**Nature and Scope of Management Accounting**

**Introduction**

Information is vital in order to make good decisions and to manage effectively.This information is useful only if it is accurate, up to date and relevant.

**Management Activities**

Management involves planning, organising, controlling and decision making.

**Planning -** the setting of short term and long-term goals and the policies decided to achieve these goals.

**Organising -** putting the plans into action by coordinating the various activities and departments within the business.

**Controlling -** keeping a watchful eye on the plans and policies, making sure that the targets set are achieved and that corrective action is taken if necessary.

**Decision-making -** deciding among the different possible courses of action. T

**Management Accounting**

Management accounting is the area of accounting concerned with providing the management of a business with information which will form the basis on which they can make better-informed decisions.

**Role of Management Accountant**

The management accountant will be involved in such areas as:

* trying to find the total cost of producing a single unit of a product.
* trying to find the cost of running each department, for example, the finishing department, the production department, the polishing department.
* The use of “what if” or variance analysis to foresee and examine the different outcomes that different levels of production, different selling prices, different fixed costs, etc.
* To prepare budgets - production, departmental and master budgets.
* Controlling actual finances against budgeted, rectifying any differences that may arise and trying to establish the cause of variances.

**Uses of Management Accounting Information**

* The information aids management in comparing actual costs with budgeted costs in order to control costs.
* The actual cost per unit can be used to find and fix selling prices.
* Budgeting is an essential tool in the planning, coordinating and controlling of the various activities in a business. It helps to show clearly what targets need to achieved to the whole team.
* Variance analysis is used to show areas where actual costs are not in line with budgeted costs and identify where corrective action needs to be taken.
* It aids capital investment appraisal and therefore ensures that the best use is made of funds available for investment. It will also determines whether growth can be achieved while ensuring that the risks to profitability are kept at acceptable levels.

**The Relationship between Management and Financial Accounting**

**Financial accounting** is concerned with recording, classifying and summarising transactions that have taken place. It reports on the effects of these transactions over the accounting period and various financial statements are produced, including standardised trading, profit and loss account, cash flow statement and balance sheets. It presents a true and fair view of the state of affairs of the business at the end of the accounting period.

Management accounting, however, is concerned with the monitoring and controlling of the activities of a company and internal future planning and decision making.

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| **Criterion** | **Management** | **Financial** |
| **Time** | **Future** - focuses on future decisions such as selling price and production levels, trying to establish items for future accounting periods. | **Past** - records what happened in the previous accounting period, e.g. sales and purchases for the past year. |
| **Users** | **Internal** - management accounting information is primarily used by managers of each department, as well as the managing director. | **Internal and external -** financial accounting information is used by both internal and external users, such as potential shareholders. |
| **Frequency of reports** | **Regular** - management accounting statements tend to be produced quarterly, half-yearly or monthly, e.g. cash budgets every 6 months or is often as the managers require them.  | **Yearly -** financial statements are prepared on an annual basis, e.g. trading, profit and loss account for the year ended. |
| **Information** | **Departmental** - management accounting is done on a departmental basis, eg the production department, the marketing department, the sales budget.  | **Total/overall** - financial reports are prepared for the business as a whole unit. |
| **Regulation** | **No legal requirements -** firms can prepare their accounts in their own style.  | **Legal requirements -**standards and presentation set down by the Financial Reporting Standards (FRS) and Statements of Standard Accounting Practices (SSAPs).  |

**In Summary**

* Management accounting is forward-looking; financial accounting records past events.
* Management accounting has an internal focus; financial accounting has both an internal and external focus.
* Management accounting reports are prepared regularly; financial accounts are prepared on an annual basis.
* Management accounting is micro accounting; Financial accounting is macro accounting.
* Management accounting is not governed by legal requirements. Financial accounting is.

**Questions**

1. Outline the management activities.
2. Define management accounting.
3. Outline the role of the management accountant in an organisation.
4. Distinguish between management accounting and financial accounting.

