

Topic 1:

Introduction to Cost Accounting

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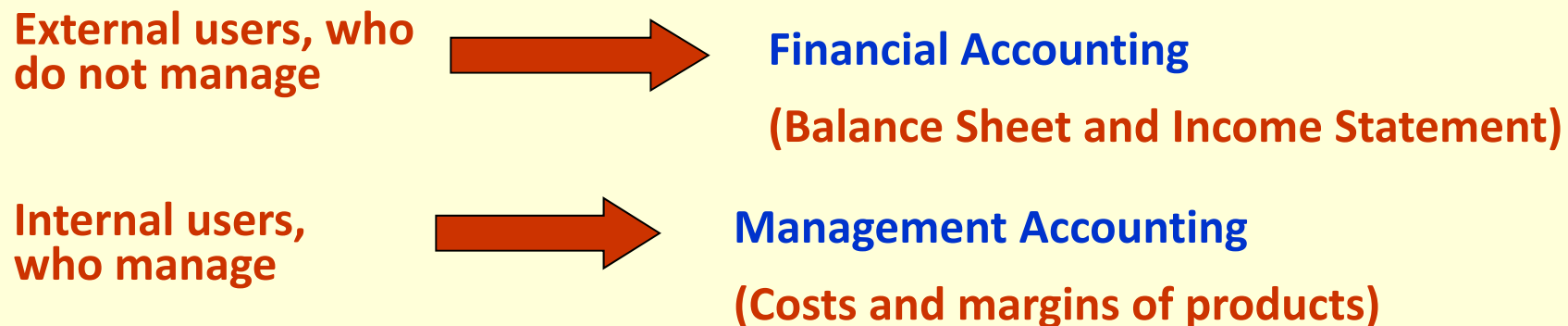
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School of Business Administration
Course: Cost Accounting and Management Control
Bachelor's Degree in Management and Business Administration

- 1.1. Cost Accounting as a source of information for internal parties within the organization.
- 1.2. Costs and cost terminology.
- 1.3. Classifications of costs.
- 1.4. Relevant and irrelevant costs.

1.1: COST ACCOUNTING AS A SOURCE OF INFORMATION FOR INTERNAL PARTIES WITHIN THE ORGANIZATION.

Accounting is a language that communicates economic **information** to people who have an interest in an organization. Its aim is to provide **useful** information to meet the needs of the various **users** that will assist them in their **decision-making** and control activities.



EXTERNAL INCOME STATEMENT

Revenue	4,000
– Raw materials used	– 1,400
– Personnel expenses	– 500
– Other operating expenses	– 1,700
RESULTS FROM OPERATING ACTIVITIES	400
– Finance expenses	– 200
PROFIT BEFORE INCOME TAX	200 > 0

INTERNAL INCOME STATEMENT

<u>CONCEPT</u>	<u>TOTAL</u>	<u>PRODUCT A</u>	<u>PRODUCT B</u>
Revenue	4,000	2,400	1,600
– Cost of goods sold	– 3,400	– 2,500	– 900
Gross profit	600	- 100 < 0	700 > 0
– Administration costs	– 200		
– Financial costs	– 200		
Net profit	200 > 0		

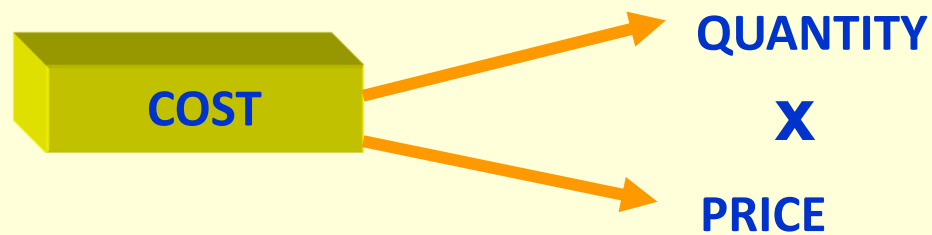
MANAGEMENT ACCOUNTING

The branch of Accounting concerned with providing information to people within the organization to help them make better decisions and improve the efficiency and effectiveness of existing operations:

- Measures and analyses those costs associated with producing goods and services. It also measures performance and productivity.
- Measures and analyses those costs associated with the company's centres in order to evaluate their performance.

1.2: COSTS AND COST TERMINOLOGY.

**COST MEASURES THE ECONOMIC SACRIFICE
MADE TO ACHIEVE AN ORGANIZATION'S GOAL.**

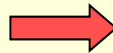


1.3: CLASSIFICATIONS OF COSTS.

