect costs/overheads.

Full (absorption) costing and relevant costs

- Full costing does not take into account relevant costs.
- It focuses on past costs and ignores opportunity costs.
- Relevant Cost analysis have many options, sometimes too many.
- Full costing can direct manager's attention to areas that may benefit from relevant cost analysis.

Full (absorption) costing versus variable costing

- With full costing, both fixed and variable costs are include in product cost and treated as expenses when the product is sold.
- With variable costing, only the variable product cost is linked to the products in this way. Fixed cost is treated as an expense.
- Variable costing tends to be more straightforward and, according to proponents, provides a more realistic measure of overall achievement.
- Proponents of full costing argue, however, that it provides a better measure of profitability, item by item. Manufacturing fixed costs are an essential ingredient of total product cost.

- Variable costing highlights the relationship between cost, volume and profit, which is obscured under a full costing system.
- Variable costing directs manager's attention to those (variable) costs that can be avoided in the short term. However, all costs can be avoided in the long term and it may be a bad idea to focus solely on the short term.