**Cost Classification**

The role of the management accountant is to gather information about costs. This information is more useful if it is classified.

**Manufacturing Costs**

The total cost of manufacturing a product consists of both indirect and direct costs.

**Direct costs**

Direct costs are those that are directly linked to a particular product or service. These costs are:

**Direct materials** - raw materials used directly in the manufacturing process - for example, timber used in making tables.

**Direct labour** - direct wages and manufacturing wages that can be traced to each unit produced for example, where employees are paid on a piece rate.

**Direct expenses** - an expense that can be traced to each unit produced - for example hiring special machines to make goods.

**Indirect costs (overheads)**

Indirect costs, or overheads, are costs which are not directly linked to the product or service. These costs must be included in the overall cost of production but cannot be traced to each unit produced. They include:

**Indirect materials** - materials used in the production process but difficult to quantify - for example, varnish for varnishing tables.

**Indirect labour** - for example, where employees are paid on a time basis or receive a salary, eg, supervisor’s wages.

I**ndirect expenses**  - all other costs involved in the manufacturing process that cannot be traced directly - for example, light and heat, depreciation of machinery, factory rent and rates.

**Non-manufacturing costs**

These are all the costs involved in the running of the business outside of the manufacturing process. These can be classified as:

**Selling and distribution** - overheads associated with the sale and distribution of goods - for example, delivery expenses, advertising, sales commission, showroom expenses.

**Administration overhead** - overheads associated with running the business - for example, office expenses, office light and heat, depreciation of office equipment.

**Fixed and variable costs**

Costs can be further classified as fixed and variable.

A **fixed cost** is a cost which must be incurred regardless of the level of activity. Examples include depreciation of fixed assets, insurance for the year, fixed interest on a mortgage, rent and rates.

 A **variable cost** is one which increases as the level of activity increases. The more you produce the more in total it will cost. Examples include direct materials, direct labour and direct expenses. Variable costs will change in total as output increases.

**All direct costs are variable.**

**Further cost classifications**

Other classifications of costs include:

**Controllable costs** (higher level only) are costs that can be controlled by the manager of a cost centre. He will make the decision about the amount of the cost or if the cost should be incurred and be held responsible for variances in these costs. Most variable costs are controllable. For example, commission to sales personnel can be controlled by the sales manager.

**Uncontrollable costs** are costs over which the manager of a cost centre has no control and therefore cannot be held responsible for variances in them. For example, rates charged by the local authority are uncontrollable.

**Period costs** relate to the accounting period rather than the level of production. These are primarily fixed costs and do not change with the level of activity - for example, insurance, rent and rates.

**Mixed costs** are costs which have a fixed and variable element - for example, telephone with line rental fixed and then charged per unit used.

**Graphical presentation of cost**

1. **Fixed Costs**

Fixed costs remain the same irrespective of the level of output.

Examples include:

* rent
* supervisor’s salary
* depreciation

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**2. Variable Cost**

Variable costs vary directly with the level of production.

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**3. Step-fixed costs**

In the long term all fixed costs are variable. Moreover, the only remain fixed within certain levels of activity. For example, if a machine is hired at €5000 and has the capacity to produce 1000 units, then if production reaches 1001 units a second machine will have to be hired at another cost of €5,000.

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**4. Step-variable costs**

Step costs can also be incurred in steps - for example economies of scale where discounts are given for bulk buying.

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**5. Mixed costs**

These costs contain both a mixed part and a variable part - for example, an electricity bill is made up of a standing charge and a per unit charge.

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**High/Low Method of Dividing Costs**

This is a method which is used to separate mixed costs into their fixed and variable components.