1.3.1: DIRECT AND INDIRECT COSTS.

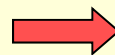
COST OBJECT: Any activity for which a separate measurement of costs is necessary.

DIRECT COSTS



They can be specifically and exclusively identified with a particular cost object.

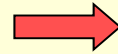
INDIRECT COSTS



They cannot be identified specifically and exclusively with a given cost object.

1.3.2: PRODUCT COSTS AND PERIOD COSTS.

PRODUCT COSTS



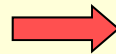
They are included in the inventory valuation for both finished goods and work in progress:

Manufacturing costs



- Direct materials.
- Direct labour.
- Indirect manufacturing costs.

PERIOD COSTS



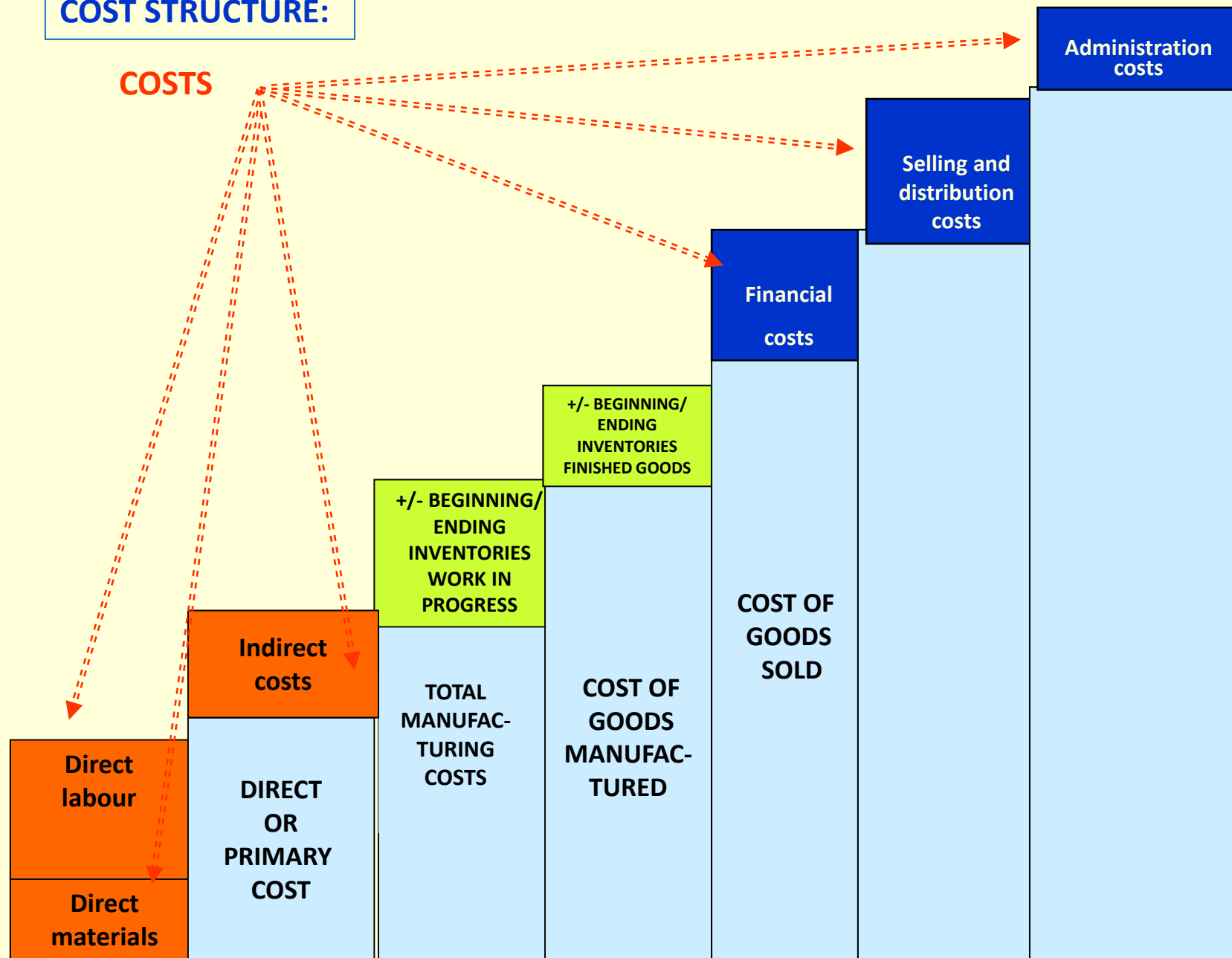
They are not included in the inventory valuation for both finished products and work in progress:

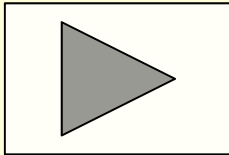
Non-manufacturing costs



- Financial costs.
- Selling and distribution costs.
- Administration costs.