**Steps**

1. Take the lowest and highest levels of output and the difference between the total cost must be the total variable cost because the fixed cost remains the same regardless of output. **(Find total variable cost)**
2. Divide the total variable cost by the difference in units to find the variable cost per unit. **(Find variable cost per unit)**
3. Put the variable cost per unit into the different levels of output and we can find fixed cost. **(Find fixed cost)**
4. Add fixed and variable cost to get total cost at projected level of output. **(Find total cost at projected output)**

**Template**

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| --- | --- | --- |
|  | **Units** |  **Cost (€)** |
| High |  |  |
| Low |  |  |
| Difference |  |  |
| Variable Cost per unit |  |  |

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| **Working out Fixed Cost** |  |  |
|  | High (€) | Low (€) |
| Total Cost |  |  |
| Less Variable Cost |  |  |
| Fixed Cost |  |  |

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| **Total Cost at expected output of x units** |  |
| Fixed Cost |  |
| Variable Cost |  |
| Total Cost |  |

**Product Costing**

**Introduction**

**Product Costing**

Product costing is the process of finding out how much it costs to produce one unit of product. In order to do this one must collect and collate all of the costs that are relevant to the product.

**Job Costing**

Job costing is carrying out work specifically at the request of the customer. This can be an individual item, for example a tailor-made suit. Each job will consist of different materials, direct labour, direct expenses and overhead costs.

**Reasons for Product Costing**

1. To set selling price - the selling price of a product must reflect the cost of producing the product along with any anticipated profits.
2. Control of costs - to control costs it is necessary to compare budgeted costs with actual costs.
3. Stock valuation in order to be able to complete the final accounts at the end of the financial period, it is necessary to know the value of opening and closing stock.

1. To aid the planning and decision making process.

Note: When deciding on the selling price for a product it is necessary to work from budgeted and not actual figures.

**Absorption Costing**

**Introduction**

When costing a product, both direct and indirect costs must be included. The direct costs can be allocated precisely to a product but indirect costs can't. Therefore these indirect costs must be divided up in a fair manner in order to include them in the cost of the product.

**Absorption costing is the process of insuring that the indirect costs of production are brought into the final cost of producing a product**. It is sometimes referred to as full costing because it includes indirect costs when calculating the cost of production. **This method ensures that all incurred costs are recovered from the selling price.**

The main purpose of costing is to establish a selling price for a product.

Under absorption costing, the fixed overheads such as rent and other indirect costs are absorbed into the cost of the product. This process is called overhead recovery.

**Summary of Product Costing for Planning and Control**

In a firm organised into departments, costs are ascertained by:

1. Allocation of direct costs which can be linked directly to the item being costed.
2. Apportionment of indirect costs between departments using suitable bases of apportionment
3. Reapportionment of service department costs into production departments.
4. Absorption of departmental overheads into the cost at a predetermined rate.

**Absorption (indirect costs)**

Overhead absorption means that the overhead costs are included (absorbed) in the cost of producing a product. This is done by calculating predetermined overhead absorption rates. These are usually calculated:

* per-direct labour hour
* per machine hour
* per unit produced

**Note that the overhead absorption rate is based on the budgeted figures for the year and not the actual figures. This is because the actual figures may not be known until the end of the year.**

The overhead absorption rate is based on the **dominant activity**, e.g. labour hours in a labour intensive production process.

**Under/Over-absorption**

Overhead absorption rates are based on budgeted figures (as the actual figures are not available). Businesses cannot wait until the actual figures are ready as they would not be able to calculate the selling price of the products as well as the actual costs involved in producing the products.

* Under-absorption occurs when actual overheads are greater than budgeted figures. The firm has priced its products to low. This is a loss to the firm. The firm has underpriced the job.
* Over-absorption occurs when actual overheads are less than budgeted figures. The firm has priced its products too high. This is a profit to the firm. The firm has overpriced the job.

Note: When actual figures are known they are compared to budgeted figures.

**Apportionment**

Apportionment is the term used when **dividing overheads** which **cannot** be specifically identified with any one department. Overheads are divided among the different cost centres or departments using an equitable basis of apportionment.

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| **Basis of Apportionment** | **Overheads** |
| Direct labour hours/cost/no of employees | Factory supervision salariesFactory administration costsFactory canteen costsFactory health and safety costs |
| Floor area | Factory rent and ratesFactory insuranceFactory repairs/cleaningDepreciation of buildings |
| Volume in cubic metres | Factory light and heat |
| Book value of plant/equipment | Depreciation of plant/equipmentInsurance for plant/equipment |
| Machine hours/kilowatt hours | Power for machineryMachine maintenance |
| Book value of machinery | Depreciation of machineryInsurance of machinery |
| Direct material costs | Material handling costs |

**Reapportionment** is where service department costs are allocated among the main production departments. Service departments are secondary to production and cannot recover costs. Therefore overheads can only be recovered through production, that is by being included as part of the cost of production.

**Allocation (direct costs)**

This is used where overhead costs **can be specifically identified** and charged to a particular department (cost centre) and these overhead costs are allocated to that department.

**Part A: Stock Valuation**

Stock valuation is important to both financial and management accounting.

**Stock should be valued at the lower of cost or net realizable value.** The cost will normally be the lower but this may not always be the case. Sometimes it may be difficult to find out the exact cost of raw materials used in the production process - for example where raw materials were purchased on different dates and at different prices.

Overvaluing stock will distort profits.

**FIFO - First in first out**

This method of stock valuation assumes that the first items received into stock are the first items to be issued to production. For example, in the production of ice cream, the first stock of milk received from the Creamery will be the first stock to be issued to the production process. Under this method the closing stock value would be at its most recent price.

**Steps in completing a Stock Valuation Question**

1. Calculate **total purchases** in units and euros.
2. Calculate **total sales (cash&credit)** in units and euros.
3. Calculate closing stock in units **(opening stock + purchases – sales).**
4. Calculate the **value of closing stock** by applying FIFO rule.
5. Prepare Trading Account.

**Cost Volume Profit Analysis Marginal Costing**

**Introduction**

CVP analysis is used by management in decision-making and can aid managers in the following ways:

* to find the number of units that must be produced and sold for a business to break even.
* to find the number of units that must be produced and sold in order to reach the company's target profit.
* to decide the most profitable volume of production.
* to find what selling price the company should charge in order to break even and to reach their target profit.
* to perform variance analysis and to find the profit at different levels of activities.
* to calculate the margin of safety.
* to show the outcome of producing and selling one extra unit.

 **Marginal Costing**

Principles of marginal costing:

* The total cost of producing a product can be clearly divided into fixed costs and variable cost elements.
* The fixed costs remain fixed and are not affected by the volume of output.
* When production increases by one unit, the unit cost of production will only increase by the variable cost of this one extra unit.

**If one extra unit is produced and sold then:**

* income will increase by the selling price of the euro sold
* costs will increase by the variable cost of this extra unit
* profit will increase by the selling price of the unit less the variable cost of the unit, i.e. the contribution (see below).

 **Note:** variable cost is the total variable cost and not just the variable cost of production. For example, sales commission payable per unit sold would be included as a variable cost.

 Marginal costing involves a number of essential elements:

* Marginal costing statement
* Contribution
* Break Even point
* Target profit
* Contribution to sales ratio
* Margin of safety
* Break-even charts
* Sensitivity analysis
1. **Marginal Costing Statement**

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| **Ordinary Level sample template** |  |  |
|  | Total Cost | Per Unit |
| Sales (units) |  |  |
| Less Variable Costs |  |  |
| Contribution |  |  |
| Less Fixed Costs |  |  |
| **Profit** |  |  |

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| --- | --- | --- | --- |
| **Higher Level Template** |  |  |  |
|  |  | Total Cost | Per Unit |
| Sales (units) |  | xx |  |
| **Less Variable Costs** |  |  |  |
| Direct materials | xx |  |  |
| Direct labour | xx |  |  |
| Direct expenses | xx |  |  |
| Other variable costs | xx |  |  |
| Commission if percentage based\* | xx | xx |  |
| **Contribution** |  | xx |  |
| Less fixed costs |  | xx |  |
| **Profit** |  | xx |  |

If commission is a percentage of selling price, list it as a separate variable cost - useful for questions involving a change in selling price. If commission is per unit, it can be included in other variable costs as it will remain constant and not change when the selling price changes.