COST STRUCTURE:

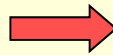




Task: try to solve problem 1.1.

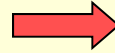
1.3.3: FIXED AND VARIABLE COSTS.

VARIABLE COSTS



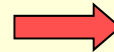
Vary in direct proportion to the production level (doubling the level of activity will double the total variable cost).

FIXED COSTS



Remain constant over wide ranges of production level for a specified time period.

SEMI-FIXED OR STEP-FIXED COSTS



Within a given time period they are fixed within specified activity levels, but they eventually increase or decrease by a constant amount at various critical activity levels.

BREAK-EVEN POINT: Cost-volume-profit (CVP) analysis is based on the assumption that selling price and variable cost are constant per unit of output. In contrast, over a short-run period fixed costs are a constant total amount.

P = profit , p = selling price per unit, X = number of units, FC = total fixed cost, vc = variable cost per unit.

$$P = pX - FC - vcX$$

The number of units that must be sold to break even (that is, the point at which there is neither a profit nor a loss): $\frac{FC}{p - vc}$

$$\text{Break-even point in Euros: } \frac{FC}{(p - vc)} \times p = \frac{FC}{\frac{p - vc}{p}} = \frac{FC}{CMR}$$

Contribution margin per unit : $p - vc$

$$\text{Contribution margin ratio (CMR): } \frac{p - vc}{p}$$

FORNITURE Ltd. manufactures tables:

-p = €150 per table (proposed selling price per table).

-vc = €100 per table.

-FC = €60,000 per month.

$$\text{Break – even point} = \frac{\text{€60,000 per month}}{\text{€(150 - 100) per table}} = 1,200 \text{ tables per month}$$

CONTRIBUTION MARGIN PER UNIT:

$$p - vc = 150 - 100 = \text{€50 per table}$$

CONTRIBUTION MARGIN RATIO:

$$\frac{p - vc}{vc} = \frac{(150 - 100)}{150} = 0.\bar{3}$$

BREAK-EVEN POINT (IN €):

$$1,200 \text{ tables per month} \times \text{€150 per table} = \text{€180,000 per month}$$

$$\text{ALSO: } \frac{FC}{CMR} = \frac{\text{€60,000}}{0.\bar{3}} = \text{€180,000}$$

Separation of costs into their fixed and variable elements

There are different techniques that can be used to separate costs in this way:

1. HIGH-LOW METHOD: examining past costs and activity, selecting the highest and lowest activity levels and comparing the changes in costs that result from the two levels. Assume that the following activity levels and costs are extracted:

	Volume of production (units)	Total costs (€)
Lowest activity	46	700
Highest activity	100	1,350

If variable costs are constant per unit and fixed costs remain unchanged, the increase in costs will be due entirely to an increase in variable costs:

$$1,350 - 700 = (100 - 46) \times vc$$

Variable cost per unit: €12.04 per unit

$$700 = (46 \times 12.04) + FC$$

Fixed costs: €146.30

2. REGRESSION ANALYSIS METHOD: statistical method that measures the average amount of change in the dependent variable associated with a unit change in one independent variable (the dependent variable is total costs and the independent variable is the volume of production).

The least-squares technique determines the regression line by minimizing the sum of the squared vertical differences from the data points to the regression line.

If the estimated cost function is: $Y = 12.50X + 150.23$

- The estimate of the slope coefficient (b) indicates that costs vary at the average amount of €12.50 for every manufactured unit.
- The estimate of the constant indicates that $FC = €150.23$.

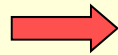
This method computes a formal measure of goodness of fit, called the coefficient of determination (R^2), which measures the percentage of variation in Y explained by the independent variable (X).

This method is more accurate than the high-low method because regression analysis estimates costs using information from all observations, whereas the high-low method uses information from only two observations.

1. 4: RELEVANT AND IRRELEVANT COSTS.

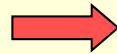
For decision-making, costs and revenues can be classified according to whether they are relevant to a particular decision.

RELEVANT COSTS

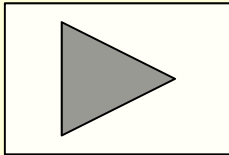


They are future costs that will change because of a particular decision.

IRRELEVANT COSTS



They will not be affected by the decision.



Task: try to solve problem 1.2.