**2. Contribution**

Contribution is the amount each unit of sales contributes towards covering fixed costs and profits.

**Selling Price – Variable Costs = Contribution**

The fixed costs must also be accounted for so when the variable costs are subtracted from the selling price the remainder contributes towards the fixed costs and the profits.

**3. Break-even Point (BEP)**

Break-even point is the point at which the profit is zero or the point at which the contribution equals all the fixed costs. It is the number of units that must be sold so that sales revenue equals total cost.

At break-even point, the business is making neither profit nor a loss.

**Breakeven point = Fixed Costs/Contribution per unit**

**4. Target profit**

Break-even analysis is also used to find the level of production and sales required to reach a required profit or target profit. This aids decision making.

**Fixed costs + target profit / Contribution per unit**

**5. Contribution to sales ratio**

This shows contribution per unit expressed as a % of sales.

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**Contribution (SP – VC) / Sales x 100 = answer %**

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**The C/S ratio can also be used to calculate:**

**BEP in sales revenue = Fixed Costs / CS ratio**

**Level of sales required for a target profit = Fixed Costs + Target Profit / CS Ratio**

**6. Margin of Safety**

The margin of safety is the amount by which the sales can fall ( from current activity level) before break-even point is reached. The margin of safety can be expressed in units, monetary value or a percentage of budgeted sales.

**Margin of safety = Sales – Break-Even Point**

**7. Break-even Charts**

The relationship between revenue and variable costs, fixed costs and profit/loss can be represented in graph form using a break-even chart.

**Traditional Break-even Chart**

Procedure for constructing a break-even chart:

1. Place the level of activity (units produced) on x axis (horizontal).
2. Place the costs and revenues on the Y axis (vertical).
3. The fixed cost line will be parallel to the X axis as the fixed costs remain constant at all levels of activity (assumption of marginal costing).
4. The total cost line, beginning where the fixed cost line meets the Y axis, represents the total cost - that is, the variable cost plus the fixed cost. This line will be upwardly sloping to the right.
5. The sales revenue line, beginning at the origin, represents the sales revenue from the units sold. this line will be upwardly sloping to the right.
6. Where total cost line and sales revenue line meet will be the break-even point.

**8. Marginal Costing Compared to Absorption Costing**

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| Marginal Costing | Absorption Costing |
| Divides costs into variable and fixed | Does not divide costs |
| No problem regarding under or over-absorption of overheads | The problem of over or under-absorption may arise |
| Fixed costs are charged in full to period in which they are incurred. | A portion of fixed costs is carried into the next period , for example closing stock |
| As a result of the above closing stock is valued lower. | As the result of the above closing stock is valued higher - i.e. closing stock includes fixed costs |
| Used for decision-making process | Must be used in financial accounts to comply with regulation |

Note: Both methods will give the same result if there is no opening or closing stock or if both stocks are the same.

**Limitations of Marginal Costing (assumptions)**

1. It is assumed that variable costs are completely variable at all levels of output. It ignores economies of scale - for example no discount for bulk buying.
2. It assumes that all fixed costs are fixed in the long term. However, most fixed costs are only fixed within a relevant range, e.g. stepped fixed costs. In reality, all costs are variable in the long term.
3. It assumes that all costs can be easily classified into fixed and variable costs. This means that all mixed costs can be easily separated into fixed and variable elements. The high-low method can be used for this purpose but it is not always possible to do this.
4. It assumes that selling price is constant and does not change, and there are no price-reduced sales or discounts given for large orders.
5. It assumes that all stock produced is sold. Production in the period usually equals sales. Fixed costs are charged in total to the period and are not carried forward to the next period.
6. It only works for one product. It assumes that the business produces a single product or that there is a constant product mix if two or more products are produced.